

THE

AMERICAN FARMER:

A MONTHLY JOURNAL DEVOTED TO

AGRICULTURE AND HORTICULTURE,

DOMESTIC AND RURAL ECONOMY.

ILLUSTRATED WITH NUMEROUS ENGRAVINGS OF

FARM BUILDINGS, IMPLEMENTS, DOMESTIC ANIMALS,

FRUITS, FLOWERS, SHRUBS, &c.

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INDEX TO VOLUME III---NEW SERIES.

A	
American hearts and homes	861
Animals, shall we cook the food for our	10
Apricot growing	26
Absorbents, the importance of making and saving manures ..	45
Association, the American Dairyman's	62
Agriculture, the mechanics of versus soil exhaustion	77
America, the worst fruit-growing country in the world	83
Apples, best six varieties	91
Agents and patrons, to	98
Agriculture in common schools	116
Advice, good, to the boys	126
Adversity—blessed are the uses of	172
Absurdities	186
Animals, cruelty to	203
Apple tree suckers	218
Abronia umbellata	221
Advice of a Southern planter to his brethren	204
Advice to our girls on order	228
August	238
Apples	240
Aphorisms, old rustic	302
Animals, preserving skins	309
Association, New York State Grape Growers	321
Agricultural items	331
Arbor Vitæ—new dwarf	350
B	
Bee, the honey	20
Blight, pear	26
Bits, horse	44
Beans, pumpkins with corn	46
Bees	50, 51, 84, 266, 284
Bees again	115
Buckwheat	81
Bug, the potato	82
Best feed for cows	101
Butter making in Holstein	111
Bean, the Castor	115, 152
Barberry, does it injure wheat?	116
Beets and turnips	140
Basswood for bees	142
Brindle, don't slight old	144
Barometers	174
Bird, the Humming	208
Balsam, the	221
Blackberries	231
Barberry the, as a hedge plant	276
Butter and cheese	277
Blackberry, a new	282
Butter, premium in Kansas	305
— worker, Eureka	306
Bulbs, remarks on the culture and treatment of	316
C	
Clover, use of	866
Cooking feed for hogs	888
Crop, large corn	15
— the grass	15
Cheese, Cheddar	18
Cattle, imported into New England first	41
Cares, household	60, 92, 125
Children, naming	61
Cock, the game its beauty, characteristics, &c	77
Commissioner of Agriculture, the new	80
Corn crop, the	81
Cotton crop	81
Clover, a new	82
Cellar, the wine	107
Charcoal as a manure agent—burned clay	107
Cure for horse distemper	140
Churning	147
Clover, red	172
Cattle, to prevent from jumping	173
Crop, the corn	173
Colic in horses, a never-failing cure for	175
Circular of wool growers	192
Corn growing independent of a bad season	208
Cordage, water-proof	204
Corn in drills	207
Care of young turkeys	218
Cockscomb	217
Communication direct	285
Crop, the hop	266, 305
Culture, a necessity	268
Cranberry culture, profits of	274
Cheese and butter	277
Composition on corns, a boy's	286
Childhood	287
Contributors	288
Cellars, out-door	307
Crops, two at once—potato culture	330
Cabbage, keeping through the winter	333
Creeper, new Virginia	331
C'uh, our farmer's	334
Compare and judge	334
D	
Ditch in winter, preparing to	368
Dress for women	374
Difference, what made the	378
Drill husbandry	208
Dairy purposes, tin pails for	277
Dr. Dadd, death of	309
E	
Egg Harbor City, to and from	201
Exportation, woolen	275
Eureka butter maker	306
Experiment	307
— in potato planting	330
Exhibition, Lake Shore Grape growers	345
Education	349
F	
Facts from New Jersey	25
Forests of Russia, the	27
Fashions for January	28
February	41
Factories, cheese	43
Fowl, the Borking, its origin, history, &c	44
Food, steaming for cattle	45
Farms, small, in Europe	48
Frogmore Early Bigarreau, a new English cherry	58
Farming begun at the South	76
Flox	81
Fir, the balsam	88
Food, steaming, for farm stock	107
Flax pulling by machinery	127
Figs, raising in Ohio	373
Fungi or smut	367
Founder in horses	189
Farming, English, and cheese making	141
Eoot rot ointment	145
Fouls in cattle	147
Fruits to supply a family	154
Farmers, hay scilling	173
Fairs, market	176
Fact, a curious	180
Farm life, provident foresight	201
Florida	212
Fruit gathering	219
Farm, Purdy's small fruit	234
Foxes, to catch	237
Farming	241
— at the South	252
Forest culture a necessity	253
Fruits, small, 1868	263
Flowers	262
Flowers, soap for	284
Fair, State	288, 297
Flowers, soap for	313
Fair, management of the State	323
Farmer's life, a	334
Farm produce	340
Farming, high	340
Forests, a protection against drouth	341

Fruits, hybridizing.....	849	Lime.....	273
Farmers' Club, our.....	854	Little things.....	287
G		Life, a farmer's.....	834
Grape, the Concord in Iowa.....	27	M	
Gypsum, or plaster in the manure heap and in the stable.....	47	Manuring, green.....	15
Grapes, curious effects of summer pruning.....	57	Manure, fire-faugled.....	21
Garden, the vegetable.....	59, 122, 184	Manure for nurseries.....	50
Guano, Peruvian, and soluble manures.....	142	Market, London cattle.....	58
Grasshoppers in Texas.....	147	March.....	73
Gangee, Professor.....	147	Marl, green.....	82
Grapes, Martha, Iona, and Adirondac.....	155	Markets, the.....	93, 355
Glance, an English.....	186	May.....	187
Gladioli, a group of.....	187	Melion, the water.....	158
Ground, keep the surface loose.....	219	Milking machines.....	207
Geraniums, new double zonal.....	230	Manures, home made vs. commercial.....	240
Garden, the flower.....	252	Manure for turnips.....	245
Gardening for ladies.....	252	Marl.....	273
— — — women.....	258	Manure, how much do we use on an acre?.....	272
Grapes along the lake shore.....	238	Matrimony.....	287
Gass.....	278	Mr. Nobody.....	278
— exhibition of.....	284	Maxims, grape-growers.....	815
Girls, whistling.....	286	Moles.....	838
Grape growers maxims.....	815	Moss, Irish.....	841
— — — association, N. Y. State.....	826	— Chondrous-Crispus—Carrageon.....	841
— — trellis, &c.....	838	N	
— — the Golden Champion.....	844	New Jersey, subsidence of coast of.....	869
— — cuttings, propagating.....	845	Notes from Canada.....	17, 108, 149, 171, 204, 237, 271
— — the Martha.....	841	Notes by S. W.....	15, 43, 77, 103, 141, 172, 208, 299, 267, 832
H		Nails, size of.....	79
Houses, country.....	13	Notices, &c., literary.....	127
Hogs, raising.....	17	Notes from Ulster County, N. Y.....	242
Hay-fork swindle.....	17	Napoleon III.....	248
Hop crop of 1867.....	19	Notes for the month.....	252
Hint, a useful.....	22	Novelties tested.....	288
Harness blacking.....	51	Nobody, Mr.....	287
Hops.....	51, 75	November.....	329
Hopskeeper, the model.....	60	Notes from Steuben County.....	381
Hay crop, the.....	61	O	
Hops, soil and locality.....	108	Ohio, from.....	46
Hotbed.....	88	Opinion, difference of between American and English farmers.....	805
Hog pen, cheap plan for a.....	143	Orchard, a main.....	809
Hops, preparing the sets and planting them.....	149	Offer, worth taking.....	836
Hen, the Dutchman's, or female perversity.....	161	Orange culture in Florida.....	847
Hop planting.....	170	Orchards, plowing.....	851
— product of the United States.....	174	P	
Hints on butter making.....	175	Plum, the Miner.....	873
Haymaking.....	179	Proposed change.....	878
Hay selling farmers cow feeding, muck drawing, &c.....	208	Peaches in Florida.....	18
Husbandry, sheep, in Georgia.....	208	Pork, half fattened.....	45
Horse breaking and horse sense.....	210	Poultry on the farm.....	48
Hop crop.....	225, 266, 805	Potato culture, and notes on some of the best varieties.....	49
Hops.....	284	— — the Early Rose.....	48
House and barn.....	295	— — cultivation of the.....	106
Household Cares.....	186, 156, 222, 255, 353	— — culture, two crops at once.....	170
Hives, the advantage of large.....	239	— — planting, experiment in.....	880
Household machines.....	243	— — a new.....	851
Hedge plant, the barberry as a.....	276	Pruning early, promotes early fruiting.....	38
Horses, economy in feeding.....	808	Peach, the Freeman.....	88
Horticulturists, protection of the rights of.....	313	Plowing deep.....	74
Hymn, autumnal.....	329	— — fall.....	276, 305
Hop poles.....	388	Potatoes.....	81
Hogs, care of store in winter.....	389	Pork packing.....	82
High farming.....	340	Publications, new.....	88
Hog the.....	340	Pear, Mount Vernon.....	108
Hybridizing fruits.....	849	Premiums.....	124
I		Planting tree, in California.....	127, 423, 856
Improvements which do not pay.....	27	Plant, egg.....	140
Items.....	116, 331	Prosperity the evils of too much rural.....	172
Influence, a sister's.....	126	Plow less and cultivate better.....	151
Intestinal worms, remedy for.....	803	Plants for the millioff.....	219
Inquiries and Answers.....	127	Premium on large hogs.....	238
Items from Ohio.....	145, 178, 270	Pears.....	250
Implement for tanning.....	245	Plums.....	250
Imports and price of wool.....	274	Patents in horticulture.....	252
Improvements.....	288	Peck per acre, the.....	269
If.....	317	Plan new, for top dressing.....	273
Inquiry.....	337	Price of wool.....	274
Insect depredations, loss by.....	339	Profits of cranberry culture.....	274
Island, Kelly's.....	840	Pails, tin, for dairy purposes.....	277
J		Purdlings turned to a good use.....	803
Judge and compare.....	354	Pinus Patula.....	815
L		Parlor, hyacinths for the.....	816
Letter, our Florida.....	14, 188, 285	Plants, burying during winter.....	816
— — our Kansas.....	90, 177, 209, 288, 871	Produce, farm.....	835
Land, renovation of by green manuring.....	16	Pump, the Patric stock, a premium worth having.....	836
Law of entail, working of in Scotland.....	21	Posts fence, preserving.....	838
Land measure.....	58	Perfume, ladies make your own.....	853
Ladies, to the.....	92, 125	Q	
Land, renovating worn out.....	110	Quassia for insects.....	155
Letter, our Eastern.....	141	R	
Lime in the soil.....	143	Reedpces, domestic. 23, 61, 92, 126, 157, 189, 233, 255, 285, 318, 852, 875	
Lambs, docking and castration of.....	218	Report of an apiarist for 1867.....	19
Land.....	235		
Lands, improvement of worn out with grass and clover.....	269		
Literature, agricultural.....	269		

Report on scoured fleeces	49	Tulip, the	315
— of committee on pomological rules	251	Table, a useful	340
Roads and road making	47	Timber culture, method of	330
Rabbits and fruit trees	74		
Report, the Department	81	U	
Rinderpest	82	Underdraining	30
Receipts of wheat	82		
Rhubarb, manure your	82	V	
Raspberry, Seneca Black Cap	117	Vines, grape	51
— — — Davison's Thornless	146	Vegetables, keeping	155
— — — Mammoth Cluster	280	Virginia creeper, new	351
Roses, new	124		
Recreation and amusement	144	W	
Rust, remedy for in wheat	178	Wire worms and experiments	16
Remedy for hard milking cows	210	Winter work on the farm	41
Rules, the obnoxious	213	Walnuts, fiberts, &c., how to keep	58
Remedy for vine mildew and red spider	220	Work—spring	73
Rowen	248	Wheat, Tappahannock	81
Raspberries	250	— — prizes	127
Refuse of gas works	273	— — crop in the Western States, decrease of the	203
Reading for farmer's boys	286	— — crop, how to be sure of	240
Roger Williams, who ate	287	— — crop of California	240
Readers of The Farmer	288	— — sowing after a corn	240
Red ants—query	337	— — culture, experiments in	364
		Western New York Horticultural Society	59
S		Work for April	105
Sewing circle, the village	376	— for the month	157, 169, 201, 286
Smoke-house	365	Wool, its classification and appraisalment	206
Sheep-bot, or head maggot	369	Wallflowers	220
Sex in flowers, changes of	26	Weather and crops	221
Sorghum, cultivating	26	Worms, apple tree	253
Seed, selection and change of	43	Wool, prices of	274
Salt as a manure	51	Woolen, exportation	275
Society, Fruit Growers of Western New York	26	Weed, the product of one	277
— — Horticultural of Western New York	84, 120, 217	Williams, Rogers, who ate?	287
— — New York State Agricultural—winter meeting	93	Water fresh, for stock, importance of	306
— — Grape Growers	91	Wander, the	313
— — American Pomological	249	Women, save the	319
Salads, winter	58	Wheat	340
Strawberry, new foreign—Dr. Nicaise	74	When to say no	375
Spruce, the Norway	88	Web-worm	355
Seeds, vegetable	91		
Spring	105	Y	
State Fair, New York	127, 322	Year, the old and its lessons	9
Soil, making	139	— the new, and its hopes	9
Schoolmaster, where is the?	142		
Summer	169	SPIRIT OF THE AGRICULTURAL PRESS:	
Sparrow, the English	175	Africa, agriculture in	22
Sheep in California	146	Animals, age of	22
— do, improve pastures	178	Association, Canada Fruit Growers	35
— important experiment	179	Ashes for wheat	182
— Long Wool	210	Apple tree borer, the	279
— husbandry, roots in	213	Bran wheat for cows	310
— story, a curious	236	Beuzine, the dangers of	118
Stock, blooded	205	Bran for milk cows	182
— soiling farm	239	Bee flower	183
— importance of fresh water for	306	Blood spavin, cure for	215
— summer care of milk cows, soiling	311	Barley, tall	215
Sierra Nevada, across the	244	Butter factory	215
Shelter, importance of	251	Barryrads, clean out	28
Silk in Arkansas	270	Beans, Lima	270
Scabiosa, or Mourning Bride	284	Bee-keeping, a profit in	270
Stuff	303	Bug, potato, killing	192
Steam, advantages of in heating, cooking, boiling, &c.	304	Cucumber, the striped	214
Screenings	307	Clover seeds	54
Skins of animals, preserving	309	Cows	55
Soap for flowers	313	Cows, Ayrshire	54
Scuppernon, the original	345	Cows, Jersey	215
Superphosphate, effect of	142	Cows, experiment in feeding	342
		Cows that hold up milk	246
T		Cows, milking before calving	247
Trees large, transplanting in winter with frozen balls	24	Canada Fruit Growers Association	55
— cultivation in fruit	25	Cream, scalding	87
— masses of, and their effects on climate	56	Cement	87
— for timber and shelter	88	Clover and timothy	118
— their beauty and usefulness	113	Calves, fattening	118
— to prevent rabbits gnawing fruit	149	Colic in the ox	119
— peach in pots	155, 173	Calves, dairying and raising	150
— forest	180	Corn, beans, pumpkins	150
— peach, the borer in	220	Cheese and butter	151
— peach, training low	315	Crops and weather	151
— English	316	Clover, do weevil breed in?	279
— extraordinary growth of	320	Crops, to insure good	151
— for public roads	275	Colts, rupture on	315
— planting for timber	291, 312, 344	Clover, red, curing	215
— fruit look to the	258	Crosses Shropshire Down	246
— fruit	315	Crops, two or more at a time	247
— labels for	351	City Sewage	342
Tobacco	81	Cabbage for horses	342
Table for the calving of cows	106	Castor oil for harness	342
Tree Mignonette	220	Cranberries, upland in	343
— the peach	221	Cows, selecting	343
Towns	236	Darkness favorable to fattening	22
The weather and the crops in Seneca County, N. Y.	239	Down, Shropshire	28
Tax on stallions, bulls, rams, and boars	243	Don't kill him	246
Transplanting in the night	292	Economy, rural	54
Top-dressing, new plan for	373	Flour making	22
Things, little	287	Fest soro in sheep	54
		Fences, about	86

SPIRIT OF THE AGRICULTURAL PRESS:

Fever, the poultry	86
Fodder, corn	214
Food, supplies in Great Britain	247
Fever, milk	279
Farming in its new aspects	342
Farm, a very rich	311
Goats, arrival of Angora in Liverpool	23
Guano, depreciation of	28
Grindstones	57
Garget in cows	118
Grafting	150
Greasing wagons	246
Grape pest, new	278
Grape vines about rocks	270
Ground, keep the surface loose	247
Hint, a valuable	214
Horses, Norman	22
Hog's head, how to cut up	23
Horses, driving	215
Horses, soft water for	215
Harrow, an improved	247
Hog cholera, cure for	279
Hints, two, for horsemen	810
Hay mow, lime the	215
Hay stacking in the field	810
Hay salting	214
Horses, scratches on	842
Land wearing out the	86
Lime as a soil improver	119
Labor question at the South	182
Larch, the European	183
Let well enough alone	151
Lice on poultry	811
Leather, preservation of	843
Manure for potatoes	241, 810
Manure tanks, liquid	278
Milk fever	278
Muck, preparing for use	278
Mulching, time for	278
Mold board of plows, hardening	279
Milk from the udder, the last	119
Milking before calving	54
Manure, application of	28
Mow hay, lime the	215
Oats, cutting green	215
Ox yokes	183
Ox, colic in the	119
Oats, ground and unground	54
Plows, about	22
Pear, Chaumontel	55
Poultice, mustard	55
Plums, steam	86
Peas, boiled, for milch cows and hogs	86
Papers, agricultural	183
Poultry, fattening	150
Pumpkins, corn and beans	150
Plows, steam	151
Plow, the shovel	151
Poultry, lice on	151
Poll evil	151
Plowing	214
Paint, a cheap	215
Plowing deep	246
Potatoes, digging	278
Potatoes, manure for	348
Potatoes	348
Potatoes, sweet, seed from the bloom	87
Question, labor at the South	182
Rust preventive	54
Railroad, doors and barns	36
Roup, remedy for	151
Rennet, curing	278

Rollers, field	811
Rats, mice, and grain	842
Saints in trouble, the	842
Soils, decomposing	810
Squashes, large growth of	810
Surface of the ground, keep loose the	247
Sheep raising	188
Sawdust as manure	119
Sorghum	119
Soil improver, lime as a	119
Sheep-keeping profitable	87
Sheep, sore feet in	54
Sheep, Southdown	54
Seed clover	54
Stock, the cause of inferior	55
Seedling, Concord and Ives	55
Straw rusty, effects on animals	22
Spavin blood, cure for	215
Tillage, deep	118
Timber, time to cut	182
Tanks, liquid manure	810, 247
Table, valuable	247
Vetch, the	119
Vines grape, about rocks	279
Wheat, winter	343
Wheat, crop of 1868	343
Work, fall	216
Wagons, greasing	248
Wheat, American	246
Wheat, time for cutting	246
Worms, canker	246
Wool, Cotswold	278
Wheat, varieties of	214
Weevils in barns	215
Wheat, salt and lime for	188
Weather and crops	151
Wax liquid	118

ILLUSTRATIONS.

MISCELLANEOUS.

Barn yard	148
Butter worker, Eureka	306
Pump, the Patrie stock	306
Stove, hop	181, 160

DOMESTIC ANIMALS.

Cock, the Game	77
Shorthorn heifer Rowena 3d, at twenty months old	100
Fowl, the Dorking	44
Rabbits, lop-eared	224
Sheep, Southdown ewes	114

FARM AND OTHER BUILDINGS.

Barn basement or bank	148
-----------------------------	-----

INSECTS.

Bird, the humming	208
Grasshopper	211

TREES, PLANTS, AND FLOWERS.

Abronia umbellata	221
Balsam, the	21
Cockscomb	216
Giadioli, group of	187
Garden, the vegetable	122, 158, 184
Grape, the Martha	246
Petunias, a group of	59
Potato, the Early Rose	106
Raspberry, Mammoth Cluster	280
— — — Seneca Black Cap	117
— — — Davison's Thornless	148
Ricinus (Castor Oil Bean)	152
Napoleon III.	248
Scabiosa or Mourning Bride	264





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VOLUME III.

ROCHESTER, N. Y., JANUARY, 1868.

No 1.

JANUARY, 1858.

We hail the new-born heir!

His path is strewn with feathery flakes deep;
His coming sounded thro' the frosty air
By rushing winds from far off northern shores.
And fairy builders rear an icy throne
Besprent with glittering gems, the frost king's gift
To January—kind, attentive nurse,
Who cares for all the infant's growing wants,
And only yields him to a sister's arms.
The old year, bent and grey, and full of care,
Passed on to rest, and adds his worthy name
To years unnumbered in the dusty past.

Fair month, the earliest of the twelve,
Whose coming fills the annual circle up,
We greet thy presence in our pleasant days,
And see thy darkened moods in every storm;
For all of joy you yield we offer thanks,
And all you promise in the coming hours,
We hope thy sister months will put in deeds.

Delfast, Ma.

G. E. B.

THE OLD YEAR AND ITS LESSONS--- THE NEW YEAR AND ITS HOPES.

WRITTEN FOR THE AMERICAN FARMER, BY G. E. BRACKETT,
BELFAST, MAINE.

FRIENDS, readers, and patrons of THE AMERICAN FARMER, I wish you a happy New Year! May Old Time deal kindly with you and yours, and the future contain as much of pleasure and peace for you, as is possible for erring mortals to know! The old year has just gone out and the new entered upon his reign. Have we learned any lessons from the past, and what are our hopes for the future?

Looking back upon the months that have passed, it seems but a short and very brief time, since we heralded 1867, as we now greet his younger successor; and yet how long it seemed while peering into the future! And what changes have those few months brought about! How many joys and sorrows, hopes and fears, have they seen rise and grow, progress and end, and through all these experiences have we passed without learning some of life's great lessons! No, the most careless has been affected—the most light-hearted impressed with the knowledge of its stern duties, and we may hope that all, through experience, have become wiser and

better prepared to enter upon and pass through the future, having charity for our fellows, hope for ourselves, and faith—firm faith, in the wisdom and goodness of the Infinite, who in the future as in the past, will be our guide, and who "doeth all things well."

Brother farmers, how is it with you? Are you ready to turn over a new page, and commence with a clean page your operations with the new year? Is the old sheet blotted, and are there many vacant spaces. If so, resolve that the coming one shall show a fairer record. A determined resolution is already half a victory. What lessons have you learned from the past? Many and valuable ones I have no doubt; but are you ready and willing to profit by them? If not, then the learning is labor lost, and experience dearly won. He lives to but little purpose who cannot glean aid from the experience of the past to assist in making easier the pathway of the future.

How stands your books on this fair January morning! How do the profit and loss columns compare? Square all up, and see how you stand with yourself, with your neighbor, and with the world. Are you in debt? If so, strain every nerve to pay up. A man can never be independent, never feel free and fully at ease until he can say, I owe no man a dollar. Debt is a paralysis which weakens and bears a man down, and keeps him down, so long as it is hanging over him. Better have less and owe nothing, than possess much, and know that another has a lien upon it.

But, on the other hand, have you some surplus funds for use? Does the profit side of the ledger outbalance the loss? Then you are fortunate, and so you are even if you have been able to "make both ends meet," and not cramp yourself. He who has spare funds is forehanded; he has the advantage, and may have things his own way almost. The farmer who is out of debt, and can show a few hundred dollars of ready money, can afford to take things fair and easy. He can buy when goods are cheap, and paying cash can save a per centage; he

can save his crops and produce, to sell when the market is most favorable, and when it is most convenient to move them, and when he sees a change or an addition upon his farm, or in his surroundings that it is for his benefit to make, he has the means to do so. I can conceive of no position so independent as that of a farmer with a medium-sized farm under good cultivation, well stocked with tools and animals, out of debt, and with a few hundred dollars extra money at command. Let the world wag as it may, he can take comfort if he sees fit. With just enough care to occupy his time, and give him health and appetite, and just enough money to meet his wants, and not prove a burden in caring for it, he has need to consider himself a lucky man, and not envy his more fortunate neighbors who are cursed with a lack or a surplus of this world's goods.

But I must close this brief letter as I commenced, with a kind wish for you all. We have met through these columns regularly every month for the past two years, and I hope we shall continue as many more. Here's success to our profession, which is the noblest under the sun, and long life and prosperity to THE AMERICAN FARMER, our worthy organ and representative.

SHALL WE COOK THE FOOD FOR OUR ANIMALS?

WRITTEN FOR THE AMERICAN FARMER.

A proper solution of this question obviously depends upon many circumstances. Thus it certainly would not pay to cook the food of the herds that graze the pampas of South America, and it is as certain that it will pay to cook all the food fed to pigs in the neighborhood of our large cities. It is therefore a question which each one must solve for himself, and we propose in this essay to dwell chiefly on the effect of cooking upon different kinds or elements of food, and the relations of cooked and uncooked food to the digestive powers of our domestic animals.

It is true, that in addition to what may perhaps be more properly called the *chemical* effects of cooking food we should also take into consideration the actual amount of heat conveyed into the interior of the animal by means of warm food, which so far as it goes, serves as a substitute for the heat produced by the respiratory combustion. By feeding warm food, we gain also a certain amount in the health and comfort of our animals. This is particularly seen in the case of newly calved milch cows, to whom an exposure to a very chilly atmosphere, and large draughts of very cold water are often productive of the worst effects. These advantages, how-

ever, require no further comment, although in many cases they are more than sufficient to compensate for the extra labor and expense involved.

Chemists and physiologists have classified the constituents of food into calorific or heat-making, which is also to a certain extent, fat-making; histogenetic, or muscle-making, and phosphatic, or bone-making. But as presented to the farmer, most kinds of food possess all these constituents, and as he must take things as he finds them, a sort of every-day, practical division into hay, (including straw and stalks,) roots, and grains, will best serve our purpose. For very obvious reason, potatoes occupy a middle position between roots and grains.

Hay, straw, &c., consist chiefly of woody fiber arranged so as to form cells and vessels. These cells and vessels contain various soluble matters, and also solid crystals of various salts (*raphides*.) The woody fiber is not digested or absorbed,* but passes through the system in its original state, being mechanically divided to a greater or less extent, according to circumstances. The office of digestion seems in this case to consist chiefly in extracting from the woody fiber those portions capable of being assimilated.

When hay or straw is cooked at a temperature of 212°, as can be done in a common boiler, or a few degrees higher, as may be obtained in a close vessel by means of steam, the woody fiber is softened and partially disintegrated; mastication is rendered more effective, and consequently the soluble and nutritive portions are more easily extracted.

This result is attained in a still higher degree by the additional operations of "cutting," "chopping," or "chaffing" the hay, as it is called. After cutting the stems into lengths of half an inch, or two inches, the hot liquid easily penetrates them in all parts.

Roots.—It is doubted if cooking produces as important effects upon carrots, turnips, mangolds, and

* We do not propose to consider, in this essay, those possible changes which may occur to a small extent, and in virtue of which even the woody fiber of hay might yield a small amount of matter useful to the animal economy. The fact that the large bulk of the hay or straw is rejected in the manure as nearly unchanged woody fiber, is obvious to any man who will stir a little cow dung in a pail of water, and thus separate the soluble parts.

It is unfortunate that the latest chemistry of these subjects is not within the reach of ordinary students. Most of our authors occupy their pages too much with theoretical speculations, while those properties of the various substances upon which their applications in the arts depend, are passed over in silence. Thus the last edition of Youman's Class Book of Chemistry, barely mentions phosphate of lime, one of the most important subjects to the agriculturist; while all the recent *theories*, whether well founded or not, are given in full.

After a very careful, but vain search for information on various subjects, we are led to the conclusion that our text books in botany, chemistry, and some other sciences, need thorough revision to fit them for the wants of practical men. Many men who would wish to study the chemistry of the phosphates, have not access to the works of Graham, Brande, Polouze, and Trenny, Lehman, &c.

similar roots, as it does upon hay, grain, and potatoes. It doubtless renders them more soluble, and the only question is, are they not sufficiently soluble when merely mechanically divided into slices, or still better, "pulped?"

Potatoes.—Botanists tell us that potatoes are not roots, but underground stems, which is undoubtedly true. Still, we apprehend that farmers will persist in calling them *roots*, although for the purposes of this essay, we must class them with *grains*, as they consist chiefly of starch.

Grain.—Corn, oats, peas, beans, and similar forms of food, consist in larger measure of starch. They also contain large quantities of those matters to which we referred as constituting the nutritious portion of hay. It is not probable that cooking effects any valuable change in the latter. A raw egg and milk fresh from the mother's breast, cannot be improved by any artificial preparation except as regards their palatable qualities. They are both designed by nature solely for the nourishment of very young animals, and are almost perfect in their way.

But starch was designed to serve for other purposes as well as for the food of animals, and it has the peculiar properties which subserve these ends. The chief of these is its *insolubility*. Starch is not soluble in water, even when slightly acid, until certain changes have taken place. Raspail, in his organic chemistry, says: "Fecula is not actually nutritious to man until it has been boiled or otherwise cooked. The heat of the stomach is not sufficient to burst all the grains of the feculent mass which is subjected to the rapid action of this organ. The stomach of graminivorous animals and birds seems to possess in this respect, a particular power, for they use feculent substances as food in a raw state. Nevertheless recent experiments prove the advantage that results from boiling the potatoes and partially fermenting the farina which are given them for food. At all events it is certain that bruised grain is much more nutritive for them than that which is entire; for a large proportion of the latter passes through the intestines perfectly unaffected, as when it was swallowed." Braconnot states that unbroken grains of starch are found in the excrements of hot-blooded animals fed on raw potatoes. The same result is attained by fermentation, and hence the well known fact that food when fermented or soured, is more nutritious than the same quantity in its original condition. This has been abundantly proved so far as pigs are concerned, but horses and neat cattle dislike food so prepared, and it may be a question if it is good for them. We must remember, however, that fermentation involves a loss of the food itself, and it therefore becomes a

question with the farmer whether it is best to effect the desired change by wasting food or by burning fuel.

Moreover, in the case of grains, the same advantage is derived that was so prominent in the case of hay. The grains are softened and rendered more easy of mastication. Even after being bruised cooking is of advantage in this respect, for no bruising or grinding can reach the individual starch grains. Hence, it is obvious that cooking may well take the place of crushing or grinding, although crushing or grinding cannot take the place of cooking.

The bran of the cereals is much improved by cooking. This substance contains a large amount of nitrogenous matter and phosphates, which is easily got at after the bran has been softened and disintegrated by steam.

From these well established facts it will be obvious that cooking either when used alone or when combined with cutting and bruising, enables the animals to extract the nutriment from their food more thoroughly than they could otherwise do. To what extent this occurs we have no accurate means of determining, as we cannot find any reliable statistics, especially in regard to horses and neat cattle. In regard to pigs, it is said to give an advantage of one-fourth.

In the discussion at the State Fair in Rochester, in 1864, Mr. Moore, of Buffalo, and Mr. E. W. Stewart, gave their experience as strongly in favor of cooking and steaming food for stock. Mr. Moore considered that a saving of 33 per cent was effected by steaming fodder for cows, and Mr. Stewart believed 15 lbs. of cut and steamed hay to be equal to 25 lbs., not so heated. It is but fair to say that the experience of other gentlemen differed from Messrs. Moore and Stewart. But the opponents of cooking overlooked certain important conditions which must be observed to insure success. Thus Mr. Wetherell, of Boston, asserted that pigs fed on cooked food produced flabby and inferior pork, which may be true, if the food consists solely of crushed grain, mixed with a large proportion of fluid and thoroughly cooked. But if this food rendered highly nutritious and very easily digestible by cooking, be united with an equal bulk of less nutritive food, we then obtain the same fattening results without the difficulty mentioned by Mr. W. Moreover, some of the gentlemen appear to have given *hot* food to their animals. This would obviously be destructive of health. No food should be given to healthy animals, (human or otherwise,) at a higher temperature than 100°. Moreover, we must take into consideration the kind of animal for which the food is prepared, and adjust our conditions accordingly. Let us therefore glance at the three prominent types usually found on a farm.

Neat Cattle.—Oxen and cows have a peculiar system of digestive organs, and in order to obtain the greatest benefit from the cooking of their food, we must carefully attend to certain points. In a state of nature, the ox crops the herbage over a wide range, and then lays down to ruminate. In this process, which is essential to his healthy digestion, the food is returned to the mouth, where it is fully masticated and mixed with saliva, and on being then swallowed, it passes into the second stomach. Water, when taken into the mouth passes directly into the third stomach, and so does all food which is in a fine state of division similar to that produced by chewing the cud. Now, it is well known that the healthy action of the first and second stomach, and also of the salivary glands, is necessary to the well being of the animal. It is also a well known fact that to insure healthy digestion the food must be mixed with saliva. This, however, we fail to secure unless the food be mixed with some matter like chopped straw or hay, which will prove sufficiently irritating to cause the food to pass into the first stomach.

Bulk, too, must not be neglected. "The digestive organs of the ox being formed with a manifest adaptation to his living upon very bulky, and but moderately nutritious food, such as grass or hay, it is indispensable to his comfort that his capacious paunch be constantly full; and hence it happens that when fed with substances of a more nutritious quality than these, he must have his fill before he will go to rest, and proceed with his rumination and digestion. But, although he can eat nearly as much bulk of the richer food as the other, his power of assimilation is not correspondingly expansive; and hence it happens, that if this law of his constitution is violated, a serious waste of food must necessarily ensue. Nor is this the whole extent of the mischief; for the undigested surplus produces disturbance and irritation, which is usually manifested by continued diarrhoea, and sometimes by more serious disease. It has been ascertained that a medium sized bullock will actually improve faster when restricted to 80 lbs. or 100 lbs. of turnips daily, with straw to fill up, than when allowed to eat 2 cwt. of turnips, which he will do if he gets opportunity."—*Wilson.*

In this case, the straw, however, is always steamed or soaked in hot water, not only to render it more acceptable to bovine palates, but to soften the hard, woody fiber, and thus prevent excessive mechanical irritation of the intestines.

Horses—do not ruminate, and hence the necessity for presenting their food in such a state as to require thorough mastication and consequent admixture of saliva. We recently saw it advised to feed horses with food which they can bolt hastily, and thus at

noon and other times, secure a long period of rest. Except in the case of animals whose teeth are defective, this advice is radically bad, and might lead to serious results. Give your horses as nutritious food as you choose, but mix it with chopped hay or straw, so as to induce them to chew their food.

Pigs.—With these animals the necessity for thorough mastication does not seem to be as great as with the horse and the ox. The structure of their teeth and intestines would indicate this, and experience confirms what theory suggests? Still it is necessary to keep up the action of their bowels by gentle irritants, and hence if fed on milk or cooked potatoes, it is well to give them a supply of bran, shorts, or even charcoal.

Such are the general principles which must be taken into consideration in an attempt to furnish food in the best form. It is obvious that there are two processes for increasing the nutritious qualities of food, mechanical division and cooking, and it will depend upon circumstances whether one or both shall be adopted. In the case of hay, straw, roots, &c., it is probable that mechanical division would pay better than cooking. In the case of potatoes and grain, we believe that cooking is of more advantage than mechanical division.

It would also appear that we must look for our profit from cutting and cooking food more from the employment of a cheaper article than from economy in quantity. But if we can enable our cattle to exhaust their food more thoroughly, and thus use a cheaper for a more expensive article, the profit may be very great. In England, straw is very generally used instead of hay, and when we learn to economize in other respects, we may be able to sell our hay without impoverishing our farms.

If such are the inducements to adopt this system, the question naturally arises, how are we to carry it out? Various forms of boilers and steamers are to be found in market, but in general they have two serious defects. In the first place, the fire-place is not adapted to the combustion of refuse fuel which would always be the most economical, and in the second, they are adapted to boiling rather than steaming. Steaming is preferable to boiling because the temperature to which the food can be subjected is higher, and also because it is unnecessary to heat such a large quantity of water, and there is also less danger of burning the food on the bottom of the vessel; and less water is introduced into the food itself.

For steaming food a cast iron boiler would answer very well, being fitted with a cast iron lid, having light iron gas pipe connected with it. Even a wooden lid might be made to answer, and pipes of galvanized iron having broad flanges to screw to the

wood would serve every purpose, and would sustain all the pressure that would ever be required.

A cask or tight wooden box is all that is required for holding food, and with a cheap and simple apparatus of this kind, the details of which any farmer could devise for himself, both the economy of food and the comfort of the stock might be largely increased.

HERDSMAN.

PEACHES IN FLORIDA.

We are always highly delighted to read the department of *The Country Gentleman* headed "The Vineyard," as we hope to prove Florida eminently fitted by nature for vine growing, and wish to obtain all the latest light upon the subject, but were perfectly astounded to learn through the vineyard column of November 7, page 303, that "in Florida peaches will not grow. Where peaches end, oranges begin." The item probably originated from an article in the New York papers, written by some green-spectacled man in that city, who is employed to "do up" news that never transpires, and concerning countries and places a thousand miles off, and which he has never visited, nor knows anything of. As well say "apples will not grow in New Jersey. Where apples end, peaches begin." We all know that they do both grow in New Jersey, and we here all know that the peach is one of our principal fruits, and is grown with more ease than any other, not excepting the orange, and is so fruitful and abundant in its crops, that they are fed by the thousands of bushels to the hogs in the interior counties of the State. I venture to say that more peaches are thrown away and rot in Florida every year than are or can be grown in the State of New York.—*J. H. Sanborn, in Country Gentleman.*

The above is from the regular correspondent of *The Country Gentleman*, who very properly protests against the random and untruthful assertions of New York City scribblers. Not long since, one of these "Solons" who ought to be better informed, questioned statements made by our own able Florida correspondent, whose interesting and instructive letters have appeared in *THE AMERICAN FARMER* from time to time, and whose statements are entirely reliable—his remarks intending to convey the idea that practically Florida was not a country desirable to the emigrant. Not that he loved Florida less, but *New Jersey more*, in the settlement of whose wild lands he has been supposed to have a personal interest, and hence the unprofitableness of public attention being diverted to any other locality. New York city papers are poor authority in rural matters, and even its leading *agricultural* paper does little more than afford nice-looking "pictures," and a few speculative suggestions on the cultivation of city lots, haymaking as learned in a city editorial sanctum, latest improved modes at splitting kindling wood in the back yards of New York, and numberless other valueless ideas only susceptible of conception in the brains of men who never lived on a farm, nor smelt hay in all their lives.

THE blueberry crop of Maine last year was estimated to be worth over \$100,000.

COUNTRY HOUSES---No. 6.

WRITTEN FOR THE AMERICAN FARMER BY "W. H. W."

IN traveling abroad and at home in our land, the mind of the observing and educated is struck with wonder, to say the least, to see the taste that exhibits itself in the color of the painting of our country houses built of wood, the prevailing color being a glaring white, with blinds of green. Such a contrast from nature, is, to the mind which has made the matter of color, &c., a study, painful to behold.

A glaring white house is in harmony with nothing in nature, and its contrast so strong, that we are led to wonder at the taste that should have first dictated it for country houses. The color of a house should be determined by the surrounding scenery; and different scenery and aspect will require different colors to harmonize. It is much pleasanter to see a house colored to harmonize with natural surroundings than to be made conspicuous by a violent contrast. The subject of colors does not receive that attention its merits demand, and so it is very difficult, if not presumptuous, to make a statement of rules on a subject involving such diversity of taste and choice. It is always desirable to use some color that is not apt to fade disagreeably, or change by different lights, or exposure of the house. It is not in good taste to paint the outside in different colors, as is frequently seen where houses are painted a different color from a plain white, the pilasters, cornice, freeze, &c., being shaded in contrast from other parts.

The matter of inside painting is equally in bad taste, else why do we see so much imitation, or what is termed "graining"? Is there any such coloring that equals the natural grain or wood? Then why not, if the natural grain or figure is desirable, put up the genuine wood, polished, oiled and varnished? Nothing can be finer than the natural grain and color of the most of our native timber. What finer specimens of handicraft than you will find in the natural grain of our native white and yellow pine? or any other specimen of natural timber growth that we might mention when brought out by art.

A correspondent of *The Rural World* uses a medicine for the cure of slobbers in horses that, though infallible, is not popular because it is so simple, handy, and cheap. A dose or two of from one to two gallons of dry wheat bran has never failed with him.

It is reported that an agricultural society somewhere in the State of New York, offers larger premiums for butter and cheese than it does for horse racing!

OUR FLORIDA LETTER--No. 4.

WRITTEN FOR THE AMERICAN FARMER, BY J. D. MITCHELL,
PORT ORANGE, FLORIDA.

MESSRS EDs.:—Since my letter of June 1st, I have, as I then proposed, been engaged in budding orange trees; but instead of 1,000, as I intended, I have set over 2,500. I had engaged an experienced contraband to do my budding, and he was to commence early in June; but the rainy season commenced the very first of the month, and with it came a heavy crop of mosquitoes, which furnished him with a pretext for delay until July. He then came two or three days; spent two or three hours each time, set some 200 buds, and then gave it up in disgust with the mosquitoes, and—what do you think?—*hot weather!* I notice that the negroes complain of weather that I should not think of finding fault with, though there was reason for it in this case, as my grove is surrounded with a belt of dense vegetation, to protect it from winds, and is a perfect paradise for mosquitoes. There is a daily sea breeze at my house that disperses the mosquitoes and keeps the temperature perfectly charming all summer; but scarcely a breath reaches one in the grove. After working or even staying there a few hours, I have found the breeze so chilly by contrast, that even with woolen shirt and pants, (I wear no other,) I have been obliged to put on a coat to be warm enough to be comfortable. Well—when the colored-citizen backed out, I was compelled to do the work myself, and although I lost a good many buds in getting my experience, I did get it, and have more buds growing to-day than all the men who have begun groves this year in this vicinity.

There is quite an orange grove fever through the country, and I have thought that a few facts and figures might be interesting to your readers. One fact of very prominent importance is, that there are very few contingencies likely to prevent the cultivation of oranges being successful. Another is, that very little capital is required. No legitimate or honest business in the world will give so large and so permanent an income from the same amount of capital invested. Perhaps the shortest and most definite way of stating the matter, is to say that I will furnish land, clear it, transplant, bud, and take care of the trees one year, for \$5 each—warranted in every way. Some of them will bear in three years, and according to the statements of those who are experienced, in from five to seven years, they ought to yield 1,000 oranges each, which at 2c each, gives \$20 per annum, or \$2,000 for 100 trees, requiring an acre of land, and about the same care as an apple tree. The trees continue to increase in size and quantity of fruit for fifteen years or more—are very hardy, give a crop every year without in-

termission, and are fruitful beyond anything I know of. I have from good authority, an account of a tree that bore 8,000 per annum, years in succession, my informant having helped to pick the crop. The only danger that I know of in orange growing, is from the scale insect, that several years since nearly destroyed the groves upon St. Johns River. It does not trouble them now, I believe, and has never done much, if any damage here. Where it came from, where it went to, and how to cure or avoid it, are problems yet unsolved.

Orange growing in Florida has been done mostly upon the St. Johns River, and along the coast as far south as this point. For some reason, those raised upon the coast have always taken preference in market, over those grown in the interior. The climate is certainly more favorable to a perfect maturity of the fruit, as it can remain upon the tree without danger from frost during the whole winter, and I have found my fruit to improve in sweetness of flavor up to May. I have kept some until July, so that we can have it nearly, and I presume, quite the year around, some having been shipped from this year's crop the 1st of October.

The crop from St. Johns River is usually sent to market the 1st of November—whether from fear of frost, which often comes by the 15th, in that region, or because it brings more at that time, I cannot say; but I do know that oranges are not fit to eat so early, and any one who has never eaten oranges that hung upon the tree until they were perfectly ripe, knows nothing of their delicious flavor and sweetness.

There are several groves being planted here this year, and quite a number of Northern men talk of coming to locate one. Some wish to spend their winters here, and care less for marketing fruit than for what they want to eat, being independent from other sources, and desiring principally to taste the fruit in its native clime. From present appearances there will be a fleet of vessels required to carry the crop to market in a few years, and whenever there are enough Florida oranges raised to supply the demand, their superior delicious flavor will drive Sicily and Havana oranges from market. Those who have eaten the fruit in Cuba, Texas, and Louisiana, in their best season, say that it does not compare with that raised here. This is shown to be the natural soil and climate for it, by the fact that the woods are full of wild trees. These are either sour or bitter sweet, and have to be budded. Sweet trees have been found near here, supposed to have grown from seeds scattered by early Spanish visitors. Two hundred trees that were found growing together, were transplanted, and are now in bearing about four miles from me. The cost of starting a grove would be much lessened by taking a wild grove where it stands, cutting down the surplus, and bud-

ding the rest; but they are generally too far from the water, and it is much better to bring the trees at once, than the fruit every year. Lemons, limes, and citrons, are as easily grown as oranges, and the lemon of this region is large and of excellent flavor. I have seen them 4 1-2 inches in diameter.

Another very important feature of this locality is its adaptation to the production of sugar. Captain Dummitt, one of my neighbors, raised here 4,800lb. per acre—the largest crop on record. From what I have seen, I presume an average crop on good land would be 3,000 lbs. The crop requires about the same labor as corn, and the molasses pays for manufacturing. It is supposed by many that a large capital is required to enable a man to produce sugar profitably, though I presume the experience in sorghum during the past few years has modified that opinion. A small steam engine, or in this location a windmill and a common sorghum mill, with sugar pans and receivers in proportion to the crop, are all the fixtures required, and as the cane matures enough for grinding in November, and there is no frost to injure it, one can take all winter for manufacturing. The grinding of cane is usually done here in March, though it is mostly put into sirup, which does not require as much time. The absence of killing frosts gives us great advantage over any other sugar growing State, in maturing cane, as well as in time for manufacturing. In all other States, the cane must be cut and taken care of before November frosts, or it is spoiled. The roots are perennial here—once planting answers for several crops, and the crop increases in quantity and quality by age of roots, provided your land is good, or you give it good cultivation and dressing. An inexhaustible deposit of decayed sea weed and turtle grass borders many miles of our lagoon, and is the best dressing for any land that can be desired. If any of your readers desire to go into cane-growing, I shall be glad to give them such information as I can regarding lands, &c. There are lands in abundance here—in fact, not much beside land and water, and both are very handy to have. The more I see of this country, the better I like it.

October 15, 1867.

THE Milwaukee *Wisconsin* gives an account of a man who from a hop yard of seven acres, marketed the present season 16,295 pounds of hops. He sold for 55 cents per pound, realizing \$8,251.21, or over \$1,200 per acre. Deducting expenses of gathering and preparing for market, and there remains a clear profit of over \$1,000 per acre.

In Canada most of their pork is fatted on peas, six bushels of which are equal to ten bushels of corn, and more can be grown from an acre than of corn.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

LARGE CORN CROP

As almost every farmer was complaining of a very short crop, and laying the blame entirely to the season, out of curiosity I went to see the corn field of an Oneida County farmer, who boasted that the hot dry season had made him a maximum corn crop. It was the long, eight-rowed yellow, large kernel and small cob; many of the ears were filled to the tip end. Although the soil was a clayey loam, it had been so heavily manured with swamp muck and stall manure, that it retained moisture by mechanical absorption; then during the hot dry weather it was cultivated so as to keep the surface in a condition to absorb the heavy night dews, which otherwise would be evaporated from a crusted surface; and the showers, light and far between as they were, being immediately absorbed, the crop lost nothing by subsequent evaporation. This man firmly believes that it is better to raise 70 bushels of corn to the acre in a small field, than 20 bushels to the acre on a large field, as farmers generally have done this season.

THE GRAPE CROP.

Isabellas have failed to ripen well this season. Joseph Wright has sent to New York market four tons of Isabellas, and two tons of Delaware, the latter sold at 25 cents per pound; no account of sales yet of the former. The great bulk of his Isabellas have well ripened, but are only fit to make into wine and brandy. But, Mr. Wright had better luck than some other vine dressers, and he saved his Isabellas from the frost by the aid of smoke from smoldering fire. I. Deuil had a fine crop of Concord grapes, but the thrips siezed the leaves of his Isabellas and Delawares, and the crop was short. Hereafter he will extend the cultivation of Concord alone, as they ripen early, and are so hardy as to resist the thrips. The Delaware ripens early, but their delicate leaves are too often the prey of insects. F. Brehm, one of our pains-taking grape growers, had fine Delawares to send to market; but his Dianas suffered much from the rot. He eschews Isabellas, as they ripen too late; but he is propagating the Iona very extensively.

GREEN MANURING.

S. R. Southwick, in the October AMERICAN FARMER, says he has, 20 acres of land, of good composition, but exhausted by hard usage, which he wants to improve by the aid of green crops. As the clover plant is very rich in nitrogen, as well as in the mineral elements of plant food, when plowed in it is a greater renovator of the soil than any other plant yet known. But, to begin with, clover will

not grow on a soil thoroughly exhausted of potash and phosphoric acid, and even with this aid and plaster to boot, it will make but a small growth without the aid of some nitrogenous manure to the soil. Yet the successive plowing in of even a small growth of clover, will so enrich the soil as to enable it to grow larger clover after the next seeding.

THE DIMINUTION OF THE WHEAT CROP ON THE LONG-WORN PRAIRIES—SOILING MILCH COWS.

It is said that the average yield of wheat to the acre in the old prairie farms of Illinois and Wisconsin, is not over 11 bushels! This proves that the soil has been much exhausted of its potash and phosphoric acid, by cropping without manuring; for it has been proved by consecutive experiments in England, that a soil entirely destitute of the compounds of nitrogen, by the aid of potash and phosphoric acid, and the other minerals that compose the ashes of plants, will produce 15 bushels of wheat to the acre, and with the additional application of 200 lbs. of ammonia salts alone to the same acre, 30 bushels of wheat may be grown. A prairie farmer who burns all his wheat straw in his fields, told me that where the straw was burned the next wheat crop was the largest. It is true that a ton of straw does not contain as much nitrogen as 250 lbs. of clover hay; but when saturated with the urine of animals in the stall, it is a great saver of ammonia, and when such well saturated straw is plowed in to the wheat fallow, it will double the crop.

Here is a farmer who says he will never keep cows at pasture in fly time, another season. He intends to grow corn in drills, and soil them in the stable. He has full faith that the manure alone will pay the labor, the cows will be more comfortable, and of course give more milk.

WIRE WORMS AND EXPERIMENTS.—Last July I put half a gill of spirits of turpentine into a saucer, then took eight of these worms and dropped them in the same. They lived two hours and forty minutes. I put the same number in a saucer with a spoonful of salt and two of water. They died in six hours. In a spoonful of lime and two of water they shuffled off in eight hours. In a decoction of sweet elder, the water boiled down one-half, they pegged out in twelve hours. In a strong solution of copperas, to my astonishment they clung to life for twenty-four hours. One quart corn soaked twenty-four hours in half a gill of turpentine, came up and grew vigorously, untouched by the wire worms, while that unsoaked was mostly destroyed. I offer these facts for the contemplation of farmers who have low lands, on which they wish to plant corn; but are fearful of doing it as the ground is full of these pests. Try a few rows and note the result, and tell your neighbors, and so do good, and be ready to impart to all seekers after more light in agriculture.—*J. L. H., Tuftonboro, N. H.*

RENOVATION OF LAND BY GREEN MANURING.

WRITTEN FOR THE AMERICAN FARMER, BY HORACE THAYER.

A correspondent asks in a previous number of THE FARMER how he shall restore his worn out or exhausted lands by green manuring. He seems to be in the condition of thousands of farmers in the States, with unproductive soils on his hands, and without means to improve them. Many acres of land may be found in the old settled States, that either from bad tillage or natural sterility, fail to yield their owners the least income, and they are at a loss how to accomplish their renovation. Manure is the great desideratum of the American farmer. With it, he can do much; without it, comparatively little. Few farmers can manufacture sufficient manure to feed their hungry soils, or afford to buy at present prices; while special fertilizers, although abundant and easily applied, will not pay for ordinary farm crops. There is always a deficiency of vegetable matter in these light, worn out soils, that must first be supplied. If there is a muck bed at hand, the task is easy, for therein are found the very elements of which these soils are deficient.

But the query is, How to effect the object by green manuring? If the soil is sufficiently fertile to produce clover, the task is not difficult; but when too sterile to produce a good stand of clover, we have found the best method to first sow buckwheat, dress lightly with guano, or one hundred and fifty pounds of guano to the acre, which will frequently answer as good a purpose upon these light lands, and cost much less. The buckwheat should be plowed under when in full bloom early in the morning, or upon a moist day. Harrow the ground then if necessary, occasionally, to keep down all weeds, till September, when it should be sown with rye and clover seed. If you can obtain fifty bushels of ashes to apply to the acre, the increase of rye will pay the outlay; but without their aid you will usually obtain from twelve to fifteen bushels per acre. After the rye is cut, the clover should be allowed to grow until the blossom buds appear, when it should be plowed under, and another crop of rye sown at the proper season, or planted with corn the following spring. If you obtained a good stand of clover, the land will give you a good crop of rye without further enrichment, or forty or fifty bushels of corn to the acre, with the aid of three hundred pounds of guano to the acre, applied in the hill at planting time. Some would prefer to mow off the first crop of clover, and rely upon the fertilizing influence of the roots; but we think no better plan can be adopted than we have described above. If the first crop of clover is removed from the soil instead of being turned under, the land will require further enrichment before it will give a paying crop of corn.

RAISING HOGS.

WRITTEN FOR THE AMERICAN FARMER, BY J. L. HERSEY.

Most any farmer will say, "Go to grass with your information about hogs; 'aint I raised 'em these forty years?" Oh! well, friend, don't be offended if we offer a few suggestions.

In the first place, I am satisfied that you cannot *make pork to any profit* by allowing your hogs to run at *large*, and trouble your neighbors. A hog is unique in character; he will sleep himself into fat. His sty should be kept clean and dry. He should have a yard for recreation, and root his snout into fresh earth. He never feels satisfied until he can spend a portion of his time in plowing. His winter bed should be dry and warm as that of his owner, and a half-frozen hog will not thrive, and will require much more food to keep up the summer heat. In summer give him a faithful washing once in twenty days. The growth will richly repay the labor expended. Who but Hottentots could eat the rind of pork with a relish, if he knew it had been coated with filth for twenty months? Neat herds require frequent feedings to prevent waste. A hog should not be stinted in his food. I never knew a hog to *squeal into fat*.

The best pork I ever saw was fattened entirely on new milk. The taste of a hog is found to have an affinity to that of man. He likes to have his provisions cooked; and those who make out the hog so vile and filthy, have seen them so from the force of circumstances—it was not from their own choosing, it was the owner's fault. Many are crying down pork as not fit to eat, yet I for one think it just as healthy as forty years ago, and if properly cooked I will run my risk of trichinae spiralis. Mutton is the food, says one, and beef, says another: but they know but little about what the human constitution requires. One can eat swine's flesh and be hale and hearty, while another, with a differently constituted organism, feels oppressed after eating; and mutton is relished by one, and so onward, in the same style. It will not do to fix any standard or follow any man's advice. If you do, it will be at your own risk.

NOTES FROM CANADA.

A long period of unusually mild, dry, autumn weather, has been succeeded by a cold snap, that for suddenness and intensity has seldom, if ever, been exceeded in this section. Some snow fell at the commencement, but not enough to be of any use as a protection to the fall wheat and clover from the severe frost. The temperature went down to 25 degrees below zero on the 12th and 13th December. Fruit trees and grape vines must of conse-

quence suffer from so sudden and severe a check to their growth. Probably by spring thousands of them will be found to be killed to the ground.

Midge Proof Wheat.—The midge was in the spring wheat pretty badly the past season, and the midge proof varieties of fall wheat having turned out so successfully this year, efforts are being made by agricultural societies and prominent farmers to obtain a variety of spring wheat that will resist the attacks of the little yellow fly or grub. Already one new variety has been found and tried that promises well, but as yet only a few bushels of seed can be obtained. It is a singular looking wheat; the heads large, with arms longer and more stiff than those of barley. The grain is of fair color, but hard and flinty, the straw is of unusual length and stoutness. It has been called barley wheat, and is supposed to have originated in Chili, South America, but the sample got here for seed came from Minnesota. It gave 32 bushels per acre where tried the past season.

Bees.—There is something wrong about the bee question. No honey is to be had except at extravagant prices, where a few years ago it was plenty and cheap; either the bees have grown wiser, and under the system of petting and indulgence now in vogue, refuse to make more honey than is sufficient for their own wants, or the bee men are so eager to try experiments with the many new patent hives invented, that the bees have become of more value for that purpose than the legitimate one of making honey to minister to the wants of man.

MAC.

THE HAY-FORK SWINDLE AGAIN.

The leading agriculturists of Brooklyn, Killingly, Plainfield, Pomfret, Putnam, Woodstock, and others, (Ct.,) have been swindled by a company of bogus agents for the sale of town rights in a patent hay pitchfork. They gave their notes, the money not being required until after a year's trial, and these notes were sold to parties who are now demanding payment. The swindle is very much like the one which nearly ruined the Dutchess county (N. Y.) farmers last spring.—*Ex.*

There is one consolation connected with this fork swindle which partly compensates for the disappointment and loss it has occasioned, which is, that its authors will not be able to impose upon the same community a second time, and the lesson which many farmers have this season learned, to their sorrow, may be heeded in the future, should other like swindles be attempted.—*Vt. Record.*

We have little faith in the result anticipated by our contemporary, for the reason that this kind of business has been carried on by ram peddlers, tree peddlers, wine-plant peddlers, churn peddlers,

&c., &c.; swindler might in most cases be substituted for peddler with the same propriety that "Hay-fork peddlers are called swindlers." If farmers would take and read good agricultural papers, and patronize well-known houses advertised therein, like Breck & Son; Ames Plow Co.; Parker, Gannett, Osgood & Co.; and so of well known nurserymen, stock breeders, &c., they would avoid being swindled by peddlers—a class never, perhaps, more successful than to-day. Beware of itinerant peddlers.—*Boston Cultivator*.

To which add the "Lightning-rod swindlers," who are deluding the farmers by offering to put up rods for a certain price per foot, and then charge one-half more for a worthless article, and take their pay in a six months' note, and disappear. Farmers should beware of all persons that come round with this and that to sell, unless they come well recommended, and, above all, furnish what they agree to, before you give value received. The best way, however, is to have nothing to do with such men, but only with those who advertise in the leading agricultural papers.

CHEDDAR CHEESE.

WE copy the following interesting article on Cheddar Cheese, written by E. M. Collins, of this city, from *The Prairie Farmer*:

EDS. PRAIRIE FARMER:—Agreeably to your request, I send you an account of the process by which our cheese, known as the American Cheddar, is manufactured. The cheese is the same, both in shape, color, quality, and weight, as that sold in the English markets under the same name, Cheddar, which is derived from the name of the town in the north of England, where it is principally manufactured. Cheddar cheese has long been imported for the New York market, at prices ranging from 50 to 75 cents per pound, and is a favorite brand with many houses as a high fancy article.

The quality of the American Cheddar is scarcely distinguishable from the best imported Cheddars, and is superior to much of the English brand. There is a mellowness and richness peculiar to cheese of this stamp, and this, together with its size and shape, which render it appropriate for the table uncut, make it deservedly popular. A cheese caster, which is a low, round car of silver, which can be either plain or highly ornamented, mounted upon casters, will no doubt, become as necessary an article of table furniture in a few years in this country, as it now is in England. The labor of manufacturing this cheese is not very much greater than that required for the manufacture of cheese which commands but one-third the price of this, in seasons when the prices of each stand at their usual figures.

The same utensils, the vat, furnace, screw, presses, curd mill, and wooden knife, also the cheese room, curing room, and storing room, that are deemed indispensable in our best dairy farms, and in cheese factories, are also essential to the manufacture of Cheddar cheese. The difference consists in the shape of the hoops, in which they are pressed, the rich mahogany color of the outside, and the process of treating the curd throughout. The best hoops for pressing Cheddars are of double tin, strongly riveted from top to bottom, and banded with iron in three places. Each cheese is subjected for three days to a pressure of five hundred pounds, and unless the hoops are of good material, and well made, they are of no use, while good hoops will last under proper treatment for years. These hoops are ten inches in height by five in diameter, or eleven in height and five and one-half in diameter, and the cheeses when cured and marketed, are from five to five and one-half inches in height, and the same number of inches in width, and average ten pounds in weight. The best cheeses are smooth and even in size, bulging slightly, but not overgrown. The color is obtained by the use of anotta, procured from the Bixa Orellana, which is harmless, and of a brilliant red. The darker color of the outside is caused by rubbing with anotta and butter.

In manufacturing this cheese no cream is taken from the milk for other purposes, but all the richness is carefully retained. Both butter and cheese cannot be made to advantage from milk in any case, but especially so in Cheddar cheese. The night's milk is strained into the vat, and kept cool by means of pails of ice water, until morning, when the cream which has formed upon the top of the vat is removed and heated by steam to 90°. While the cream is being heated, the morning's milk is strained into the vat with the night's milk, and the whole is heated by steam to 90°. when the cream is returned to the milk, and thoroughly mixed with it. A sufficient quantity of rennet, prepared as is customary in common dairies, is then added to the milk, with a lump of anotta the size of a large hickory nut, dissolved in hot water, for a dairy of forty to fifty cows. The milk is stirred briskly for a moment to insure a perfect distribution of the ingredients, and the vat is then left unmolested until a good solid curd is formed, which usually occurs in half an hour. When the curd is sufficiently firm, it is cut with a long, slender wooden knife, into blocks of an inch square at the top, and a little time is allowed for the whey to separate, after which the most particular portion of the process of manufacturing the cheese commences, and is continued for about two hours. This consists in slowly and carefully breaking up the curd with the hand. It is almost impossible to impress the absolute necessity

of gentleness in the handling and management of the curd at this stage, upon the mind of any but an experienced Cheddar cheese hand, so as to enable them to turn out a good rich Cheddar. If the curd is crushed instead of broken, all the richness will mingle with the whey, and consequently be lost to the cheese. All that is required is patience in keeping the curd slowly and gently in motion, breaking the lumps here and there, as they are reached. Meanwhile the heat is increased to 96°, the curd becoming quite tough, and the danger from white whey is over. The vat is then raised by means of a screw, the faucet at the opposite end is opened, and the whey runs off. The large lumps remaining are broken with the hand, and the mass is cut up again and again, until sufficiently dry for salting. If the whey runs away pure and transparent, the cheese properly cured will retain the richness and mellowness which is the characteristic of a good Cheddar; but if the whey is white or milky, it will be impossible ever to bring it to that condition. A half pound of salt is allowed for forty pounds of curd, which is mixed in the vat.

The cheese is then put under weight in a strainer cloth, until most of the whey is expelled, when it is ground into lumps the size of a pea, in the mill; small bags which fit the hoops are then filled with the curd, placed in the hoops, in the presses, under 500 pounds weight per cheese. Here they are kept for two days, but are removed and turned once during that time. When removed from the hoops the second day, the cheese is plunged into a kettle of scalding brine, to render the rind impervious to the action of flies, bandaged, and taken to the curing room, where it is rubbed with butter, and turned, daily, for six weeks, and is then taken to the store room, the bandage removed, and the daily rubbing and turning continued until ready for market. Three months are required to render the earliest and latest made cheeses marketable—the others will cure in a little less time, though the quality of the cheese continues to improve for two or three years. Indeed an Englishman would scarcely think a Cheddar fit to be eaten before it had entered upon its second year. The proper way to cut Cheddar is to plunge a sharp knife, with a narrow-pointed blade, neatly into the top of a cheese, near the edge and run the knife carefully around the cheese to the same point again, removing a conical segment, which should first be eaten to within a half inch of the rind or less. The rind should be reserved for a cover to the cheese, until it is entirely finished from this cavity at the top. Sometimes a silver cover is used, as an additional security, but the rind covering is quite enough if neatly removed.

Our Premium List—the most liberal yet offered.

REPORT OF AN APIARIST FOR 1867.

WRITTEN FOR THE AMERICAN FARMER, BY JASPER HAZEN.

IN the spring of 1867 I had fifteen colonies of bees—fourteen of native and one Italian—eight of them in Farmer hives and four in Eureka hives. Three of them were so weak that I gave one away, and broke up two, leaving but twelve hives for the season.

One class of hives has fourteen surplus boxes, the other has eighteen. The Farmer hives gave 500 lbs. of surplus in the boxes, and four (one-half of them) swarmed, giving seven swarms placed in six hives. The greatest amount of surplus given by one swarm in this class of hives was 103 lbs. The average of the eight was 62 1-2 lbs.

Of the four of the other class of hives—one, the Italian, gave two swarms and 106 lbs. of surplus. One hive of black bees gave two swarms and 97 lbs. of surplus. The other two gave no swarm. One gave 123 lbs. of surplus. The other gave 174 lbs. of surplus. In the aggregate the four gave four swarms and 500 lbs. in surplus, an average of one swarm and 125 lbs. of surplus to each of the four hives.

This is at the rate of one ton of surplus to sixteen hives. I think in a good field I can accomplish this result.

THE HOP CROP OF 1867.

WE notice in our exchanges accounts of remarkable yields of hops during the past year, and give below the result of two crops, which appear to be reliable, and also give in this connection the yield of Mr. Langdon's yard near this city. He harvested 1,656 lbs. of hops from one acre the first year, which were sold for \$975, making a good return for the cost and labor invested. In *The California Farmer*, of October 17, we find the following from one of its correspondents:

"I raised 17,800 pounds on ten acres, which is a remarkable yield, but what is marvelous in my case, these 17,800 pounds were taken from the yard the first year after planting, the roots having been planted last March. It would hardly do to tell this to Eastern hop growers, for they do not expect any crop until the second year."

To which the editor adds:

"In reply to Mr. Flint, we would say that at the San Jose Fair, we saw a bale of hops raised by D. Lewis, Esq., of Los Angeles, who reported nearly 10,000 pounds on five acres. The average was over 1,900 pounds to the acre. What can Mr. Flint say to this? We give it as reported to us."

A letter from Buenos Ayres says the wool clip of 1867, will be 100,000,000 lbs.

THE HONEY BEE.

MESSRS. EDITORS:—The question is often asked, "Can bees be successfully fed?" In answer, I would say, yes, as readily and as safely as any stock, swine or fowls, and often ten cents worth of food will save from starvation a family of bees that would sell in the spring for from five to ten dollars, when at the same time to their master they are equal to from four to six hundred dollars at interest. Did you ever think of that, apiarian?

"No! neither have I ever placed that price upon bees."

"Then you have very much undervalued their true worth. An ordinary family when in practical hives, and with proper treatment, including their increase, will give to their owner from twenty to forty dollars net profit in a season."

"How do you make that out?"

"About the middle of May I divide my bees; which is called artificial swarming. This young family I price at eight dollars. Then, if I want to increase my stock between June 15th and July 1st, I divide both again. The two last divisions are worth at least ten dollars. I have then four families, which it is safe to say will each yield 25 lbs. of surplus honey, making 100 lbs., at 25c.—\$25; giving a total of \$43. You may reduce this amount one-fourth, and you have still \$32.75. Here you have over 400 per cent., at \$8 per swarm."

"Yes! but who realizes this amount from their bees?"

"Each and every person may who understands the nature and requirements of the bee, and treats them agreeably to their natural laws and habits. But, without a hive properly constructed and adapted to the requirements of the bee, also giving the owner full view and control of his bees, (which I claim to have, and candidly ask any one to produce its equal,) the necessary and required treatment can in no wise be rendered them."

Give your bees a suitable hive, and with proper attention you are sure to succeed in bee culture; in neglecting to do that, you are sure to fail. Did our bees require the same attention as do our animals, there would be no talking about luck or failure in the business. Take care of your bees, and they will take care of you. For instance, I called on a friend last spring who had ten swarms. I asked him if he would sell me three or four of them. He consented if I would allow him to select them. He chose three very light ones—one four years, one three years, and one late July swarm. They being light, with little honey, and requiring to be fed, he only asked me \$12 for them. I removed them to my yard in this city, and the next morning transferred the young swarm into my new hive, and sold it the same day for \$15. I afterwards artifi-

cially swarmed it, and it gave the purchaser 60 lbs. of surplus honey. The other two I divided, after which they gave me 214 lbs. of box honey; the old swarm gave 140 lbs. I sold the honey for 30c. per lb., \$42—besides a good family of bees left. Now, I realized from the three swarms \$97.50, besides one swarm after the division was unfortunate (which often occurs) in raising a queen. She proved to be unprolific, but I discovered their situation in time to replace her with a prolific one. They gave one box of honey, and have plenty to keep them through the winter. This is the result of that required attention given them in the right time, together with the right kind of a hive.

Now, Messrs. Editors, please allow me to ask your readers how many sheep must be kept from which to realize \$97.50 profit, after deducting the expense of keeping, interest on the capital, and the necessary amount of labor. How many short of fifty?

Will some one try the experiment, and invest \$10 in bees and the same in sheep, and give each the proper care and attention for one, two, or five years, and then through your valuable paper give the public the result of their experience, and my honor for it they will no longer insult the little noble insect by sowing broadcast the idea that they are of little or no value, when they give us in abundance the most delicate and delicious luxury nature affords. Our Creator and Giver of all Good has created and endowed them with wisdom and instinct, which quite equals that given to man, (and, I might add, for our special benefit.) Those that have studied our own nature, can very readily conceive that of the honey bee, and all of their requirements; in many respects it is hardly perceptible.

As I before stated, bees can be successfully fed, and were it generally understood and practiced, the enormous loss of bees by starvation, now sustained by bee keepers, might be averted. From observation I have no doubt that at least one-fourth the entire stock of bees in this State, died through starvation last winter. From this cause and badly proportioned hives, I impute eight-tenths of the present losses. No apiarian who has investigated this subject will approve of a hive constructed with a low, shallow brooding department. All such hives should at once be dispensed with. This department should not be less than 14 inches in depth; 16 inches is better for the bees, but is less convenient in transferring an artificial swarming. The arrangement I have invented for feeding bees is perfect. It is adapted to all kinds of hives. Four or five pounds of food can be given them at a time, which is sufficient for two or three weeks. I have three departments, one for honey or dissolved sugar, one for buckwheat or rye meal, and one for water. All

these are very essential, particularly in inducing early breeding and early swarming. After the bee bread is all consumed, they will partake of the meal freely. It gives them strength and vitality. The water is also of equal importance.

Thousands of bees can be saved in this way which would otherwise be compelled to leave the hive in unfavorable weather, and never return. Yellow coffee sugar is a good substitute for honey. Reduce it much thinner than honey, scald the sirup in cold weather, turn it warm into the feed box, and the bees will deposit it in the comb for future use.

Rochester, N. Y.

J. H. GRAVES.

FIRE-FANGED MANURE.

SOME kinds of manure are more liable to be fire-fanged than other kinds. Horse manure, if allowed to lie in considerable quantities, is apt to undergo the process of fermentation under high heat, when it assumes a moldy, whitish appearance, and becomes very light. It suffers an immense loss, so much so that its virtue is gone, and as compared with unheated manure, it will produce scarcely any appreciable effect. The fertilizing qualities, especially ammonia, are thrown off, and the mass is left inert and useless.

In the management of manures, therefore, care should be taken to prevent too great a heat by composting and forking over. Loam and muck, if mixed freely under the stables, will preserve the heap, prevent fire fanging, and thus prove very useful. It is a good plan to lay in a store of these substances, to be mixed occasionally with the manure heap through the winter.—*Mass. Ploughman.*

The above is all very well, but a better method is to turn the pile over and water it thoroughly while turning. This will cause the heap to ferment thoroughly all through.

WORKING OF THE LAW OF ENTAIL IN SCOTLAND.

THE following is an extract from one of W. C. Bryant's letters from Scotland during his late visit there:

The peasant of France is a freeholder; the land is minutely sub-divided among an immense class of owners. It may ere long, perhaps, in consequence of the policy of the French laws, become too minutely partitioned; but it has not reached that point yet, and the soil is tilled all the more carefully and thriftily because both the soil and its fruits are the property of the tiller. Here, on the contrary, the ownership of the land is in few hands, and these are becoming fewer every year. You stand upon some eminence, and look down upon these beautiful valleys—the straths, as they are called—in which the

riders of Scotland run seaward, and you see vast domains, extending from mountain to mountain, the property, perhaps, of a single family. "If we go on at the rate at which we are going now," said an intelligent Scotchman to me, "all Scotland will ere long be owned by a single man, and that man may be the Duke of Buccleuch. By the operation of the law of primogeniture, aided by the laws relating to entail, estate is added to estate, and when an estate gets into a family it never goes out of it—the law of entail keeps it there. In this manner the number of landowners in our country is gradually diminishing, and nothing but an alteration of the present laws will arrest this tendency." One of the effects of this diminution of the number of landowners is the evil so much complained of in Ireland, that the proprietors do not live on their estates, and take no interest in the concerns of the neighborhood in which they are situated. From a hill back of the town of Crieff, whence you have one of the noblest views in Great Britain, you look down upon the beautiful estate of Monzie, with its ancient trees and varied grounds. "Its mansion," said the person who pointed it out to me, "is uninhabited. It is already becoming ruinous; the place is neglected, and everything is falling into disrepair." I went the other day to Perth, and thence to the Lyndoch estate, famous for the traditional story of Bessy Bell and Mary Gray, a place now owned by the Earl of Mansfield, who has several other estates. We were courteously received by the intelligent *gamekeeper* who showed us the remains of the mansion inhabited twenty-four years since by Lord Lyndoch. It was a perfect ruin; the roof fallen in, the windows out, the walls giving way. Estates belonging to the large proprietors, are let from year to year to persons who come for a transitory sojourn in the neighborhood, and do not identify themselves with its permanent population. So great is the accumulation of estates in certain single hands, that it is proverbially said that the Duke of Buccleuch can travel seventy miles on his own land in a direct line to the English frontier. At some time or other the British Parliament will find itself required to interfere for the purpose of remedying these evils, and that time will be hastened by the reform of the Parliamentary representation.

BEES require but little attention during this month, except to see that they have a full supply of food, and are well ventilated. Top ventilation is preferable. Take off the honey box, and fill the top of the hive with straw. The greater the opening the better. There is little danger of bees suffering by cold in a hive well stocked with food, and ventilated as above. For feeding, see article in another column.

SPIRIT OF THE AGRICULTURAL PRESS.**Agriculture in Africa.**

The work of recovering the Great Desert of Sahara, in Africa, is steadily going on in Algeria under the patronage of Napoleon III, and is accomplished by boring artesian wells. About one hundred wells are now flowing reclaiming the desert wherever they are, and making the barren waste blossom into fertile gardens. In the district of Ouled Rir, stretching far southward into the desert, there are now thirty-five wells, around which 2,000 gardens have been formed, and 140,000 date trees planted. The conquest of the desert is steadily pushed with almost universal success by four military boring brigades, thoroughly equipped and provided with the necessary implements.—*Ex.*

Norman Horses.

We rode out to the Four Mile House yesterday afternoon, to take a good look at the great monsters of horses imported by Dr. M. Brown, of Circleville, and Mr. Bigelow, from Normandy, France. There are four of them, and they are beauties. The first in order is the premium horse, Napoleon. He is a dapple gray, five years old, is 16 1-2 hands high, and will exceed 1,600 pounds in weight. This horse was designed for the stables of the French Government, but through the influence of Americans of high standing in Paris, the Emperor gave permission for the horse to be brought to this country. The next is a bay, the Duke of France, six years old, 16 hands high, and weighing nearly 1,600 pounds. Vigorous is the third. He is a dapple gray, four years old, 16 hands high, and of about 1,400 pounds weight. This is a larger bodied horse than either of the others, and, when full grown, will be the most symmetrical of the lot. Black Robert, the Fourth, is four years old, 15 1-2 hands high, and will weigh 1,300 pounds.—*Columbus, O., Statesman.*

About Plows.

It is frequently the case, says *The Northern Farmer*, that a farmer will buy two plows of the same make and pattern, and one will prove to be a much easier running and holding plow than the other. Why? It may be that the castings are warped and do not fit together well; but far more generally, because the iron in the two moldboards is not of the same temper—the plow with the softest moldboard being the poorest of the two. The furrow adhering more closely to the soft moldboard, makes the draft of the plow heavier, and likewise pulls the plow around to the right, away from the land, therefore making it run unsteady. As an illustration, take two pleasure sleighs; the one having on hard-cast shoes, and the other soft-cast shoes. When these two sleighs run over a piece of bare ground, the one with soft shoes draws very much the hardest, and has the most side draft. It is quite difficult for furnacemen to make their moldboards always of the same proper temper, and especially is it so where they melt soft machinery iron at the same heat with hard plow iron. As a general rule the best and most uniform plows come from those firms who make that particular tool a specialty and a study. Their mechanics become

familiar with selecting and melting iron for that purpose, and their castings are apt to be fitted together with extra care.

Rusty Straw—Effects on Animals.

B. McClure states in *The Practical Farmer*, that feeding rusty straw to cattle and horses has a very injurious effect upon their health and efficiency. The class of diseases induced by this aliment, are marasmus, glanders, farcy, skin diseases, catarrhal affections, and watery swellings of the body and legs. He adds that during the last eight months, out of 700 horses fed upon such straw, from forty-five to fifty were on the sick list.

Darkness Favorable to Fattening.

It is a fact, says *The Mark Lane Express*, that all animals fatten faster in dimly-lighted places than the full light of day. This is well known in respect to fowls. From experiments made with sheep, conclusions have been reached that in a dark shed, well ventilated and properly warm, they will make the most mutton from a given amount of food. But dark stables are not good for horses, or breeding stock of any kind. Fat is not with such the most important object in view.

Age of Animals.

The average of cats is 15 years; of squirrels and hares, 7 or 8 years; of rabbits, 7; a bear rarely exceeds 20 years; a dog lives 20 years; a wolf, 20; a fox, 14 to 16; lions are long lived, the one known by the name of Pompey lived to the age of 70; elephants have been known, it is asserted, to live to the great age of 400 years. When Alexander the Great had conquered Porus, King of India, he took a great elephant, which had fought very valiantly for the king, and named him Ajax, dedicated him to the sun, and let him go with this inscription: "Alexander, the son of Jupiter, dedicated Ajax to the sun." The elephant was found with this inscription 350 years after. Pigs have been known to live to the age of 20, and the rhinoceros to 20; a horse has been known to live to the age of 62, but average 25 to 30; camels sometimes live to the age of 100; stags are very long lived; sheep seldom exceed the age of 10; cows live about 15 years. Cuvier considers it probable that whales sometimes live 1,000 years; the dolphin and porpoise attain the age of 80; an eagle died at Vienna at the age of 104; ravens frequently reach the age of 100; swans have been known to live 300 years. Mr. Malerton has the skeleton of a swan that attained the age of 200 years. Pelicans are long-lived; a tortoise has been known to live 107.

Flour Making.

The question how much wheat does it take to make a barrel of flour is often asked, and the answer is of a general character, "five bushels are allowed." At the annual Fair of the Dubuque County Iowa, Agricultural Society in 1866, a premium of \$3 was offered for the best barrel of flour made from winter wheat, and also the same made from spring wheat. A firm entered one barrel each, accompanied with the statement that 16 bushels of winter wheat yielded 3 barrels, and 103 pounds of flour—at the rate of 4 bushels and 15 pounds of wheat to the barrel. Of spring wheat, 50

bushels yielded 11 barrels of flour, being 4 bushels and 32 pounds to the barrel. The wheat was a fair quality and no more.

Arrival of Angora Goats in Liverpool.

The Americans have, by crossing the Angora goat with the American goat, proved that they can produce hair of a quality to equal that grown from pure Angora blood. Hitherto the experiment has been on a small scale, but an endeavor is to be made to extend it. With that object in view, Mr. Deihl, an American gentleman, has been to Asia Minor, collecting a herd of Angora goats, for the purpose of importing them into the United States. On the 4th ult., he arrived in Liverpool with a herd of 154 goats and five shepherd dogs. They were conveyed to Mr. Johnson's cattle yard, Old Swan, where they were kept until Wednesday, the 16th inst., when they were embarked on board the ship *Resolute*, which has since sailed for New York.—*Liverpool Daily Post*.

The Shropshire Down.

This valuable and popular variety has been formed chiefly within the last fifty years. On one side they sprang from what were known as the Morte Common sheep, a horned breed said to have been of rather large frame and uncouth form. Crosses, it is said, were first attempted both with the Cotswold and the Southdown; but the latter was finally adopted as the chief source of improvement. The aim of the leading breeders seems to have been to secure the form of the most perfect of the Southdown breed, and combine with it greater size, stronger constitution, and greater weight of fleece. The attempt has succeeded to a very satisfactory degree. The "Shrops," as they are frequently called, some time since reached that point which entitles them to be considered a distinct breed; that is, they have demonstrated their ability to "stand alone," having for several years been propagated by the selection of breeding animals from among themselves. The leading breeders say that they have made no re-infusion of Southdown or other blood for many years, and such a course does not seem to be necessary, as the new breed appears to be annually improving and acquiring more uniformity. It has for some time been one of the most popular of the English short-wooled breeds, and has probably increased more of late years than any other variety of that class. Visiting, a few years since, several farms in England where this variety of sheep was kept, the writer was assured by farmers that they could keep as many "Shrops" to the acre as of Southdowns; that the former would produce more meat in a given time than the latter, worth within a small fraction as much per pound in the market, and that the former would average a pound more of wool per head annually, the wool bringing the same price per pound.

The great demand which has arisen within a few years for long luster wool, has caused a considerable spread of the sheep which produce that staple; but until this kind of wool rose in price, the Shropshire Downs were increasing in numbers faster than any other breed in Britain. They have been introduced into this coun-

try and Canada, but have not, perhaps, been sufficiently tried here to justify a positive opinion as to their profits compared with the Southdowns.—*Sanford Howard*.

Depreciation of Guano.

Professor Anderson lately delivered at Glasgow, Scotland, an interesting lecture on the state of the guano trade, the superphosphate manufacture, and the quality of oil cakes and of drinking water—all important agricultural subjects. He informs us that the guano in some of the Chinch Islands on the coast of Peru is already exhausted, and that recent imports are of inferior quality and contain considerably more water and less ammonia than have hitherto been common in Peruvian guano. He believes that the guano now imported is not worth as much as former cargoes, by five dollars per ton, because of this diminished proportion of ammonia.

Clean out the Barn Yards.

The Prairie Farmer well says, if it is too dry to plow, dig ditches, set fence posts, &c., clean out the yards about the barns and sheds. If the manure is not wanted this fall, mix all kinds together in a compost heap, and add all sorts of refuse matter, muck, &c.; keep moist and stir occasionally to keep from burning. A coating of plaster over the surface will absorb the escaping gasses. Make the heaps compact. Not only will the manure be saved in this way, but the yards will be fit for habitation of the domestic animals when the rains set in. Keep the stock in dry and comfortable quarters, if you would have it thrive, and at the same time consume a less amount of food.

How to Cut up a Hog's Head.

A correspondent of *The Germantown Telegraph* says "I" do it in this way: "I lay it on its side and take off the jaw, or lower jaw; I then saw down across the face just above the eyes, but careful to run into the eye-sockets, and on through, leaving the eye balls with the snout end, so that there is no further trouble with gouging the eyes out of the face piece; then without further separating of the parts, starting between the ears, saw up and downwards, not caring to extend further down towards the snout than to the sawmark across the face, but clean through at the other end. Now, having done with the ears for handles, I cut them off, then take out the brains for pickling, skin the snout, and take off the flesh for scrapple, and throw the nasal organs away. The faces are to be corned. I use a saw, but never an axe, in cutting up a hog; consequently the meat is clear of splinters and chips of bones. In "chining a hog" to cool, I saw down the ribs, instead of hacking them with a hatchet. A small-sized hog-hook flattened, answers very well for taking off the hoofs and toe nails of a porker, or you may use a pair of pincers."

Application of Manure.

The Maryland Farmer closes an article on the subject of a proper application of manure, by saying:—"On heavy clay lands manure liberally and plow it under; on light soils top-dress in more limited quantities, but more frequently than on heavier ones.

Horticultural.

TRANSPLANTING LARGE TREES IN WINTER WITH FROZEN BALLS.

[We desire to call the attention of our readers to the following article on the removal of large trees. It is from the pen of William Webster, the well-known landscape gardener, who is an enthusiast on the subject of planting for shade and shelter, and we invite any of our readers who have had any experience in this matter to give their views, so that we may keep the question before the public, as we fully realize the importance of the subject, and the benefits which may accrue to the whole community by discussing it thoroughly.—Eds.]

One of the most important subjects connected with Horticulture, and one which is attracting more than ordinary attention at the present time in the country, is that of shelter. In the formation of new places in our own section, how frequently have we heard the remark: "If we had even but a few large trees to beautify and shelter our place, what an acquisition it would be! but as I can plant only small trees, it will be ten or a dozen years before they will afford the necessary protection which I now so much desire!"

Now, what is true in respect to our own section, applies with equal or even greater force to other parts of our country—and especially so to a large portion of the great West. It is not merely to the man of taste who desires to beautify the surroundings of his dwelling with ornamental trees, that this subject becomes an important one, for the Farmer and the Orchardist are equally interested, and the fact has long been established that in those situations where fruit trees are well protected by evergreens or forest trees, from the bleak and inclement winds of winter and spring, the crops seldom fail. One man in relating his experience, says: "My peach crop last year was excellent, while that of my neighbors was almost a total failure; and I attribute my success entirely to the protection afforded the trees by a belt of timber which adjoined them on the west." Another one says: "My pear crop was first rate, and it generally is so, because when planting out my orchard, I set a belt of evergreens on the north and west sides, which have now outgrown the pear trees, and whenever we have a cold snap in the spring from either of the points mentioned, which frequently does occur, the force of the wind in striking the evergreens becomes broken, and it passes over with comparatively little injury." Still another says: "When building my house, I planted a few large elms on the south side to screen the verandah from the mid-day sun in summer, and you have no idea how cool and comfortable we find it while sitting here, even in the hottest weather."

Such is the testimony of the importance of shade and shelter to which so many bear witness. To many, the solution of this question may appear anything but an easy one; yet in reality, none is more readily answered,

if we take into consideration the means by which it may be accomplished. Briefly then, what are the means? We answer, first select such a tree or trees, from the nursery or forest, either evergreen or deciduous, as you desire, and at the commencement, or any time during winter, while the ground is open, throw into a pile a sufficient quantity of good soil for filling the holes where the trees are to be planted, and cover well with sods or straw, to keep the soil in the pile from freezing. This is operation number one, and a very important one too. The next, is to prepare the requisite number of holes: these should be dug to the depth of two and a half or three feet, and may range from eight to fourteen feet, or even more, in diameter, according to the size of the tree by which it will be occupied. The earth in the bottom of the hole should be well loosened, and if convenient, have a layer of sods placed on it with the grass side down. In our own practice, if the tree to be removed is a large one, and the hole has to be sunk to any great depth into the hard pan, we lay down a two-inch tile lateral drain, leading from the hole, and connecting with a larger one. To some, this may appear rather too expensive an operation; but it pays in the end.

In selecting your trees, the species are immaterial, providing they have an abundance of small lateral roots; those like the oak or hickory, whose roots penetrate the soil deeply, are very difficult of removal, and seldom do well—therefore should on that account be avoided.

When practising this system, commence by digging a trench all around the tree, so as to leave a ball of earth from six to eight feet in diameter; the tree should then be undermined, care being taken to preserve the ball and roots from injury as much as possible. When the tree becomes loosened, so that it can be pulled over to one side, an incline should be dug from the bottom of the hole to the surface, making it wide enough for the tree to pass from the hole to the ground above. The tree thus prepared should be allowed to remain in this condition until the ball of earth becomes frozen so solid that it cannot easily be broken. To remove the tree from the hole to the level ground, is the most difficult job of all, especially if the tree is a large sized one; in this case, we are usually accustomed to set a large post firmly in the ground, some twenty or thirty feet from the hole, to which is attached blocks and tackle; then when we are ready to remove the tree, it is pulled over on one side, and a stone boat slipped under the ball; then the tree is pulled back again and set upright on the boat, at the same time attaching three guy ropes to the tree, so that it can be held in position while being hauled from the hole. With the block and tackle secured to the post and the boat, one team will pull more by hauling on it than two or three yoke of cattle without it. The tree once out of the hole, and with five or six inches of snow on the ground, it is not a very difficult job to remove it anywhere within a reasonable distance. In this way, we have removed numbers of trees of more than thirty feet in height, with trunks upwards of a foot in diameter. When the tree is removed

to the hole prepared for its reception, it should be well filled around with the earth already mentioned, and be stayed in position with guy ropes attached to the trunk, and stakes driven slanting into the ground.

If the ball of earth is not more than from four to six feet in diameter, one team will suffice to draw it from the hole without the aid of blocks and tackle. In the neighborhood of New York, we have seen maple trees removed sixty feet or more in height, with trunks upwards of two feet in diameter, and requiring eight yokes of oxen to remove them; but this is too costly and hazardous an operation to admit of practice to any great extent, and is only mentioned to show what may be accomplished in the way of removing large trees where expense is not an object.

CULTIVATION OF FRUIT TREES.

WRITTEN FOR THE AMERICAN FARMER, BY JOHN SMITH.

EDS. AM. FARMER:—I saw in a number of THE AMERICAN FARMER, an article on planting fruit trees: the writer says: "As to the good effect of continued digging about trees, which we oppose, all cultivators are not unanimous; but most of them now abandon it after some experience, the only difference of opinion being, how many years after planting shall this style of cultivating continue." Now, as far as my experience goes, which has been fourteen years, I have found continual plowing and hoeing very successful among all kinds of fruit trees. The practice of discontinuing plowing and hoeing trees after a few years has been the cause of the general failure of fruit growing throughout this country. I would rather have an orchard continually plowed and worked, on poor land, than to have one on good land, with no plowing or working. We might as well think of getting a crop of corn or potatoes off sod lands with holes dug in the sod and planted without plowing or hoeing, as to think of obtaining a crop of fruit treated in the same way; or, we might as well think of obtaining a crop of corn in an oat or rye field, as to think of raising a crop of fruit and grain at the same time. If people would be half as careful with fruit trees as they are with other crops, the difficulty in fruit growing would be overcome to a great extent. The objection raised to plowing among trees after they get to a certain size, is on account of disturbing the roots; but with a careful hand to do the work, that can be avoided, and even if there is a root now and then broken with the plow, the trees being in a vigorous state of growing, will soon throw out ten fibers where there was but one, and grow more in one season, with good cultivation, than could be got in the sod in five years. If fruit growers would send in their experience, the manner of cultivation and the result, it would be interesting to your readers, and I think would have a good effect among fruit planters.

The gooseberry and currant require shade, particularly the former, and if on the moist northern aspect of a wall, so much the better. The raspberry prefers a rather moist soil, and partial shade.

FACTS FROM NEW JERSEY.

MESSRS. EDITORS:—The December number of THE AMERICAN FARMER is received, and I have just finished reading it.

I am not a practical farmer, still I feel a great interest in everything pertaining to the tilling of the soil, and am greatly pleased and interested in the subject matter of your journal.

Thinking some facts from this new portion of the field of agriculture might be of interest to you and your readers, I will jot down a few items, which you can dispose of as you please.

First, then, we have not had a drouth this season, and if we had had one, I think we could bear it better than in almost any section of country I know of. But we have been able to say: "The rain it raineth every day." Luckily we have a soil that can bear a wet as well a dry season. It takes rain very kindly, and disposes of a surplus very readily. Still the rain did do considerable damage. It caused our water melons to rot, and injured our berries very much. But better crops of grass, grain, corn, and potatoes, have seldom been harvested any where, than have been grown and garnered hereabouts the last season. Demonstrating, beyond a doubt, that we can raise just as good wheat, both in quantity and quality, as they can raise any where. So with grass, corn, and potatoes. No better quality of potatoes are grown than we grow here. There are not so many, but the yield is good. We put over forty bushels in our cellar from less than half an acre, good size, free from rot, rich and mealy enough when cooked to satisfy the eye or palate of the most particular. I wish I could send you a specimen.

The fertilizer used was phosphate, 1 1-2 bbls., composted with muck. The variety, Jersey peachblows. Verily, the Jersey barrens, so much despised, and so long left out in the cold, "neglected and forgotten," are being redeemed—redeemed from their condemnation and disgrace, to esteem, usefulness, and fruitfulness.

It has been charged that we cannot grow grass. This is a great mistake. Since the land has been cleared of brush, clover is springing up spontaneously where no seed was ever sown by man. Rye grows well here. Hops will do well. But our people have been and are growing fruit, because with small farms it pays better. Any farmers who have money to use to buy fifty or one hundred acres, and will put the land into grass, grain, and stock, here is as good a place as any; and better, for the reason that we have two of the best markets in the world so near to us—New York and Philadelphia.

We have a few men who have recently come among us, who are going to try it. With the same energy and enterprise they would use in New York State, they will most assuredly succeed. Our peach crop was good.

Hammonton, N. J., Nov. 7, 1867.

W. E. BOWLES.

WINDOW plants should not be kept very warm at this season.

PEAR BLIGHT.

WRITTEN FOR THE AMERICAN FARMER, BY "G. W. T."

MUCH has been said upon this subject, so important to all, especially important to all lovers of good fruit, and of the science of pomology; and much too, that seems to mystify rather than explain the cause of the evil. A love of fruit culture, and a desire to draw out the opinions and experience of others whose observations may be closer, and whose opinions are consequently more valuable, induces me to place on record my observations on pear blight, and my theory.

The great prevalence of the evil, I think is comparatively recent, and will date to the period in our country when dwarfs became popular, or when it became necessary to improvise a fruit garden or orchard. The advice of the experts then was, "high culture"—specifies, high manuring, and some recommended "specials" because they were good, and the parties were engaged in the manufacture of them. Thus our young trees were over-fed, gorged to repletion, and kept in active growth until the last possible moment, and after the natural season; and were thus precipitated into winter, without any preparation therefor, the sap vessels being glutted with unelaborated sap, the whole system of the plant in a tender, succulent state, having to contend with the severities of winter, became an easy prey to the devouring element "fire blight"—really frost blight.

An amateur friend of mine—a real lover of pear culture, tells me that some years since a work on the pear fell into his hands, wherein this high feeding was highly recommended. He adopted the doctrine, fed high, and lost more trees during that and the two following years, than during the whole of his horticultural experience. My predecessor, on my present farm, though not particularly averse to hedge rows, took umbrage at a fine healthy pear tree that had grown about ten feet high in one of the quinces, while I lamented the loss of so fine a subject to graft on. I was pleased to see during the first summer of my occupancy, a fine healthy shoot spring up to a height of five or six feet, and carefully placed in a smooth part of the bark a bud of the very good pear "Rostizer." Imagine my disappointment on the first dawn of the following spring to find that my sapling blackened from top to bottom of its eastern side. My conclusion, therefore, is that over-luxuriance in our pear trees, is a cause of much of the pear blight.

APRICOT GROWING.—The apricot tree, when young, is a rapid grower, and if left to itself, will produce long, naked branches, in consequence of its growing only from the terminating buds, and those near the top of each year's growth, leaving the lateral branches and fruit spurs feeble. In order to obviate this, and develop the fruit wood all through the tree, there should be only branches enough to form a nice open head, and these shortened every season.—*Rural New Yorker.*

CHOOSE plants that have been budded close to the ground.

CHANCES OF SEX IN FLOWERS.

THE change in sexual characteristics, which is manifested by the *formation of pollen within* the tissues of the *Ovule*, has not, to the best of my knowledge, been recorded in any other case than that of a Pasion flower, observed by Mr. S. J. Salter, and described and figured by him in the *Linnæan Transactions*, (vol. xiv., p. 143.) To this we are now enabled to add a similar illustration in some flowers of a wild Rose (*Rosa arvensis*), recently gathered and examined by ourselves. In these flowers the calyx was normal, the petals reduced in size, with some tendency to become foliaceous; the carpels presented nothing unusual, but the stamens showed almost every possible degree of change between their ordinary condition, and that of carpels.

Perhaps the most common deformation was one in which what, under ordinary circumstances, would be the filament of the stamen, bore, in the centre, an anther; below that organ, two ovules, or unimpregnated seeds, like the natural ones, but wholly uncovered, while above the pollen sacs the filament was prolonged in the form of a long, often tortuous style, terminated by a trumpet-shaped, fringed stigma.

So far, there was nothing but what may be seen very commonly in double or partially double flowers; but on examining some of the ovules, it was found that, while retaining the form and semblance of ovules, they had, nevertheless, assumed some of the characters of anthers. For instance, in many cases beneath the superficial layer of tissue there was a stratum of those spheroidal cells containing a network of thick fibres, such as we expect to see in an anther, but do not expect to meet with in an ovule. Moreover, there was a considerable quantity of well formed pollen in the substance of the ovule.

Reserving for another opportunity the full details of this extraordinary case of personation, we content ourselves, in this place, with recording the fact, and of drawing attention to the physiological interest attached to it. We do not suppose that in this Rose the pollen would have any effect upon the ovule in which it was formed, because there were so far as we could see no traces of embryo sac or germinal vesicle, but only a solid, cellular nucleus; on the other hand, supposing the pollen liberated in some way from the ovule in which it was formed, what is there to prevent its fertilizing the stigmas of adjacent carpels, or even the contiguous uncovered ovules, some of which were perfectly organized, though as far as we saw they were unimpregnated.—*Gard. Chron.*

CULTIVATING SORGHUM.—A committee of a Farmers' Club in Knox county, Ohio, made a report on sorghum, recommending planting on sandy or gravelly soil, on sod newly and deeply broken, and about 3 1-2 feet apart each way. They advise leaving from 6 to 12 stalks in each hill, believing this prevents suckers and hastens maturity. They recommend that the cultivation be finished by the time the cane is two, or at the most three feet high. Wood ashes and lime in the hill, or lime and plaster, are highly recommended.

THE CONCORD GRAPE IN IOWA.

THE editor of *The Iowa Homestead* gives an account of a visit to a grape grower in that State, by the name of Jones, as follows:

We found some four acres in grapes—three and a half devoted mainly to the propagation of vines, though a large amount of fruit was to be seen upon the parent vines. Upon the half acre trained exclusively for fruit, are now growing 780 of the stoutest and most thrifty Concord vines that we have ever seen. They were grown from second class layers set in the spring of 1861, five feet apart in rows six feet apart. The second season after setting, 10,000 first class layers were taken from them. The third season they averaged 6 1/4 lbs. of fruit. The vines were also layered, but owing to the lateness of the work and drouth, they were not taken up till the next season, when 8,000 strong vines, and 8,580 lbs. of fruit were produced from the plat of 780 vines. The crop gathered the fifth season sold for about \$400—the crop being injured by late spring frosts. In 1866 the yield of fruit was about 11,000 lbs., and marketed in Chicago at an average price of 10 cents per pound.

After passing all through the plat, and examining the enormous amount of fruit concealed underneath the vines, we felt a curiosity to approximate the crop of the current season. Accordingly the selection of a single vine was made, such as we thought a fair average, the fruit picked, and it weighed in our presence 24 1/4 lbs.—indicating, in the aggregate, a crop of 18,915 lbs. of fruit from 780 vines. Incredible as this may seem, we are unable to figure out a different result.

The soil is a black, rich, prairie loam, about two feet in depth—gradually changing from six to eight inches to what is technically called joint clay, of a yellowish cast. Surface about as level as nature could well make it. Previous to setting the vines, the soil was well worked to the depth of one foot. The vines were set eight inches deep. No fertilizer of any kind has ever been applied. But what is still more remarkable in the simplicity of Mr. Jones' management is, that no cultivation or protection whatever (except to pull up and scratch out a few weeds) has been given to these vines for the past three years, and but precious little pruning. The vines have gone through the last three winters unprotected, and without injury. Mr. Jones' management of the vine may well be called the "let alone system." His success is extraordinary, and very naturally attracts the attention of grape growers.

Coronilla Glauca Variegata, grown pyramid fashion in pots, and plunged in any part that requires to be lighted up, has a very fine effect.

It is said that a disease similar to the "Rinderpest," is prevailing in some parts of Maryland.

Speaking of labor and land in England, a New York journal says: "The accumulation of great wealth commenced with the acquisition of large landed estates, and now the whole number of landed proprietors does not exceed 160,000."

THE FORESTS OF RUSSIA.

AMONGST the sources of wealth, unproductive as yet, are the forests of Russia, and which for the most part have the appearance of virgin forests. The forests of Prussia, which are not to be compared to those of Russia, are thanks to a model management, the source of a considerable revenue to the State, whilst those of the latter are at present only an expense. Forest economy in Russia is in its infancy; its importance is reserved for the future; and the numerous railways now in the course of construction will contribute largely to its extension. The Western part of Northern Europe is poor in forests, whilst, on the contrary, the East is rich. Finland, the Governments of Olonetz, Wologda, Kastroma, and Archangel all possess immense forests. On the 80,262,375 deciatines (1 deciatina equals 2 acres, 2 roods, 32 perches) that form the Government of Archangel, 30,312,209 deciatinas are covered with forests, of which 1,151,088 are the property of the Admiralty, as they furnish excellent timber for ship-building purposes. One district alone (Mesen) contains 14,865,872 deciatinas of forest land; and the districts of Pinega, Kemi, Cholmogory, Onega, and Archangel are equally rich in timber. The Scotch Fir (*Pinus sylvestris*) is found in great abundance, and the forests of the Governments are principally composed of this tree; however, there is no scarcity of the Spruce Fir, the Siberian Cedar, the Birch and the Poplar. The first exportation of timber from Archangel appears to have been in 1761. During the last ten years the value of the timber exported from the ports of Archangel and Onega amounted to 347,978 roubles (£54,215), a small sum as compared with the riches of the forests of the country; and the Grand Duchy of Finland, though much smaller in extent, exports annually timber to the value of upwards of 2,000,000 roubles (312,500). Better results may be predicted for the future, now that the Petchora, and especially its mouths are navigable.—*Correspondance Russe.*

IMPROVEMENTS WHICH DO NOT PAY.—A writer in *The Rural New Yorker* says: "I recall instances where farmers went ahead with improvements without counting the cost till it took the farms to pay for them. Improvements are a nice thing, if one has the ready cash to make them; if not, beware of the temptation. Only those should be made at first that will return the outlay again. Farming should be conducted on business principles. If a merchant is not able to own a store, he rents one. If a farmer has not money to erect new buildings, he had better get along with his old ones. If a merchant invests money, he expects to get it all back again, and more too. If a farmer buys manure or merino sheep, he should see that they are so used that they return the original cost and a profit. If a farmer lays out money in ditching, he should do it where two or three crops will pay it back with interest."

THE Senate has confirmed the nomination of Horace Capron, of Illinois, as Commissioner of Agriculture.

Ladies' Department.

FASHIONS FOR JANUARY.

THE short walking dress has become an admitted fact, and has taken its place among the regular "institutions." We rejoice at this for several reasons, one of which is the healthfulness, second, the cleanliness, and third, the economy of such a costume for street wear.

It also compels a distinction between the out-door, and in-door toilette, which is conducive to both neatness and elegance of appearance.

It has been too much the habit to trail about in the streets the one, two, or three handsome dresses which are all that the generality of women possess, and this soon destroyed the beauty of the fabric round the bottom of the skirt to such an extent as to render them unfit for either in-door or out-door wear.

Probably one of the reasons why the short dress became so universally popular was, that at one stroke it turned out hundreds of trunks and wardrobes, and rendered available thousands of half worn dresses with wide, dilapidated skirts, which had time and again been looked at, and sighed over, and pronounced impracticable.

The temptation and tendency now is to make the short dresses too costly for their purpose.

For useful street wear, gray serge, cloth, linsey, wool reps, alpaca, or a wool stripe, check, or plaid, are altogether the most suitable, and it is not only a useless extravagance, but outrages all sense of the fitness of things, to see expensive silk, satin, and embroidery expended in toilettes, which can never be pronounced "dress," or fitted for anything but street wear.

The newest walking-costumes are made of cloth, *en suite*, and trimmed with black silk cord or braid, or with silk or satin folds, or pipings stitched on.

These trimmings are sometimes put on plain, but more frequently to form some sort of design, sheaf, coil, fan, leaf, or the like.

A plain "Boulevard" skirt is the best to wear under these dresses, as the upper skirt is only simulated by the trimming.

Short dresses made of linsey-woolsey, tweed, serge, or water-proof, are simply trimmed with cross-cut bands of the same, piped or edged with narrow folds of silk of the same color. The buttons are large and handsome, however, and prove a sufficiently ornamental finish.

Silk and serge costumes are sometimes made with double skirts, the upper one being prettily looped up over the under one, with long straps or tabs bound with silk, and fastened with enameled buttons or slides.

The simplest and most useful costumes, however, are of water-proof cloth, Bismarck, or dark green, with double-breasted paletots, the whole trimmed very simply with black braid, doubled and stitched on the upper edge.

New clan tartans in poplin and all wool are extremely fashionable this season, and are arranged to form the

most picturesque out-door and in-door toilettes. A short tunic dress of gray, or black silk or alpaca, worn over a complete high dress of Scotch plaid, is a favorite style.

Embroidered belts of black silk or velvet are also worn over trained tartan dresses, with long rounded tabs or sash ends, which descend low upon the skirt behind, and graduate toward the front.

A short dress of Stuart plaid is very *distinguished* worn over a petticoat of shepherd's check, particularly if the Highland scarf, fastened with a rose, in white coral, mounted as brooch, be added to the costume. A white rose, by the way, is the emblem of the Stuart clan, and a white rose in coral, fastening a Stuart "plaid," or decorating the dress, is a most elegant ornament.

Low necks and short sleeves have always been considered indispensable to "full dress" abroad, but not until this season have they been adopted to any great extent in this country. This fashion is particularly hurtful, because it is liable to be much abused. Young girls sacrifice to it their sense of modesty, and old ladies all ideas of propriety.

A square body cut high, or low, with a chemisette of handsome lace, is a becoming compromise with fashion, especially if undersleeves of lace are added to rich hanging sleeves of thin material.—*Demorest's Monthly*.

DOMESTIC RECEIPTS.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER.

GREEN APPLE PIE WITHOUT APPLES.—Take a dining plate, three crackers powdered fine, one and a half cups of water, one cup brown sugar, one teaspoonful tartaric acid. Make holes in the top crust for the water to bubble through, and it will not leak.—*M. R. P.*

CANNING GRAPES.—A correspondent of *The Press* writes as follows respecting his method of canning and preserving grapes: 'To can grapes, make a sirup of a quarter of a pound of sugar for one pound of fruit. Put the grapes whole into the scalding sirup and skim them out soon, and let them partly cool; it preserves the berries from breaking; then put them in the can, either glass or tin, (if glass, heat it so as not to break.) Then pour in a little hot sirup; then put a piece of paper in the can to cover the fruit; then fill up with hot sirup and seal.

BLACK WEDDING CAKE.—2 lbs. brown sugar, 2 lbs. butter, 2 lbs. flour, 24 eggs, 14 lbs. currants, 6 lbs. raisins stoned and chopped a little, 2 wine glasses brandy, 1-2 lb. citron, 4 nutmegs, 1-2 oz. mace, cloves to your taste.

WHITE WEDDING CAKE.—1 lb. flour, 1 lb. pulverized loaf sugar, 3-4 lb. of butter, 1 lb. of the white of eggs, 1 nutmeg, oil of lemon to your taste.

HAIR-BRUSHES may be well cleaned and quickly without wetting them, by striking them, bristles down, flatly on a table. The dust shakes out, and the down may be combed out.

MINCE PIE MEAT will keep well for several months, boiled, chopped, and packed down in a stone jar covered with molasses.

LIME mixed with the white of an egg forms a strong cement for glass.

FALL AND WINTER CAMPAIGN OF THE AMERICAN FARMER!

LIBERAL OFFERS! TAKE YOUR CHOICE!!

GREAT INDUCEMENTS!!

and

VALUABLE PRIZES!!

NOW is the time to solicit your friends and neighbors to take THE AMERICAN FARMER, the practical Farmer's Own Paper, the Cheapest and Best Agricultural and Horticultural Journal in America for the year 1868.

TERMS OF SUBSCRIPTION:

One Copy	\$1.00
Five Copies	4.00
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TABLE OF PREMIUMS TO AGENTS,

1868,

FOR SUBSCRIBERS FOR THE YEAR

1868.

Number of Subscribers.	Premium.	Value.
For Five Subscribers, at 50 Cents each.....	The American Farmer Annual Illustrated.....	80
	Or, Tucker's Illustrated Annual Register for 1868.....	80
	Or, Scribner's Ready Reckoner and Log Book.....	80
For Eight Subscribers, at 75 Cents Each.....	Or, The Horse Doctor and Horse Tamer.....	80
	Miner's Domestic Poultry Book. Illustrated.....	50
For Ten Subscribers,	A Free Copy of THE AMERICAN FARMER for 1866,.....	1.00
	Or, Rogers' Scientific Agriculture.....	1.00
	Or, Emerson's Manual of Agriculture.....	1.00
For Twelve Subscribers,	A Bound Volume AMERICAN FARMER for 1866 or 1867.....	1.25
	Or, a Package of Choice Flower Seeds.....	1.25
For Sixteen Subscribers,	The Horse and his Diseases, by Jennings.....	1.80
	Or, Everybody's Lawyer.....	1.80
	Package of Choice Flower Seeds.....	8.00
For Twenty Subscribers.....	Or, Bound Volumes American Farmer for 1866, and 1867..	2.50
	A Set of Agricultural Books worth.....	5.00
For Thirty Subscribers,	A Choice Collection of Flower Seeds.....	6.00
For Thirty-two Subscribers,	“ “ “ “.....	10.00
For Forty Subscribers.....	Or, an Agricultural Library.....	10.00
	Or, Woodruff's Mercurial Barometer.....	10.00
	Woodruff's Mercurial Barometer.....	12.00
For Fifty Subscribers.....	Or, Webster's Pictorial Dictionary, latest edition.....	12.00
	Or, Fifty Colored Fruit Plates, (different,) bound.....	12.50
	Choice Poultry, any variety, one trio.....	15.00
For Sixty Subscribers.....	Or, an Agricultural Library.....	15.00
	One Hundred Colored Fruit Plates, all different, bound.....	25.00
	Or, a Ladies Horticultural Chest, (21 different tools,).....	25.00
For Seventy-five Subscribers.....	Or, a Franklin Sewing Machine.....	30.00
	Woodruff's Barometer. Price.....	16.00
For Eighty Subscribers,	A Gentleman's Tool Chest, (80 different tools,).....	35.00
For Ninety Subscribers.....	Or, an Agricultural Library.....	30.00
	Two Hundred Colored Fruit Plates, all different, bound...	50.00
	Or, a Grover & Baker Sewing Machine.....	55.00
For One Hundred Subscribers.....	A Lamb Family Knitting Machine. Price.....	65.00
For One Hundred and Twenty Subscribers.....	A Planter's Tool Chest, (92 different articles,).....	55.00
For One Hundred and Forty Subscribers.....	Or, an Agricultural Library.....	50.00
For Two Hundred and Twenty Subscribers.....	A 5-Octave Choral Organ, single set reeds.....	125.00
For Three Hundred Subscribers.....	A 5-Octave Choral Organ, double set reeds.....	175.00

In addition to the above,

TWENTY DOLLARS IN CASH!

will be given to the person who sends in THE LARGEST NUMBER OF SUBSCRIBERS, (not less than 200,) to THE AMERICAN FARMER, before the 1st day of February, 1868.

 Postmasters, and all friends of agricultural improvement are respectfully solicited to obtain and forward subscriptions.

Address,

JOHN TURNER, Publisher and Proprietor,

ROCHESTER, N. Y.

Editor's Table.

A Happy New Year!

We wish every reader of THE AMERICAN FARMER, and earnestly hope that the year upon which we have entered, may prove a prosperous one to each and all of us. Upon entering the third year of its publication we have every confidence in our friends to believe that they will more than double our already large circulation. Every reader of THE FARMER should feel personally interested in extending our circulation, and we hope they will make a special effort at this time. We have to thank our friends for the liberal support they have given us in the past, and earnestly hope that they will use every effort and all the influence they can to help us to increase the number of subscribers until we reach fifty thousand names.

PREMIUMS.

Here we come!

A Splendid Chance!!

Open to all!

We are frequently written to, to know the lowest possible number that we can take to obtain certain specific Premiums. The Club price of THE AMERICAN FARMER is so low that we cannot afford as liberal premiums as some high-priced papers—and in all cases we have put them as low as possible, but in order to reduce the number of subscribers we will send THE FARMER in clubs at \$1 each, and offer the following at that rate:—

A Lamb Knitting Machine for 80 Subscribers.

A five-octave choral organ, price \$125, for 150 Subscribers.

A five-octave choral organ, price \$175, for 200 Subscribers.

A Grover & Baker \$55 sewing machine for 60 Subscribers.

Woodruff's Barometer, price \$18, for 35 Subscribers.

Woodruff's Barometer, price \$12, for 30 Subscribers.

Woodruff's Barometer, price \$10, for 24 Subscribers.

Webster's Illustrated Dictionary, price \$12, for 30 Subscribers.

A 6-1-8 octave, (F to A) Piano, price \$400, for 450 Subscribers.

The above will be sent direct from the manufacturer, and only cost the agent the freight.

IT SPEAKS FOR ITSELF!

Three Hundred and Eighty-Four Pages of valuable and interesting reading matter in convenient form for binding, at the remarkably low price of only ONE DOLLAR, (lower in Clubs,) is what we furnish in one year. It treats on all branches of Farming and Horticulture, and is the combined intelligence of practical farmers who contribute regularly for its pages. NOW, is the time to renew your subscription for the year 1868, and get your friends and neighbors to join you.

YOUR NEIGHBORS WANT IT!

HAVE you a neighbor that does not subscribe for an agricultural paper? If so, ask him to join with you and send for THE AMERICAN FARMER, "the practical farmer's own paper," and by so doing you will benefit others. Now is the time to canvass among your friends and help to swell our list until it reaches 50,000 names. Tell them its extreme low price, the value of its contents on every subject in relation to Agriculture and Horticulture, and that the reports of market produce are invaluable to every one who has anything to sell, and you will have no trouble in forming a Club, which will take one of our highest and most liberal prizes.

GENERAL GRANT.

To any person sending us a Club of 10 Subscribers, at 75 Cents each, we will send a beautiful, large-sized steel engraving of the Commander-in-Chief, and hero of the late war, executed in the highest style of art, and making a handsome ornament for the parlor or library, instead of a free copy, if so desired.

THE AMERICAN FARMER,

AND

FARMERS RECORD AND ACCOUNT BOOK.

The importance of keeping correct accounts, and having a systematic book in which to keep them, is obvious to every person who desires to know the result of certain crops, household expenses, &c., and we take pleasure in calling attention to the one advertised in this number, and have made arrangements by which we can furnish them to our readers with THE FARMER for \$4. Every farmer should commence the year with this valuable work. Now is the time to get them.

YOU WANT IT!

The information contained in every volume of THE AMERICAN FARMER is so valuable and indispensable, that every farmer and gardener wants it. The price is so low, that it comes within the reach of everybody. All that is necessary to form a LARGE CLUB, is to SHOW IT TO YOUR NEIGHBORS, and get them to join you in a Club, which at our Club price of only 75 Cents, is so remarkably low that none will refuse when asked. For a Club of TEN, we send a free copy to the getter up of the Club.

THE AMERICAN FARMER AND ANNUAL.

In Clubs, THE AMERICAN FARMER, and ANNUAL for 1868, will be sent for 90 Cents the two, to all NEW SUBSCRIBERS. This valuable little work of 88 pages, illustrated with engravings, is an interesting treatise on Bulbs, Flowers, and House Plants, and should be in the hands of every lover of flowers.

BOUND VOLUMES.

WE have a large number of volumes of THE AMERICAN FARMER bound in good substantial binding, now ready for delivery, embracing the issues for 1866 and 1867. They will be sent to any address, by mail, prepaid, for \$1.25 each; or to any person sending us twelve names, at our lowest club price of 75 cents each, we will send either volume to the agent getting up the Club; or, for twenty subscribers at the same rate, we will send both the above volumes bound, postage paid.

"American Cheddar."

THE *Rural New Yorker* says:

F. W. Collins, of this city, exhibited at the late State Fair, a sample of cheese made on his farm in Otsego county, which he christened "American Cheddar." The committee say of it:—"This cheese is in small sizes, varying from nine to twelve pounds. The skin of the cheese is very thin, while it is so close and impervious to the air as to hold the inside of the cheese soft and in good condition. This cheese we look upon as a great and valuable addition to the kinds made in our country." This opinion was backed up by a very handsome special premium.

How far this so-called "American Cheddar" may resemble the English "Cheddar" in process of manufacture, flavor, &c., we know not; but unless we are greatly mistaken it is not usual to make "Cheddar" cheese "in small sizes." It is our impression that they usually weigh sixty or seventy pounds a piece.—*Ed. Canada Farmer.*

The weight of the true English Cheddar is from eight to fourteen lbs. Those weighing from "sixty to seventy pounds," manufactured in the same way, are called "Double Gloucester." Mr. C. makes his cheese after the English method, as practised in that country, which are considered by good judges equal to those manufactured in the north of England.

BELLS! BELLS!!

WE have had frequent applications from our agents and friends, asking us to offer Bells as a Premium. We have the pleasure of announcing that arrangements have been completed by which we can furnish them to all interested, with very little labor on their part, in soliciting their friends and neighbors to form a Club for THE AMERICAN FARMER for 1868.

To every person sending us 100 Subscribers, at \$1 each; or, 120, at 75 Cents—we will send a Bell weighing 250 lbs., with mounting complete, costing in all \$60.

To every person sending 200 Subscribers at \$1 each, a bell weighing 800 lbs., with mounting complete, costing \$125.

FOR FARM USE.

To every person sending 50 Subscribers, at \$1; or 75, at 75 Cents each, a bell weighing 200 lbs., and costing \$25.

To every person sending 30 Subscribers, at \$1 each; or, 40, at 75 Cents each, a bell weighing 100 lbs., costing \$13.

POSTAGE

ON THE AMERICAN FARMER, when paid quarterly in advance, is only Three Cents per quarter. We prepay the American postage on all papers sent to Canada.

Death of Prof. Dewey

THIS distinguished gentleman, scholar and divine, died in this city, Dec. 15, aged 83 years. Prof. D. had been largely identified with the academic and collegiate institutions of the country, and especially of this city where he removed to in 1836, being appointed Principal of the Rochester Collegiate Institute, which office he held until 1850, when he was elected Professor of Chemistry and Natural Philosophy in the University of Rochester, which he held until a short time before his death.

The deceased among various scientific positions and honors was distinguished in the study of meteorology. His long and accurate observations in regard to the weather changes have been widely read. Prof. Dewey was the author of the careful and interesting articles which have appeared from month to month in THE AMERICAN FARMER, under the head of "Notes on the Weather," and his last composition was published in our Dec. number. Botany formed a favorite study with the deceased, and he had a large and valuable collection of specimens. The death of our venerable fellow-citizen is a public loss, and his place cannot easily be filled.

Tucker's Illustrated Annual and Register of Rural Affairs for 1868.

This valuable annual as usual, comes freighted with a deal of useful information, for there is scarcely an article with which it abounds that is not of practical value to the farmer, the gardener and fruit grower. The first article on the rotation of crops is replete with information on that subject, and we recommend it to the attention of every farmer who desires to make farming profitable, and we can scarcely place too high an estimate on the value of that relating to the culture and marketing of small fruits, the profits arising from which under judicious management in the locality named, we can fully endorse. To the amateur gardener the plain directions given for laying out gardens, planting shrubs, and making roads, are of the utmost value. Road-making in general is a very expensive operation, and when not properly done, involves considerable loss, but in this the system is made so plain, that whoever adopts it can scarcely fail in accomplishing the desired results.

SEE our liberal Premium List on another page.

Literary Notices, &c.

THE MULE. A Treatise on the Breeding, Training, and Uses to which he may be put. By Harvey Riley, Superintendent of the Government Corral, Washington. New York: Dick & Fitzgerald.

For sale by Darrow & Kempshall of this city.

HORSE PORTRAITURE: Embracing Breeding, Rearing, and Training Trotters, with their Management in the Stable and on the Track, and Preparation for Races: including histories of the Horse and Horsemen. With an Appendix, containing the performances of Dexter, and a portrait by Scott. By Joseph Cairn Simpson. New York: W. A. Townsend & Adams. For sale by all booksellers. Price \$3.

WALLACE'S AMERICAN STUD-BOOK, Being a Compilation of the Pedigrees of American and Imported Blood Horses, from the earliest records, with an Appendix of all named Animals without extended Pedigrees prior to the year 1840. And a Supplement, containing a history of all horses and Mares that have trotted in public from the earliest trotting races till the close of 1866. By J. H. Wallace. 1,000 pages royal 8vo, price \$10. New York: W. A. Townsend & Adams.

Wallace's American Stud-Book will be found complete in itself, as no book outside of it is necessary to trace the pedigree of any given animal through all its various ramifications, until you reach its utmost bounds or the British Stud-Book. From the admirable system upon which the book is constructed, this completeness becomes an inevitable fact.

TODD'S YOUNG FARMER'S MANUAL, Vol. 2. How to Make Farming Pay. With full practical details of farm management, characters of soils, plowing, management of grass lands, manures, farm implements, stock, drainage, planting, harvesting, &c. One handsome post octavo volume, beveled boards, upwards of 400 pages. Post-paid, \$2.50. Also, new edition of

TODD'S YOUNG FARMER'S MANUAL, Vol. 1. The Farm and the Workshop. With practical directions for laying out a farm, erecting buildings, fences, farm gates, selecting good farm and shop tools, and performing farm operations. Fully illustrated. One handsome post octavo volume, beveled boards, 460 pages. Post-paid, \$2.50.

Each volume distinct by itself, and sold separately. F. W. Woodward, publisher, 37 Park Row, New York,

THE NEW YORK METHODIST

Has commenced the publication of Sermons delivered in this country by the Rev. Newman Hall, and expressly reported for it. *The Methodist* also publishes sermons by the Rev. Henry Ward Beecher, and the Bishops and other representative ministers of its own church. It is a live paper, full of interesting matter.

DEMOREST'S ILLUSTRATED MONTHLY.

The current number of this favorite periodical is a very good one. In addition to its usual illustrations, including the colored fashion plate, there are three large plates devoted to fashions, and another feature of special interest to ladies, viz.: a full-size pattern of winter cloak. The special departments are not neglected, and there is the usual variety of excellent reading matter, stories, poems, &c. This is the best and most useful of the parlor magazines, and no family can afford to do without it. Subscription price, \$3 yearly, with valuable premium.

We have also received Mme. Demorest's Children's Bulletin of Fashions. As promised in previous announcements, this mammoth plate presents an extensive and varied assortment of fall and winter styles. It contains over 50 figures, representing many graceful attractive ideas. It is accompanied by ten full-sized patterns, and a book of descriptions. We think this fine fashion plate must prove an invaluable treasury of information to mothers and dressmakers. The price, including book and patterns, is \$1.50. Address W. Jennings Demorest, 473 Broadway, New York.

AMERICAN NOTES.

Messrs. Ticknor & Fields have published a pamphlet edition of Dickens' Notes, written by him on his former visit to this country. As the author is now travel-

ing in this country, this work will be read with great interest by the admirers of the greatest of living novelists.

DIAMOND DICKENS.

We have received two more volumes of this edition of Charles Dickens' work, *Domby & Son*, and *Martin Chuzzlewit*—the latter containing the experiences of the great novelist while traveling in America on his former tour. Published by Ticknor & Fields, Boston. Price, illustrated, \$1.50; plain, \$1.25, which is remarkably low.

THE ATLANTIC ALMANAC.

Messrs. Ticknor & Fields have just published an Illustrated Almanac for 1868, upon a plan and in a style entirely new in this country. It contains sixty-four royal octavo, double column pages, over fifty of which are filled with original matter. The literary character of the Almanac is altogether superior to that of any similar Almanac ever before published. It contains four full page illustrations, in colors, of The Seasons, reproduced from paintings by Mr. A. F. Bellows, the well-known landscape artist. In addition to these, the text is profusely illustrated by the most skillful artists of the country. It is sold at 50 Cents by all booksellers and news dealers, or will be sent postpaid by the publishers.

CATALOGUES, &c.

From A. M. Burns, Manhattan, Kansas, his descriptive catalogue and price list of grape vines and blackberry roots for fall of '67 and spring of '68. Mr. B. will be remembered by our readers as our "Kansas correspondent." He has devoted many years to grape growing, and we have no doubt that all vines sent out by him will give good satisfaction.

H. B. Lum, Sandusky, O., catalogue and price list of small fruits, grape vines, &c.

J. H. Foster, Jr., of the Pomona Home Nurseries and small fruit farm, White Horse, N. J., an abridged manual of grape and small fruit culture, and annual catalogue of grapes, strawberries, &c., a very interesting work.

Bronson, Graves & Selover, of the Washington St., Nurseries, Geneva, N. Y., wholesale price list of nursery stock for fall of 1867.

Andrew S. Fuller, descriptive catalogue of small fruits, cultivated and for sale at the Woodside Nursery, Ridgewood, N. J. A very full and descriptive list of the different varieties of small fruits.

PIANOS ARE MADE IN ROCHESTER, which are equal to any produced in America. Gibbons & Stone, No. 22 South St. Paul Street, offer a fine stock with reference to the holidays. Call and see them. Every instrument is fully warranted by the makers, and sold at manufacturer's prices. Circulars, with description of styles, and list of prices sent upon application.

OUR new market table on another page, will be found to contain the latest quotations by telegraph and otherwise, of farm produce, &c.

Acknowledgments.

I have received the barometer premium, and find it superior to any in market. I would advise all in want of one to get up a club for you.—*J. S., Whiteside County, Ill.*

I have just received our Knitting Machine, and find it all right. Will write you about it when we can work it.—*Mrs. C. W. W., Allegany County, N. Y.*

I have just received two copies of Webster's Unabridged, safe and sound. It is an invaluable book and I am amply rewarded for my trouble in getting up the club for THE AMERICAN FARMER.—*W. H. P., Niagara County, N. Y.*

I have received the Lamb Knitting Machine, all in good order. It looks as though it would do its work well.—*Mrs. W., Clarion County, Pa.*

New England Agricultural Society.

The following was crowded out in our previous numbers:—The fourth annual exhibition of the New England Society was held at Narraganset Park, Cranston, near Providence, R. I., in connection with the Rhode Island Society for the Encouragement of Domestic Industry. We are pleased to learn that it was a great success. The number of entries were larger than at the previous fair, and all departments were fully represented. The show of stock was of the highest order. Among the exhibitors of stock, we find the following names; H. G. White, of Framingham, Conn.; W. W. Cheney, Belmont, Mass.; Burdett Loomis, of Windsor Locks, Conn.; F. Plunkett, Hinsdale, Mass. Of poultry, S. and W. S. Allen, of Vergennes, Vt., made a full show of some 70 specimens of different varieties. The number in attendance was estimated at 75,000 for the four days.

Taking Things Easy.

THE editor of *The Canada Agriculturist* believes in the above method of doing business, and practices it, if we may judge by the manner in which he steals his editorials. In his November number for 1867, we find two editorial articles and one communication taken in full from THE AMERICAN FARMER, without credit! It is perhaps cold consolation to know that he appreciates the matter in THE FARMER and carefully preserves its files, for in his December number we find our "Work for the month," of December, 1866, verbatim as an original editorial article. Truly, he is an enterprising editor, but withal a pretty unscrupulous one!

Special Notices.**Exposition Universelle.**

The intelligence and judgment of the Imperial Commission in the matter of awards are clearly evinced in the following extract from

The Exposition Universelle Illustrated.

("Publication authorized by the Imperial Commission;")

"By their skill, universally recognized, Messrs. Wheeler & Wilson added to Howe's system of sewing machines important modifications, which have placed them in the front rank of manufacturers.

"The gold medal which has just been awarded them, affirms, moreover, that none of the machines from the workshop of Howe, or of his principal tributaries, unite the qualities of simplicity and solidity of mechanism by which these machines are distinguished above all others.

"In their machine, remarkable for its form and elegance, they have substituted for the shuttle of Howe, a small flat disc, which revolves vertically with unvarying swiftness. Hence this machine is the most simple of all, and notwithstanding its great precision in operation, its price is not above that of the most imperfect systems.

"Elegance, perfection of work, simplicity, solidity of mechanism, and facility of management, such are the essential qualities united in the Wheeler & Wilson machine, constituting a superiority which the jury has, with unanimity, recognized and proclaimed.

"To these gentlemen the gold medal was awarded as manufacturers of machines; to Mr. Elias Howe a similar medal was awarded as preparator. The distinction made by the jury explains itself.

"The original machine of Thimmonier only needed to pass into the skillful hands of Wheeler & Wilson, to receive the highest perfection. To-day, thanks to its cheapness, their machine is accessible to all. Its simplicity assures it not only a place in the chamber of the seamstress, but its elegant form wins its admittance into the most sumptuous parlor."—*Evening Mail.*

NORTHWESTERN FARMER.—Read the advertisement of this elegant monthly in the November number of THE AMERICAN FARMER. It is a first-class rural magazine, and very cheap at \$1.50 a year. The inducements offered in the advertisement referred to, are continued for another month, and are very attractive both to subscribers and agents.

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in THE AMERICAN FARMER for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 18th of the previous month. THE FARMER has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

THE AMERICAN FARMER ANNUAL,

AND

LADIES' GARDEN COMPANION FOR 1868.

A TREATISE

ON THE CULTIVATION OF

Hardy Bulbs, Tuberos Rooted Flowers, & House Plants.

BY WILLIAM WEBSTER.

Beautifully illustrated with numerous engravings. Vol. I, for 1868, now ready. **Price 30 Cents.**

Address,

JOHN TURNER,

Publisher American Farmer,

Rochester N. Y.

TO THE SEED TRADE.

J. M. THORBURN & CO.,

15 John Street, New York,

HAVE just published their WHOLESALE LIST OF SEEDS for the Wholesale Trade only, for the season of 1868. Dealers supplied on application by mail. jan-it

CHERRY LAWN FARM.

D. H. BROWN offers for the spring trade, a fine grown stock of

STRAWBERRIES,

RASPBERRIES,

BLACKBERRIES,

CURREANTS,

GOOSEBERRIES,

GRAPES,

RHUBARB, ASPARAGUS, SEED POTATOES, &c.,

In variety. Vegetable Plants, cold frame, hot-bed, and open ground in their season.

Wilson's Albany Strawberry, a specialty. In issuing our circulars for the spring of 1868, our customers can rely upon our honest liberal dealings. We do not overrate anything. The plants are just what they are represented to be,

TRUE TO NAME AND OF GOOD QUALITY.

Our prices are reasonable. We dig, label, pack, and ship, in the most careful manner, no charge for packing. Special terms to nurserymen, dealers, and large planters. For further information send for our Small Fruit and Seed Potatoes, and Vegetable Plant Circular.

D. H. BROWN, New Brunswick, N. J.

FOR SALE!

GUESSES, by Two Brothers, Turkey Morocco, \$2.50. Posthumous Papers of the Pickwick Club, by Charles Dickens: \$1.50; Enoch Arden, by Tennyson, \$1.00. English Traits, by Emerson, \$1.00. Cummings' Historic Annals, \$1.50. Ollendorff's Method of Learning Italian, \$1.00. Shelly's Memorials, \$1.50; Italian and English Dictionary, \$2.00; Curiosities of Literature; 8 vols., by Disraeli, London ed. \$5. Table Talk of Sam'l Rogers., London edition, \$2.50; Life of Douglas Jerrold, by his son Blanchard Jerrold, \$1.00; Thackeray, the story of his Life and Literary Labors, \$1.50. The Marriage Guide, by Dr. Hollick, \$1.00. Married Woman's Private Medical Companion, by Dr. A. M. Mauriceau, 1.00. Address, with cash, or money order, A. Sintzenich, 57 Meigs Street, Rochester, N. Y.

A SIXTY-POUND CABBAGE.

AS the original Introducer of the Marblehead Mammoth Cabbage, I offer the public seed grown by myself from the choicest specimens of the purest stock. This Cabbage has been grown in nearly every State in the Union, weighing from 25 to 60 pounds. For several years past it has been the standard wonder at almost every Agricultural Fair in the United States and Canada. The public may rely on my continued care to keep the seed pure from all admixtures, and fully up to its previous high standard. Each package has on it a fine engraving of this remarkable Cabbage, with very full directions for cultivation. Price per package, 25 Cents; 6 packages for \$1, or 100 packages for \$17, sent post-paid, to any address. JAMES J. H. GREGORY, Marblehead, Mass. jan-8t

NEW AND RARE VEGETABLES!

MAKE NEW AND RARE VEGETABLE SEED a speciality besides raising a large variety of the standard kinds. I have had on my three seed farms the past season, over fifty acres under cultivation in seed and seed stock. I grow over one hundred varieties of vegetable seeds, and import many choice kinds from England and France. Farmers and gardeners, do you want fresh seeds directly from the grower? If you do, send for my Catalogue, which will be sent free to any address. Old customers will receive it without writing for it. Seed warranted to reach each purchaser. JAMES J. H. GREGORY, Marblehead, Mass. jan-8t

TWENTY-TWO VARIETIES OF TOMATOES.

EIGHTEEN of these are of my own raising. Seed for sale by the package and ounce, and warranted to reach each purchaser. Catalogues gratis to all. JAMES J. H. GREGORY, Marblehead, Mass. jan-8t

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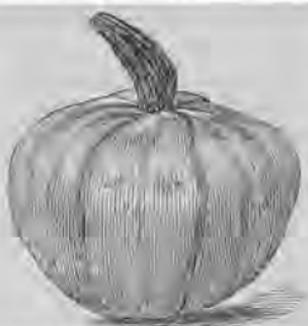
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The principal features of "the Standard Life" are: It is a *Mutual* Company, starting with a guarantee capital, all held by a respectable and responsible body of Stockholders, who receive only Seven per cent. Interest on their investments—the remainder of the profits being solely to the Insured.

The policies of "the Standard Life" are not forfeited from *non-payment of the premiums* at the regularly appointed times, but *remain in force*, provided there has been two annual premiums previously met. This admirable plan, as far as Companies chartered in the State of New York are concerned, is peculiar to "the Standard," as no other Company organized in this State has adopted it, and in order to render it all times binding, this provision is embodied in the body of the policy, thus making it an absolute condition of the contract, that ordinary Life Policies after two years premiums have been settled must be declared *non-forfeitable* for such a period as the equitable surrender value of each policy will extend it too, and entirely beyond any control that the Board of Trustees might in the future be disposed to exercise in the matter.

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There are other matters of interest to persons contemplating Life Insurance in the constitution and management of "the Standard Life," which are well worthy of consideration, and among which we may mention that *it receives small sums as deposits* on account of premium, which can easily be spared. Viewing the position and prospects of the Company, with its interests watched over by a Board of Trustees, not second to that of any other Company in the United States, a carefully considered provision for the wants of society, perceptible in its admirable arrangements, and its foundations laid on a solid and permanent basis, we venture to predict for it a lasting place among "those institutions which flourish in the presence of good order and commercial security," and wishing the Corporation every success, we cordially hope, at no very distant day, to see our warmest wishes realized.

THE AMERICAN FARMER



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VOLUME III.

ROCHESTER, N. Y., FEBRUARY, 1868.

No 2.

FEBRUARY.

Midwinter reigns;

The fields are deeply hid by snowy robes
That shield the tender turf from icy death;
The woods filled in with fleecy flakes look drear,
And through their whitened waste the chopper's stroke
Echoes and re-echoes in the silent air.
The streams are firmly bridged with frozen sheets
That spread o'er ponds and lakes a crystal veil—
The liquid metal in the tube of glass
Contracts and slowly shrinks within its bulb,
Foretelling cold, and biting blasts that change
The breath to hoar frost when it leaves the lips.
Aton, a change, and warmer winds blow up
A promise of the spring time, yet afar,
And fails ere yet we fairly see the bow.
But faith looks out through doubly frosted bars,
And sees the future in the lately past.

Belfast, Me.

G. E. B.

WINTER WORK ON THE FARM.

WINTER season upon the farm is far different from each of the others that make up the year. Spring, summer, and autumn—each present their peculiar calls upon the time of the farmer, and all of the nine months is one continued period of labor, care, and not a little anxiety. But with the settled cold and short days of winter comes the farmer's day of rest, the period when he can give his tired mind and body the much needed rest and relaxation.

Not that this season is one of entire immunity from labor, for there never was a farm yet but something could be found to be done, but the necessity for doing it is not so positive, and matters can be taken more quiet and easily. Every farmer who is much of a stock raiser will find it no small job to care for his dependent brute family, and adding to this the performance of other necessary labors, the time will not hang heavily on his hands by any means. But the spare hours and the long evenings are his for recreation, and he should employ them to the best advantage to make up for the confinement and hard labor of the rest of the year. Rest the body, and store the mind by cultivating social relations and drawing information from printed pages.

It is a saying of an old farmer friend of mine that the pitchfork should occupy a conspicuous position in the farmer's coat of arms, provided he ever arrived at that heraldic honor. It is true that no other tool or implement is used by the farmer to so great an extent, and so generally as the hay fork. In this climate, for about seven months, commencing with November, he is continually pitching out hay and fodder to the hungry stock, and nearly half of the other five months he is engaged in pitching in the hay and the grain harvest, so that between the pitching in and the pitching out, the pitchfork handle becomes the great working lever.

The care of stock, or perhaps I should say, the proper care of stock, requires care and experience. Did you, reader, ever notice what a great difference in this respect there may be between two farmers, even in your own neighborhood. One is slack, irregular, and feeds without regarding time, quantity, or even quality, while another is systematic, regular, and follows a regular method in all his movements. Have I any need to say which has a clean barn and stable, thrifty and saleable stock, and makes farming profitable; and on the other hand that farmer whose stock comes out of the barn poor in the spring, who is always buying fodder, and who finds farming a money-losing business.

Don't you find that nine out of ten of those systematic, industrious, and methodic farmers are never known to be among the gamblers who can prove that farming don't pay. I do. A lazy, negligent, wavering man will fail in any profession, and if he finds farming so very disgusting, don't lay the blame to the occupation, but carry it home to where it belongs.—G. E. B.

FIRST CATTLE IMPORTED INTO NEW ENGLAND.—Palfrey, in his History of New England, vol. 1, p. 215, says:—"Winslow," who had been absent about eight months in England, and returned July, 1634, 'brought three heifers and a bull, the first beginning of any cattle of that kind in the land.'"

REPORT ON SCoured FLEECES.

To the Hon. Henry S. Randall, President of the New York State Sheep Breeders' and Wool Growers Convention:

The Committee on Scoured Fleeces respectfully report, that the wool was scoured at the manufactory of William Hayden & Co., in the city of Auburn, under the personal supervision of Mr. Hayden, one of the members of this committee, and precisely in the same manner that other wool is scoured in that establishment.

The weights of the fleeces before scouring, as given in the tables, are as Mr. Hayden found them about two months after they were shorn, and when all were dry alike. The weather was very wet during the fair, that some of the fleeces had absorbed considerable water, in one instance more than a pound and a half; and, with one exception, all lost weight.

D. D. T. Moore offered a prize of \$25 for the fleece of a Merino ram of one year's growth or thereabouts, shorn at the fair, which on being scoured should be found to yield the most wool in proportion to its time of growth and the live weight of the animals. This prize was won by the fleece of a ram owned by William M. Holmes of Greenwich, Washington County, N. Y., which gave (for a ram) the greatest amount of wool raised from one pound of carcass in one year.

Asa F. Wilcox offered a prize of \$25 for the best Merino ewe's fleece with the same conditions as the above. This prize was won by a fleece shorn from a yearling ewe owned by J. N. Chamberlain, of Owasco, Cayuga County, N. Y.

William R. Pitts offered a prize of \$25 for the best fleece of a Merino ram, shorn at the fair, which on being scoured should be found to give the greatest weight and value of wool in proportion to its time of growth, without reference to the weight of the animal. There was but one competitor for this prize, and he failed to bring satisfactory evidence of the age of the fleeces.

David Cossitt offered a prize of \$25 for the best Merino ewe's fleece on the same conditions as the above. There was but one competitor; and the Committee awarded the prize to Peter H. McMillan, of Canandaigua, N. Y. The fleece was one year old, weighed 16 lbs. 3 1-2 oz., and scoured 6 lbs. 4 1 2 oz. Beyond this it was unnecessary to figure.

Henry S. Randall offered a prize of \$25 for the best English Long Wool fleece, with the same conditions as above, and the prize was won by a fleece from the ram "Golden Fleece," the property of John D. Wing, of Washington, Dutchess Co., N. Y.

The tables have not been elaborated as they were in 1865, partially from a lack of time on the part of the Committee, and partially with the hope that it

may stimulate young wool growers to the task of doing it themselves.

These tests, that have now had their trials under the auspices of your Association, have been pretty extensively copied by other associations throughout the Northern States, and to the best of our knowledge with good results. It has done more to call the attention of the wool grower to the real merit of animals than almost anything that has appeared for many years.

Mr. Geddes, who has hitherto acted with the committee, was too unwell to be present at the meeting.

Very respectfully,

JAMES M. ELLIS,
C. TALLMAN,
WILLIAM HAYDEN,
H. D. L. SWEET.

TABLE FOR MOORE PRIZE.

OWNERS' NAMES.	Age.	Sex.	Weight of animal.	Age of fleece, in days.	Weight of fleece.	Weight of scoured wool.	Amount produced per day.	Amount produced by 1 lb. of animal per day.	Amount produced by the animal in 1 year.	Amount produced by 1 lb. of animal in 1 year.
W. M. Holmes	R	3	75.00	869	18.28	7.34	.02180	.000284	7.77	10866
Isaac Bower	R	3	84.50	855	15.62	6.58	.01847	.000218	6.72	07957
Walter Cole	R	1	68.50	890	18.87	5.15	.01822	.000198	4.32	07045

TABLE FOR WILCOX PRIZE.

Chamberlain	E	1	85.50	878	8.75	4.08	.01080	.000804	8.08	11096
A. H. Clapp	E	4	59.00	865	10.00	5.87	.01471	.000240	5.87	09104

OWNERS' NAMES.	Age of animal.	Age of fleece in days.	Weight of fleece.	Weight of scoured wool.	Amount produced per day.	Amount produced per year.	Breed and sex.
John D. Wing	2	860	18.87	10.87	.02720	9.90	Cotswold R
"	1	498	17.08	11.92	.02852	9.65	Cotswold R
S. H. Barons	4	880	11.44	8.44	.02554	9.82	Leicester R

A USEFUL HINT.—“A tin tube made like a syphon, driven into the vent of a barrel of wine or cider, and the other end inserted into a vial of water, will prevent the air from entering the barrel, while the gas escapes through the water. Make the barrel otherwise tight. When the cider or wine in the barrel is done working, the water in the bottle will cease bubbling. It requires no filling up, as there is no loss. I have tried it.” We will only add that it can be made by any tin-plate worker, and when once made can always be kept for future use.—*Cor. Farm and Fireside.*

RIPE and mellow apples fed carefully to cows, will produce an extra secretion of milk.

THE AMERICAN FARMER.

CHEESE FACTORIES.

OUR Canadian farmers are just beginning to find out the advantages of making cheese on a large scale by means of factories. The usual plan is for a number of the principal men in a township to subscribe enough to start a factory under the management of one of their number who is the best qualified to attend to it. The cost is moderate, and each one within a radius of a few miles round contributes the milk of his cows, and receives therefor so much per gallon, which is fixed at such a price as to make it more remunerative to sell the milk than to use it, reserving only enough to supply the family with butter and milk for home use. The profits made on the cheese after paying wages, is found to give a good return on the money invested in starting the factory. In some instances, one individual owns and controls the whole concern. Already many townships can boast of a cheese factory in full operation, and if they continue to extend as they have done, and remunerative markets can be had for all the cheese made, it will give our farmers quite a taste for dairy farming and stock raising, and enable them to do away with growing so many exhaustive grain crops on their farms, and be a great means of helping to restore fertility to many already overworked and exhausted farms.

IRON AS A MANURE.

The remarks of "Sitticus" in a back number, though sarcastic, are good, and it would be well to know that the use of a garden fork, as is generally done in England, to turn over the soil, is far preferable, and involves less labor than the use of a spade. It leaves the soil more porous and mellow. Every one who has a garden should obtain and use no other implement for turning over the soil, and will find the crops much improved thereby.

MAC.

SELECTION AND CHANCE OF SEED.

THIS is a matter of primary importance to the farmer. However well he may manure and cultivate his land, his labor will be thrown away if he neglects to obtain clean and suitable seed to sow of whatever crop he intends to grow upon his land. It is the opinion of many practical men that the seed of most kinds of grain will deteriorate when confined to the same farm, or even the same region of country, and that a change of seed from time to time is absolutely necessary to ensure success on the farm. Others maintain that by always selecting the best seed from the crops grown on the farm, and taking particular care to have only such as is plump and well matured, the quality will be improved from year to year. We think that there is

truth on both sides. We have often seen a farmer sell off the best of his grain, and reserve that of an inferior quality for seed, remarking that, small as it was, it would grow, and he thought that was all that was necessary. Such an idea is a common, but erroneous one; as although a plant will grow from inferior seed, it will be wanting in the healthful vigor that is the characteristic of one grown from a plump and well developed seed, which contains not only a large and strong germ, but also a full amount of the food requisite to support the germ until the young roots can eliminate that contained in the soil for the use of the plant. It is the want of a proper appreciation of this fact that leads many to imagine that a change of seed, even when made between neighbors, is of great value. Thus a farmer who never takes the trouble to select his seed wheat from the best part of his crop when growing, and separate and reserve it for future use, or who never bothers himself to free his seed from chaff, cockle, &c., before sowing, finds a great advantage in obtaining fresh seed of the same kind from a neighbor who has the reputation of growing good crops, and who has a clean and good sample of seed to show! In such a case the advantage gained is ascribed to *change*, when in reality it is owing to *selection*.

But, on the other hand, varieties of grain, roots, &c., have originated, or become common in one part of the country, and their introduction to another portion of the same, or an adjoining country, proves of signal advantage to the cultivator of the soil for a time, at least. A farmer who takes an agricultural paper often sees an account of some new variety of grain, as yet unknown, except in some distant locality. He sends for a small sample, sows it, and finds it has superior advantages over the kinds that have been usually grown in his neighborhood. Soon his neighbors and others find it out, and there is a great rush to him, with "Please let me have some of the seed of that new kind of wheat you grew last year." It would only be fair that he expects to make a little by his enterprise and outlay, and charge them double or treble the ordinary price of the commonly grown sorts of the same grain. Of right, it should be the business of agricultural societies to look after such matters, and act as a club to their neighborhood, in discovering, introducing and disseminating new varieties of seeds, roots, &c., which they could do at a comparatively small cost, if rightly managed. But we fear that as at present carried out, too many agricultural societies are of little use, except as a means of putting money into the pockets of those who are privileged to do the wire-pulling at their meetings, and look after the distribution of the prizes among not the most deserving, but the most favored.—J. M.

THE DORKING FOWL—ITS ORIGIN, HISTORY, &c.

WRITTEN FOR THE AMERICAN FARMER, BY C. N. BEMENT.



THE Dorkings are of ancient breed, and remarkable as having been recorded in ancient poultry books more than 2,000 years ago. Columella, who lived in the middle of the first century, accurately describes them as we have them, and as being the best fowl of his day; speckled in color, of great beauty of plumage, and possessing the fifth toe. They are a valuable variety, and take their name from a town in Surry, England, where the true breed is supposed to have originated. The plumage of the true breed is yellowish white, with a large red comb and wattles; rather above the medium size, well shaped, long, and plump bodies, broad breast, shortish legs, and should have five claws on each foot. This is a distinctive mark, but of no advantage, and probably traces their origin to a cross of the Polish, as a Polish cock with a common white hen will produce occasionally a similar bird. The absence of a fifth toe is no proof of a spurious breed.

The chief points of merit in a Dorking may be briefly stated as broad, square shoulders, longish body, shortish legs, and, in the hens especially, a well rounded stern. Their general characteristics, however, are a square, solid, plump body, short necks, little offal, and plenty of flesh, good flavored, and of a yellowish or ivory shade. They are good layers, sit steadily, are excellent mothers for chicks of an equally robust nature with themselves, but are too clumsy and heavy to nurse delicate breeds, but they seem to bear in-and-in breeding worse than any other variety. It is therefore considered desirable to change the cock-of-the-walk every two years at longest.

The speckled and the white being the only pure varieties in this country, the others are hybrids, but nevertheless of excellent quality. The latter varieties are usually denominated by many improved Dorkings, and sometimes the *Sussex* breed: and they are considered an improvement on the original Dorking. They are, however, a larger and heavier fowl.

There is a white Dorking in which the double comb is an indispensable point, either pure, or with cream-colored hackle on the neck and back; these are a smaller and more tender bird than their gray relatives; and their plumage, bills, and legs should be perfectly white. A rose comb is regarded as an essential point. Their great beauty induces many poultry fanciers to keep them, and where appearance is only regarded, other deficiencies may be put aside; but in our opinion for general purposes they are inferior to the gray in hardiness. In size, they must yield to the latter in respect to table purposes. Their average weights are probably less by one or two pounds than those of the gray or speckled birds. Mr. Bailey, a celebrated poulterer of London, says "that although it may appear anomalous, it is no less true that no white-feathered poultry has a tendency to yellowness in the flesh and fat."

This breed makes an excellent stock for marketing purposes. They fat well, lay well, and rear well; are handsome alive, and skin delicate white and advantageous when plucked and dressed for market; their feathers also being fine and of a good color, many of them can be substituted for geese feathers; consequently they will bring a higher price.

The eggs of the Dorking are usually of a clear white, rather large in size, very much rounded at both ends, and of an excellent flavor. The hens produce eggs in reasonable abundance, but at due or convenient intervals they manifest a desire to sit, in which they often most strenuously persevere. In this respect, they are steady sitters and good mothers when the little ones appear.

As mothers an objection to the Dorkings is that they are too heavy and clumsy to rear chicks of any smaller and more delicate bird than themselves.

NEVER feed your cattle in the yard without a "rack." Economy rightly enough shrugs her shoulders at so slovenly a practice. The actual loss to the farmer from the waste is equal to the cost of half a dozen racks, and the expense of keeping them in complete repair for years. Any farmer who has an axe, saw, and auger, can make one.

HOUSE BITS.—In very cold weather the lips and tongues of horses may be made very sore by contact with the frozen bits. Rub the bits well with your glove, or breath on them for a minute before putting them in the mouth of the horse.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

YOUR compositor, in "Fall Trenching," makes me say, "ironified," for ozonified or ozonized. Ozone, according to Faraday, is oxygen in an active or highly electro-negative state. Although the atmosphere is more than three-fourths nitrogen gas, yet such is its indifference to combine with hydrogen and form ammonia, that it can only be fixed in the soil in the form of nitric acid through the agency of ozone. Deep plowing, fall trenching, and ridging, aids a compact soil to receive the oxygen of the air which becomes ozonized as it circulates through it, to the formation of nitrates, the more especially if the soil is manured.

HALF-FATTENED PORK.

There is an unusual number of lean hogs brought in by farmers for sale this season; in fact, the only well fattened pork I have seen, was the village hogs, which are almost invariably fed on cooked food from economical necessity. It is passing strange that even those farmers who are keenly alive to their own interests generally, are so insensible to the great loss of selling half-fattened animals, whose frames have already cost so much, when the same food had it been cooked would have put on one-third more fat and flesh. When corn is \$1.40 per bushel, it is a great waste to feed it raw, when even if boiled on the cob it would yield one-third more nutriment. Raw corn, if fed heavily, is not even well masticated, and if ground, the heat of the animal's stomach will only dissolve a portion of the 60 per cent starch contained in it.

STEAMING FOOD FOR CATTLE.

The great profit of feeding steamed food is, that it makes the woody fiber of hay and straw into soluble fat-forming nutriment. Many suppose that as the bovine chews the cud, all the nutriment is extracted from the hay eaten; so far from this, nothing but boiling water or its equivalent, steam, can convert all the woody fiber into soluble nutriment; and the same rule applies to grain and potatoes if not to roots generally. In very cold weather extra hay or straw may be fed to support animal heat and respiration, without cutting and steaming, yet the latter process would add to its nutriment without diminishing its heat-forming power.

ABSORBENTS—THE IMPORTANCE OF MAKING AND SAVING MANURES.

If there is one thing more than another which shows the fast growing interest taken by Northern farmers, particularly in New England, in the making and economizing of manure, it is the continued and animated discussion of the subject in every New England town and county farmer's club.

At a meeting of the Valley Farmer's Club, at Holyoke, Mass., last winter, the subject of absorbents was discussed, which goes to the very life of manure making, as well as to the saving of its ammonia from otherwise inevitable waste, either into the air as a gas, or dissolved and washed away by the rains.

As the urine of animals contains most of the nitrogen and phosphoric acid of the animal excrements, it is all important that it should be saved intact, either by absorbents or otherwise.

The importance of saving animal urine has been so little understood by farmers, that even those who pay such enormous prices for Peruvian guano, do not seem to reflect that the value of this manure is almost entirely due to its great per centage in nitrogen saved intact in a climate where no rain ever falls either to ferment it into gas, or to wash it away in a soluble state. But all this is now changed in New England, and the importance of absorbents to save the urine of animals, is now the order of the day.

One of the members of the aforesaid club said "that no farmer saved one-fourth part of the manure he could make from his animals." He said that "a full-sized cow could make seven cords of manure a year." "Now, if he keeps ten head of cattle, about the average, he would make, if composted, over a hundred cords; but what farmer does it?"

It was decided by the club that the best absorbent from the urine in the stall, was a "bedding of dried swamp muck, leaves, straw, sawdust, tan bark, and in the absence of clay, fine dry sand." The latter not only has little affinity for ammonia, but it is also a poor absorbent, yet much better than coarse sand, which Schubler says will hardly absorb moisture from a moist atmosphere. It would seem that clay was not common to that region, or it would have been preferred to fine sand, as the latter holds but 25 lbs. of water in absorption to the 100 lbs, while 100 lbs. of clay will absorb and hold more than 50 lbs. of water; then owing to its affinity for ammonia, it is a great deodorizer; if burned, it is equal to ground plaster.

A Mr. Blood, living in the vicinity of Herkimer, N. Y., kept, last summer, eleven cows, a bull, and a horse, upon two and a half acres of land. The stock was kept in a yard and soiled. The land had been cut over several times to furnish the necessary food during the season, but the stock had been kept. This fact might suggest the question whether our farmers, ordinarily, were getting the best result that could be had from their lands.

READ our premium list on page 62, and at once canvass your neighbors, and secure a valuable prize.

BEANS AND PUMPKINS WITH CORN.

WRITTEN FOR THE AMERICAN FARMER, BY J. L. HESSEY, N. H.

Most farmers are not contented with fifty or sixty acres, but are constantly trying to add other lots, when that they now possess is not half under cultivation, as it should be. If this is the case, why attempt to keep more stock than can be pastured conveniently? Again, some farmers run into a great mistake in getting all the seed into an acre of land possible. How so? Why, that piece of land got but a slim coat of manure, and you intend it for corn. But let us see the system you go on. First, corn is planted, dropping five, six, and eight kernels in the hill. Then you put four or five beans in the hill with the corn, and a pumpkin seed in every other hill. In the month of September, when the corn ought to be getting ripe, you wonder what makes it so backward, and the ears so short and nubby. You must be a dull farmer, surely; pumpkins and melons demand a large portion of manure. I like, as most Yankees do, to find a good squash or pumpkin pie on the table, especially when huskins are round, and even at any time in the year. They go well with the man who is not troubled with any of the ills that afflict the human family, and it is the best way to reserve a piece, and manure it especially for the raising of vines. Make the hills eight or ten feet apart, putting about a peck of manure in each hill, and if the bugs will only let them alone, you will raise a crop of pumpkins. Some seasons there are many false or male blossoms: some pluck them off ignorantly, not aware that the farina or yellow dust, is carried on the legs of bees to the females. They do not understand that the tassels of corn are male, and the silks female; that if no dust falls from the tassel to the silk, there will be no kernel; hence so much "pig corn," as they term it. If red and yellow corn be planted in the neighborhood of each other, and the dust of the red fall on the silk of the yellow, the kernel will be mixed, and the best summer squashes will entirely alter their shape and real character by planting the seeds among pumpkins.

In good seasons farmers should be particularly careful to save their own seeds, and save the best of them. In buying seeds at the store, the farmer makes a great mistake. Let the farmer who lives half way from the equator to the pole never look south for any kind of seeds he can raise himself. If you raise your own seed, you know its age. The way it is now conducted, many farmers must get poor worthless seeds palmed off on them. The merchant does not sell more than half his box of seed; the other half is left with him, and that is taken away, another box left, and these old seeds mixed up with

new. It is a fact that some seeds will not grow after a few years. I believe that parsnip seed will not grow after the second year. Beets very uncertain the third year. Too little attention is given to this important branch of the farm—I mean the garden; and the man who cares nothing about it, and leaves it all to the women-folks, has a good deal of Indian in his composition, and is fit for a life in the back woods, clearing up the wilderness, and acting as a pioneer on the great highway of human progress. But few farmers prize the value of the garden as they should. From it, we get the most of our luxuries. The string beans and peas giving such a zest to the dull motony of boiled potatoes and fried meat, and the system requires a change, and to the farmer without good health, life is a drag.

FROM OHIO.

EDS. AM. FARMER:—We have had a very late fall here in Northern Ohio. Farmers in general did not feed their stock until the first of December. The weather being warm, and no snow or hard rain storms until that time, when we experienced the hardest snow storm known for a number of years, the snow being on a level eighteen inches deep. About the 20th of the month it commenced thawing which continued until the snow was all gone, which caused very high water in the streams, this being the first time there has been water enough in them to cause them to run since last June.

Owing to the extremely late fall, wheat made a firm growth; indeed it looks the finest and best for several years. If nothing happens, we shall have an abundant harvest next season.

Now, the season is past when produce of all kinds has been gathered, we can form nearly a correct estimate of the quantity raised. Wheat to all appearance, promised an abundant yield, but when the farmers came to thresh it, it did not yield so much as was anticipated. I think that on an average it did not yield over 12 bushels per acre in this section of country. Corn about a two-thirds crop. Oats rather poor—not over half a crop. The same may be said of potatoes, but they were of a superior quality. Very little rye or buckwheat raised in this vicinity. Of fruit, we have scarcely any. Apples were generally a failure. The dry weather spoiled the peaches currants; we have had plenty. Also of grapes. Owing to the low price of wool, sheep can be bought for almost any price. Good stock sheep can be had for \$1.00 per head, and fat wethers for \$2.00 to \$2.25 per head. Cows range in price from \$20 to \$60 per head, according to quality.—*W. D. D., Spencer, O., Dec. 28.*

By reading we enrich the mind.

ROADS AND ROAD MAKING.

D. C. Richmond, the noted fruit man near Sandusky, who has traveled a great deal in both hemispheres, writes to *The Register* concerning roads:

We are getting waked up in our town about road matters, and it is high time, for one is likely to break his neck, wagon, or something else, if he travels on them.

Perhaps the best roads and drives are in and around Paris. In their construction, they first drain them, and then lay down a heavy superstructure of large flat stones, and cover them with small stones; then, with a heavy coat of fine flint and large gravel, which they moisten and roll down with a heavy iron roller, until it becomes perfectly solid and smooth, so that a carriage tire will not even make a mark on it.

The roads in England, are smoothed out something like our railroads, and graded so that a span of horses will take the usual load of two tons on them with ease. The culverts are all arched with stone and made durable. They lay a heavy bed of large flat stone lapped one on another, something like a lapped furrow slice, then cover with smaller stone, then with a gravel coat or broken stone of small size. These roads never cut through.

Very firm roads are made in Central Park by laying down a heavy body of all kinds of stone, and putting on a thick coat of fine gravel and rolling down smooth; when it cuts up, they harrow it over and wet it, and again roll down smooth. My opinion is that the best and cheapest way of making our country roads is to lay down a heavy bed of large flat limestone, similar to the English mode, about twelve feet in width on the right hand side of the road going to town, and then put a heavy coating of flinty stone, broken fine, and cover with a good coat of common sand. Then on the left side throw up with a scraper a dirt road some fifteen or sixteen feet in width. The dirt will be the best in a dry time, and the stone best in a wet time; besides, it will save the wear of the stone road, which wears most in dry weather, as it is cut into dust and blown away.

We ought to construct a small piece of this road every year, and it need not be very expensive; it can be made after harvest, when we are not very busy. I know that in our own district, if the township will furnish the stone, we will turn out and haul them free, and I suppose other districts will do the same. It is only about one-third of the roads in our townships require stone at all, the other part is sound and needs only to be thrown up well and the water drained off; the draining of our land will pay for that. Our roads will then be growing better instead of worse, and it will be a good investment, and I think we shall be satisfied with it. I have

long claimed that the plan of filling the holes with stone was bad; it may do well for the present, but in the end it will make two holes instead of one, and then you can never use the long road scraper to advantage.

The long road scraper will do more work than ten men, and make a splendid road in dry weather, and should be oftener used.

About the worst feature in the construction of our roads, is the practice of working them only once a year, and then never thinking of them again, no matter how bad they get. We ought to have more or less work on them throughout the entire season, for it is much less work to fill a small mud-hole than to fill a large one. In Europe they put men on the road when it is necessary. As soon as the rut is seen it is filled immediately by broken stone, large heaps of which are kept lying along the road ready for use. Our dirt roads should have a broad base, and the ditch should not be too close to the road, well drained, and then the road will dry off. When the ditch is close to the road the capillary attraction will always keep the road moist.

GYPHUM OR PLASTER IN THE MANURE HEAP AND IN THE STABLE.

In one of our agricultural periodicals we recently observed a few directions for the use of plaster as a deodorizer in stables, and among the rest, was one in which we were told to distribute small *heaps* of it on every convenient resting-place. And it is not many years since one of our prominent agricultural chemists advised the users of guano not to use it with plaster, lest the plaster should drive off the ammonia! Now as plaster, when properly used, is one of the most valuable substances employed in agriculture, it may be worth while to examine a little into its properties, so that we may be enabled as fully as possible to avail ourselves of its good qualities.

Sulphate of lime is known by various names, as gypsum, plaster, plaster of Paris, and it forms among others, the well known mineral, alabaster. It is formed of one equivalent of lime combined with one equivalent of sulphuric acid, or in other words, of 28 parts of lime and 40 of sulphuric acid. In general, however, it is found in nature combined with an amount of water equal to an addition of 18 parts to the 68 already mentioned.

It occurs pretty widely diffused in nature, and is found not only in beds of considerable thickness, but also distributed in smaller quantities through the soil. It is a frequent source of hardness in water. The waters of the Genesee Valley, in this State, are highly impregnated with it.

It is but sparingly soluble in water—500 parts of water being required to dissolve one part of sul-

phate of lime at ordinary temperatures. It is more readily soluble, however, in water containing common salt. Hence it dissolves more freely in the drainage liquids of manure heaps, and hence possibly, the advantage which has sometimes been observed to accrue from mixing plaster with common salt when about to apply it as a top-dressing.

Lime has a stronger affinity than ammonia for most acids. Hence, when lime is mixed with sal ammoniac, a strong smell of ammonia is given off, and if carbonate of lime (chalk) be mixed with a salt of ammonia, such as muriate or sulphate, and heated, the lime seizes upon the stronger acid, and the ammonia flies off as carbonate. But this state of things is reversed when a solution of carbonate of ammonia is mixed with a solution of sulphate of lime or chloride of calcium. In this case, the lime and the carbonic acid unite to form an insoluble compound, while the ammonia combines with the sulphuric or hydrochloric acid, and remains in solution.

These facts point out to us the proper methods of using plaster in the manure heap, the cesspool, and the stable. It is of no use to allow it to lie about in dry heaps, or to sprinkle it about as you would chloride of lime. Mix it with the liquids of these various places; pour it in fine powder into your liquid manure tanks and cesspools, and mix it with the drainage of the stables, and stir it up occasionally. The ammonia which exists in these liquids always exists as carbonate, and this will be converted into sulphate as fast as it is formed, and in this way you will very readily deodorize either stables or manure heaps.

The only exception to this rule is in regard to the manure heap. The plaster ought not only to be mixed with the liquid at the bottom, but it should be spread through the heap—in fact sprinkled on the surface. It will lie here quite inactive until washed out by the rains, and the only advantage arising from placing it in this position, is that when the rains and liquid manures fall on the heaps and filter through it, they meet the plaster in their descent, and all the ammonia they contain becomes fixed.

Plaster or gypsum is a powerful *flavor* of ammonia, but only when it meets it in solution.—*Arator, in the Country Gent.*

POULTRY ON THE FARM.

MR. MECHI, an eminent agriculturist, writes as follows on poultry matters: "Nothing pays better on a farm than a good stock of poultry properly managed. With them everything is turned to account; not a kernel, wild seed, or insect, escapes their scrutinizing eyes. Their industrious claws

are ever at work, uncovering, ready for appropriation, every hidden but consumable substance. Fowls must have free access to chalk or lime to form the shells of their eggs, and grit or gravel to grind the food in their gizzards. They luxuriate on grass or clover, which are a necessity for them; in winter they like mangold or swedes. They must have access to plenty of pure water. The quality of the eggs depends upon the quality of the food. They, like ourselves, like shade in summer, and warm sheltered corners in winter. They must have access to shelter in wet weather. Fowls will not be long healthy on the same ground or yards—the earth gets tainted: therefore to prevent disease, lime and salt your yards and their usual pasture once a year, say in autumn, when the rains will wash it well in and sweeten the surface. Broods of chickens never do better with us than on the grassy brows or patches abutting upon the growing crops, either of corn or pulse, into which they run either for insects or for shelter. Your male birds should be often changed, say at least once in two years, and they should be young and vigorous. Breeding in and in will not do any more than it will with animals. I consider winged game, poultry, and birds, the farmer's friends. My poultry have access at all times to my fields. Fowls are very useful in clearing off flies. I have often been amused at seeing the neat and quick manner of taking flies from reposing bullocks and sheep, much to their comfort."

SMALL FARMS IN EUROPE.

THERE is little in Holland, or Belgium, or Switzerland, or France, which a large English farmer would call good farming; there are no steam plows, few threshing machines, none of that vast apparatus, which we foolishly suppose to be indispensable to good farming; but there is, in all these countries, a more minute, a more careful cultivation of the soil, and there is also, that which should be the principal object in all farming—a larger amount of produce from the land, larger quantities of food for the people, which is obtained without exhausting the soil.

The impression which has grown upon my mind, as I have visited these various countries is very like that which Jupiter addressed to the waggoner. If we want meat we must put out shoulder to the wheel and help ourselves. We must look for wealth from better tillage of our own soil. That which a people raises by its own tillage is inherently cheaper than that which it imports. Those who grow corn and raise meat are the best consumers of the manufacturer.—*Fisher.*

CULTIVATE little and do it well.

POTATO CULTURE, AND NOTES ON SOME OF THE BEST VARIETIES.

WRITTEN FOR THE AMERICAN FARMER BY "J. F. M." IND.

PERHAPS there is no vegetable that we could so ill afford to dispense with as the potato. Its cultivation is universal, and from the facility with which it is managed, places it readily under the control of every one.

The soil best suited for the potato is a rich, sandy loam; but every one cannot have choice, and will often have to plant on heavy, clayey soil. When this is the case, it should be thoroughly underdrained, if possible, as potatoes grown on wet soils are more subject to disease, and the flavor is also much inferior than when grown on a dry, warm soil. The soil should be broken to a good depth, and made fine and mellow. A liberal supply of old manure should be used, when it is at all attainable. On rich pasture land, the decaying sod answers sufficiently well for a year or two, in place of manure. Ashes are very valuable, and as the supply is generally small, they may be applied, either alone or mixed with plaster, in the proportion of one bushel of plaster to four or five of ashes, dropping a handful on each hill after the potatoes are up, and have made a few inches of growth.

Preparing the Seed.—There has been considerable discussion concerning the relative merits of planting whole or cut potatoes, but as yet undecided which is the best way. I have planted whole potatoes, cut into one, two, or more pieces, down to single eyes. Usually, I get the best results from potatoes cut to two or three eyes, when well cultivated. The only good objection to cutting seed so small, is that the plants do not grow as luxuriantly when small, especially if the weather is cold and wet, as if the sets were larger; but if they get a good start, and are properly cultivated, I find no difficulty in growing a heavy crop of large, sound potatoes. When whole potatoes are planted, I would select those of a medium size, not very small, neither the largest ones, and plant one in a hill. Whole potatoes grow very luxuriantly, and yield well, but there will be a great many small tubers.

Cultivation.—The following is my plan of cultivating the potato, which I have found to produce good results. If the land is in good condition, I plow as soon as it is in good working order, usually about the last of April, and harrow until the surface is fine and mellow. Some soils will be in much better condition if plowed in the fall, allowing the frosts to mellow the hard lumps, and kill the roots of perennial weeds, and cross-plowed and harrowed in the spring.

If potatoes are to be cultivated in hills, I strike furrows about 2 feet and 8 inches apart both ways,

dropping two sets, or one whole potato, in each hill. If cultivated in drills, I strike the furrows a little farther apart, and drop the sets from 12 to 15 inches apart, according to the vigor of the kind. If the soil is mellow, the seed may be covered with a one-horse plow, covering about four inches deep.

As soon as the first sprouts begin to break through the soil, go over the field with a light harrow, turned top side down, or with the top of a small tree, dragging it across the rows. This operation destroys nearly all the young weeds, and leaves the ground in excellent condition for the cultivator, which should be set to work in a few days after harrowing, and no matter if all the potatoes are not up, run the cultivator through the rows every few days until the potatoes have a good start. If weeds are allowed to cover the ground, they are very difficult to kill, and will greatly injure the crop thereby.

Continue to plow until the vines have covered the ground, or until they have done blossoming, but do not run the plow very deep toward the last, as it will injure the roots. The old way of hilling potatoes, is worse than labor lost, as I have found by experience. If any weeds appear after the last plowing, they must be hoed or pulled up, as the crop will be greatly injured, besides most of them will ripen seeds which will fill the ground and make trouble for the future.

It is probably the best to procure new seed potatoes as often as practicable, as I find that seed potatoes procured at a distance, will always produce the best results for the first few years—still, I think by good culture and the selection of the best seed, a variety may be kept perfect, and often make a decided improvement in quality at least, if not in quantity.

Varieties.—*Early Goodrich.*—The late Rev. C. E. Goodrich, of Utica, N. Y., raised over 16,000 different seedlings, and this, in the opinion of competent judges, is best of all. It was raised from the seed of the Cuzco, which is itself a seedling of the wild Peruvian potato. It has been, thoroughly tested, and all bear unvarying testimony in describing it as one of the earliest, most productive, and equal in quality to any variety in cultivation. It is a large, white, oblong, smooth potato, yielding at the rate of 250 to 300 bushels to the acre. With me this variety kept perfectly sound when all the old varieties rotted badly; and I find it vastly superior to the White Sprout potato, in earliness, good quality, and productiveness.

Harrison.—This was raised from the same seed ball as the early Goodrich. It is a large, white, oblong, full potato, of excellent quality, and very productive, yielding at the rate of 350 bushels to the acre under good cultivation. It is the most solid

of the large potatoes, keeps well, and like the Early Goodrich, free from disease.

Calico.—White, with irregular splashes of red, rather long, flat, and smooth. It is of good quality and a strong grower, and very productive, yielding at the rate of 300 bushels per acre. Should be planted further apart than the early varieties.

Peachblow.—A variety extensively grown for market, but there is hardly a doubt but that it will be superseded by the Harrison and early Goodrich, just as soon as these varieties get plenty enough for general cultivation.

Jackson White.—A comparatively new variety, of first-rate quality. Large, yellowish white, and well flavored.

Gleason.—This potato, recently introduced, promises to be valuable. It is a long, smooth potato, somewhat rusty, with pink eyes, and of good quality; yield, 250 bushels per acre.

Cuzco.—A large, long, white potato, with deep eyes, and of second quality; yield, 300 bushels per acre.

Garnet Chili.—A large, round, red potato, with deep eyes, and of fair quality, yielding about 250 bushels to the acre.

Mercer.—Extensively cultivated, and of excellent quality, but rots badly.

Shaker Fancy and Early Sebec.—Two new varieties of recent introduction, that I have not tried yet. A neighbor of mine tried a small package of each. He thinks the Sebec of little value, but is well pleased with the Shaker Fancy, thinks it will prove valuable at the West. It is a large, white, nearly round potato, of good quality, early and productive.

BEES.

It is now mid-winter, and no one should fail to see that their bees have a supply of food. Nor is it necessary for us to repeat to the bee reader, month after month, that bees can no more live without food than animals. When you find a hive of dead bees with no food, do not ask the cause of their death, nor weep over your loss. The safest way to feed at this season, is to set a box of honey upon the top; they will take the food from it when the weather will permit their leaving the brooding department. If too cold, stop them into the hive and set them into a warm room for a day or two. Now is the time to obtain your hives for the coming season when other business is not pressing. Never fail to secure the best practical hive, although it may cost a few dimes extra. An apiary can be no more successfully managed in a common bee hive, than can a farm with the implements of the last century. For success, we refer the reader to an article in the January number, by J. H. Graves.

MANURE FOR NURSERIES.

THERE are two principal sources for enriching land—yard or stable manure, and clover. The former possesses the advantage that it may be applied in unlimited quantities where it can be had; and hence it is well adapted to market gardens, where the land may be too valuable to lie a year for the production of a clover crop. The amount manufactured may commonly be much increased by saving every portion by the use of such absorbents as straw, and by the addition of other materials, such as guano, ashes, night soil, cracked bones and lime. In some places guano has proved profitable by the large growth it has produced, while in other instances its effects have been more moderate. It would be best to experiment with it on a limited scale until its value is determined, which may be done by strewing it along the nursery rows at the rate of about five hundred pounds per acre, more or less, which would be at the rate of about one pound for every twenty-five feet in length between two rows. The application might be made early in spring, and intermixture effected by the cultivator. If the result is satisfactory, it might then be used in making the compost heap, by sprinkling the guano over the thin successive layers. Ashes sometimes produce a striking effect—in one instance they doubled the growth of standard pears in a nursery, and were thus worth more than fifty dollars per load; but more frequently they have very little effect. Where they can be easily procured, they would make a good addition to the compost heap; but only in rare instances, to be determined by trial, would it do to pay a high price for them. We would recommend the marsh grass only as an absorbent in place of straw, where the latter cannot be had so cheaply. Buying fodder for making manure, will only pay secondarily where feeding and fattening are profitable. Night soil can only be used to advantage where vaults admit daily additions of coal ashes, which render the deposits inodorous and easily shoveled. We would strongly recommend as a cheap and efficient means for enriching land, (although it can be used only to a limited extent at a time,) the practice of plowing in clover. The following course is adopted by W. B. Smith, of Syracuse. As soon as a crop of trees is dug up, the ground is thoroughly plowed and sowed for rye before winter. Clover and timothy seed, each one peck per acre, are then sown about mid-winter. The growth from this seed is often two feet high in autumn, after the rye is harvested, but it is neither cut nor pastured, but allowed to rot down. It comes up fresh and strong the second year, and is cut for hay early in June and early in August. A large third crop rots down. The next year the first crop is cut, and the second a heavy

one, plowed under in September, by the use of the chain on the plow. The land is rolled and harrowed. It is turned up at full depth just before winter; and if not now rich enough for trees, receives a coating of manure broadcast in winter. One crop of clover is regarded as better than twenty-five two-horse loads of common manure.—*Country Gent.*

BEES.

MESSRS. EDs.:—I notice that Mr. Hazen, in his report, fails to inform your readers that his bees are in what he terms non-swarming hives, of which the dimensions of the brooding department contain at least 4,000 cubic inches—twice the size of the Graves' hive; consequently has twice the number of laborers, therefore should have given him double the amount of surplus. Nothing would please me better than to try titles with Mr. Hazen, with the Graves latest improved hive, both being of the same dimensions. I will make a non-swarming hive with Graves improvement, and will agree to beat him one-fifth surplus in the same location.

Now we will see what figures say. It appears that stock that gave 174 lbs. surplus, did not swarm, while that in the Graves' hive, I divided once, and it gave 140 lbs. surplus. Two of these hives equal one of the Hazen's.

Twice 140 equal to.....	280
Hazen hive gives.....	174
	106

lbs. of honey and one swarm, in favor of the Graves hive.

This, at 30c $\frac{3}{4}$ lb, is equal to.....	\$81.80
One swarm.....	6.00
	\$87.80

I think Messrs. Eds., this will convince your numerous readers of the great superiority of the Graves hive, which is unequalled.

APIARIAN.

GRAPE VINES.

I find in my experience in planting grape vines, that strong, one-year old vines are altogether the best for replanting, for vineyards and gardens. My reasons are as follows:—the roots of a one year old vine have but one coat of bark, and that very smooth, tender, and not very thick. Where the roots have been cut, and the vines properly planted, they being small and tender, the vine has but a short distance to push the fibers from the heart of the root to the mother earth; then they run some distance in search of food. At the same time the vine pushes out a bud from its top and makes but little growth the first season. Vines or plants must have two distinct kinds of food—organic food, to support their organic parts, and inorganic food to strengthen their inorganic parts. They derive their

organic food from the soil and air. Their inorganic food is obtained from the soil alone; and then it gets such food that it most needs to develop its inorganic parts of the body and roots—and this it must have before the organic parts can thrive well. Then the roots point out in all directions, and have got well established and every succeeding year it grows stronger and stronger and more productive for many years and generations, if well cared for. More on this subject in another article.—*W. H. A.*

SALT AS A MANURE.

I suppose some of my brother farmers are looking to see what has become of my salted wheat. I have it all yet, and a very fine sample it is, much better than the part that received no salt. I have eighty-five bushels from three acres, salted, and sixty-one bushels from three acres not salted. The land was about the same in both cases. This leaves twenty-four bushels to pay for three barrels of salt, which cost \$1.25 per barrel. I knew when I was cutting the salted wheat it would turn out best: the sheaves were much heavier. Next year I will try salt on mangel wurtzel, and if I can get it for \$1.25 per barrel, I will apply one barrel to the acre on all the wheat I have, and would say to those who doubt its effects—try one barrel on one acre of wheat next spring, and be convinced.—*Cor. Canada Farmer.*

HARNESS BLACKING.

A correspondent of *The Field* gives the following recipe for harness blacking, which he has used for several years, and recommends as excellent:—Beeswax (shred fine), 8 oz., turpentine sufficient to cover it; let them stand till the wax is dissolved (three or four days); ivory black 4 oz., olive oil (I use neat-foot oil) 2 oz., Prussian blue, 2 oz. Rub the ivory black and Prussian blue well together to a fine powder in a mortar; then add the oil, and gradually the other ingredients, and thoroughly mix them. If it gets hard by keep, soften with turpentine. I have only one brush used—one end for the blacking, the other for polishing.

Hops.—Some of the broom corn men in this part of the State, are preparing to go pretty extensively into hop growing. The Wisconsin hop growers have been making cords of money within a few years past, and Wisconsin hops to-day fetch a better price in New York market than those in New York State. How the hop will succeed in this latitude, 40° north, and on our deep, rich soils, remains to be proved, since I doubt if there are one hundred acres of hops within one hundred miles in any direction.—*Illinois Cor. Country Gent.*

THE AMERICAN DAIRYMAN'S ASSOCIATION.

THE American Dairyman's Association assembled at Utica, N. Y., Jan. 8. The programme of subjects for discussion was as follows:

1. Purity of flavor in cheese—how secured—how lost?

2. Pressing cheese two or more days—what effect has this upon the texture and purity of cheese?

3. Curd mills—is their use beneficial to the cheese, and is their introduction into general use advisable?

4. Salt—are there impurities or ingredients in the Onondaga salt that renders its use injurious to the quality and flavor of cheese and butter?

5. Butter-making from whey—can it be profitably done at cheese factories?

6. Dairying in America—has it already been overdone? If not, is it likely to lead to a production exceeding the demand?

7. Is it not desirable that the Association take measures to inaugurate some practical and efficient plan by which members may be put in possession of all necessary information from all dairy districts respecting the quantity of cheese made, with sales and quality of the product, &c., at frequent intervals during the season of cheese making?

The following facts were elicited. The number of cheese factories in the country as nearly as could be ascertained, was 520. Of these, 26 were in Canada, 49 in Ohio, and 10 in other Western States and Pennsylvania. As large number of factories were built last year, it is probable that the number now in the country is not far from 600, which work up the milk of about 250,000 cows. The New England States are not included in this estimate, but the number of factories which they contain would not materially vary this estimate.

On an average, take the season through, one year with another, a cow will make about 300 pounds of cheese. This would make an annual yield of factory cheese of 75,000,000 pounds. The make in private dairies must be added to this.

From the reports furnished by forty factories and published in last year's report, it appears that on an average, it took 9.68 pounds of milk to make a pound of cheese. But from the loose way the factories are in the habit of making out their averages, it is probable that the honest average is but a fraction under 10 pounds of milk for a pound of cheese. This would give 759,000,000 pounds, or 375,000,000 quarts as the annual yield of milk delivered at the factories in this country.

The convention was called to order by the President, George Williams, who expressed the opinion that the Association has thus far been a success, but much remained to be accomplished. Dairymen were still in danger from the influence of combinations to

control prices, and from the rapid spread of the factory system, which tended to reduce prices by overstocking the market—inasmuch that it was the opinion of many that butter-making had been the more profitable during the past season. He thought it might be advisable for dairymen to enter more largely into butter-making. The stock of cheese on hand was variously estimated at 300,000 to 400,000 pounds. The stock on hand in the English market was unusually large.

On the subject of bad flavor in cheese there was not much advanced that was new. Tainted milk, dirty milk, bad rennets, improper food for cows, atmospheric influences, impure annotta and salt, and the other usually considered causes were suggested. But the weight of the argument seemed to point to a lack in separating the whey from the curd, and salting and putting the curd to press too warm, as the chief causes of bad flavor. Doubtless there are various causes for this, any or all of which may operate together to make a bad-flavored cheese. To make a fine-flavored cheese, it is indispensable that cows should have plenty of good, sweet grass and hay, grown on dry uplands, plenty of pure water, and clean stables and yards; that milking and all the operations should be conducted in the most cleanly manner; that everything used should be thoroughly scalded and aired; that the milk should be pure and sweet; that the rennets, annotta, and salt should be of the best quality; that the cooking should be thorough, and the right degree of acidity attained; that the curd should be cooled down to about 80° Fahrenheit before it is salted and put to press; that the pressing should be thorough; that the curing room should be kept as nearly as possible at a temperature of 70° to 80°, and that the cheese should receive careful attention while going through the process of curing.

The subject of using curd mills for grinding the curd, before final pressing, did not seem to meet with general approbation. Many thought it beneficial, but it seemed to be generally conceded that it involved an amount of labor and expense not warranted by the result. The practice of grinding curds is universal in England, but it is admitted that English cheese contains much less butter than American. This, however, may be owing to other causes than grinding the curd, which it appears is not attended with loss of butter, if done when the curd is at the right stage. If too soft or too sour, grinding is attended with loss of butter. It is doubtful about curd mills ever being introduced into general use in this country; for if curds are rightly managed it seems that an article can be produced that is nearly, if not quite, up to the highest standard, without the trouble and expense of running the curd through a mill.

The address was delivered last evening by Prof. Brewer, of Yale College. The subject was, "Cattle Breeding." He said horned cattle had been domesticated from time immemorial, and, so far as history threw any light on the subject, there had always been different breeds or varieties. These have been crossed promiscuously, and this crossing, with the influence of climate and surrounding circumstances, has constantly changed the varieties—improving some and deteriorating others. The object of the breeder is to select the better qualities of each, and combine them in a few, which shall be adapted to the uses and localities for which they are wanted. A variety will carry its good qualities with it only to localities similar in character to the one from which it is taken, and it is only by experiment, guided by sound judgement, that it can be positively ascertained what variety or varieties are best adapted to any particular locality. Hence the problem is a complicated one, and few farmers in this country have been successful cattle-breeders. We have made much more improvements in the breeds of sheep and horses than in breeds of cattle. A second in the speed of a horse greatly increases its value. No such increase in price attaches to a degree of superiority in the milking qualities of a cow. Our beef cattle have been most improved by crossing with the Devon, but the Ayreshire and Alderney are best for milk. But to obtain the best results, it is necessary that all cattle should have plenty of sweet nourishing food and pure water. Upland pastures are the best for dairy purposes. In Switzerland, the best cheese is made in uplands, where the sweet vernal grass often causes a village to be smelt some time before the traveler reaches it—not by any means in the sense in which an American cheese-factory is smelt. The cheese-factory mania must run its course, like every other one to which the American mind is so frequently subject. There will be failures in some localities, and successes in others, for some must always possess superior advantages. Failure will be attended by experimenters in other branches of industry, until the one best adapted to the locality is found. We ought not only to improve the varieties of cows among us already, but aim by judicious crossing to obtain new ones better adapted to our uses, climate and particular localities.—*Cor. N. Y. Times.*

A LONDON CATTLE MARKET.

AN American agriculturist writes from Europe recently, the following description of the great London cattle market:

The great cattle market of London, some twelve years ago was removed from Smithfield to Islington, formerly a distinct village from London. It is now incorporated with it, the streets thither and beyond,

and all around, being solidly built up since I was there in 1841, when they were only partially built. I have visited the market, twice. Monday is the great market day of the week, and it begins at 6 A. M. I was there a little before this hour, and found the yards full—6,280 cattle on the ground, besides calves, sheep, and swine. It is the most complete thing you can imagine. It was opened in June, 1855, by Prince Albert, with a great public display. It cost £430,000—over two millions of dollars! Fifteen acres are enclosed in a square, which will hold 7,600 bullocks; 40,000 sheep; 1,400 calves, and 900 pigs. In the center of this is a high clock tower; at its base, attached to it, are banking houses, telegraph offices, rooms for the officers of the market, clerks, &c. Around this square are streets with hotels, yards, solid, handsome sheds, and eight slaughter houses. All these belong to the market, and the whole occupy thirty acres. It is about two miles in a direct line north of St. Pauls Cathedral, but the streets wind about so much, I think one travels at least three miles from this point to get there. The old Smithfield market was only about half a mile north of St. Pauls.

LAND MEASURE.—Every farmer should have a rod measure—a light, stiff pole—just 16 1-2 feet long, for measuring land. By a little practice, he can learn to step a rod at five paces, which answers very well for ordinary farm work. Ascertaining the number of rods in width and length of the lot you wish to measure, multiply one into the other, and divide by 160, and you have the number of acres, as 160 square rods make a square acre. If you wish to lay off one acre, measure thirteen rods upon each. This lacks only a rod of full measure.—*Prairie Farmer.*

A four rod tape line is better, when you have a boy to carry one end. It is very important that every farmer should know the average and yield of his crops. Abandon guess work, and begin measurement at once.

SAWDUST and chip manure, or fine pieces of wood and bark from the wood house, are excellent articles for promoting the growth of vines, shrubs and small plants. They should be thrown into a pile, after removing the coarser portions of the mass, and thoroughly saturated once or twice a week with a mixture of urine and soap suds. This will induce incipient fermentation, and so far break down the texture of the mass as to prepare it to act with energy when applied to any soil or crop.—*Cor. Germantown Tbl.*

STOCK never ought to stop growing until grown; generous feeding from birth is most profitable.

SPIRIT OF THE AGRICULTURAL PRESS.**Ayrshire Cows.**

A correspondent of *The Practical Farmer* gives the product of several cows of the Ayrshire breed, which we copy as follows:—"Six cows gave in two days' trial, 50 pounds of milk on an average each, daily—one of them 114 pounds in the two days. One of these cows gave 12 quarts average, per day, for a whole year; another cow gave 16 pounds of butter per week for a number of weeks in succession; another cow gave 49 pounds of milk per day for 114 days, and during one month, an average of 51 pounds, 13 ounces, per day, her milk yielding in a three days' trial two pounds of butter per day. This cow's live weight was 987 pounds, and I think her heavier than the average live weight of the breed. The Ayrshires, while making beef of a very superior quality, make it as cheap as any other, and cheaper than most breeds. Aiton says of the Ayrshire cow: 'She yields much milk, and that of an oily or butyraceous or caseous nature, and after she had yielded very large quantities of milk for several years, she shall be as valuable for beef as any other breed of cows known; her fat shall be mixed through the flesh, and she shall fatten faster than any other.'"

Rural Economy.

"T. M. H." in *The American Stock Journal*, considers the question of how much land it is desirable to possess, and says:—"In the first place, the amount of land that a man should aim to acquire, will depend upon its quality, situation and the branch of agriculture to be pursued. The man who locates near a city, or town, and who can obtain land of a good quality, level, and free from rocks, can employ his energies and means profitably in horticulture and market gardening; and will need but a few acres; whilst the man who locates in a mountainous, or hilly country, remote from market, must devote himself to stock raising, and will need several hundred acres of land, to afford him the requisite hay and pasture. The dairyman, may require from one to five hundred acres of hills and mountain sides, well supplied with springs, and running brooks of cold pure water. The man who devotes himself to agriculture proper, may profitably employ from one to several hundred acres, according to his means and facilities. But for the great mass of our agricultural population, who are denominated small farmers, we would lay it down as a rule that they need but a small quantity of land; say from fifty to one hundred acres."

Sore Feet in Sheep.

The *Irish Farmers' Gazette* gives the following remedy for sore feet in sheep:—"Pare away all loose horn about the feet without drawing blood, and anoint them with butyr of antimony, keeping the sheep on a dry standing for a few hours afterwards."

Grindstones.

A grindstone should not be exposed to the weather, as it not only injures the wood work, but the sun's rays harden the stone so much, as in time to render it useless. Neither should it stand in the water in which it runs, as the part remaining in water softens so much that it wears unequally.—*Ex.*

Milking before Calving.

A dairyman writes *The Practical Farmer* that the best cows he ever raised had to be milked several weeks before the period of calving. This practice was a preventive of garget, and tended to the general health of the animals. It sometimes happens that the udders of cows become greatly and painfully distended weeks before calving, and but few persons resort to the sensible practice of relieving them by milking. If this were practiced more, there would probably be less complaint of garget than there now is.

Rust Preventive.

A mixture of three parts of lard and one of rosin, melted together, is one of the best coatings for all steel or iron implements. The lard makes the rosin soft, while the latter is a sure preventive against rusting. The mixture is good for plows, hoes, axes—indeed for all tools and implements, as well as knives and forks packed away.

Southdown Sheep.

The Practical Farmer says Mr. J. C. Taylor, of New Jersey, sold last fall, over 125 full blood Southdown sheep, at prices ranging from \$350 to \$125 for choice animals, and from \$80 to \$40, and less for young lambs.

Oats Ground and Unground.

It is generally admitted, says *The Ohio Farmer*, that there is no better or more natural grain for the horse than oats, and they are extensively fed throughout the whole country, and usually in an unground state. The reason of this is probably owing to the fact that, but little trouble is required to feed them so. Yet every one knows that oats given whole, particularly to an aged animal, pass through in large quantities undigested, giving no nutriment to the body. Then that portion of the grain unmasticated has done no good, but harm, and some loss attending it. We must therefore conclude that at least one-third less grain given in a ground state would do as much or more good.

The experiments of some of our best chemical physiologists go to show that mixing of saliva with the food is of the utmost importance in effecting easy digestion. When grain goes into the stomach in a whole state, it is not affected by the secretions of the glands, and the secretion is then made at the expense of the animal's condition. Then, if oats, by passing through the digestive tubes of a horse undigested, injure the animal, is it not natural to suppose that he could perform more labor with less grain when he gets all of the nutriment from the quantity fed.

A span of horses that require twelve quarts each of unground oats per day, would consume 282 bushels. Estimating it at one-third less, would make a saving of 91 bushels; and at 65 cents per bushel, would amount, in cash, to about \$60 for the trouble of grinding.

Clover Seed.

W. Strong gives in substance in *The Country Gentleman*, the following method for raising clover seed:—"Top-dress with manure in the autumn previously, and plaster in spring, as ripening seed draws hard on the soil. The early or first crop must be taken as soon as

in blossom; the second, for seed, should become nearly all ripe. Cut with a mowing machine with a platform, graduated to a proper height, raking off the bunches opposite to each other at every passing, so that they can be taken in a row when loading on the wagon. If rain threatens, draw in immediately, as the straw will not hurt the seed, and this will prevent the loss resulting from turning over for drying afterwards in the field. This is found to be much better and to be attended with far less waste than cutting by hand or raking into heaps, or using a pitcher. Thrash in cold, frosty weather in winter.

Cows.

Feed for Salable Milk.—3-4 good hay; 1-4 salt hay; 2 quarts Indian meal; 1 quart cotton seed meal; 1 quart linseed cake.

Feed for Cheese.—Clover hay, Indian meal, pea meal, bean meal, linseed cake, bean straw, (steamed,) &c.

Feed for Butter.—Indian meal, cotton seed meal, parsnips, good hay, &c.

Feed for Swill Milk.—Salt hay, brewer's grain, brewer's slops, turnips, carrots and potatoes.

Twenty pounds of hay daily will keep a cow on her feet through the winter.

Bran and middlings are excellent for cows in milk, but too expensive.

Eleven quarts of milk will make 1 lb. of butter.

Ten pounds of milk will make 1 lb. of cheese.—*Md.*

Purmer.

The Cause of Inferior Stock.

Some farmers, says an exchange, sell or slaughter their best stock of mares, cows, ewes, or sows, and thus cut off all hope of any improvement at one blow. Does a heifer show any disposition to fatten easily? She is encouraged to feed until fat, and is then sold and eaten, while her fellows, who belong to the same breed with Pharaoh's lean kine, are kept for milk, or rearing calves, because they are not and can not be made fat for the butcher. Has a farmer a sow pig which becomes fat upon what the other pigs are starving on? He gives her over to the butcher's knife, and propagates from "land shads" and corn cribs. Has he a fine, round, bright-eyed ewe? She will be fat about the time that his half-filled pork barrels are empty, and she is stripped of her fair skin and fair proportions, simply because she is worth the trouble of killing; and thus many of our farmers perpetuate a breed of animals that are a disgrace to the country. They seem uneasy while they possess an animal that will draw the attention of their neighbors, or the butchers, and woe be to it if it put on the better appearance than its fellows, for from that time its doom is sealed.

To improve the breed of animals, it is by no means necessary to incur a great expense in bringing animals from a distance. If a farmer will mount his horse and ride across the country some fine day, and view the live stock of his neighbors, he will soon perceive that there are abundant means of bettering his circumstances by a cross or exchange, at a slight cost, and he by this plan is improving his judgment by comparison, and hoarding up experience for a future day that will

be of more value to him than the expenses of many such excursions; and improvements once begun and persisted in for a short time, will produce such a corresponding improvement in the mind and circumstances of the farmer as will insure its continuation, and richly reward all his labors and outlay. Many of our farmers destroy the hope of improving their stock by a system of false economy in the selection of males from which they breed their stock. Many do not keep a male from which to breed their horses or horned stock, nor is it necessary, as one will do for a neighborhood, but this one should be the best, and, in order to keep a good one, a good price must and should be charged for his services. Many farmers lose \$30, and even \$50, in the value of a full grown horse, or cow, by a system of false economy—by not being willing to pay \$2 or \$3 more for the services of a male.

Chaumontel Pear.

A correspondent of *The Country Gentleman* has the following in relation to this celebrated and delicious French pear:—Among the varieties whose death warrant was sealed by Knight and his coadjutors, was the Chaumontel. It was declared to be worn out, dying, effete, and no longer capable of producing passable fruit. Now it is too bad that the Chaumontel will not stay killed in obedience to the dictum of scientific men, but unfortunately it has proved rebellious. At a recent exhibition of fruit in the Island of Jersey, Mr. G. H. Horsman, Her Majesty's Solicitor General for the Island, exhibited four pears of this worn out variety, which weighed together 96 1-4 oz. The largest weighed 30 1-2 oz.—within 1 1-2 oz. of 2 pounds. The smallest weighed 19 1-2 oz. Three of them grew from one eye.

Canada Fruit Growers' Association.

The annual meeting of this body took place at Hamilton on the 15th inst. In strawberries the preference was given to Wilson's Albany for market culture, and Triomphe de Gand for amateur growers. Jucunda is spoken favorably of, and Bishop's Seedling is thought a promising new variety. Of grapes, Delaware still stands at the head as the best out-door grape, and Concord next. Of blackberries, Doolittle's Black Cap stands drouth well. Philadelphia, the best red, hardy, good flavor, and enormously productive. Brinckle's Orange, a yellow variety, is the finest flavored of all, but tender and a shy bearer.

Concord and Ives Seedling.

An experiment, says an exchange, has been made with the Concord and Ives for sparkling wine, with the most flattering success. Samples of each were recently submitted to the Cincinnati Wine Growers' Association, and they were voted up to the highest figure.

Mustard Poultices.

By using sirup or molasses for mustard plasters they will keep soft and flexible, and not dry and become hard, as when mixed up with water. A thin paper or cloth should come between the plaster and skin.—

Prairie Farmer.

Horticultural.

MASSES OF TREES AND THEIR EFFECT ON CLIMATE.

WHAT effect do large plantations of trees produce on climate, is a question that should be paramount in the mind of every settler in a new country, as it behooves him to become thoroughly acquainted with all the conditions necessary for the amelioration of both soil and climate, and this is a question that not only concerns the new settler, but appeals powerfully to the understanding of older ones also; let any one cogitating the effect of trees on climate, ask the man of mature years whose life has been passed amid rural pursuits in Central or Western New York, what his ideas are in regard to this question, and if he is a man of observation, he will in all probability tell you that in his younger days, when the sheltering woods, (which were then so abundant,) threw their protecting arms around the humble cabin of the pioneer, that the sudden changes of temperature to which we are now exposed, were then less frequent, and that the Indian summer which now only visits us occasionally, could then be relied upon every season, and the winters, though cold, were steady with but little interruption except in January, when we usually had a thaw of greater or less duration—and he will tell you further, those were the times when farmers could reckon upon a fine crop of apples, peaches, or pears, with some degree of certainty, and although the mercury did fall at times as low then as now, yet the low degree of cold being unaccompanied by sudden and severe winds, the intensity of it was much less felt than now. Such being the facts, who will doubt that before the primeval forests were destroyed, the climate was more equable, and that to counteract in a measure the baleful influence of the severe and sudden winds of winter, and especially spring, on fruit trees and vegetation generally, we must plant largely of forest trees.

In the years 1856 and 1857, we were engaged in carrying out some improvements in the vicinity of Chicago, and our attention was then much attracted to the great want of shelter on the prairies, and the question often arose in our mind why the farmers did not plant largely of quick-growing trees, and such as by their rapidity of growth would in the course of eight or ten years make poles for fencing, or form shelter for their cattle; and while considering this subject, we were led from time to time, to make notes of such trees as were best adapted to the purpose, and have no hesitation in saying that if such trees as we shall mention, were planted in masses on the great prairies and elsewhere throughout the West, that it would not be many years before the farmer who adopted this system, would not only have plenty of poles for fencing, but from the shelter which the trees afforded, would be enabled to raise many kinds of fruit which are now considered quite unsuited to the climate, even in the greatest abundance.

Among the rapid-growing trees suitable for forming

shelter on the prairies, may be mentioned the Silver Maple. When planted on a good soil, it will, in the course of eight or ten years, form poles sufficiently large for fencing. The European Larch is also a valuable and quick-growing tree for this purpose. In Scotland, the Larch has been extensively used for clothing the bleak and what at one time were considered barren wastes, which cover so large a portion of the Highlands, and with the best results, as the following extract from London's Arboretum will show. At page 2,363, he says there is no name that stands so high and so deservedly high, in the list of successful planters, as that of the late John, Duke of Athol. His Grace planted in the last years of his life, 6,500 Scotch acres* of mountain ground, solely with the larch, which in the course of seventy-two years from the time of planting, will be a forest of timber fit for the building of the largest class ships. Before it is cut down for this purpose, it will have been thinned out to about 400 trees per acre. Each tree will contain at the least 50 cubic feet, or one load of timber, which at the low price of one shilling per cubic foot, (only one-half of its present value,) will give £1,000 per acre, or in all, a sum of £6,500,000. Besides this, there will have been a return of £7 per acre from the thinnings after deducting all expense of thinning, and the original outlay of planting.

In our climate the Larch grows more rapidly than in Scotland, and there is no tree with which we are acquainted that will at all compare with it for fencing purposes on our Western prairies. We can point to trees in our vicinity that have been planted but from 12 to 15 years that have attained an altitude of 25 to 30 feet, with trunks that will girth from 20 to 30 inches at one foot from the ground, and some even more than that. London's estimate for planting the larch is about 2,000 trees per acre, with a few other trees mixed through them. Here is a boundless source of wealth to our country, if our Western farmers will only take hold and plant largely, for the Larch is certainly a most valuable timber tree. It must ultimately be adopted, and the sooner the better, for our country is fast becoming denuded of its forest, as far as civilization extends, so that in a very few years the supply will not equal the demand, hence there is no alternative, if we wish to keep up the supply, but to plant, and to plant extensively too.

We shall have occasion hereafter to allude to other valuable trees for timber and shelter, of which the Scotch Pine, White Pine, Red Pine, Balsam, Fir and Norway Spruce will form the subject of another article.

Fruit Growers' Society of Western New York.

THE Annual Meeting of the Fruit Growers' Society of Western New York, will be held at the Court House, in the city of Rochester, on Wednesday, the 29th day of January. Members will bring specimens of all fruits in season. A general attendance is requested.

JAMES VICK, Secretary.

*The Scotch acre contains nearly an acre and a quarter imperial.

CURIOUS EFFECT OF SUMMER PRUNING GRAPES.

The London Gardener's Chronicle, in a recent article on "pruning the grape," states that vines in vineries, pruned in September, while the leaves are on, will have the succeeding crop ripen fifteen to twenty days earlier than other vines pruned in November, all other circumstances being equal. "The experiment has been tried for years on vines that yield a supply of fruit from June until January, and whether in the early or in the late houses, the result is the same."

It is very curious to note how often practice is a long way ahead of science. Some twenty to thirty years ago, it was customary with good English gardeners to mow off the leaves of their strawberry beds towards the end of summer. *The Gardener's Chronicle* strongly opposed the practice, and showed conclusively from "science" that it was a barbarous thing, and should be discontinued. The writer of this was convinced by the arguments of *The Chronicle*, and argued for the retention of the leaves to the latest moment. But our American experience taught us that there were times, when in spite of the supposed laws of vegetable physiology, mowing off the leaves of the strawberry before they matured, was of immense benefit to the strawberry crop. The readers of our earlier volumes will remember this question being fully discussed at that time.

Another recent case is in reference to the tendrils of the grape vine. An old practice was to cut these off from some supposed benefit to the vine. Modern enlightened gardening abandoned the practice, as "without reason," yet Mr. Meehan's paper on the nutrition of motion in tendrils, in the Proceedings of the Academy of Natural Sciences, shows the practice to be a very philosophical one.

We think this curious result of early pruning another illustration, and may be accounted for on the same principle that we brought forward at the time referred to, to account for the benefit in some cases, of early mowing off strawberry leaves. It is this:—There is a degree of antagonism between the fruit-producing and the leaf-producing systems of a plant. All the parts of fructification are but metamorphosed leaves, and some check to the full development of leaves is necessary before the fruit-producing system has its birth. A luxuriant growing tree does not bear well. If it receive an injury to its roots or leaves it is thrown into bearing—and hence arises the axiom that "a tree makes an effort to reproduce itself in proportion to the danger of losing its life." It is so with a strawberry. If a shy bearer which runs to leaf, is mowed back while the leaf is still green, it bears more fruit the next season, but the growth is not so strong. The fruit is increased by the check to the foliage.

Applied to the grape vine question before us, early pruning, no doubt checks the vigor of the vine—the result of which is as we have seen, to induce early fruitfulness. One may object that by early fruitfulness is meant shortening the seasons, before bearing time, and not any reference to earliness in the same season; but

there can be no doubt that the same tendency which hastens maturity in a young plant, will hasten maturity during the bearing season, and this is confirmed by the well known fact that Mr. Felton often has exhibited Isabella grapes before the Pennsylvania Horticultural Society of wonderful earliness produced by "ringing." We have, however, to thank *The Gardener's Chronicle* for bringing out the case so pointedly.

The fact has a particular value to the American grape grower from the circumstance that a few days of earliness is of immense importance to him, not only in getting his grapes to market, but in getting grapes in localities where the season is too short to ripen some desirable kinds, or indeed any kinds at all. If early pruning is to hasten maturity in this way, there are very few localities in the Union where the delicious Maxatawny will be "too late" to be worth growing, and so of other things besides grapes.

Above all, the fact published by *The Chronicle* explains many enigmas in grape experiences. One man will say of one grape, that it ripens ten days before another kind; another writer, equally reliable "another" ripened with him equally as many days before the "one." No doubt this difference in the ripening of the same kind may be owing to different modes or times of pruning, or any other treatment that may affect the vigor of the vine.

We are sure when the matter is fully investigated there will be found many ways to accelerate ripening of crops of which we have now no thought. In preparing a paper for the agricultural department of *Forney's Weekly Press*, before we had seen this article in *The Gardener's Chronicle*, the writer of this referred to the fact that where a manure heap had been in a wheat field, the wheat on that rich soil did not mature for some days after the rest of the field was quite ripe.

The only purpose in that paper was to show that where there is danger of disease attacking the wheat crop at a late period of the season of ripening, it was wisdom to sow thick to hasten maturity; but the fact has a greater value in this place as illustrating the importance of a great principle in its general application—namely, the principle that great vigor, which the extra manure gave the wheat, causes a later ripening than the same wheat under more impoverished circumstances.

American gardeners now receive among the recognized laws of gardening, that *pruning is in all cases at the expense of vigorous vitality*: we think they may now add to this, that *one of the results of weakened vitality is a tendency to early bearing.*—*Gardener's Monthly.*

The Ohio State Horticultural Society at the last meeting endorsed the following varieties of strawberries:—Fillmore, Wilson, Triomphe de Gand, Golden Seeded, and Jucunda. The French and Green Prolific were not recommended. The Agriculturist had not come up to expectations, and was assigned to a third-rate position. The Kitkatnny blackberry was highly spoken of, and was considered the best variety known for the main crop for market and family use.

EARLY PRUNING PROMOTES EARLY FRUITING.

ONE of the most philosophic and interesting articles which has lately fallen under our observation, is an article in the December number of *The Gardener's Monthly*, entitled, "Curious Effect of Summer Pruning Grapes," which is written to show how frequently practice is ahead of science. The subject, however, is not a new one to us, and we are glad to see such views promulgated. The writer of this distinctly remembers jeopardizing his situation (though twenty-five years have since elapsed) for mowing the leaves off several large beds of strawberries to promote their fruitfulness, the following season. We were a young practitioner then, and firmly believed in the efficacy of early defoliation of the strawberry, also in early pruning grapes grown under glass. The facilities for acquiring useful knowledge in those days, were not as great as at the present time, for now every good cultivator knows that all plants have their seasons of excitement and repose, and that these seasons by judicious management and pruning may not only be modified, but entirely changed, and this is especially true of grape vines. We give the article entire.

WINTER SALADS--No. 1.

It is a common remark that Americans eat too much solid food: true; as a people we do eat altogether too much solid food for the enjoyment of good health, and when shall we learn to do otherwise? We answer, not until the cultivation of vegetables for salads becomes more general. In some parts of Europe, especially France and Italy, the people consume large quantities of salad, even in winter, as the markets of all the large cities there are well supplied with such vegetables from which the various kinds of salad are made, lettuce being one of the principal ones.

It is said that herbs and salads are nature's medicine, and if man were to use more of them in connection with his daily food, he would be much freer from the various ills which flesh is heir to, and as a natural consequence would pass through life more comfortably, for it is well known that those persons who eat liberally of fruit and vegetables, enjoy much better health than those who partake largely of animal food. Now, if the demand for such vegetables as constitute a good salad were more general among us, we have plenty of skillful gardeners who could supply the markets with them for the greater part of the year, and we have even now at command a fair substitute in Celery Endive, and some kinds of cabbage out of which a tolerable salad can be made. Our German friends understand the value of Endive as a winter salad, for nearly all of them who have gardens, raise a little. On another occasion we intend to enter more fully into this subject, and describe those kinds of vegetables which are not only best adapted to the purpose, but are of easy cultivation.

COCKROACHES are repelled or killed by taking equal quantities of red lead and, and make into paste with molasses.

THE FREEMAN PEACH.—My attention has lately been called to a new seedling peach produced this year for the first time, so far as known, on the farm of Captain H. C. Freeman, of this place. I think it merits attention for its combination of very excellent qualities at a very late season of the year. It ripens after all other good peaches are gone—the last of the crop having been just now gathered—showing a season four or five weeks later than the Smock, and about two weeks after the Heath Cling. Its appearance is much like the Smock, from which it is probably a seedling; but it surpasses that reliable kind in quality, being more juicy and of better flavor, fully equaling the Early Crawford when in its best estate in these respects, as it does in size.

These are the facts as to this year's crop, and it is the opinion of our peach men who have seen it, that it will prove the greatest acquisition to the peach list which has been made for years; as it can prolong the season of choice free-stone peaches in the Middle States and Southwardly for a month or more. Like most of the late ripening kinds it has a long season of maturity, and is free from rot. For this latitude, and for all places where it will ripen, it promises to be an invaluable market variety. The tree seems to be a strong grower and free bearer—leaves long and narrow with globose glands. Fruit large, round, yellow with red cheeks, flesh red next the stone, perfectly free, juicy, and of Crawford flavor.—*Parker Earle, in Gardener's Monthly.*

FROGMORE EARLY BIGARREAU CHERRY.—A NEW ENGLISH CHERRY.—*The Florist and Pomologist* thus describes the "Frogmore Early Bigarreau Cherry:—At its highest excellence, perfectly ripe and waning towards its end, before any of the other Bigarreus have yet made their appearance. It was raised by Mr. Ingram, at the Royal Gardens at Frogmore. Unlike the class to which it properly belongs, it has a tender melting flesh: in every respect it is a Bigarreau in habit, leaf, and appearance of the fruit, and must be classified along with those varieties; but as if to set at nought all human arrangements, it persists in having a delicious melting flesh, instead of one that is hard and cracking. The tree is a great bearer, clusters of a dozen and half to two dozen large, handsome cherries being produced on a small spray; and the fruit ripens in the middle of June."

HOW TO KEEP WALNUTS, FILBERTS, &c.—A writer in the *London Gardener's Monthly*, says that nuts may be kept perfectly fresh and sweet for a long time in the following manner:—Take two garden pots, one a couple of sizes larger than the other; stop up the holes and fill them with clean salt and water. When the outside gets wet, you will know that the salt has got through. Then pour out all the salt and water, and open the holes. Then fill the small pots with nuts, put it on a couple of bricks in a cellar, and turn the large one over it. Take care to keep the holes open, so that the air may get through. The nuts should be kept perfectly clean before they are put in.



A GROUP OF PETUNIAS.

Ladies' Department.

HOUSEHOLD CARES---No. 11.

YESTERDAY and to-day have been very busy days with me, for on Tuesday Tom. bought a large hog. We always prefer those of 200 lbs. to 250 lbs. each, and find two of such size quite sufficient for our moderate family; besides allowing a generous sparerib, and during the summer a few pounds of bacon, for poor widow Burns, who has quite a struggle to keep herself and four small children comfortable. I always make it a point to superintend cutting up and salting of the pork and rendering of the lard myself, for I consider it the extreme of folly to leave so important a matter to the care or carelessness of hired help, and Tom. declares that I am happiest when preserving fruit, pickling, or some such thing, and so generously leaves the whole matter to me. We only procure one hog at a time, because of not having too much sparerib, sausage meat, and head cheese, in the house at once. It has often astonished me that farmers, or some of them at least, kill more than one at a time for home consumption. In salting the pork, and especially the hams and shoulders, I allow a quarter of a pound of saltpeter to every hundred pounds, rubbing generously the exposed bones and knuckle ends of the hams, &c. Head cheese is very much improved in appearance when saltpeter has been used. I always dry salt the hams, shoulders, and cheeks, seeing that it is well rubbed in, and allowing two inches of salt to remain on the top. Every three or four days the cellar is visited, the exposed places examined, and more salt added as needed. In five or six weeks they are ready to be smoked or dried. I prefer to dry mine, and not to smoke them at all. After wiping each piece dry, they are packed into a paper bag, hung in a warm place, generally high up behind the kitchen stove. In two or three weeks, if thoroughly dry, I remove them to the attic store room, and find that the heat of summer never effects them, so completely does a good thick paper bag exclude the heat and air, and fly. Housekeepers and people generally, have yet to learn many valuable uses to which paper can be applied.

I believe in two reasons why so many hams are annually spoiled; firstly, allowing them in brine, the salt of which is insufficient to penetrate; and secondly, considering that when smoked black they are ready to be stored in bran, or malt, or whatever material used. Hams may be and should be smoked or dried till they would not soil or grease the most delicate fabric. Of course, in drying them, they should not be exposed to a melting heat, although a bag two or three double, will prove a great preventive against this trouble. Also too much care cannot be taken in rendering the lard, seeing that it should not burn, and that the kettle is clean. What is the reason that the lard mostly exposed for sale in town, has a black, dirty appearance. It looks like dirt more than burnt; but I am not aware that a dirty kettle would affect it so as to give it this peculiar color.

Sparerib will keep better and eat better if a sprinkling of salt is applied before hanging up. Before cooking, I also sprinkle over a little sage. When the hog is being cut up, I have a layer of fat left upon the sparerib, as it is much more juicy and palatable. When the family begin to tire of pork, the monotony may be varied by making of a nice fat piece mock duck, or mock goose; make a forcemeat of onions chopped fine, a little crumbled bread and a tablespoonful of powdered sage well peppered and salted. Make an incision close to the bone and under the upper flesh and stuff it in. Roast nicely, and serve with apple and onion sauce, made of thickened milk and finely chopped boiled onions. In making any kind of gravy, always pour off the fat into your dripping tin, leaving only the brown gravy in the pan, which should be returned to the top of the stove, and a little water, pepper, and salt added. When it boils it should be poured over the meat, or served in a tureen. The gravy only for game, chickens, and veal should be thickened with flour. Never add flour to beef or mutton, duck or goose gravy. Some of your readers may laugh at this, but I assure them I write on a matter whereof I know, and that epicures would not thank you for beef and-mutton gravy thickened with flour.

AUNT ROSA.

THE MODEL HOUSEKEEPER.

HER very first characteristic is neatness of person. She is no slouch, no slattern, no slip-shod-go-easy creature—no bundle of tatters and filth, unwashed and uncombed; no morning fright or afternoon belle; but a tidy, neat, orderly woman, in the care of her own person, such as everybody likes to look upon. This neatness extends from herself to her house and family. Filth and dirt shear her presence. Dirty people wash and scrape their feet before they come into her house. Her floors and carpets rebuke them. Her windows, cupboards, ceilings and clothes read them lectures on cleanliness. Her kitchen is the counterpart of herself, so clean, so fresh, so orderly. No greasy cooking stove, no begrimed tables, no filled-up corners, no sticky floors, no catch-all sinks, cupboards, closets, boxes, defile her kitchen. Her first care is her kitchen. And the whole house is in like manner neat and orderly.

Cooking with her is an art. It is a science too. She cooks by rule. She has a rule and a reason for everything. Simplicity is one of her fundamental principles. Her dishes are simply prepared so as to be at once agreeable to the taste and wholesome for the stomach. They are not heterogeneous mixtures of all indigestible things. They are not greased and peppered and spiced till they are uneatable and indigestible, by their very richness. They are not raw, nor burnt, but cooked. She cooks for health. She knows that human stomachs will not bear everything, and treats them accordingly. She knows enough of physiological laws to have a proper respect for the weakness of the human organism. She is not bound to a few dishes day in and day out, year after year, but goes the rounds of vegetables, meats, fruits, breads, pastries,

so as to give variety and solid substance to her food, such as the human body needs.

Then her meals are in time. They seldom vary many minutes from their regular hour. Her family can depend upon the order as much as they can depend upon the sun. They are not starved to-day and over-fed to-morrow. She has an order and a way in all her arrangements, and by skill and tact she brings her household into uniformity with it.

She lays by her stores not in half-pound parcels, but by the quantity as far as possible. Her cellar and larder are well supplied so as to reduce expenses both in time and price as much as possible.

In like manner are her drawers and clothes-presses supplied amply and in season, kept in order and clean. And so from cellar to garret her quick eye surveys all, and her orderly mind brings about her ends. She rules her kingdom with dignity and urbanity, and strews comforts along the pathway of all her household. She has her days for each weekly job, such as washing, ironing, baking, scrubbing; her hours for each daily work, such as cooking, sweeping, dusting, chamber-work, &c.

With her help she is neither morose nor familiar. She expects them to do no more than she can show them how to do. She shows more than tells; instructs chiefly by example; is patient and kind; chides little, approves as much as possible; looks after her own business; is at the head of everything; says "come" oftener, than "go;" feels that she is the motive power, the head and front of the household; assumes no airs; but goes quietly on her way, bringing all agreeably along with her. — *Rural World*.

NAMING CHILDREN.

The day of using nicknames never will die out, but the custom of christening children by nicknames and pet names should be strangled in the cradle. The rising generation will blush for the sentimental silliness of their parents who bestowed these names upon them. A writer says:—"Girls, instead of being baptized with such sensible names as Matilda, Charlotte, Margaret, or Sarah, are christened 'Tillie,' 'Lottie,' 'Maggie,' and 'Sadie.' Ellen dwindles into 'Ella;' Susan shrinks into 'Susie;' Caroline is made ridiculous by being cut down to 'Linia.' Emma becomes insipid in 'Emmie,' and most wretched of all, the beautiful name Mary is fritted away in 'Mamie.' This nicknaming would be all very well if in its use it was confined to the family circle; but such names are given permanently to children, and the future wives and mothers of the land figure in every advertised list of letters, and in every school examination as 'Lidies,' 'Susies,' and 'Sadies.' Think of the wife and mother of the father of his country christened by the name of 'Mamie, and 'Marthie,' and of the mother baptizing the future hero and statesman as 'Georgie!' The first Napoleon would have remained a bachelor forever had his first wife been named 'Josie,' and he would not have troubled an Archduchess of Austria to take the place of the discarded Empress had she been named 'Minnie Loui,' instead of plain and sensible 'Maria Louisa.'

DOMESTIC RECEIPTS.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER.

BUFFALO CREAM CAKE.—Make a custard with one half pint of milk, two tablespoonful of flour, and one of corn starch, if convenient, and one egg. When cold season with vanilla. Take one teacupful of white sugar, one tablespoonful of butter, and beat smoothly. Add nearly a teacupful of sweet milk. To one and three-quarters of a cup of flour, add two teaspoonsful of Buffalo baking powder, and mix in the cake. Bake the same as jelly cake, using the custard in place of jelly. It may be iced if desired.

TO CLEAN DECANTERS.—After well soaking the bottle, cut up a sound potato into small squares, and place in the bottle, shake for a while, rinse, and set to drain.

FAMILY GLUE.—I make my glue in the following way:—Crack up the glue and put in a bottle; add to it common whisky; shake up, cork tight, and in three or four days it can be used. It requires no heating; will keep for almost any length of time, and is at all times ready to use, except in the coldest of weather, when it will require warming. It must be kept tight so that the whisky will not evaporate. The usual corks or stoppers should not be used. It will become clogged. A tin stopper, covering the bottle, but fitting as closely as possible, must be used.—*Cor. Germantown Tel.*

PREPARATION OF HEAD CHEESE.—Take the head and feet, or, if you like, all that part of the hog called souse; pour hot water over them to loosen any stray bristles which the butcher may have overlooked, and scrape them well, to remove any scurf or roughness of the skin. Split the heads open and remove the brains, then let them soak twelve hours in a tub of water to cleanse them from all blood. Take them out, drain them, and put into a kettle of salted water, and boil until the bones will slip out easily. Take them out into your chopping bowl and chop fine, removing all the gristle and bone, which you can easily do, as your chopping knife will be sure to find them. Season highly with black pepper and powdered sage, adding more salt, if not enough.

Now put your wooden or tin hoop upon an inclined board and put in the minced meat; put on the fowler, on a plate bottom side up, and set a heavy weight upon it. This is done, not only to make it in convenient form, but to press out all the grease, which, to be done effectually, should be done in a warm room, close by the fire. This head-cheese is very nice sliced cold for supper, and some like it fried brown and served hot.—*Cor. Western Rural.*

HARRISON CAKE.—Five cups of flour, two and a half cups of molasses, two cups of butter, one cup of sweet milk, two cups of chopped raisins, four eggs, two teaspoons of cream tartar, one of soda, or three teaspoons of powdered yeast; spice to suit the taste.

SOUR MILK CAKE.—One cup of butter, two of sugar, two of sour milk, half a cup molasses, five of flour, one teaspoon of soda; raisins, salt, and spice.

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~~For~~ Postmasters, and all friends of agricultural improvement are respectfully solicited to obtain and forward subscriptions.

Address,

JOHN TURNER, Publisher and Proprietor,

ROCHESTER, N. Y.

Editor's Table.

CONTENTS OF THIS NUMBER.

AGRICULTURE.

February	41
Winter Work for the Farm	41
Report on Scoured Fleeces	42
Cheese Factories	48
Selection and Change of Seed	48
Dorking Fowl	44
Notes by "S. W."	45
Beans and Pumpkins with Corn	46
From Ohio	46
Roads and Road Making	47
Gypsum, or Plaster in the Manure Heap and Stable	47
Poultry on the Farm	48
Small Farms in Europe	48
Potato Culture	49
Bees	50, 51
Manure for Nurseries	50
Grape Vines	51
Salt as a Manure	51
Harness Blacking	51
Hops	51
American Dairymen's Association	52
London Cattle Market	58
Land Measure	58

SPIRIT OF THE AGRICULTURAL PRESS:

Ayrshire Cows	54
Rural Economy	54
Sore Feet in Sheep	54
Grindstones	54
Milking before Calving	54
Rust Preventive	54
Southdown Sheep	54
Oats Ground and Unground	54
Clover Seed	54
Cows	55
The Cause of Inferior Stock	55
Chamontel Pear	55
Canada Fruit Grower's Association	55
Concord and Ives Seedling	55
Mustard Poultries	55

HORTICULTURE.

Masses of Trees, and their Effect on Climate	56
Curious Effect of Summer Pruning	57
Early Pruning Promotes Early Fruiting	58
Winter Salads	58

LADIES DEPARTMENT.

Household Cares	60
The Model Housekeeper	60
Naming Children	61
Domestic Receipts	61

EDITOR'S TABLE.

The Markets	63
Notes from Canada	64
Literary Notices	65
Special Notices	66
Advertisements	66

THE MARKETS.

OFFICE OF AMERICAN FARMER,
ROCHESTER, N. Y., Jan. 27, 1867. }

There are few changes to notice in prices this month. Barley has been very active, and large quantities have changed hands at from \$1.50 to \$1.60 per bushel. It was bought by shippers for the eastern markets.

Beans still continue scarce and command high prices. Good dressed hogs bring 10 cents $\frac{3}{4}$ D. Potatoes are inquired for, and the prospects are favorable for a good price in the spring. The crop is light at the East from wet weather, and at the West from drouth. Beef cattle are scarce in this section, and the butchers tell their customers it is difficult to get a supply. Perhaps they tell the farmers another story. The probabilities are, however, that beef will be very high before next June. Good fat sheep are advancing. Farmers are getting out an unusual number of bolts this winter, and are selling them at \$6.50 per cord, and very justly complain that this is not enough. The swamps are dry, and sleighing excellent, and there never was a finer time for getting out logs, bolts, wood, &c.

Just as we go to press, we learn of the death of Mr. Naaman Goodsell, on the 25th inst., at New Haven, Oswego County, N. Y. He was extensively known in this city and throughout Western New York, as the horticultural editor of *The Genesee Farmer*, and was high authority in his day, on horticulture and floriculture. We shall give a more extended notice in our next.

TO THE LADIES

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We are selling *Silks, Shawls, Dry and Fancy Goods* of every description, also, *Silver Ware, Furniture, &c. Valuable Presents*, from \$3 to \$500, sent free of charge to agents sending clubs of ten and upwards. Circulars sent free to any address.

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REV. MR. HOYT, Gaines, N. Y.

PRICES OF PRODUCE AT THE PRINCIPAL MARKETS IN THE UNITED STATES AND CANADA.—BY TELEGRAPH, &C.

	NEW YORK, Jan. 25.	ROCHESTER, Jan. 25.	CHICAGO, Jan. 27.	ST. LOUIS, Jan. 24.	TORONTO, Dec. 23.
Flour, white wheat	\$12.60 @ \$14.85	\$16.50 @ \$00.00	\$ 9.00 @ \$11.00	\$ 8.50 @ \$11.25	\$ 7.00 @ \$ 0.00
" red		14.00	10.50	2.60	1.59
Wheat, white, $\frac{3}{4}$ bn.	2.50	3.25	2.07	2.45	1.60
" red,		2.70		.57	
Corn, $\frac{3}{4}$ bu.	1.25	1.85	.81	.84	
Eye, do.	1.68	1.78	1.58	1.54	
Barley, do.	1.90	1.92 $\frac{1}{2}$	2.10	2.13 $\frac{1}{2}$	
Oats, do.	.85 $\frac{1}{2}$	.88	.58	.59	
Beans, do.	4.00	4.80	8.00	4.00	
Peas, do.					.80
Butter, $\frac{3}{4}$ lb.	.88	.49	.80	.88	.17
Cheese, do.	.11	.15	.07	.08 $\frac{1}{2}$	.09 $\frac{1}{2}$
Eggs, do.		.85	.28	.85	.87
Potatoes, $\frac{3}{4}$ bu.		.80	.90	1.00	.60
" do.		.15	2.75	8.25dz	
" do.		.19 $\frac{1}{2}$	.7 $\frac{1}{2}$	.8	.5
Live hogs, $\frac{3}{4}$ 100 lb.	.08 $\frac{1}{2}$	.09	.84	.48	.22
Wood, $\frac{3}{4}$ D.	.88	.40	.53	.07 $\frac{1}{2}$	.19
Hay, $\frac{3}{4}$ ton.	.18	.19	14.00	16.00	19.00
Hops, $\frac{3}{4}$ D.	.80	.85	.90		.13
Clover Seed					.18 $\frac{1}{2}$

Notes from Canada.

CHRISTMAS day, 1867, was ushered in by a heavy and continuous rain storm, which lasted twenty-four hours, filled the rivers, creeks, and water courses, and giving an abundant supply of water for the stock during the winter. Since then, the weather has been but moderately cold with just enough snow fallen since new years, to make tolerable sleighing. Yet the grain markets are but poorly supplied, and prices continue on the rise, no more being brought in than is sufficient for local wants. Pork has come in very freely, and really good, well fattened hogs of over 250 lbs. each, find a ready sale at \$6.25 per 100 lbs. A large number of inferior quality, however, come in, and can scarcely find buyers at any price, the pork packers being determined to have only such animals as will make an article of mess pork or bacon that will find a ready sale in the English market at remunerative rates, and are giving a wholesome lesson to those farmers who are so short-sighted as to neglect bringing their hogs to proper size and condition before killing. Another year they will understand the matter better, and discover that a difference of from \$2 to \$3 per 100 lbs. on pork, is worth taking a little extra pains to obtain.

RENOVATING LAND.

This is a subject which I am glad to see is attracting some attention, and I may as well say a few words about it. There is no doubt much land, that though apparently worn out, is still capable of being made productive and profitable at a much less expense than it would take to reclaim new land from the forest. On many farms the sterility is more apparent than real. Where the soil is not very light, it will generally be found that deep plowing and subsoiling will work wonders on an apparently worn out soil. The surface only has been exhausted of plant food by continuous cropping without giving a return in the shape of manure or proper rotation. Plant food is still present, but at a depth beyond the reach of the roots of most of the crops ordinarily grown. Some of this plant food is doubtless in an inorganic state, requiring the soil to be turned up and exposed to the ameliorating influence of the atmosphere before it will dissolve sufficiently to be taken up by the plants as food. Shallow plowing is the general rule in American husbandry and it is a most difficult matter to convince many farmers that anything is to be gained by moving the plow an inch or two deeper each year. Again, look at the neglect of the most ordinary rules in making and saving manures. Scarcely a farm but has a piece of swamp muck or alluvial bottom, the soil from which, if dug out in winter, and hauled to the barnyard, and there spread to decompose and imbibe the ammoniacal salts from the urine, &c., would add a large amount of valuable plant food in the form of vegetable salts, to the soil of the farm. Another time I may have some further remarks to make regarding the use of clover as a means of renovating soils that are too light for us to derive benefit in any other way.

MAC.

Inquiries and Answers.

INFORMATION WANTED.—I want to ask a few questions for information through THE FARMER. I have just bought a place of five acres, of sandy soil, which has a fine orchard of about 50 trees, and I find that the borers have done some damage to the trees. Some of the trees have dead bark on them near the ground, and one or two have the bark dead about half way up. The trees are from three to six inches in diameter. Which is the best way to manage to get new bark on them, and prevent the tree from entirely dying or breaking off where the borers have worked? *a*

Is it beneficial to put a subsoil plow on sandy land? Do apple seeds want freezing before they will come up? I find different opinions about it here. When do they want planting? *a* I also have pear seed to plant. Will it pay to raise sun flower seed for poultry feed? *a*—*M. A. D., Oswego Co., N. Y.*

a Graft the tree above and below the dead bark.

b Yes; if a clay subsoil; if not, top dress.

c No.

d As early as you can work the ground in the spring.

e Yes; in limited quantity.

I often see in agricultural papers, wonderful accounts of the fertilizing power of red clover. If these assertions are well founded, please inform me how they may be accounted for. Also, how long land plaster is supposed to exert a beneficial influence?—*S. T., Botsford, Ct.*

PEAS.—Will some of the readers of THE FARMER inform us what is the average yield per acre of peas?—*Adams.*

Bound Volumes.

We have a large number of volumes of THE AMERICAN FARMER bound in good substantial binding, now ready for delivery, embracing the issues for 1866 and 1867. They will be sent to any address, by mail, prepaid, for \$1.25 each; or to any person sending us twelve names, at our lowest club price of 75 cents each, we will send either volume to the agent getting up the Club; or, for twenty subscribers at the same rate, we will send both the above volumes bound, postage paid.

VICK'S CATALOGUE AND FLORAL GUIDE FOR 1868.—This valuable work comes to us with new charms for the season of 1868. It is beautifully illustrated with engravings of choice flowers, and contains a large amount of valuable information, invaluable to all who own a rod of ground. It is sent to any address on the receipt of 15 cents. Let all our readers send for it.

CORRECTION.—In the article on Cheddar Cheese in our last number, the size of the hoops that the cheese are pressed in should be, in 7-1-2 and 8 inches in diameter for the largest size, which will produce a cheese from 7 to 14 lbs. In the coloring matter it should read: The dark color of the outside is caused by rubbing with annotta, and butter with a little burnt umber ground fine, mixed in with it.

Will our friends oblige us by presenting the claims of THE AMERICAN FARMER to their neighbors and friends. Thousands of farmers and persons interested in agriculture and horticulture, might be induced to subscribe if the character and cheap price of the paper was made known to them. Specimen copies will be furnished to any of our friends, free, for this purpose.

The American Farmer Annual.

Read what is said of THE AMERICAN FARMER ANNUAL:

Every lady who cultivates a flower garden will find the Annual a valuable instructor. It is finely illustrated.—*Revelle, (Fitchburg, Mass.)*

Full of valuable matter.—*Whig, (Bangor, Me.)*

It is a cheap and ready floriculturist's manual, especially in what relates to bulb culture.—*Boston Cultivator.*

The American Farmer Annual is one of a series issued in light and portable form, designed to cultivate a taste for the cultivation of flowers, and to give practical instruction in their cultivation. There are also pages devoted to the manner of laying out a garden, containing many useful suggestions.—*Mass. Ploverman.*

This is one of the best hand-books for the amateur cultivator of flowers. The information is practical, and given in clear and concise language. It also contains very extensive catalogues of the finest plants for the flower garden.—*Journal of Agriculture, (S. Louis, Mo.)*

It contains instructive lessons respecting the nature and cultivation of a variety of plants and flowers. It is just such a book as all need who give any attention to horticulture and house plants.—*Zion's Advocate, (Portland, Maine.)*

THE AMERICAN FARMER ANNUAL is a pamphlet in which the writer gives directions for the successful cultivation of plants, roses, &c., copiously illustrated, showing the plants in bloom. It will be found a useful hand-book for all interested in the matters of which it treats.—*Standard, (Bridgeport, Ct.)*

Sent by mail, postage paid, to any address, for 30 cts.

Literary Notices, &c.

THE AMERICAN SHORTHORN HERD BOOK.

The Eighth Volume of the American Shorthorn Herd Book is now published. It is well printed and illustrated, containing nearly 600 pages. Price, \$6 by express, or \$6.50 by mail, post-paid. Every one who breeds Shorthorn cattle should have at hand the entire volumes of the Herd Book for reference to the strains of blood he uses, or wishes to use in his breeding; for no one can breed intelligently as to the blood of his cattle, without them. The prices for Vols. 1, 2, 3, 4, 5, and 6, are \$5 each by express, or \$5.50 by mail, post-paid; Vols. 7 and 8 are \$6 each, by express, or \$6.50 by mail, post-paid. Address, L. F. Allen, Black Rock, New York.

RED CROSS; or, Young America in England and Wales.

A story of travel and adventure, by Oliver Optic. Boston: Lee & Shepard publishers. Price \$1.25. For sale in this city by Darrow & Kempshall. A very interesting and highly instructive book.

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The well known name of the author of this work will cause a large demand for the book.

ROSA ABBOTT STORIES. Tommy Hickup; or, a Pair of Black Eyes. By Rosa Abbott. Boston: Lee & Shepard. \$1.00. The above for sale in this city by Darrow & Kempshall.

AMY DENBROOK. A life drama, by the author of "Woman and Marriage," "Smiles and Frowns," "My Cogitations," &c., &c. New York: James O. Kane, 48 Broadway. Price, \$2.00.

CLAUDIA. By Amanda M. Douglas, author of "In Trust," "Stephen Dane," &c. Boston: Lee & Shepard. Price \$1.50.

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on the inner life, trials by the way, work for Christ, the unfailing friend, the heavenly home.

DOTTY DIMPLE STORIES. Dotty Dimple at her Grandmothers. By Sophie May, author of "Little Prudy Stories." Illustrated. Boston: Lee & Shepard. Price 75c.

THE HELPING-HAND SERIES. Billy Grimes' Favorite; or, Johnny Greenleaf's Talent by May Manning. Boston: Lee & Shepard. Price, \$1.

SPENCER'S BOOK OF COMIC SPEECHES AND HUMOROUS RECITATIONS. A collection of Comic Speeches and Dialogues, &c., for school exhibitions and evening entertainments. By Albert J. Spencer. N. Y.: Dick & Fitzgerald. Price 50c.

The above for sale in this city, by Darrow & Kempshall.

We are in receipt of Instructive and Retail Catalogue of Small Fruits, by Purdy & Hance, South Bend, Ind. This catalogue, besides containing a list of plants for sale by Purdy & Hance, is a manual of instruction in the cultivation of small fruits. Many years experience in raising and packing plants for shipping long distances on an extensive scale, has enabled Messrs. Purdy & Hance to arrive at as great perfection in the business as any one has yet attained, and their plants seldom fail to give satisfaction.

From William Webster, Rochester, N. Y., spring catalogue, for 1868, embracing designs for laying out and planting gardens, together with practical information relative to the improvement of country places: also complete lists of shrubs, roses, flowering plants, and seeds. Beautifully got up, and containing much valuable information.

From C. Raoux, horticultural agent, New York, the trade seed list of Frederick Adolphus Haags, Jr., Enfurt, Prussia, a full and complete catalogue of flower, tree, and agricultural seeds, greenhouse, and stove plants. Also from the same, the wholesale catalogue of garden, agricultural, and flower seeds, of John Stewart & Sons, Dundee, Scotland.

From J. M. Thorburn & Co., New York, annual descriptive catalogue of vegetable and agricultural seeds, garden, field, fruit, &c., seeds:

Price list and descriptive catalogue of cheese vats manufactured by W. Ralph & Co., Utica, N. Y.

From Messrs. Ellwanger & Barry, descriptive catalogue, No. 2, of ornamental trees and shrubs, roses, flowering plants, &c., for spring of 1868.

From Messrs. Maxwell & Bros., Geneva, descriptive catalogue of ornamental trees, shrubs, &c., for spring of 1868.

From J. S. Collins, Moorestown, N. J., descriptive and priced catalogue of small fruits, for spring of 1868.

MARSHALL P. WILDER'S collection of rare plants, we see by the daily papers, has been generously presented to the Massachusetts Agricultural College. This magnificent act is in keeping with the life-long devotion of Mr. Wilder to the cause of horticulture. The Camellias in this collection would be a fortune to a florist, and those who have seen Mr. Wilder's plants must understand how much he has sacrificed to his generous feelings, beyond the mere money value of the plants, in parting with what he has loved so long.—*Gardener's Monthly.*

Special Notices.

See the advertisement of Northwestern Farmer in another column, and read the terms to agents carefully. They are very liberal.

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in THE AMERICAN FARMER for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 18th of the previous month. THE FARMER has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

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FROST & CO., have just imported a fresh lot of Flower Seeds, containing many very rare novelties, to which they would respectfully call the attention of the public. They have also a large collection of

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- No. 3.—Descriptive Catalogue of Greenhouse Plants, Dahlias, Verbenas, &c. 8c each.
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WILSON'S EARLY, KITTATINNY AND LAWTON Blackberry Plants. Doollittle Raspberry, and Strawberry Plants of all the good varieties, cheaper than the cheapest. Peach trees \$6 per 100. Lower by the quantity. Early Goodrich potatoes. Send stamp for price list. **G. W. THOMPSON.** feb21*

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The Northwestern Farmer, after two brilliantly successful campaigns, entered upon its third year, January 1, 1868, enlarged and greatly improved. It is unanimously pronounced, both by press and people, to be the largest, finest, and best rural magazine in America.

It is printed on fine book paper, beautifully illustrated, filled with first class original matter, and bound in splendid style each month.

The Northwestern Farmer is an original magazine of Rural Life—a journal for the farmer, the gardener, the fruit-grower, the housewife, the preacher, the lawyer, the physician, the merchant, the trader, and everybody who has any interest in the practical duties of life, whether in city or country, rich or poor, learned or unlearned, none can fail to be interested in it, and benefited by it. The corps of writers engaged for next year comprise the largest and most brilliant array of talent ever engaged upon a similar publication in this country, and these will furnish monthly their best thoughts and most valuable facts for its columns, making each number of great value, and the volume an encyclopedia of information worth many times its cost for future reference.

The Northwestern Farmer is a Western paper, published by a Western man, filled with matter from the pens of Western writers, and dedicated to the growth, development, and substantial prosperity of this great section.

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feb

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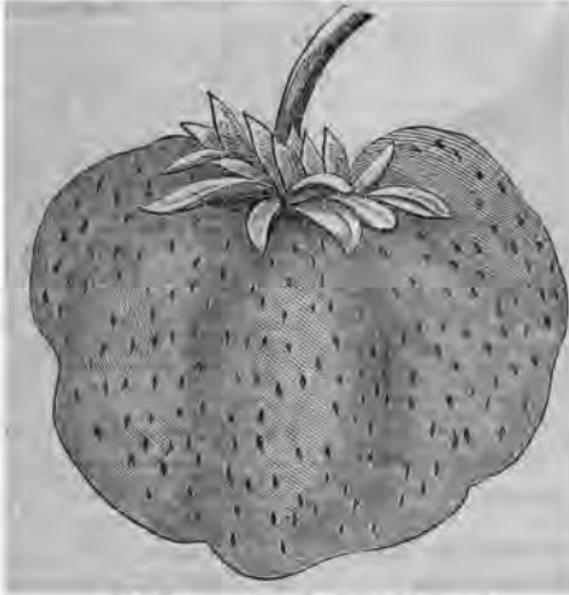
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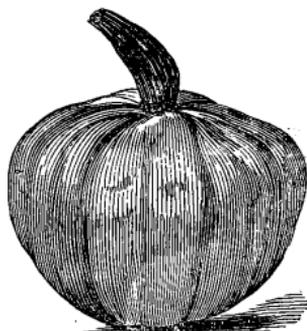
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THE AMERICAN FARMER



VOLUME III.

ROCHESTER, N. Y., MARCH, 1868.

No. 3.

MARCH.

See where surly Winter passes off,
Far to the north, and calls his ruffian blasts;
His blasts obey, and quit the howling hill,
The shattered forest, and the ravaged vale;
While softer gales succeed, at whose kind touch,
Dissolving snows in livid torrents lost,
The mountains lift their green heads to the sky.

As yet the trembling year is unconfined,
And Winter oft at eve resumes the breeze,
Chills the pale morn, and bids his driving sleets
Deform the day delightless; so that scarce
The bittern knows his time, with bill ingulfed,
To shake the sounding marsh; or from the shore
The plovers when to scatter o'er the beach,
And sing their wild notes to the listening waste.

Thompson.

SPRING WORK.

WITH the return of spring all nature awakes to new life. The sap begins to flow through the veins of the trees, grass commences to look green, and the birds, sweet harbingers of spring, will soon be welcomed with their sweet, melodious notes, chirping from tree to tree, and rejoicing the hearts of old and young. And now commences the farmer's campaign, after a season of rest. Now is the best time to work to advantage, and get everything in readiness for seed time and harvest. Much can be done this month to lessen the labors of the following months.

FIELDS AND FENCES—should be looked over, the stones and brush gathered and stored away, fences be straitened and repaired, decayed and rotten timbers taken out, and replaced with sound ones; gates should all be made to open and shut easy, and where necessary, new hinges put on.

PAY.—In what way can we get the greatest return from the land cultivated, is a question that should receive the careful attention of the farmer. What crops will give the largest yield with the best profit? In which way can we best keep up the fertility of the soil, and constantly improve our farms? Each of these and other similar questions ought now to be considered, and by careful attention, and close watching learn from the experience of the coming summer what it pays to raise.

CELLARS—must not be overlooked this month, but have a thorough cleansing and white washing.

All decaying vegetable matter should at once be removed as such is often the cause of sickness and death in a family occasioned by the fetid air which will arise and fill the upper rooms of the house. Open the windows and have a free current of air pass through. See to it that water does not lie in the cellar, open the drains, or provide a way to keep the cellar clean and dry at all times.

FUEL—for the summer supply should now be cut ready for use, which can be well done on wet and stormy days. Lay in enough to last till fall, so as not to have to leave prassing work in the busy season to supply the good housewife with needed fuel.

TOOLS AND IMPLEMENTS—of all kinds should be got in readiness for immediate use, sharpen dull hoes and scythes, grease wagon wheels, and make needed repairs to all tools that are injured.

MANURE.—Draw out to the fields the accumulated compost of the winter for the spring crops. Clear up the yards, and get all the scrapings together. Let nothing be wasted that can add to the fertility of the soil, which needs all the enriching substances that we can add, to give nourishment to young plants, and for which the husbandman will get well rewarded by bountiful crops.

BEES.—From this time until flowers appear, is the most critical time for bees. Nine-tenths of our losses by starvation occur about this time. It will require quite as much food to carry them through as it has taken during the last three months. The young are now beginning to come out, and must be fed. If the colony is short of provisions, and have no means of replenishing, like good economists, they will, if possible, prevent any addition to their family. This same stock, if well fed, will give you an early swarm, and a good supply of surplus; but if not fed, will afford you nothing, even if they survive. If you have honey, set a box on the top of the hive. If not, sugar candy (white) is a good substitute; also rye meal is an excellent substitute for pollen. As soon as the weather will allow them to fly, place in a shallow dish near your apiary, a quantity of this meal mixed with oats for the bees to alight upon; otherwise they may work themselves into the meal, and will be unable to get out

Put a piece of old comb on the meal, which will soon attract the bees. Never put your feed on the bottom of the hive. It will surely attract robbers. A little straw scattered upon the snow will save many bees.

NEW FOREIGN STRAWBERRY—DR. NICAISE.

By our foreign files we see that this variety is attracting a very large share of the public attention in France. Figures of this variety grow in the United States, though evidently the same fruit, yet indicate so marked a difference in some respects that we have thought it would serve a good purpose with those who love to study the influence of climate on varieties, we give a cut and description of this one from a direct French source:



The account says this fruit was raised by Dr. Nicaise, of Chalons-sur-Marne, from seed, in July, 1861, ripening its first fruit in June, 1863. It is the "largest that has been known until this day," does not fruit all at once, but has a less sensible "diminution of the volume of fruit from first to last" than a great number of others. Leaves "abundant and vigorous," yet "permitting all the fruit to receive the rays of the sun." Color bright red, flesh white, and juicy, very sweet, and highly perfumed. In the account before us, Jos. Riffaud, gardener to Dr. Nicaise, announces that he is selling the plants, by subscription, at 3 francs each.—*Gardener's Monthly*.

AN Oregon paper estimates the surplus of wheat in the Willamette valley, at the close of the recent harvest, at 2,000,000 bushels.

CINCINNATI Horticultural Society Exhibition, Sept. 23.

DEEP PLOWING.

MUCH has been said and written on this subject, our agricultural papers have advocated with "line upon line" and given example after example of its benefits, and after all much of our plowing is mere scratching. We believe that most of our farmers are convinced that deep plowing is absolutely necessary if we wish to have good crops—though some still contend that it spoils the land, "wears it out," they say; yet a great part of the plowing done is very shallow.

Now, it must be understood that to plow land well, requires a good team, and so long as our farmers continue to raise little horses and mules, and try to persuade themselves that a small animal can do as much plowing as a large one, just so long will this scratching the ground continue. Improve our stock of horses so as to have more weight; it is useless to expect a small team to plow deep.

The following is only one of the many communications which we have received concerning the benefits of deep plowing, especially in dry seasons, like the past. Mr. E. W. Bishop, of Phelps county, writes:—"Those who plowed deep, and got in their corn before the 10th of May, and cultivated well, all got good, fair crops, full up to the average of other years; while those who plowed shallow, planted late, and gave it light culture, got nothing. It is to be hoped that the sad experience of this year will not soon be forgotten by those who advocate shallow planting. I have seen, this year, deep and shallow culture tested in corn in the same field the former producing a good crop, the latter almost nothing."—*Jour. of Agriculture*.

RABBITS AND FRUIT TREES.

A correspondent of *The Western Rural* gives the following directions for protecting trees from injury from rabbits. He says he has tried the plan for twelve years without a failure:—"Take sweet milk and add soot sufficient to make a thin paint, and wash the tree or rose bush as far as the rabbits can reach. This should be done on a dry day, so as to dry before any rain. I have found one application sufficient for the winter. Let the farmers try this one season, and I will insure satisfaction."

J. W. GRISWOLD, of Wethersfield, Conn., informs the *New York Horticulturist* that he has preserved his trees from the canker-worm by piling coal ashes around their trunks.

A free grant bill has become a law in Canada.

HOPS.

WRITTEN FOR THE AMERICAN FARMER BY F. W. COLLINS.

THE season is fast approaching when the hop planter must be busy in his hop yard, and as hop-growing has assumed an importance far in advance of that it has hitherto held, second indeed, to no other branch of husbandry in America, I propose to offer a few practical suggestions upon the subject to your many readers who are engaged in the culture of hops. Especially to the novice a few words of advice may be of service.

It seems very undesirable that we should have to depend upon any foreign country for a commodity which while it brings from 50 cents to 70 cents per lb., can be raised for from eight to ten cents per lb., and still leave as broad a margin for profit as any ordinary branch of farming affords. The amount of hops imported since September last is very large, materially affecting the price for the time being, and yet many of our hop yards have this year yielded about a thousand dollars per acre.

The plant louse is the only enemy which has yet injured hops in this country to any great extent, and this is now so easily checked that there is no longer any excuse for the planter who permits the destruction of his crops. One early application of finely ground plaster, or plaster and lime, thoroughly dusted everywhere among the leaves and stems of the plant, will destroy every vestige of the aphid. Such a dusting the first week in July will generally be found sufficient. However, should the insect appear later in the season, it will be necessary to resort to a second dusting.

Sets should be taken out of the hills soon after the frost is out of the ground. They are the offshoots stretching out from three to five feet from the main root under ground. To take them out with as little injury as possible to both the old and new roots, first clear the loose dirt away from the hill, find these runners, cut them off near the crown root, raise the runners, and trace them carefully out to avoid bruising the tendrils unnecessarily, as on a careful removal of them depends in a great measure the strength of the new yard. When rooted out by the plow, the cultivator, or the hoop, many of these are rendered worthless. From these runners are cut the sets proper, which are pieces each containing two or more sets of eyes. The hills should be filled in immediately after the sets are removed, and the runners should be covered with earth until wanted, and in no case exposed to either frost or heat.

When the ground is light, and not too strong, a dibble is used for planting the sets which are put in endwise, two to the hill, slightly sloping towards

each other at the top. While sets were plenty and cheap, three or four were generally used to the hill, but now at fifteen dollars per thousand, two sets per hill are found to be quite sufficient. The sets should be well covered with earth; if barely covered, there would be danger of injury from drouth. Hop sets are in great demand, and their sale adds not a little to the profits of the yard. A gentleman in York, Livingston County, N. Y., told me that he last year sold his surplus sets for \$500 per acre.

In starting a hop yard, it is better to procure sawed stakes than to cut saplings from the forest, as the sawed stakes are cheaper, lighter, less bulky, and more durable. These sawed stakes should be sharpened at each end, and reversed each season. If properly housed during the winter they will last for a long time. When boiled in gas tar the stakes are rendered proof against decay. A strong stake, nine feet in length, and as heavy as a common fence post, or the lower part of a hop pole, should be set two feet in the ground in a row ten feet outside of the outer row of hop hills, clear around the field as a support for the other stakes. The twine is tied to this large stake at the end of the row, and wound once around each of the other stakes in the row across the field in each direction. The twine holds the stakes in their places, and serves as a trellis upon which the vines are trained after they reach the tops of the stakes. Twine that has been tarred or well saturated with boiled oil or pitch, is more durable, and less liable to shrink and expand than raw twine. Common hemp or linen twine which now costs from five to six dollars per acre will last in the hop yard two years without tarring, and then do for tying up fleeces of wool. A few years ago twine could be purchased for three dollars per acre, which would last two years. Train four vines up each stake and then turn one each way on the twine from the right hand over to the left. The surplus runners at each hill must not be cut off, but carefully buried when they increase the sets for next year's use. Avoid cutting or bruising any part of the vine, as this only weakens the root. The vines should not be handled in a cool morning, as then the vines are very sensitive and easily broken. After the dew is off, and the sun shines out warmly the vines are easily managed, and take kindly to the quarters assigned them.

Corn should not be planted among hops. Low hoed crops may be raised between the hills, the first season, but never near the hop plant itself; never on any account in the hill. Beans or potatoes can be thus grown to advantage. Hops should be staked the season they are planted, and all the vines kept on the stake, but twine will not be necessary until the second season. If properly set, kept free from weeds, and trained on the stakes, from \$50 to

\$100 worth of hops to the acre may be harvested the same season the hops are planted, and this management will do far more to insure a large crop the coming season, (which by the old way is the first season any hops are harvested,) than the ordinary method of letting them trail over the ground in a bed of weeds, to be cut off by the cultivator or torn and bruised in every arm two or three times during the summer.

Any hop grower can understand that the textile fiber of the hop vine is peculiarly abundant and flexible. The art of separating it from the woody fiber is now being perfected. Cloths of various descriptions are now manufactured, and the paper makers find the hop vines equal to Manila for making strong paper for sacks. Wheat straw, which contains comparatively little fiber, now brings fourteen dollars per ton at the paper mills. Hop vines contain a great amount of textile fiber of great power. Hops are now picked as early as August, or the first week in September, in order to be saleable. Then the vines are left growing to mature the root. It will not be many years before this matured vine will bring a good price in market to be converted into cloth and paper.

There has been in some of the religious journals a sharp controversy on the morality of growing hops, and the question has been pretty freely ventilated in *The Independent*. Its editor, in closing an article, says:—"Our own opinions, condensed, are that growing hops is a perfectly legitimate and honest business, one of which no one has any occasion to be ashamed, or to compromise with his conscience, as much a legitimate calling indeed, as raising corn or potatoes, or growing apples, grapes, peaches, pears, or any other fruit. Must we give up our luscious grapes, and the blessings and refinement they yield, because many convert them into wine, and from wine into brandy, which gurgles down the throats of drunkards? Must our Southern cultivators give up their sugar cane, because the molasses made therefrom is the material element from which millions of gallons of rum are yearly distilled? Must we stop growing corn, or rye, because distillers are daily using thousands of bushels of grain to make their infamous whisky? Must men stop growing hops, because some use them in making beer? Shall we give up all these, and the luxuries, comforts, and conveniences which accompany them, because forsooth excess and drunkenness exist? Evil spirits are distilled from all of them, and indeed from most of our most esteemed fruits and vegetables. We say, emphatically, no."

EXPERIENCE is one of the best of teachers; yet we ought not to allow ourselves to become its slaves, as is the great tendency of farm life.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

JOSEPH HARRIS' "Walks and Talks on the Farm," are the life of *The Agriculturist*. He well says, "that we can raise just as good grass, and more of it here, than they can in Herkimer County, or the Western Reserve. We have plenty of wheat, barley, and oat straw, corn stalks, pea and bean haulm, and clover in abundance—so that farmers plow it under as manure, and we can winter our cows much cheaper than they can in the dairy districts." But although we can make more hay, and have more grain, corn stalks, and straw, than they have in the dairy regions proper, owing to our hot, dry, summers, our pasturage, after haying and harvesting, is nothing compared to theirs. The latter part of July, when our pastures had begun to dry up, and white clover had ceased to grow, I have gone through the south parts of Madison and Oneida counties, when the pasturage was flush, and the white clover taller than I ever saw it in Seneca County. I have seen the same on the high lands of Chataqua. It has been proved by a well-kept diary, that they have more than twice as many summer showers in that region, take one year with another, than we have in Seneca, and of course double the pasturage after the spring rains have made the hay crop. No wonder, then, that our veteran friend Harris, says he "can keep three times as much stock in winter as he can pasture in summer."

FARMING BEGUN AT THE SOUTH.

I learn from the numerous planter correspondents of the January *Southern Cultivator*, that cotton growing the past season, has only increased the sad pecuniary straits of the planter; even those men who were their own vigilant owners, working also themselves, and thus making good crops, find that their cotton crop at the present low prices heavily taxed as it is, does not pay the cost of production. But having their manhood intact, they neither whine nor beg, but make the best they can of their situation. As near as I can learn, the general programme now is, to grow corn and small grains, instead of cotton, grass, and the *leguminosus*, instead of broom sedge and bushes, to keep farm stock, make and save manure, and recuperate this worn-out and "turned out fields," on which it has cost them so much labor to kill out grass; to grow clover for late and early pasturage, as well as to plow in as soil amendment; in fact, to grow grass instead of killing it, is now the order of the day in the cotton growing States. Substituting stock growing and grain growing for cotton, it is supposed will mend the morals of the freedmen, as their hog and hominy, beef and mutton, will be in plenty for all,

and the blacks will not have to steal it, to keep themselves alive, as they must do when the whole product is cotton. When the fields have been fertilized by grass and the clovers, the planters hope that the price of cotton will advance. They can then raise larger crops on a much smaller area, and by that time they trust that the good sense and self-interest of their Northern brethren will react against the present party efforts to San Domingoize the South. Then cotton may be again grown to profit, and if untaxed, like the agricultural staples of the North, it may once more become the great article of export that pays the foreign debt, and increases the revenue of the nation.

THE MECHANICS OF AGRICULTURE VERSUS SOIL EXHAUSTION.

The New York *World* says that the late great improvements in the mechanics of agriculture, while it has given ease to the human muscle, does nothing towards replenishing the soil with the elements which are yearly taken from it by cropping. It says:—"It is a far more cheering sight to see a line of sturdy reapers swinging the cradle on wheat fields that will yield thirty bushels to the acre, than to watch the motions of one of those automatons, a McCormick, or a Buckeye, or a Clipper, doing its swift, clean work, in slender, scattered, half-filled grain, that will not average over ten bushels to the acre. Less ingenuity, we say, and more true thrift. These cams, and rods, and journals; these conical rollers, steel cranks, and cutter bars, have no effect on the soil. They do not make the stand good, nor persuade the wheat heads to fill out. There is ground for general alarm when we see all over the country from the Hudson to the Des Moines, from the head waters of the Chattahoochie to Itasca Lake, a steady annual decline in the yield of our wheat fields. The average for the past year has not been over twelve bushels. In the great, fertile, and boastful State of Ohio, they have raised less than four bushels to the acre; and on the virgin soil of the Northwest, on sod just rotted, in a tith as full as nature ever makes it of the prime constituents of fertility, they have produced less than half the average that England gets from fields that have been tilled ever since the days of Agricola."

It is the fine tith, the hoeing, weeding, and underdraining, as well as the drill seeding and manuring, that gives to England her large wheat crops; and doubtless it is the same judicious course that has of late enabled the sturdy farmers of Vermont, to grow more wheat to the acre at this time, than either Ohio, Illinois, or Minnesota. The average wheat crop in Vermont, in 1866, was 20 bushels to the acre. In England, it has been proved by repeated experiments, that 15 bushels of wheat may be raised to the acre by good tillage alone, on a soil

after it is entirely exhausted of organic matter, and that the simple addition of ammonia salts alone will double the crop.

But it would seem that the improvident prairie farmers, by constant plowing and wheat growing, without manuring, have not only exhausted the organic constituents of the soil, but the mineral elements also. A farmer near Janesville, Wis., who harvested 200 acres of spring wheat the past season, told me that when he had burned large masses of straw on the wheat field, the crop was much larger than on the other parts of the field. Had a part of this great pile of straw been saved to feed to his farm stock to support heat, and save lay in cold weather, using the remainder for bedding in the stalls to absorb and thus save the urine, an immense pile of organic manure would have been made, and with some more labor the wheat crop might have been doubled, and the soil saved from a hopeless deterioration.

THE GAME COCK--ITS BEAUTY, CHARACTERISTICS, &c.

WRITTEN FOR THE AMERICAN FARMER, BY C. N. CEMENT.



Of all the domestic fowls, except perhaps the Sobright Bantam, the Game Cock is the most symmetrical, gracefully formed, and beautifully colored of our breeds of poultry; and in its form, aspect, and extraordinary courage which characterizes its natural disposition, exhibits all that either the naturalist or sportsman could at once recognize as the beau ideal of *high blood*—embodying all the most inheritable characteristics of the gallinaceous aristocracy.

The game fowl among poultry is what the Arabian is amongst horses, and the Devon among cattle. He is the most elegantly formed and beautifully plumaged of the whole family; indeed he is sometimes so stately in form and magnificent in feathers,

we cease to wonder that the ancients by way of pre-eminence should have called him "the bird," or that Aristophanes, the great comic actor of Athens, should have likened him to the King of Persia.

The Game Cock is the Hotspur of the family. More elegantly formed and fiery in spirit than his plodding brothers, he very early engages the attention of the warlike great; and hence we find Themistocles, when he led the Athenian army against the Persians, inspiring their drooping valor by an appeal to its martial qualities. "These animals," he said, "fight not for the gods of their country, nor for the monuments of their ancestors, nor for glory, nor for their children—but for the sake of victory, and that one may not yield to the other." The same fierce propensities recommended the manufacturers of the Grecian theology, who gave them appropriate niches in the Temple of Apollo, Mercury, and Mars, to whom they were thenceforward especially dedicated. The same facility of vigilance consigned them to the care of Esculapius. Thus the value of the bird became devoted to religious mysteries, and eventually to the common festivities of the country.

The entire life of the Game Cock shows that he is a most excellent family man, placing his whole care and study in providing all necessaries for his household. He devotes whatever energy he has the live-long day to the good of his dependents, as he is solicitous about nothing less than self.

The attitudes of the Cock are those of haughtiness: he carries his head high; his look is bold and quick; his gait grave: all his motions bespeak a noble assurance; he seems to reign over the other inhabitants of the poultry yard. His activity is in defatigable, and he is never deficient in vigilance. Incessantly taken up with his mates, he warns them out of danger, gets before them, and if obliged to yield to force, which robs him of one, he for a long time expresses by loud outcries, his anger and regrets; feeling for their sufferings he again utters long and sonorous exclamations, when by their cries they announce the pain or fatigue of laying. A softer clucking is the signal by which he calls them. His usual shrill crow is at the same time the expression of his continual vigilance; the cry of victory after an engagement, and the accent of satisfaction. It was formerly thought that the cock and the nightingale were the only day birds that sung and crowed at night; other species warble after sunset; but all as well as the nightingale are quiet when the season of love is over; whereas the Game Cock crows every day, and every night throughout its whole existence. However, there is some ground to presume that it is otherwise in a state of nature, and that the crowing of the wild

cock is no more as with other birds, than the momentary accent of his loves.

If the life of the Game Cock be an uninterrupted series of enjoyments, it is also commonly a continued scene of war. As soon as a rival comes forward, the fight begins, and only ends by the retreat of one of the champions. Sometimes both the rivals die in the battle. If one of them be the conqueror, he immediately celebrates his triumph by repeated crowings, and by flapping his wings.

Less spirited than the cocks, hens are also milder and more timid, though they fight with each other, and for a moment with ten times more fury than the cocks. Their voice is less sonorous, but its different modulations show that they as well as the cocks have a varied language. After having laid, they utter loud cries. If they call their chickens together, it is by a short, grave clucking; they warn them out of danger by a monotonous and lengthened cry, which they repeat till the bird of prey is out of sight; in fine, they keep up, between themselves a continual cackling, which seems to be a coherent conversation between these very chattering females. There are some hens which faintly imitate the crowing of the cock; they are usually the young ones of the year, and they do not always keep on their mimic fancy, as we have ascertained by following several of these crowing hens, which happened to be at different times in our poultry-yard. As to the rest, they had none of those exterior characteristics which could bring them near the cock; they lay like the rest, and it is wrong that they should be generally proscribed, as either barren or as ill-omened.

The Game Cock is remarkable for his haughty, grave, stately gait, for his courage and vigilance, for his attachment to his hens, for his amorous disposition, and his means of satisfying it.

Peace does not last long between Game Cocks among which the empire of the poultry yard has been divided, as they are all actuated by a restless, jealous, fiery, ardent disposition; their quarrels are frequent, and generally bloody. A fight soon follows the provocation. The two adversaries face each other, their feathers are bristled up, the neck stretches out, the head low, the bill ready; they face each other in silence, with fixed sparkling eyes. On the least motion of either they set off together, they stand stiff, rush forward, and dash against each other, and repeat the same manœuvre, till the one most adroit and strongest, has torn the comb of his enemy, has thrown him down by flapping him with his wings, or has stabbed him with his spurs.

A false notion of the savage disposition of the Game Cock is derived from the sight of the sparrings of the half grown chickens; but the pullets will

indulge in this game as well as the cockerels. It is very rarely that mischief is done by such tiltings. Cockerels will often stand beak to beak, making two or three jumps with outstretched necks and ruffled hackle, but with no more evil intention, (for the present,) than many a gentleman who sits to his partner in a quadrille.

But after all, the Game Cock is by no means the aggressive, sanguinary tyrant he is commonly supposed to be. He will submit to no insult or intrusion, but neither does he offer any unprovoked assault. If his antagonist flee he is satisfied, and does not pursue him in order to perpetrate any bloody revenge. Other poultry that are killed by Game Cocks generally draw down the punishment upon themselves by their impudent and continued aggression. The bird too, is as enduring of pain as he is bold in combat. We were compelled to prevent mischief, to amputate the spurs of a Game Cock; he bore the operation and subsequent application of hot iron to prevent bleeding, without a sound or a murmur; and when set down in the midst of his hens he was as lofty and imperious as ever.

In accounting for the pugilistic spirit of the Game Cock, it should be borne in mind, that in their wild as well as in their domestic state, they live surrounded by many dangers, have each a number of hens, and many chicks to defend, and it may therefore be necessary to their safety, that they should possess their hostile energies, which beaming in their bright, determined eye-balls, in itself is almost sufficient protection.

Allowing for the inferior intelligence of fowls, many of the gambols of chickens are similar to what we have stated. The "cock-of-the-walk" never interferes with such harmless frolics, which he will do if they threatened anything serious. If we were to compare the temperament of game fowls with that of the human race, we should say that they had not one atom of the lymphatic in their composition, but a happy combination of the sanguine and nervous.

But though we wish to clear the Game breeds from the charge of bloodthirsty cruelty, we cannot hold them out as patterns of gentleness and forbearance. "Might with them, makes right." None but the brave, however well they may deserve, or how much soever they long for, are likely to enjoy any favor from the present class of rusty-fusty colored beauties.

The general manner and habits of the Jungle Fowl resembles their domestic relatives. The cock proudly leads his train of females, and vigilantly watches over their safety. On being suddenly disturbed, the troop scatter in all directions, seeking

safety under the dense brush wood. In spots where they are numerous, the challenging of the cocks to each other, may be heard on every side around, and yet such is their cunning and keenness of sight, that the sportsman, unless he is well acquainted with their habits, is often disappointed in his attempts to get a shot at them.

By some the Jungle Cock of India is regarded as the common ancestor of all our domesticated cocks and hens. The Game Cock naturally suggests itself as the first link in the geneological chain. Some of our breeders, indeed, would derive the black-breasted red birds from what is commonly called the Bengal Jungle Fowl, while the distinction of a separate descent is claimed for the duck-winged from another variety of the wild bird, (Sonnerat's cock,) are inhabitant of Southern India, whose more varied plumage bears a very close resemblance to this beautiful variety.

The flesh of the Game fowl is beautifully white as well as tender, delicate, and highly flavored. The hens are excellent layers, and although the eggs are somewhat under the average size, they are not to be surpassed in excellence or flavor.

If a stock of poultry is flagging or degenerating, the owner hardly knows why the admission of a good Game cock will soon set all to rights. His very look and air inspire health and cheerfulness into the dispirited hens. He fertilizes the eggs of every variety of domestic fowls, from the little Bantam to the portly Brahma. The issue of such crosses does not always resemble either parents, but it is sure to be something pretty useful, and thrifty.

SIZE OF NAILS.

THE following table will show any one at a glance the length of the various sizes, and the number of nails in a pound. They are rated from "3 penny" up to "20 penny." The first column gives the number; the second, the length in inches, and the third the number per pound; that is:

3-penny,	1 inch,	277 nails per pound
4-penny,	1½ inch,	358 " " "
5-penny,	1¾ inch,	232 " " "
6-penny,	2 inch,	167 " " "
7-penny,	2½ inch,	141 " " "
8-penny,	2¾ inch,	104 " " "
10-penny,	2¾ inch,	68 " " "
12-penny,	3 inch,	54 " " "
20-penny,	3½ inch,	34 " " "
Spikes,	4 inch,	16 " " "
Spikes,	4½ inch,	12 " " "
Spikes,	5 inch,	10 " " "
Spikes,	6 inch,	7 " " "
Spikes,	7 inch,	5 " " "

From this table an estimate of quantity and suitable sizes for any job of work can easily be made.

OPEN all drains through wheat and barley fields at the first opportunity, in order to let the spring floods and melting snow flow off.

UNDERDRAINING.

WRITTEN FOR THE AMERICAN FARMER BY "W. H. WHITE."

THIS is a branch of improved farming which is rightly engaging the attention of intelligent, go-ahead farmers, and one which it were well that its effects in all its bearings were more generally understood. The question, what lands are most benefited, or where to begin, where to end—are as yet undecided points, or rather where to end, is. All agree that land which holds a superabundant amount of moisture within a few inches of the surface, or has standing water covering the surface any portion of the season, will be benefited, and ought to be drained, in order to be cultivated, or grow crops of good grass, or other products.

That draining should stop here, we believe to be an error, and would give us only a limited benefit of the profit to be derived from thorough drainage. That there are lands that do not need draining, is unquestionable; for Nature herself has provided for thorough drainage in a considerable proportion of the soil. Drainage, to be profitable, depends mainly upon the value and character of the soil, as to its productiveness, &c., after being drained.

Often there are tracts of land lying in proximity to a city, where market crops are in demand, which are naturally unproductive from being too wet, which with judicious outlay in draining, will pay a large profit in increased production; all will agree that it will pay to drain such lands; but let the same land lie in a more remote, or retired section, and few would think of draining it; yet proportional advantage is derived.

All soils with close, retentive subsoils lying within two feet of the surface, as well as all clayey or compact soils, will be benefited by underdraining; a close soil retaining water a long time, and an impenetrable subsoil preventing a settling away of water; such lands are benefited, not only in avoiding the effects of too much water, but also in resisting the effects of a drouth. Other advantages are derived which it is not my object here to refer to. The question of profit, in dollars and cents, is the one which will govern in underdraining; if the land will not pay, after making the improvement, the expenses of underdraining above its value before improving, the investment is an unwise one; but in all other cases judicious draining is one of the best improvements in which the farmer can invest his surplus means; it pays a larger and better percentage than government or any other bonds.

THE Leicester and Cotswold surpass the Merino in weight, and both and the Southdown surpass it in quality.

THE NEW COMMISSIONER OF AGRICULTURE.

A journey has been made to Washington for the special purpose of giving the readers of *The Tribune* an account of the new Commissioner of Agriculture, and of the plans he proposes to adopt. Col. Horace Capron, is perhaps 55 years of age. He has white hair, a sprightly look, a quick step, and a business turn. He is a native of Maryland. Some years ago he became possessed of about 1,000 acres of land in Prince George's County, which was so completely exhausted that not enough grass could have been cut from it to keep a cow over winter. Having some capital he went to work to restore this land. Huge quantities of lime were brought to give a base to the soil; to this were added ashes, muck, plaster, and other fertilizers, by which means a stand of clover was obtained, and afterwards of grass. Upon this foundation he was enabled to grow large crops of grain, and at times the fields produced over 100 bushels of corn, and from 35 to even 50 bushels of wheat to the acre. In connection, Col. Capron became interested in Devon cattle, and he was so successful in their breeding and care that he took prizes wherever they were exhibited. In 1844, Mr. Capron removed to McHenry County, Ill., where he purchased a large farm. In connection with farming he has engaged in manufactures, and he met with such reverses that in a manner he failed, but he went to work with his own hands, that is, either in driving oxen, or in holding the plow, and broke up over 500 acres of new prairie. Here he continued to improve his Devons; and at the great United States fair held at Chicago, he drew the highest prizes. About ten years ago he removed to Peoria County in the same State. Notwithstanding Col. Capron's efforts to introduce the Devons they have not proved universal favorites, as they do not take on flesh equally with the Durhams, nor are they celebrated for milk. But for working cattle they have no superior. Their bright-red, beautiful form, and gentleness, give them great value on the farm, and when graded with common stock, so as to preserve the red, they have become enduring and heavy milkers. Upon the commencement of the war, Mr. Capron volunteered, and served as colonel, with the approbation of his fellow soldiers and citizens. In many respects, Col. Capron resembles many intelligent planters who several years ago moved from Kentucky to Illinois, and by their love of country, by their hospitality and courteous but unaffected manners, they have done much to adorn the society of the Prairie State. Practical manufacturers will note that Col. Capron brings to his department qualities not often found in one of his profession—that is, a knowledge of the methods

for restoring worn out land—a practical experience in hard work, and whatever uses arise from adversity.

In my interview with Col. Capron I found him free to impart his views so far as they were matured, and they may be stated about as follows: The practice of distributing seeds, except those which are new and rare, will be discontinued. The expenditures must not exceed the appropriations, and already retrenchment has commenced by the discharge of those hitherto employed in the seed department. He will solicit correspondence with leading farmers throughout the whole country, and he was inclined to make the agricultural press the medium of whatever information he may have to impart, than to have a medium of his own. Whether it will be useful to send out a periodical estimate of crops he has not yet decided. In particular, he would like to secure the assistance of the different State organizations, and he would rather speak for them than to them. He does not claim to know what is best, and he said with emphasis that we have much to learn; in short, his idea is that the most good will arise from mutual support and good will between the department and the agricultural press and the farmers generally. He finds that a reorganization of the department is necessary, and as Congress has passed a resolution calling upon him for information, which he has not yet had time to give, these expressions of his are of necessity, fragmentary.

So little good having hitherto been done by the appropriations of Congress for agriculture, the friends of the cause would like to know what are the prospects for the future. Col. Capron can hardly be said to be a modern man. Perhaps we have no man with sufficient practical knowledge who is strictly a modern man. It is of great advantage that he is acquainted with both Western farming and with farming as it was conducted on the plantations, for he will understand the needs of the West, and he can appreciate the altered condition of those who once owned slaves. To this it will be required to add a knowledge of the peculiarities of farming in the more northern sections, including the grass regions, and of the warm regions of the cotton States, not natural for grass. It seems to me that as great difficulties must arise in filling the place, for the field is broad, there are conflicting interests, and above all, diversities of climate, demand careful discrimination. It will be scarcely possible for one man to understand all the details, and he can do little more than organize on general principles, leaving subordinate departments to the management of wisely selected assistants. A few correct general ideas will be of more value than the most industrious application to daily routine.

The subject which should receive the earliest attention of this department is the condition of farming in the South. The people are poor, the large plantations are soon to be divided, and small proprietors, with imperfect knowledge, and with almost total ignorance of what the resources for a good farm should be, are about to enter upon a desperate struggle with an impoverished soil. So far as the North is concerned, retrenchment is proper, for at present the North is abundantly able to take care of itself; but if wise plans can be proposed to develop the agriculture of the South, which will result in giving the people a variety and an abundance of food, retrenchment will be disastrous economy.—*N. Y. Tribune.*

THE DEPARTMENT REPORT.

In the Report of the Department of Agriculture for November and December, we find the following facts in regard to the crops, &c., of the year 1867, which may prove of interest to our readers:—

The Corn Crop.—The estimated yield of the corn crop for 1867, is given at 775,820,000 bushels. Compared with 1866 it considerably surpasses it, yet is 53,000,000 bushels less than it was in 1860, when the estimated yield was 838,792,740. Comparing it with the increase of population it would not be more than about four-fifths of the yield of 1860, seven years ago. Illinois grew last year the greatest amount—109,091,000 bushels; next comes Indiana, 80,757,000; next Ohio, 64,000,000; next Iowa, 53,333,000; next Missouri, 50,437,000; next Tennessee, 50,280,000; next Kentucky, 46,550,000; next Alabama, 35,500,000; next Pennsylvania, 30,457,000. and so on.

Cotton Crop.—The cotton crop is set down at 2,340,000 bales; last year 1,900,000 bales; in 1860 the yield was 5,386,397. No money was made on the crop last year.

The Hay Crop.—Was a considerable increase over that of 1866.

Buckwheat.—a slight increase.

Potatoes.—A slight falling off.

Tobacco.—A falling off.

Flax.—Rather an increase.

Tappahannock Wheat.—Sent out by the Department, was reported on by only three persons, one in Wisconsin, the others in Lancaster county, Pa. As this variety has by this time been pretty thoroughly tried by a number of farmers, its character must now be developed. Still we may as well say that the Wisconsin experiment turned out very favorably. Commencing with a quart of seed, the third year acres were sown, yielding 32 bushels per acre, and maturing twenty days before other varieties. The straw was large, stout, and well-headed. Since

then this wheat has been largely sown, hundreds of bushels annually sold for seeding, while in grinding for flour it produced "exceedingly well." The average yield per acre is 31 bushels of 62 pounds, and the Tappahannock is now the popular variety of that high latitude where the mercury falls 28 degrees below zero.

The Lancaster county farmers who received one quart of the seed, sowed it September 18, 1866, and harvested it twelve days before the other early varieties, obtaining seventy-nine pounds of grain in one instance. A neighbor who sowed at the same time a quart of the seed obtained 77 3/4 quarts of clean wheat. "If it does anything like as well next season, it will be the wheat for this section. It stands the winter well."

A New Clover.—In regard to this new clover, of which we have already numerous accounts, as having appeared in Georgia, Mr. B. D. Lamsden, of Eatonton, in that State, says:

"It is an annual, and has leaves in threes, like clover. The flowers are like those of the pea and bean, but are encased in separate shields. Its history or origin no one knows. If it is the *Lespedeza striata* it came from Florida, as the plant which bears that name was discovered there, and called after one of its governors. It was noticed in this county (Putnam) five or six years ago, and has rapidly spread over the whole country; every field and lane having more or less in the fence corners. Last year I saved some of it for hay, which was readily eaten by all kinds of stock. Sheep seem to delight in grazing upon it. I think it a great blessing for our old and worn-out fields. It grows in the shade and on land where there is the least soil. It is rapidly destroying the broom sedge of our old fields, and is killing out the hated Bermuda grass, which is so troublesome on some of our plantations. It is not hard to destroy, as, well pulled up, it dies. It is a great renovator of the soil—a fact which has been demonstrated more than once to my certain knowledge. Our oldest citizens say it first appeared in the summer or spring after a severe dry storm which occurred five or six years ago. One intelligent gentleman says that it was introduced in an adjoining county (Green) by a Scotchman, who received the seed from Scotland. Whatever its name or origin makes little difference to the horses, mules, cows, and sheep."

Rinderpest.—In regard to this disease, cases of which we see reported in local papers pretty much all over the country, the report makes the following statement, in which we think it is entirely correct: "Stories are circulating in agricultural papers to the effect that rinderpest exists in Maryland, Virginia, and other sections. Not a particle of evidence

is found to sustain such statements. Not a case of 'rinderpest,' it is perfectly safe to say, has ever appeared in this country. There has been some fatality among cattle in Maryland and Virginia, in some cases lung disease, in others 'hollow horn,' &c., but no European cattle, plague, or anything like it. If that disease does appear, it will make itself known without laborious efforts to advertise it into notoriety."

Receipts of Wheat.—Milwaukee, Wisconsin, is one of the great grain granaries of the country. The receipts of wheat in bushels there for 1867, were 7,938,879; in 1866, 5,877,402; in 1865, 5,408,245; in 1864, 1,658,901; and in 1863, 5,740,953.

Pork Packing.—Up to the 21st of December the pork packing in Chicago sums up 528,981 head, against 165,000 same period last year, and 55,000 the previous year. The receipts of hogs at Cincinnati up to 24th of December, were 283,577 head, against 244,010 for the same time last year, and 193,934 in 1865. The total number of hogs packed in Cincinnati last season was 462,610, and for the previous season, 354,079.

The Potato Bug.—Within the last two years we have had many accounts of the depredation in the Northwest of what is simply called the potato bug. It seems to have played havoc in many potato fields in Wisconsin and Iowa, and if its progress thus far is to be taken as an indication of its intention, its march is towards the East, and we may expect its visitation here in the course of a few years. A correspondent of the Department in Brown county, Wisconsin, says:—"It spread very rapidly this year. Whole fields were destroyed by it. The insect attacked white, delicate potatoes first, those having red color on them last. The Albert vines were totally devoured before the Garnet Chill vines were touched by them, though growing side by side."

Green Marl.—In several counties of Maryland, adjacent to the District of Columbia, the old marl beds, known to exist there many years ago, are now being used for the fertilization of the farms throughout that region with excellent result.

MANURE YOUR RHUBARB.—If this was neglected last fall, it would be best to apply a good coating of manure now, and in the spring it should be forked in around the plants. No danger of getting the ground too rich.

MAKE your arrangements to plow deeper this year than ever before.

It is said that bees will not build comb on a painted surface.

IS AMERICA THE WORST FRUIT-GROWING COUNTRY IN THE WORLD?

H. W. SARGENT, Esq., of Wodenoth, Fishkill, on the Hudson, one of the most distinguished amateur horticulturists in America, in the last number of *The Gardener's Monthly*, declares emphatically that it is, and that he has arrived at this conclusion after two years of travel all over the Christian world.

This statement from Mr. Sargent is astonishing, and I can hardly think that it was written in earnest, or was intended to be literally understood.

I have several times passed through the most favored fruit-growing districts of Great Britain, France, Belgium, and Germany; and my conclusion is, that we had fruit-growing districts, extensive ones, and many of them, in the United States, quite equal, on the whole, to any others I have even seen, and that nowhere else in the world are fruits in general produced in such immense quantities and so cheaply as in the United States.

I think I have seen as many apples in one orchard in Western New York as I have seen in all England put together in a journey of a week.

Only think of a single county in which perhaps about half the land is under cultivation, producing annually, for apples sold, half a million dollars.

I think a single steamboat will carry to the markets of New York at one trip as many peaches as are grown in both England and France. As to pears, on my return from Europe in September last, after visiting some orchards and gardens at Boston and Rochester, I said that I had found no such crops of pears, and seldom such vigorous and healthy trees, even in the most celebrated pear districts of Europe. Other gentlemen who traveled with me concurred in this opinion.

Then as to grapes. I have never yet seen grapes grown in any other country with so little labor and producing such immense crops as in the United States—four, five, six, and even eight tons to the acre. It is estimated that we have some two million acres now under grapes, and one State alone, Missouri, claims to have five million acres suitable for the vineyard.

Then see what Mr. Berckmans says in the last number of this journal about Georgia, and the Southern States generally, where not only the apple, the pear, and the peach, attain the greatest perfection, but the grape, fig, orange, olive, and pomegranate are grown successfully. Then, if we pass over to California, we will find, as a friend writes me, *the paradise of fruit growers*, where fruits attain fabulous dimensions, are exempt from diseases, and grow almost spontaneously.

"America the worst fruit-growing country in the world." What a mistake! We have our difficul-

ties, diseases, insects, extremes of temperature, &c., but did Mr. Sargent find any place in Europe exempt from these? When I landed in England last May the whole country was bronzed with a severe frost which occurred on the 24th of that month, killing outright most tender garden crops and all fruit prospects. It had a similar effect over a considerable part of France. When traveling on the Rhine in July, the weather was cold as in October, and the vine-growers were despairing of a crop. I think that one very fine vintage in five, is as much as growers, even in favorable districts, expect—so I was informed.

We saw wall trees devoured with armies of slugs. Red spider, mealy bug, more prevalent than in this country, but more vigorously repelled. In even favored districts of France, we saw the pear trees with yellow sickly foliage and little fruit, and whole vineyards with scarcely a bunch of fruit.

The fruit markets of Paris and London are well supplied, it is true, but the fruits we see there are contributed by almost every part of Europe, produced in small gardens, and in glass houses, with great care, and the prices generally are beyond the means of the great mass of the people.

The only fruit I saw that approached our prices, was the strawberry; of it the supply in Paris was immense, and the quality good, and prices not much higher than in Boston or New York.—*P. B., in Gardener's Monthly.*

THE HOT BED.

EDS. AM. FARMER:—Having enjoyed the privilege of reading the valuable information set forth in your very instructive and useful paper for the last fifteen months, I feel indebted to you and your numerous correspondents for the instruction therein given. I wish to add my mite. As spring will soon be upon us, hot beds will be necessary for early forcing. Thirty-five years constant practice has proved the following to be the best mode of making a hot bed for early forcing, known to me. Take bundles of small brush wood, tied up about the size of wheat sheaves, and build a bed an inch or two larger than the frame. Put some turf or other material on the top, to keep the soil up. Let the bed be built 2 or 2 1/2 feet high, put in your soil, then line the bed all round with stable manure or tan bark. You can increase the heat at your pleasure by turning the lining on either quarter, or all round. By this method you can keep up a heat for any length of time with half the manure to begin with.—*E. R., Kaysville, Utah.*

THE State Fairs of Ohio and Illinois have both been appointed for Sept. 21 to 25th.

BEEES.

MESSRS. EDS.—I observe in the February number of THE FARMER a reference to my hive that renders correction necessary in justice to the public.

The Eureka hive, instead of 4,000 cubic inches, has only 2,000 cubic inches in its brood and winter apartments. It has something over 4,000 cubic inches in the aggregate, in its surplus boxes.

It will be recollected that I gave in the record of my experiments, an account of the four hives, all in which there were colonies, in the commencement of the season. The four gave four swarms and 500 pounds of surplus—an average of one swarm and 120 pounds of surplus honey. If your correspondent will give us the result of all the colonies in the Graves hive, in one apiary, not less than four, and they exceed an average of one swarm and 125 lbs. of surplus honey, it will be better than mine. Yet, to fully settle the question, it would be necessary to compare their fields of labor, and satisfy ourselves which had the better field.

I indulge no wish to disparage the Graves' hive. I am fully satisfied that great improvements are made, and greater may be made in the construction of hives to secure surplus honey by the labor of the curious insect, the honey bee; and I would hail every successful attempt in the advance. What the public interest demands, is the use of the best class of hives for securing surplus honey in good shape for market, and I would encourage every earnest effort in that direction. I would now request your correspondent, as tending in this direction, to state how many colonies he had in the Graves' hive at the commencement of the season of 1867? what number of swarms, and what amount of surplus have they all given, and what has been their average?—*Jasper Hazen, Albany, N. Y.*

HORTICULTURAL SOCIETY OF WESTERN NEW YORK.

(Formerly Western New York Fruit Growers' Society.)

THE winter meeting of the Horticultural Society of Western New York, was held at the Court House in this city, January 29th and 30th. The President, H. E. Hooker, called the meeting to order at half past eleven. The reading of the minutes of the previous meeting was dispensed with, as they were published in pamphlet form.

The report of the Secretary and Treasurer, Jas. Vick, shows a balance on hand last year, of \$10.67; receipts during the year, \$189.56; total—\$150.23; expenses for printing transactions and notices, \$110.10; leaving a balance of \$40.13. Report accepted.

The chair appointed the following committees:

On Nominations—E. Moody, Lockport; Dr. Pinney, Clarkson. G. Ellwanger, of Rochester, E. W. Sylvester, Lyons, and F. W. Lay, Greece.

On Business—W. B. Smith, Syracuse; C. W. Seelye, Rochester; Mr. Farley, of Union Springs; Mr. Frost, of Ithaca, and C. D. Helmer of Lockport. L. F. Allen, Black Rock, suggested that those who introduced new fruits, should state the soil, climate, and particulars where grown, and offered the following resolutions:

Whereas, Great uncertainty exists in the judgment of many of those who sign establishing fruit plantations, as to the varieties of fruits to be adopted by reason of the differences of soil, position, climate, altitude, and other particulars affecting the locality; and

Whereas, A great many of the fruits in cultivation are more or less capricious in their growth and production in certain localities—flourishing successfully in some and failing in others; therefore,

Resolved, That in order to a correct judgment in the recommendation to planters and cultivators of the different varieties of any given fruits, an intimate knowledge of the locality and its altitude, of climate, soil, position, &c., shall be a pre-requisite for such recommendation.

The Committee on Nominations reported the following officers for the ensuing year:

President—W. B. Smith, Syracuse.

Vice Presidents—James Vick, Rochester; J. J. Thomas, Union Springs; J. W. Helmer, Lockport.

Secretary and Treasurer—H. G. Warner, Rochester.

Executive Committee—H. E. Hooker, Rochester; Thomas Smith, Geneva; E. Ware Sylvester, Lyons; E. Moody, Lockport; E. A. Frost, Rochester.

Committee on Native Fruits—P. Barry, Rochester; J. J. Thomas, Union Springs; John Crane, Lockport; F. W. Lay, Greece; C. W. Seelye, Rochester.

Committee on Foreign Fruits—George Ellwanger, Rochester; C. Downing, Newburg; John Fisher, Batavia; E. Moody, Lockport; T. C. Maxwell, Geneva.

The Report of the Committee on Native Fruits was then read by the Secretary, commending to favorable notice the new seedling strawberry "Nicanor," introduced by Messrs. Ellwanger & Barry, two of the new strawberries originated by Mr. Keech, of Waterloo. Of grapes, No. 4 and 19, of Messrs. Ellwanger & Barry, crosses of the Concord and Delaware.

Mr. Sylvester moved the appointment of a committee to draft resolutions which if adopted should be sent to the members of the Legislature to oppose the cutting of a road through the grounds of Mr. Charles Downing at Newburg.

Mr. Thomas and others spoke in favor of it.

The Committee on Business reported the following subjects for discussion:

1st.—What methods of culture, and what kinds of soil are best adapted to the grape in vineyards in Western New York?

3d.—Is fruit growing becoming more difficult by the clearing away of forests, and thus exposing to severe winds, and is it practicable to plant belts of evergreens or other hedges for screens?

3d.—What plants are best adapted for hedges and screens for this climate?

4th.—What is the best method of cultivating the apple in the orchard?

5th.—What six varieties of apples are most profitable for market?

6th.—What varieties of raspberries are most profitable for market, and what most suitable for family use?

7th.—What varieties of blackberries are most profitable for market, and what most suitable for family use?

8th.—What varieties of evergreens are most suitable in this climate for planting for ornament?

9th.—What are the comparative values of standard and dwarf pear trees for fruit growing?

AFTERNOON SESSION.

The new President, W. B. Smith, of Syracuse, was introduced by H. E. Hooker, in a few appropriate words, after which the first question was taken up:

What methods of culture, and what kinds of soil are best adapted to the grape in vineyards in Western New York?

Mr. Clark, of Monroe county, opened the discussion by saying that he had had experience in different places, and had cultivated five acres of vines at Naples, which he planted twelve years ago, and now had two acres at Parma. In regard to soil, he thought that the range of mountains had more to do with the quality of the grape than the soil, and that the subsoil had more to do with it than the soil. A deep subsoil will help early ripening of the grape.

Judge La Rue thought Mr. Clark mistaken in thinking the soil had more to do than the heat. They had a month's more season in Pleasant Valley than in Monroe county. They seldom had a spring frost to injure the grape. If the buds survived the first of May they were sure. Though several hundred feet higher, they were about ten degrees warmer than in the vicinity of Rochester. He had never known the thermometer lower than fourteen degrees below zero. The soil was drift and shale. In his vineyard the drift was 100 feet deep, and the water never ran off, but down through the soil. There was much lime and marl in his soil, which gave richer grapes. The back ground protection, the bodies of water, the long season, and the soil, taken together, accounted for their success.

F. W. Collins—The secret of the success of raising the Catawba at Pleasant Valley was that they were grown only one foot from the ground, while the Isabellas were four to six feet from the ground, and

the Catawbas ripened first. He carried Isabella grapes from Bloomfield a few years ago, to Pleasant Valley, and could see no difference in ripening. Had tried them two years by taste, not by the saccharometer.

Judge La Rue wanted to correct Mr. Collins. He trains the bearing wood of his grapes on the lower trellis. He shipped two years ago his Catawbas first. Last year, his Isabellas. The Isabellas of Bloomfield were lower on the must scale than those of Pleasant Valley.

Mr. Moody, of Lockport, said that they could raise as good grapes in Niagara county as in any part of the State, Pleasant Valley not excepted. Altitude has something to do with growing grapes but we think we can grow them on level land. Corn has not been injured in that section in spring or fall from frost, and think this speaks well for growing grapes.

L. F. Allen—Underdrain your land, and give good cultivation, and grapes will do anywhere. Last fall I went to Pleasant Valley, and there found the grapes all killed, while mine at home were as fresh as in August. No positive rule can be laid down in regard to localities. Facts must settle the matter.

Mr. Quinby, of Irondequoit, wanted to know if those who were growing grapes on sandy soil should give them up, for he with others thought they had good soil, which was sandy with clay subsoil. His vines had all done well except Delaware.

Mr. Yale—I am inclined to think that we can grow good grapes on sandy soil near this city, especially when it is a combination of sand and clay. I have now about ten acres, all doing well.

Dr. Sylvester was glad to see the area for grapes increasing in Western New York, and from what he had seen along the shores of Lake Erie, and through Western New York, he began to think it a great grape country.

Mr. Rowley said he thought from his experience that an old goose pond was the best place for grapes.

A. M. Purdy—No better grapes can be grown than he had raised on sandy soil at South Bend, Ind.

Mr. Hazelton, of Leroy, said the grapes in Bloomfield and other sections were girdled to make them ripen early.

The President remarked that this practice was at the expense of flavor.

Dr. Sylvester—I think water in the soil one trouble in raising grapes. Roots will go down into any soil free from water, in search of their pabulum.

Judge La Rue thought the land for grapes should be thoroughly subsoiled a year before planting, and the grapes planted deep and cultivated.

(To be continued.)

SPIRIT OF THE AGRICULTURAL PRESS.**Steam Plows.**

One of the most remarkable features of the annual show of the English Agricultural Society at Bury last July, was the illustration given of the economical application of steam power to light land cultivation. By means of two engines, one at either end of the cultivated field, two tools are worked at once; and when the widest tools were used—Fowler drags a 13-tine cultivator which takes a width of four yards at once—the cultivation was accomplished at the rate of fifty acres in a day. It seems plain that on light land farms as well as clays, whenever the area has been properly laid out for steam cultivation, there need in future be no more horse power provided and kept throughout the year than will suffice for the harvesting and marketing of the crops; in fact, for all the work of carriage. With Fowler's, or Howard's double engines, each with double drum working two tools simultaneously, there is no reason why a square of twenty acres, or even more, of land which had been plowed by steam power before winter, should not be grubbed or cultivated, and receive a thorough harrowing all at once in a single day in spring, or why a thorough fallowing after winter's frost upon the autumn tillage of stiff clays should not be thus accomplished at a blow. We take the above from the English *Quarterly Journal of Agriculture*.

About Fences.

The cry "down with the fences," is daily becoming louder. One eminent English agriculturist has removed three and a half miles of what he regards as unnecessary fence from a farm of less than 200 acres.

It is estimated that Great Britain might dispense with 500,000 miles of fencing now in existence. If we suppose this fence to occupy a width of nine feet, which is a very moderate estimate for the wide live fences of England, this would be an addition to the arable land of 589,280 acres.

Our common worm fence usually occupies a width of 4 1-2 feet—the rails being fourteen feet long. A fence made with longer rails occupies more space. If the rails are shorter, the space occupied is less. To this it is safe to add eighteen inches for land that is not cultivated. This gives a width of two yards appropriated to fence. Every 2,240 yards of such fence occupies an acre. An acre of land in a form nearly square, and consequently in the most economical shape as regards fencing, is 220 feet by 198 feet. To fence this requires 278 yards of fencing, which occupies just about one-eighth of an acre—that is, one-eighth of the whole. Such a fence surrounding a ten-acre lot of the comparatively economical shape of 242 yards by 200 yards, would occupy 1,768 yards, or considerably less than one-third of an acre. This would be less than 1-30 of the whole amount—a striking illustration of the advantage of large lots over small ones.—*Cor. Country Gent.*

The Poultry Fever.

This disease is again coming on, and I am glad to see it. I hope it will prevail until all our farmers learn that there is comparatively just as much difference in

the keeping of the best breeds of fowls as of sheep. Like the growing of small fruits, to the eye of one who is accustomed to his hundreds of acres of wheat and thousands of Shorthorns, it looks like a small business, but there is as much money in it, acre for acre of land occupied, as in anything else. Five hundred hens can be kept on an acre of land as their rambling ground, and records made show over a dollar ahead as net profit per year, besides the manure, which is worth almost as much pound for pound, as guano.

I grow Dorkings, because I believe that the best layers are hens from a cross of a Dorking cock with Brahma hens. So, also, the chickens of such cross are the largest, finest, and earliest fit for the table.—*Adds, in Journal of Agriculture.*

Wearing out the Land.

The editor of the Monthly Report of the Department of Agriculture at Washington, has been on a tour of inspection through the wheat growing regions of the West. His observations there lead him to the conclusion that the manner of wheat cultivation in that section is wrong, and must soon prove ruinous to the farmers who practice it. By the course of cropping pursued, the yield per acre has dwindled down from 25 to 30 bushels, to an average of 12 or 14, and is yearly diminishing. To arrest this downward tendency, it is proposed to diversify the crops more, thus giving the soil a chance to recuperate while supplying a greater variety of product.

Boiled Peas for Milch Cows and Hogs.

Boiled peas, says a correspondent of the Richmond, Va., *Farmer*, as food for milch cows, is far superior to anything else I have seen tried. My honest opinion is, that two bushels of peas are far superior to, or worth more to fatten hogs, or to increase the milk of cows, than three bushels of corn applied to the same objects. In experimenting, I have found that hogs not only fatten doubly as fast, but the improvement of their general condition was in like proportion. With respect to cows, he says the effect was in ten days to double the yield of milk. My plan in using them was to soak them in water twelve hours or through the night, before boiling them. By this process their weight was doubled, and consequently they required less boiling. Besides this, I found the soaked pea to be an excellent substitute for green food, having not only the effect on stock produced by turnips, carrots, and beets, in improving their appetite, general appearance, and milking properties, but imparts none of the bad taste to the milk which is so often derived from the use of the green crops referred to. It was, moreover, found to exhibit fattening qualities almost equal to the boiled pea. He concludes by saying he regards the soaked peas for food in winter, as decidedly superior to all root crops, and recommends that his brother farmers should lose no time in testing its value in their own process.

Railroad Doors for Barns.

"A Farmer," in *The Germantown Telegraph* says these doors are far superior to the old fashioned doors, which revolve on hinges. They are opened and closed

by means of a rail and several small iron trucks securely attached to the top, and are so constructed as not only to close the door effectually against the ingress of rain, snow, and cold air, but to be very durable, and in every respect, efficient. Large doors are formed by one-inch matched boards, placed perpendicularly, and crossed by matched strips of the same in a diagonal direction, or from corner to corner on both sides. These strips are so put on as to represent the sheathing often seen on fine houses, being about six inches in width, and covering the entire surface. It will be seen at once that three thicknesses of matched boards, securely nailed, and thoroughly painted, besides being so hung as to obviate effectually all possibility of sagging, as is the case with doors of ordinary construction and workmanship, when hung in the usual way, must secure an article of great efficiency and of an almost indestructible character. The labor of opening and closing these doors may be performed by the merest boy, and in windy weather they are not slamming and endangering not only their own fastenings and fixtures, but the lives also, of all by whom they are approached. The old fashion of placing the trucks at the bottom is anything but desirable, as the former is liable to become clogged by snow and ice; but when it is placed at the top, no obstructions can possibly intervene from this source; the door glides easily along the rail, and never requires to be forced open by mere strength. Small doors for tie-ups, sheds, out-houses, and other similar buildings, are constructed in a similar way. They are much cheaper than panel doors, to which they are preferable for all purposes where strength and durability are required.

Sheep Keeping Profitable.

A correspondent of *The Prairie Farmer* says that he bought 55 culls, the poorest that could be picked out from 300 head, at \$1.50 per head. This was in the fall of 1862. Between that time and threshing the next summer, he lost 14 head, mostly by old age; from the remaining 41 he raised 47 lambs. He pulled the wool from off those that died, and obtained three pounds per head, which was sold with the fleece wool at 50 cents, making the total amount received for wool from the 55 head, \$105.20. Counting the lambs at \$3 per head—the price obtained for the buck lambs for mutton—and he received for lambs, \$141; making the gross proceeds \$246.20. Allowing the purchase price for those that died (\$21), and he had left for keeping and care, \$225.30, or a little over \$4 per head on the whole number purchased.

The next fall he bought 100 more breeding ewes, making with those he had left, 141 breeding ewes, from which he raised 141 lambs. He had four yearling ewe lambs, making 145 lambs from 145 ewes. He had seven pairs of twin lambs.

In August and September he sold 72 lambs for mutton, at an average of \$3.25 per head, making \$234. Counting the ewe lambs at the same price, 73 head, at \$237.25, and he had for lambs, \$471.25. In 1864, he sheared 171 head, which he sold for 95 cents per pound, making \$653.50 for wool, and \$1,124.75 for wool and lambs.

In the fall of 1864, he reduced his flock of breeders to 72—keeping the best of course—at an average of about \$3 per head. From the 72 ewes left, he raised in the spring of 1865, 71 lambs, being the first time since he commenced business that he did not raise as many lambs as he had ewes.

His mutton lambs, were sold at an average of \$3; wool at 53 cents per pound. In the fall he sold all of his breeding ewes at \$3.55 per head, leaving of yearlings, and two that had never bred, 100. From this flock he raised 72 lambs—40 ewes and 32 bucks. The buck lambs were sold for \$2.75 per head, and 115 of the best ewes and ewe lambs were sold for \$6 per head; the balance for \$3.50, which cleaned him out of grade sheep. Any person can decide whether he gained or lost by the operation.

Scalding Cream.

"S. W." writes to *The Working Farmer* from Suffolk County, N. Y.:—"Do all the good farm ladies know that by simply scalding the milk before setting for cream, the butter will come very readily with from ten to fifteen minutes churning in the coldest weather. The cream, however, will require to be brought into proper temperature. It requires little trouble to strain the milk into tin kettles, and place them on the stove until the required heat is obtained, and the milk will be all the better for family use. Try it, and see how much vexation it will save the domestics when the time of churning comes around.

Cement.

Alum and plaster of Paris, well mixed with water, and used in a liquid state, will form a very useful cement. It will be found handy in the laboratory for many purposes. It forms a very hard composition, and for fixing the brasses, &c., paraffine lamps, nothing could be better.

Sweet Potato Seed from the Bloom.

Collin Wood, in *The Plow, the Loom, and the Anvil*, says that he has raised for three years past, sweet potatoes, of better quality than usual, in the following way, viz.:—"The yam potato vine blooms in August; in about a month thereafter, they form a pod; the seeds are then formed of about the size of sage seed and of the same color. The pods should be noticed and gathered when ripe, or else they will soon drop. In the spring, at the usual time of sowing seed, I sow them in the same way I sow cabbage seed. They will not come up quite as soon, but will continue doing so through the spring. The plant is small and delicate in appearance, and should be drawn in a wet season, with a little dirt attached to it, and transplanted. The leaf and vine have a different appearance from the potato usually, and the potato will be found to grow larger and smoother than usual. I prefer this method after satisfactory practice to raise the potato, than any other."

OWNER FOUND.—The extract in the "Spirit of the Press" in the last number, under the heading, "Cause of Inferior Stock," should have been credited to *The Germantown Telegraph*. We found the article in print without credit, hence our unintentional omission.

Horticultural.

TREES FOR TIMBER AND SHELTER.

THE SCOTCH PINE AS A TIMBER TREE.

THE Scotch Pine, *Pinus Sylvestris*, is a very hardy tree, and when full grown usually attains a height of from 80 feet to 100 feet, with a trunk proportionately large, with a head rather narrow in proportion to its height. When grown singly with full opportunity for development, the branches, like all the fir tribe, are thrown out laterally from the trunk, from the surface of the ground to the top, but like all the Pines when grown in masses, have a tendency to decay and die off near the ground, or in fact so far as the air is impeded from circulating freely among them.

The quality of the timber is dependent in a great measure on soil and climate. When grown on a poor and gravelly soil, the timber is usually redder and more compact, and abounds more in resin than when grown on clay or any other tenacious soil. So durable is the wood of the Scotch Pine, that mention is made by Dr. Smith, in his essay on the production of timber in the Highlands of Scotland, that he had seen some Scotch Pine which grew in the North Highlands, taken down from the roof of an old castle where it had been for 300 years, which was as fresh and as full of resin as newly imported timber from Memel.

It is, however, age which gives durability to this species of pine. When grown rapidly in a favorable situation, the timber consists mainly of sap wood until it has attained the age of 25 or 30 years, after which it begins to harden and present a more resinous appearance, and consequently becomes more durable. As an ornamental tree, the Scotch Pine has less claims to our notice than many others of the Pine species, as most people object to its somber hue when planted in masses, and even when planted singly, it has a tendency when it attains age, to present a ragged appearance at the base; but those who plant for shelter and timber will not regard this as a disadvantage.

The White or Weymouth Pine, *Pinus Strobus*, is a tree that is so well known to almost every one in the Northern and Middle States, that it would almost seem superfluous to say anything about it here. According to Michaux, the author of *The North American Sylva*, it varies in height from 100 to 180 feet. In strong soils it does not attain the maximum height, but assumes a more spreading shape. The trees are diffused, though not uniformly, over a vast extent of country, but it is incapable of supporting either intense heat or intense cold. It is most abundant between north latitude 43° and north latitude 47°. Farther south it is found in the valleys and declivities of the Alleghanies, but will not grow at any distance from the mountains on either side, on account of the warmth of the climate. In New Hampshire, Vermont, and near the commencement of the St. Lawrence, it attains its largest dimensions, and it seems to accommodate itself to all varieties of soil except such as consist wholly of sand, and

such as are constantly submerged; but the two latter he seems to qualify, as he still remarks: "I have seen the largest specimens in the bottom of soft friable and fertile valleys on the banks of rivers composed of deep, cool, black sand, and in swamps filled with the White Cedar, and covered with a thick and constantly humid, carpet of Sphagnum. Although no timber is in so general use in this country as the White Pine, it is not durable, being very apt to dry rot when excluded from the air, and is readily affected by moisture. As an ornamental tree, it is highly prized, and when young adds much to the beauty of a landscape.

The Red Pine, *Pinus Resinosa*. This tree is not as generally known as the White Pine, as it is not diffused over so great an extent of territory. It grows to the height of 70 or 80 feet. The leaves are borne in pairs. It may readily be distinguished from the White Pine by its rougher and more robust habit, the grain of the timber is very fine, and being impregnated with resinous matter, it is rendered very heavy, and is highly esteemed for its strength and durability. Many very fine specimens of the Red Pine may be found growing in our own valley of the Genesee. A few years since we noticed some exceedingly beautiful ones growing singly and in groups on the banks of the Genesee River near the Falls at Portage. As an ornamental tree it deserves especial notice, as it forms a very striking contrast to the White Pine, but we do not consider it a very rapid growing tree. To those who desire to form a plantation quick, this would be an objection; otherwise we do not see why it should not be more generally planted.

THE BALSAM FIR.

Picea Balsamea.—Is a small pyramidal tree, seldom growing more than 30 feet in height, and very short lived. When young, its rigid symmetrical form is very pleasing to most persons, hence it has been pretty extensively planted as an ornamental tree, but now that other and finer varieties are being disseminated among us, people are beginning to think less of it than formerly. This is a tree that we seldom plant, and never recommend, as we have others of the *Picea* family which claim greater attention.

THE NORWAY SPRUCE.

Abies Excelsa.—This is one of the finest and loftiest of European trees. Loudon informs us that it attains a height of 125 to 150 feet, and in some cases even 180 feet, with a straight upright trunk from 2 feet to 6 feet in diameter. In young trees the branches are disposed in regular whorls from the base to the summit, but as the tree grows old, the lower branches drop off, and it then assumes an angular pyramidal habit. This is one of the most useful evergreen trees for either shelter, screens, or ornament, with which we are acquainted. As a shelter tree it grows rapidly, and we use it very extensively as a nurse for other trees, and when recommending it to others for this purpose, it is always with the proviso that when the other trees become crowded the Spruces are to be dug up. No plantation of any extent should be made in our country without a good sprinkling of Norway Spruce to protect the more ten-

der trees until they attain size sufficient to protect each other. For many years we have been urging the claims of the Norway Spruce upon planters at the West as a tree admirably adapted to assist in filling the blank upon our Western prairies, and would recommend all who desire to form an evergreen screen to visit the nursery grounds of Messrs. Ellwanger & Barry, of this city, where they will see the finest hedge of Norway Spruce with which we are acquainted.

THE VEGETABLE GARDEN.

THE season is at hand when all who delight in raising early vegetables, will begin to think of the means at their disposal for the accomplishment of this object; any one who can command a nice, warm exposure like the south side of a barn, or other building, may begin at once to prepare suitable beds, for the raising of early vegetables, by either making a hot-bed, or forming temporary frames of boards. No farmer should neglect so important an object as this. Good and wholesome vegetables are essential to the health of every one, no matter whether they be dwellers in the city or country, and we know that there is nothing which we eat with our food that is more conducive to health than early salads; and we cannot excuse any farmer who neglects to provide a good supply of early vegetables for his family. In making a hotbed, it is only necessary to throw a sufficient quantity of fresh manure into a pile of conical shape, and if dry, to throw a few pails of water on the pile, as it is put together, to promote fermentation. In this condition it should be allowed to remain for a few days until it begins to ferment and heat, which may be easily known by the steam arising from the pile; it will then be ready for making into beds. When forming the beds, the manure should be well shaken and spread evenly together, to the height of 2 1-2 feet or 3 feet, and any desired length and width. The usual sizes for a two-light hot-bed frame is 5 by 6 feet, or 6 by 6. Those who have not lights at command, can cover the frame with boards at night, instead of glass. The bed of manure should be six or eight inches wider than the frame every way, so that the frame may rest firmly on it. About eight inches of good compost should be placed on the bed inside the frame, and as soon as the rank steam begins to decline, the seeds may be sown. The following list of vegetables would be suitable for sowing in a hot-bed at this season, viz.:

Cabbage—the early sorts.

Cauliflower,	Celery,
Cucumber,	Egg Plant,
Lettuce,	Pepper,
Radish,	Tomato.

The very earliest kinds of cabbage are the Early Wakefield, Little Pixie, a very delicate flavored cabbage, and the Early York, an old and well known variety. By sowing the seeds of these in a hot bed, and transplanting out-doors, where they can be protected from any sudden changes of temperature, a very early crop can be obtained.

Cauliflower.—The earliest kinds of cauliflower are the Early Erfurt and the Early Paris. The treatment of

these in the hot bed, and transplanting out-doors, should be the same as that of the early kinds of cabbage.

Celery.—The earliest kind of celery is the Early Dwarf White Solid. This should be sown in a box filled with fine rich earth, and placed in the frame. The seed should be lightly covered and kept moist until it vegetates, and when large enough, may be transplanted in a bed out-doors, putting the plants about four inches apart, where they should remain until they have attained sufficient size and strength for planting in the rows.

Cucumber.—The Early Russian, Early Short Green, Early White Spined, and Early Green Cluster, are the earliest sorts. The Early White Spine is considered the best of all these. The seeds may be sown in a pot in the frame, and when the plants are large enough, plant three in a hill, under the center of each light.

Egg Plant.—Seeds of the egg plant should be sown in a pot, and placed in the hot bed, and when large enough transplanted out doors. The Long Purple is the earliest variety.

Lettuce.—The kinds which we would recommend for early salad are the Early White Forcing, which is the earliest of all, the Early Curled Silesia, and the Tennis-ball. Sow either in drills in the hot-bed, or in boxes, and transplant when large enough, either in the hot bed, in a cold frame, or out-doors. The soil in which they are planted should be very rich, and the plants abundantly supplied with water.

Pepper.—The Red Cherry is the earliest, but the later varieties may be sown at the same time, and treated the same as the egg plant.

Radish.—Who would forego the luxury of a fine plate of early radishes, that could obtain them as readily, and by the same means, that is within the reach of every farmer, throughout the country, which means is simply to sow them in drills in a hot bed, the soil in which they should be grown, should be rather light of a loamy texture, or rather inclined to sand. The earliest kinds are the French Breakfast, Wood's Early Frame, Early Scarlet Turnip, and Long Scarlet Short Top.

Tomato.—Tomato seeds should be sown in the hot-bed, and when large enough, transplanted either into a cold frame, out-doors, where they can be protected until all danger of frost is past.

One of the earliest varieties of tomato in general cultivation, is the Smooth Red, but the one which we alluded to in November of last year, we have no hesitation in pronouncing the earliest of any yet introduced. It is an English variety, called the Orangefield Dwarf Prolific, growing only about six inches in height, and from two to three feet across. The fruit is of medium size, and very delicious. The raiser says it will stand forcing without drawing, and any amount of culture will not destroy its productiveness.

Western New York Horticultural Society.

FOR report of proceedings of this Society, see page 84, of our agricultural department. It is unavoidably crowded out of the usual place by a pressure of horticultural matter.

TRANSPLANTING LARGE TREES, &c.

WRITTEN FOR THE AMERICAN FARMER, BY D. C. SCOFIELD, ILL.

MESSRS. EDS.:—In the January number of THE AMERICAN FARMER you call our attention to an article entitled as above, and invite discussion. The subject is an important one, at present, and as the author of it well says in the outset, "especially so to a large portion of the Great West." Many, very many, in all parts of our land have homes with all the natural beauty of location, elevation, and delightful landscape scenery, with dwellings from the plain country cottage to the princely suburban mansion, yet from some cause have no protection by natural or artificial forests. The difficulty and almost impossibility of removing large forest trees, except with great expense and the uncertainty of success in making them grow when thus removed, has deterred many from undertaking to take a large evergreen tree from the forest where it has stood unmoved since it sprang from the seed, and secure its aftergrowth, as it is a labor which practical men will not undertake. Therefore most men seek to obtain small trees, especially of the evergreen tribe, and forego the enjoyment of protection from the heats of summer and blasts of winter, with the hope (which too often is a "false hope,") of seeing their homes surrounded with such protection. I am happy to say to all such, that the time has gone by when they need to wait for trees to grow from plants. Select the location where your interest or taste may dictate, although it be the middle of a great prairie, out of sight of a living tree, or as the Western phrase has it, "Out of sight of land," and in a single year you may enjoy a living forest of evergreen as well as deciduous trees. Large nursery grown, off-transplanted trees, may be removed with as much certainty of their living as small ones. The hardy evergreens, such as the Norway Spruce, Scotch, Weymouth, (or white) and Black Austrian Pines, may be removed from the height of 12 to 18 or 20 feet, as safely as those from 2 to 4 feet. The method of removing is the same as of small trees, and they have no more need of a large ball of earth to secure their growth than a plant of 12 inches. True, they must be taken up with great care to preserve the roots from breaking, or being marred, or from exposure to a dry atmosphere, and when set, especial care must be taken to keep the roots in their natural position, thoroughly packing the earth among all the roots with the fingers, so as to exclude the air and retain moisture. This should be done by suspending the tree in the hole, which should be made sufficiently large, not only to receive the roots of the tree, but also for the planter to readily get to his task.

The earth must be in fine tilth for planting corn, and must never be wet or muddy, and when thus planted the earth around should be pressed thoroughly with the feet, and a quantity of coarse mulching, of rotten straw, leaves, or better—spent tan bark, which may be obtained readily where tanneries are near. Three strong stakes, 6 feet high, set 4 or 5 feet from the tree at equal distances from each other. A collar or band should be fixed around the tree, 5 or 6 feet from the ground, to

which strong hay bands should be fastened, and then to each stake, or take a piece of fence wire which will not shrink or expand.

In the transit the roots should be secured with moist fine straw, hay, or moss, so that they shall not at all lose their native condition. When the tree is thus set, a few pailsful of water may be poured upon the ground so as to settle it, as if a great rain had done the work. The less of earth retained in which the tree formerly stood the better, as from it the substance or nutriment necessary to feed the tree is entirely exhausted, and the myriads of feeding roots running far off in every direction have been left in the ground. To retain the entire ball as when removed in the frost, would be to not only stop the growth of the tree, but to starve it to death before the fibrous roots could extend far enough to procure necessary food. I have had large evergreen trees stand thus, scarcely living for three or four years, and only from freely feeding the ball with liquid manure were they kept alive; for in our ignorance we supposed we must remove as much earth as possible, to make an evergreen live. We now send our large trees off by the car load, that are several days in transit, and yet all are reported to live. The difference between the forest grown evergreen and the nursery grown is, the former has but few roots, the latter has them in great abundance and numerous in proportion to the number of times it has been transplanted, by which a great mass of central roots hold in their custody with what may be called "a death grasp," a quantity of earth, while the former will retain none. The tree also makes a more compact shade, and more beautiful for off-transplanting. Perhaps no tree in the whole forest family is more tenacious of life when rightly handled and in the right season than the evergreen, and no tree is more sure to die from improper exposure. The sap of the evergreen is resinous, and coagulates in the sun's heat as soon as the bark of the root becomes warm in a dry atmosphere, and cannot be dissolved by any application whatever, the flow of life is obstructed, and consequently the tree dies. But let the roots be kept moist, the great supply of resin in every department of the tree, more active and abundant from its everliving foliage, every leaf of which forming a part of the active, life-giving influence, becomes more tenacious of life than any other tree. Pine trees were taken from my ground last spring, each one of which filled a lumber wagon box, and only one could be carried in the load, and yet grew apparently as well as if left standing in their native bed, though not as much. There have been many hundreds of large trees taken annually from my grounds, and yet only in the case of bad treatment have any perished.

OUR KANSAS LETTER—No. 7.

WRITTEN FOR THE AMERICAN FARMER, BY A. M. BURNS, MANHATTAN, KANSAS.

SICKNESS during the latter part of the summer and fall, has prevented me from attempting to fulfill my engagement with you, to furnish you with information

on agricultural and horticultural subjects. I was also prevented from attending the State Horticultural meeting at Lawrence, in December. I regret this, as my experience is so different from that of the speakers, if the papers reported them correctly. Only two localities were represented by speakers "on the grape," that is, Leavenworth and Lawrence. I have never considered that the eastern portion of our State was as good for growing the grape as the middle or western part; the further we go west the drier the atmosphere becomes, yet there is a "wet spell" some years in all parts of the West.

On account of land being cheap, and millions of acres being open for settlement under the homestead law, which is well adapted to the growing of grapes, there may be many young men who understand the cultivation of this fruit who may desire to remove here. I will give my experience where it differs from the speakers at our State meeting, confining myself to the reported proceedings.

In the first place I protest against fruit growers speaking for all Kansas, when alluding to the success or failure of particular varieties of grapes. The idea of one grape grower saying the "Catawba is worthless for Kansas," when 65 miles from the hall in which these words were uttered this same grape is as healthy as a grape vine can be, is an absurdity. The Catawba has been grown with me since 1858, and I have never seen a diseased berry. At Leavenworth the Isabella and Iona were worthless. The Concord and Hartford Prolific received the mead of praise. One speaker thought that we had wild grapes that would make better wine than any other tried. The Norton's Virginia, Isabella, Delaware, and Iona were also condemned.

I planted the Isabella in 1858. It has been healthy and bore heavy crops since that time up till the last summer, when we had an *excessive* wet season; the Isabella had not been pruned that spring, and sent out an immense quantity of berries, about one-tenth rotted, and a large crop ripened. The Delaware, planted in 1860, from the propagating grounds of Bissell & Salter, of Rochester, has been healthy, very healthy, with the exception of one vine, which was grafted into a wild frost grape, in 1862. It has since then shown some yellow leaves.

My first Nortons, after fruiting, proved to be Concord. I replaced them with vines true to name, but they are only three years old, and as healthy as any vine I have. In regard to the Iona and Israella, I was unfortunate the first year they were sent. Out of all the packages mailed by Dr. C. W. Grant's clerks mine was the only one miscarried; they are therefore only three years old, but as healthy as those above named. In fact, out of 300 varieties that I obtained, by name, from different parts of the United States, (although not more than 150 or 200 are distinct) every vine appears healthy in foliage. They are from one to eleven years old, and of course if is too early to form an opinion about the varieties suited to this region. Last year a few vines rotted after being mildewed, but they were under very unfavorable conditions, and is no evidence what the future may be.

Some of the Leavenworth small fruit growers were in favor of discarding the Lawton blackberry and planting the Wilson; another is planting the wild ones. It appears to me desirable to test the Wilson a short time longer, as it has only been planted two years in Kansas; in fact, I am not aware that it has produced fruit yet. I have several hundred seedlings from the wild blackberries of Pennsylvania, now growing in the woods, which it is my intention to remove to prepared ground as soon as practicable. If I obtain a better blackberry, hardier and more prolific than the Lawton, I will then discard the latter, but not till then, unless it gives less and poorer fruit when really ripe, than it has done heretofore.

In my next, I will give you the result of some of my experiments. I have not pretended to make grape growing pay yet, my object being to test all the vines I could procure, as none had been tested here before I commenced. In future, the "dimes" as well as knowledge, will be an object.

Grape Growers Society.

A meeting of the Grape Growers of the State of New York, will be held at the Court House in Canandaigua, on the 27th day of February, at 1 P. M., for the purpose of organizing a Grape Growers Society for the State of New York. A full discussion of the subject of Grape Planting, and Varieties best adapted for table and wine, may be expected.

VEGETABLE SEEDS.—We would call the attention of those about to plant seeds, to the advertisements in another column, of Messrs. J. M. Thorburn & Co., of New York, and J. J. H. Gregory, Marblehead, Mass. They have valuable collections to chose from, and from the long standing and reliability of these houses, the seeds obtained from them will give great satisfaction to all who send them orders. Make out a selection in good season, and get them on hand, so as to be ready to plant as soon as the ground is in working order.

AN old subscriber in Onondaga County, N. Y., whose name is as familiar to us as household words, writes us enclosing his subscription for 1868, as follows:

"* * * Enclosed please find one dollar for THE AMERICAN FARMER for 1868. I have been a constant reader of THE FARMER for twenty years, and it is a very welcome visitor and companion, and cannot very easily be dispensed with, although a little changed in name. I consider it equal if not ahead of its predecessor, and how a farmer can live without it, I cannot divine—I cannot. For years I have formed clubs, but cannot do so any more. I am crippled and feeble, and can get round but little; but so long as I live I want THE FARMER."

BEST SIX VARIETIES OF APPLES.—At the winter meeting of the Western New York Horticultural Society, a ballot was taken on the best six varieties of apples, with the following result:—Baldwin, 42; R. I. Greening, 40; Roxbury Russett, 26; King of Tompkins County, 22; Twenty Ounce Pippin, 19; Northern Spy, 21.

Ladies' Department.

TO THE LADIES!

A CHANCE FOR ALL!

DESIROUS of presenting our Annual on Flower Culture, &c., to all our lady readers, we make the following offer:—We will send a free copy of "The Ladies' Garden Companion for 1868," postage paid, to any person who shall send us

ONE DOZEN ORIGINAL DOMESTIC RECEIPTS,

to be published in future numbers of THE AMERICAN FARMER. We hope a large number will avail themselves of this liberal offer, to take effect from this time. Who will be the first to respond?

HOUSEHOLD CARES—No. 12.

"Is there any cure for rancid pork?"

"Certainly, if it is not too far gone. I remember treating a barrel of sour pork in such a successful manner as to make the whole perfectly sweet and good. I took out piece by piece, and after scraping the rind well, washed it through two different warm waters, and then let it stand for some time in soda or saleratus water, then rubbed a little salt over it, rind and all. I then allowed the whole quantity to stand for a week in this fresh salt, when I wiped each piece thoroughly, wrapped it in a strong paper bag, and hung around the kitchen till perfectly dry. The cure was perfect, and I never eat rancid pork."

I have been making a quantity of cake to-day with very good success. I always like to have the ingredients for my cake warm while mixing. The flour should be warmed a little; then I warm the cake bowl, and melt the butter gently before blending it with the sugar. All these little things help a great deal. The cream of tartar should be sifted in with the flour, and the soda added after the batter has been beaten to a froth, just as the soda is taking effect, add the beaten whites of the eggs, stir gently a moment, and into the oven immediately. The cake will be light, whether good or not.

Old Phœbe, the colored lady, was in to-day. She is just 89, she tells me, and has seen a great deal of the downs of this life, and but very little of the ups; but her great trouble to-day was her corns. She could hardly sit still on her chair, and to walk seemed an agony.

"Why, Phœbe," I said, "you wear your shoes too large!" She laughed.

"Why, I thought corns were caused by shoes being too tight, so I keep getting mine bigger and bigger."

This is where she partook of the very general mistake. Corns are caused by pressure and friction, often the latter. If your foot slips a little in your shoe, you are forming corns every step you take. Soaking the feet every night in warm water, and then rubbing with

sweet oil is a remedy. Corns should never be peeled or cut, but should be drawn out, and the hard skin gradually rubbed or picked off.

Tom staid in the house yesterday, and mended things around generally. He sharpened the carving knife, mended my dish pan which had a hole in the bottom; put a new handle on the gimlet, mended the snow shovel, made and set up a new clock shelf, and nailed up some loose boards in the chicken coop. At dinner he declared that he had not had such an appetite for a month, and did excellent justice to the roast pork and pudding. How much a little practical attention on a husband's part cheers and relieves a woman as she toils through her daily life.

My oldest boy Henry is just five years old, but what a mischief!—feeding his rocking horse, arranging its hair with my brush, plaguing Jenny by telling her God don't love her, and wont send her any more dolls, riding the cat on horseback to her disgust, writing on the window pane with a piece of soap. Oh! dear me, do you allow your children to do such things? Well, no, I don't allow it, but then when I go up stairs, and coming down again, behold the childish hieroglyphics, I smile, and wash them of again remembering that I too was a child once, and that is all that comes of it.

AUNT ROSA.

DOMESTIC RECEIPTS.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER.

EARLY TOMATOES.—Those who desire to have early tomatoes this summer should plant a few seeds in flower pots, and place them in a window, and water every day till transplanted in the spring.

CORN STARCH PUDDING.—Set to boil a pint of sweet fresh milk, and two tablepoonsful of white sugar. Wet two tablepoonsful of corn starch in a little cold milk. Add this to the milk on the stove when it boils, stirring carefully for two or three minutes. Take it from the fire and pour into a mold. Prepare a saucer of milk and sugar seasoned. When the pudding is cold, turn out and pour the dressing around it. A very pretty dish.

RICE PUDDING WITHOUT EGGS.—Take a teacupful of rice, wash, and place it in the bottom of a deep pie or pudding dish. Cover with one quart of milk, a little salt and sugar, and nutmeg to taste. Currants or raisins may be added. Place in the oven, and bake two hours. A very nice dish for invalids.

YEAST.—Boil for a little while a half handful of hops, strain; boil six good-sized potatoes peeled; mash the potatoes in the water, and add the hop juice; stir into this a good-sized teacup of flour, add a teaspoonful of salt and a tablepoonsful of sugar; steam through a colander. When lukewarm add a little yeast, and let it rise. May be bottled or kept in a covered crock.

TO REMOVE GREASE SPOTS.—Put on powder of French chalk, and place a piece of blotting paper over it; then pass a hot iron over the blotting paper. The heat liquifies the grease, the chalk absorbs it, and the excess of grease is absorbed by the blotting paper.

Editor's Table.

To Agents and Patrons.

We are obliged to leave out our Premium List for subscribers this month from the great pressure of other matter which has also compelled us to issue **FOUR PAGES EXTRA**, making thirty-six this month, and we would respectfully urge all our friends to read over our Premium List in the last number, and those who have not yet done so, to form clubs for **THE AMERICAN FARMER**. There is yet time to start new lists, and many will find it far easier than they imagine to raise a large club. All that is necessary is to show the paper to your neighbors and solicit their subscription. We would return thanks to our numerous agents everywhere for the disinterested efforts they have made to enlarge our rapidly increasing circulation, and for the large number of new names they have sent in. A large number of clubs are as yet uncompleted, and we hope our friends will make an effort this month to close up their lists, that we may forward their premiums.

On our part we shall endeavor to make **THE FARMER** still more worthy of its large patronage, and hope before long to add increased attractions to its pages.

New York State Agricultural Society--Winter Meeting.

THE annual meeting of this Society was held at the Assembly Chamber, Albany, on the 12th of February, M. R. Patrick, in the chair. The report of the Treasurer, Luther H. Tucker, of *The Country Gentleman*, was submitted, which showed the total receipts for 1867, \$40,597.99, of which amount \$22,238.43 was from the State Fair at Buffalo. The expenses for the past year amounted to \$27,687.48, leaving a balance to the credit of the Society, of \$12,910.51.

The following officers were elected for the year 1868: President—Thomas H. Faile.

Vice Presidents—First District—John Havens, New York; Second, Samuel Thorne, Dutchess; Third, Acin Thayer, Jr., Rensselaer; Fourth, Milo Ingoldsby, Washington; Fifth, Horace Lewis, Herkimer; Sixth, William L. Ely, —; Seventh, H. T. E. Foster, Seneca; Eighth, George A. Moore, Erie.

Corresponding Secretary—B. P. Johnson, Albany.

Recording Secretary—Thomas L. Harrison, of St. Lawrence.

Treasurer—Luther H. Tucker, of Albany.

Executive Committee—Richard Church, Allegany; James Geddes, Onondaga; S. T. Taber, Queens; L. D. Mitchell, Monroe; William M. Burr, Madison; A. B. Cornell, Tompkins; B. F. Angel, Livingston; I. D. Wing, New York.

Applications were made from the cities of Rochester and Utica for the next State Fair, which were submitted to the Executive Committee.

Several able addresses were delivered, and we regret our space will not permit their publication in this number.

THE MARKETS.

OFFICE OF AMERICAN FARMER, ROCHESTER, N. Y., Feb. 29, 1868.

Nearly all kinds of farm produce has advanced during the month. Good fat hogs now bring 12 cents $\frac{3}{4}$ lb. The butchers tell their city customers that beef costs them 10 cents $\frac{3}{4}$ lb., live weight. Mutton is the only cheap meat we have, and that, if of good quality, is advancing. Eggs bring over 3 cents apiece, but as spring advances they will doubtless decline. To those who have to buy, and have little to buy with, as with many in city, prices seem very high. "Farmers ought to be making money," is a constant remark, and there are many city people who sigh for a home in the country, and sigh in vain. Small farms at reasonable rates are very scarce and high. Those who wish to sell can hardly expect a more favorable opportunity.

Wool continues firm, but without any material advance in price. 40 cents is the outside figure paid in this city. Most of the buyers would rather have less on hand than more. The great advance in the price of barley has brought to market all that can be spared.

Beans are very high: we heard of one sale, at \$5 $\frac{3}{4}$ bushel for choice mediums.

Potatoes are likely to bring high figures. Dealers are offering to contract now for Peachblows at \$2.75 per barrel.

Clover seed is scarce, and in active demand. As the season advances, many are of opinion that it will be found that the supply is not equal to the demand. There are those who think it will be \$10 a bushel before the 1st of May. The quality of the seed was never better, but the yield, owing to the drouth, is generally quite light.

Butter has advanced considerably. It is in demand at 40 cents, and more for a choice article.

Lard retails at 18 cents.

If any of our readers have onions to sell, they are lucky. \$4 a bushel has been, and we presume, will be paid for them.

Cabbage, parsnips, &c., are also very high. We hope all the readers of **THE AMERICAN FARMER** have something to sell, and if so, they need not be afraid to ask a good price for it.

NEW PUBLICATIONS.—"The United States Musical Review" is before us, and merits the attention of all lovers of music. It is a mammoth monthly magazine, sheet music size, containing musical news, reviews, and choice art items—in all, over seventeen pages, which is not only readable, but interesting and invaluable to all musicians. In addition to the above, each number contains four pieces of choice new music by the best writers in America. Published by J. L. Peters, 200 Broadway, New York, at the low price of \$2.00 a year. Single copies, 20 cents.

S. R. Wells, editor *Phrenological Journal*, has published—

"The Good man's Legacy," an excellent sermon by Rev. Samuel Osgood, D. D. With portrait and sketch of Dr. Richard Rothe, of Heidelberg. Price 25 cents.

"Consumption:" its cause, and cure by the Swedish movement. With illustrations and directions for home application, by David Wark, M. D. Price, 30 cents.

"Education of the Heart." The necessity of moral culture for human happiness. By Hon. Schuyler Colfax. Sent post-paid for 10 cents. Address the Publisher, 389 Broadway, New York.

ATTENTION is called to the full, reliable, and correct table of prices of farm produce on another page.

Wisconsin State Agricultural Society.

The Executive Committee of this Society were in session at the Capitol last week. They fixed the Annual State Fair at Madison for the next two years, conditional that the people of the city will supply some additional buildings upon the fair grounds, which will doubtless be done.

The committee made a thorough revision of the premium list, and we understand, greatly enlarged it upon many of the more useful objects of exhibition. They also extended liberal terms to the State Horticultural Society in respect to their department, giving them entire control thereof, and appropriating \$800 of the general proceeds to the exclusive use of the Society. This proposition, says *The Wisconsin Farmer*, was considered liberal by the Horticultural Society, and promptly accepted by them. The time for the next fair was fixed for the last three days of September and first two of October next.

Literary Notices, &c.**JOURNAL OF THE FARM.**

We have received copies of the above spirited journal from the publishers, Messrs. Baugh & Sons, Philadelphia. It is a valuable and interesting farmer's paper, and well filled with choice reading matter. Messrs. Baugh & Sons are well known to our readers as the manufacturers of that best of all artificial fertilizers, Baugh's Raw Bone Superphosphate, which has been so strongly endorsed both by the general public and the agricultural press, and in issuing their monthly, they stated that it is "for the express purpose of making more generally known, and thereby increasing the sale of their Raw Bone Superphosphate, of which they are sole manufacturers," that they issue this journal. It is full of general information, and we would advise our readers to send for a copy. The subscription price is only 50 cents a year.

HARPER'S WEEKLY,

Ever full of valuable matter, both of interest to the eye and instruction to the mind, keeps up its reputation as our leading and best of illustrated papers. It is indispensable where it has once found an entrance to the family table, and always comes to hand richly filled with the choicest reading matter and the latest news. Published by Harper Bros. New York. Price \$4.00 a year.

BEADLE'S DIME NOVELS.

"The Sagamore of Sago." By Mrs. E. Oakes Smith, and "The Helping Hand," by Captain Mayne Reid. Published by Beadle & Co., 118 William St., N. Y.

Another volume of the Sunday School series of juvenile works is published, called "The Door without a Knocker." From "The Sunday at Home," London. By Henry Hart, Cornhill, Boston, Mass. Price \$1.00.

HARPER'S BAZAR,

Published weekly by Harper Bros., New York. Price \$4.00 a year. As a ladies paper this has no equal. It comes to hand filled with the best of illustrations devoted to fashions. Got up in the very best style,

same size as Harper's Weekly, the engravings are unequalled, and the reading matter is of the most interesting and miscellaneous character, which cannot but make it a pleasing, popular, and indispensable companion to every family.

"The Prairie Farmer Annual for 1868," published at the office of the Prairie Farmer Company, Chicago, price 25 cents. In addition to the instructive agricultural and horticultural matter, we find in this work a complete list of nurserymen, seedsmen, implement dealers, and stock breeders.

The Report of the Seventh Annual State Fair of Oregon, 1867, containing the opening address by the President, J. H. Douthitt, and annual address by E. B. Durfee. Also essays on cattle-raising, deep and shallow plowing, management of fern lands and small farms, by W. T. Newby, and the award of premiums—from A. G. Schwatka, Secretary, Salem, Oregon.

From Messrs. Ellwanger & Barry, wholesale catalogue for the trade, of fruit and Ornamental trees, shrubs, roses, dahlias, bulbous roots, border plants, &c., containing a cut of their new prolific strawberry, Nicanor.

E. Williams, Monclair, N. J., price list of small fruit plants, and seed potatoes, Kittatinny blackberry plants for spring of 1868.

The Kittatinny blackberry, introduced to public notice by Mr. W., is strongly praised by those who have grown it, and from what we have seen of it and heard, we believe it to be the very best blackberry yet introduced. Those who are about to plant the blackberry, will do well to send to Mr. W., and get some of these plants, and try how they will do in their own locality.

We have received retail catalogue of garden vegetable seeds for spring of 1868, from J. J. H. Gregory, Marblehead, Mass., and would call the attention of our readers to Mr. G.'s advertisement in another column. Mr. Gregory has had long experience in the business, and has gained a wide reputation for the fine quality of his seeds, most of which are grown under his own supervision.

From Charles Millar & Son, Utica, N. Y., illustrated circular and price list of articles for cheese factory and dairy use.

From S. Boardman & Co., Rochester, special list of plants for spring of 1868.

F. L. Perry, Canandaigua, descriptive catalogue of grapes.

Moorestown small fruit and plant farm—descriptive and priced catalogue of plants, grown and for sale at the above named place for the spring of 1868, by Thos. C. Andrew, Moorestown, Burlington Co., N. J.

Amateur's price list of fruit and ornamental trees, grape vines, small fruits, shrubs, roses, &c., grown and for sale by Edward J. Evans & Co., Central Nurseries, York, Pa.

Catalogue of fresh and genuine field and garden seeds, for sale by Edward J. Evans & Co., York, Pa.

F. M. JORDAN, Auburn, Me., uses his hot-house for a heny during the winter. The hens are delighted at living under glass, and "shell out" most liberally.

THE HONEY BEE.

WRITTEN FOR THE AMERICAN FARMER, BY J. H. GRAVES.

It is an old adage, and perhaps a true one, that money is the root of all evil; please allow me to add, negligence and ignorance are the cause of all poverty and misery; and to this all or quite all failures in business may be traced, particularly that of propagating the honey bee, and also of the limited number engaged therein.

From close observation, and nearly ten years practical experience, I know that I am not mistaken in saying to the numerous readers of this journal, that there is no legitimate business in which capital can be invested from which can be realized on it the profits of that invested in the honey bee. Very many of the wise have for ages, and a far greater number are in this enlightened age availing themselves of this vast and welcome income; while the negligent and ignorant in their rags and poverty, gazing with utter surprise at those who have made fortunes, and the large numbers who at this day, from the untold value of the little honey bee, are adding hundreds, and from that to thousands of dollars, yearly, to their already growing fortunes, which took its root from the products of this noble, and by the ignorant neglected insect.

By this class there is usually but two reasons assigned for not engaging in this lucrative and agreeable vocation. First lack of time to attend to the bees, lastly the "little varmin'ts" will sting. True, as to the stinging; but the objector, if not too lazy, would sting in defence of his last loaf of bread; but allow me to inquire, which is the hardest to endure, an occasional sting by the honey bee, while at the same time it feeds and clothes you, or the ever-present sting of poverty and wretchedness. I will here impart a piece of advice, particularly to ladies of moderate circumstances:—deposit safely \$1 per week, or more, if possible, until the first of May, and then invest it in honey bees, together with a good practical hive, and in the meantime inform yourself as far as possible upon the subject of treatment, habits, instinct, &c., of the bee, and treat them accordingly, and my honor for it, prosperity and a happy future awaits you. For your benefit, I will give the report of one lady from many that are now extensively engaged in bee culture.

"I am not prepared to give an accurate statement of each year's gains, either in honey or stock, since I commenced bee keeping; but in the spring of 1839, I purchased four hives for \$20, two of which died before flowers came. In the autumn of 1865, I was offered \$1,500 for my stock of bees, but declined selling, as they were worth much more to me. Thus we have in six seasons an increase from \$10 to \$1,500, in the capital alone, with no account of honey sold each season, or of bees sold repeatedly. During the summer of 1864, I sold from 22 hives, \$409.20 worth of honey. Two of these seasons are called the poorest ever known in Iowa.

"What branch of agriculture or horticulture pays better than this? The quick observation and gentle hand-

ling so requisite in the business, belong peculiarly to woman, and there is no part of it which is laborious, or that may not be appropriately performed by them. It has proved to me of great benefit. I came West twelve years ago under sentence of speedy death from one of New England's best physicians, yet now rejoice in perfect health restored. More than to all other causes I attribute the change to the interesting occupation which has kept me so much of the time in the open air, and paid me for being there. I most heartily recommend it to others who are seeking either health or a pleasant and profitable employment."

The question is or should be asked, what kind of hives are the most requisite? In no other but a moveable comb frame hive, can bees be managed with any degree of intelligence, nor with success as compared with that secured by the use of movable frame, (notwithstanding Mr. Quinby, who claims to be the pioneer amateur of America, and perhaps rightfully too, has opposed them, but recently I discover that he has fallen deeply in their favor, and warmly advocates their use. Here again fogyism yields to Young America.

Since the Rev. L. L. Langstroth in 1852, introduced the movable frame system into this country, very many heads have been at work, my own not excepted, to render them practical when in a hive suitable for wintering bees. Also to perfect many other very imperfect and unmanageable features which has been the cause of thousands abandoning their use entirely, therefore pronounced by them worse than useless.

For the benefit of all concerned, I will say, that in my last improvement I have effectually obviated all and every objection raised to a movable frame hive, viz.:—It is double walled, protecting the bees against extreme hot and cold weather. The frames form the circulating air chamber. No bees can pass outside of the frame. Every frame must stand at an equal distance. Each sheet of comb must be of an equal thickness. No combs can be built across the frame. Each frame can be taken out at will, without the least breaking of comb, or injury to the bees. The hive in half a moment can be reduced and increased to any size suitable to the size of the swarm—large or small. The bees are entirely saved the labor of carrying out their offal. All is secured in the moth depository, and removed together. It is not unfrequent to find here imprisoned from 100 to 500 worms at a time. Every hive affords a full view of the wonderful and mysterious working of the interior. The hive is very simple and cheap. No practical hive can be made for less money.

I leave the subject with the readers of THE FARMER, for their consideration, trusting that many will at once enter upon the pleasing and profitable occupation of bee culture.

PRIZE ESSAYS.—We purpose shortly to make out a list of subjects for Prize Essays to be published in THE FARMER, and shall be glad to receive from our readers any questions or suggestions on any subjects that they wish discussed in our columns.

PRICES OF PRODUCE AT THE PRINCIPAL MARKETS IN THE UNITED STATES AND CANADA.--BY TELEGRAPH, &C.

	NEW YORK, Feb. 29.	ROCHESTER, Feb. 29.	CHICAGO, Feb. 28.	ST. LOUIS, Feb. 28.	TORONTO, Feb. 28.
Flour, white wheat	\$ 9.40 @ \$11.85	\$16.00 @ \$20.00	\$ 8.25 @ \$10.50	\$ 7.00 @ \$9.00	\$ 7.10 @ \$ 0.00
" red		14.00			
Wheat, white, #3 bu.	2.40 2.50	2.75 3.05	1.94 1.94½	2.40 2.60	
" red,	2.55 2.65	2.60 2.70		.80 .85	
Corn, #3 bu.	1.20 1.23	1.15 1.20	.77	1.45 1.72	
Rye, do.	1.66 1.89	1.65 1.70	1.56 1.60	2.40 2.55	1.25 1.26
Barley, do.	1.90 2.15	1.65 1.65	1.80 .56½	.56 .73	
Oats, do.	.81½ .84½	3.00 4.50	4.00 5.00	5.60 5.75	
Beans, do.					
Peas, do.					
Butter, #1 lb.	.50 .60	.38 .42	.28 .88	.86 .45	
Cheese, do.	.11 .16	.14 .17	.12 .18	.14½ .16	.07½ .08
Eggs, do.	42 44	.38 .00	.27 .28	.20 .24	.30
Potatoes, #3 bu.		.80 .90	1.00 1.05	3.90 4.00	
Chickens, #1 lb.		.16 .18	4.00 4.75dz	5.00 5.50dz	
Live hogs, #100 lbs.	.11½ .12	.10 .12	9.50 10.50		5.75 6.50
Wool, #1 lb.	.41 .46	.85 .40	.41 .46	30 .41	
Beef, #1 lb.	.13 .19		7.50 7.50	5.50 7.60	5.00 7.50
Hay, #1 ton.	.21 .23	15.00 23.00	15.00	12.00 15.00	
Hops, #1 lb.	.45 .60	.45 .65	.00 .00		
Clover Seed.	.13½ 14½	7.00 7.25	7.85 7.50		.80 .48

Special Notices.

TO THE LADIES.
FOR ONLY ONE DOLLAR.

We are selling *Silks, Shawls, Dry and Fancy Goods* of every description, also, *Silver Ware, Furniture, &c.* Valuable Presents, from \$3 to \$500, sent free of charge to agents sending clubs of ten and upwards. Circulars sent free to any address.

MESSENGER & CO.,
P. O. Box, 2981,
42 Hanover St., Boston, Mass.

KITTATINNY,

"Superior in flavor to all others."—*Am. Agriculturist.*

"Such sights of fruit we never saw before."—*N. Y. Times.*

For genuine plants of this, and the Wilson blackberry, and the best Strawberries, Raspberries, Currants, Grapes, &c., at very low rates, address,
E. WILLIAMS, Montclair, N. J.

PLANT THE BEST! PLANT THE GENUINE!

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in THE AMERICAN FARMER for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 18th of the previous month. THE FARMER has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

SQUASHES AND ONIONS.

I have written two very thorough works, one on the cultivation of each of these Vegetables, in which the directions given for every step of the process, for selecting soil, preparing, manuring, planting, protecting from insects, weeding, gathering, ripening, storing, and marketing the crop, are so very minute, that the new beginner can be equally successful with experienced growers. Each work is fully illustrated. Sent to any address, and warranted to reach the purchaser, at 80 cents each. If on reading them, any person thinks he has not got his money's worth, I will refund it gratis. Catalogues of warranted choice vegetable seed, over one hundred varieties of which are of my own growing, sent free to all. JAMES J. H. GREGORY, mh-8t
Marblehead, Mass.

DRAIN TILE MACHINE.

FOR manufacturing draining Tile. Send for circulars to A. LA TOURRETTE, feb8t
Waterloo, N. Y.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

PRINCE & COS.
AUTOMATIC ORGANS
AND MELODEONS.
Forty thousand are now in use
BUFFALO, N.Y. CHICAGO, ILL.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

BRAHMA EGGS

FOR Setting, at \$1.50 per dozen, from stock weighing 12 and 15 lbs. apiece. Purity guaranteed. Orders received for fowls to be delivered after Sept. 1st. Send stamp for circular.

Address,
J. I. SCHERMERHORN,
mh-1t* Box 528, Schenectady, N. Y.

15 DOLLAR NOVELTY

SEWING AND EMBROIDERING MACHINE is the only cheap licensed Machine in the market. It will do all kinds of work done by the high-priced machines. It makes the famous Elastic Stitch, which will not rip or break, if every third stitch be cut. Run by hand or foot. Price with table, \$22. Agents wanted. Machines sent on receipt of price. Address,
FRENCH, GILBERT & CO., 614 Broadway, N. Y.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

ESSAYS for young men on errors and abuses incident to youth and early manhood, with the humane view of treatment and cure. Sent by mail, free of charge. Address, Howard Association, Box P, Philadelphia, Pa. mh-1t

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

AGENTS WANTED.

WE want first-class Agents to introduce our NEW STAR SHUTTLE SEWING MACHINES. Extraordinary inducements to good salesmen. Further particulars and sample work furnished on application to W. G. WILSON & CO., Cleveland, O.; Boston, Mass.; or St. Louis, Mo. mh-8t

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

EARLY ROSE POTATOES.

PERFECTION ATTAINED AT LAST.

The "EARLY ROSE" is a seedling of the Garnet Chili, originated in 1861 by Albert Brezee, Esq., an intelligent farmer, and the whole stock was sold by him to D. S. Heffron, Esq., of Utica, N. Y., the well known discriminator of the "Goodrich Seedling."

In a letter to Messrs. B. K. Bliss & Son, of New York, Mr. H. says of the Early Rose: "It has uniformly ripened *ten days earlier* than the *Early Goodrich*, produces less small tubers, is equally healthy and productive as that justly celebrated variety, and it is superior in table quality. It is the best early potato I *at I have ever grown or seen*, all things considered." "Skin thin, tough, of a dull bluish color. Flesh white, solid, and brittle, boils through quickly; very mealy."

CARD FROM D. S. HEFFRON, ESQ.

To whom it may concern:—Having recently sold nearly my entire stock of the Early Rose Potato, to John L. Conover and Stacy P. Conover, they have sent me an order to deliver a portion of them to Geo. W. Best, of Utica, N. Y.

D. S. HEFFRON.

Geo. W. Best has purchased of Messrs. John L. & Stacy P. Conover, of Monmouth County, N. J., a part of their stock of Early Rose Potatoes, at the *anomalous price of eighty dollars dollars (\$80) per bushel*, and proposes to send them out in pound packages as premiums to those purchasing Grape Vines of him. The following will convince the public that \$80 per bushel is the actual price paid.

City and County of New York, ss.—John L. Conover and Stacy P. Conover, of Monmouth County, New Jersey, being duly sworn, depose, and say that on this 21st day of February, 1868, they sold to Geo. W. Best a part of their stock of Early Rose Potatoes at the cash price of \$80 per bushel.

JNO. L. CONOVER,

STACY P. CONOVER.

Sworn before me, this 21st day of February, 1868,

A. WILLIAMS GLEASON, Notary Public, New York.

I have a very large stock of

CHOICE NATIVE GRAPE VINES,

consisting of the most desirable varieties, among which are Adirondack, Allen's Hybrid, Concord, Creveling, Delaware, Diana, Union Village, Hartford Prolific, Rogers' Hybrids, Iowa, Israella, &c., &c., which I intend to send out in connection with the Early Rose.

TERMS:

For \$5, invariably to be sent with the order, I will send TEN CHOICE GRAPE VINES from the above list, reserving the right of selection for myself, but will endeavor to suit purchasers as far as possible, and

ONE POUND OF EARLY ROSE POTATOES:

all to be securely packed, and sent by mail, postage prepaid.

INSTRUCTIONS FOR PLANTING.

By cutting into single eyes, and planting but one eye on a hill, one bushel may be readily raised from a pound, and will be worth next fall, at the very lowest calculation, double the price paid for both Vines and Potatoes.

☞ Not more than Five (5) packages sent to one address.

☞ No Early Rose for sale in quantity at any price, and only in connection with the Vines.

☞ No order will be accepted unless accompanied by the cash.

Orders will be booked in order as received, and Potatoes and Vines mailed so early in the spring as the weather will permit. Order early, as the stock is limited.

Address,

GEO. W. BEST,

mh

Utica, N. Y.

ONE DOLLAR COLLECTIONS.

OF EARLIEST KINDS OF

VEGETABLE SEEDS FOR SPRING SOWING.

	packet.
Cabbage, Earliest Dwarf.....	1
Caulliflower, Early Paris.....	1
Celery, Early Dwarf White.....	1
Cucumber, Early Russian.....	1
" Early Short Green.....	1
Egg Plant, Early Long Purple.....	1
Lettuce, Early Curled Silesia.....	1
" Early Tennis Ball.....	1
Radish, Early French Breakfast.....	1
Tomato, Early Smooth Red.....	1
Parsley, Fine Double Curled.....	1

The above choice assortment will be mailed free to any address on receipt of One Dollar.

Address, **WILLIAM WEBSTER,**

149 State Street, Rochester, N. Y.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

TO FARMERS.—AGENTS WANTED.

SILVER PATENT BROOM, which is warranted the cheapest, best, and most beautiful broom in the world, enables every farmer to use his own brush of his own raising, and make a better broom in every respect than can be bought at the store. It is so simple that a child can put it together, and the brush is so elastic that it wears twice as long, sweeps with half the effort, and does not wear the carpet one-fourth as fast as the old fashioned Tied Broom or Patent Carpet Sweepers, thus saving money and time. Hon. Horace Greeley says: "I predict its success." *The American Agriculturist*, Orange Judd, Editor, says: "Silvers' Patent Brooms are adopted as a family institution." The American Institute, Farmers' Club, N. Y., says: "With Silvers' Patent a child ten years old can make a new broom in ten minutes." The Patent Brass Metallic parts, which last a life-time, sent to farmers (where we have no agents), with full instructions for making their own brooms, by mail, prepaid, for \$1.20.

Agents wanted in every county in the United States. With the improved Seamless Brass Cap and Wrought Iron Loop, it is perfect, and at our reduced price any active man can make money rapidly. Last year 450 agents were selling it; 500 more wanted this year. For full particulars send for our new illustrated circular to C. A. CLEGG & CO., sole owners of the patent, 207 Fulton street, (Post Office Box 9, 985), New York.

☞ Please state where you saw this advertisement.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

\$60 FORT EDWARD INSTITUTE.

SPRING TERM of Thirteen Weeks begins March 26. Sixty Dollars for Board, Washing, Fuel and Common English, Brick buildings, Sixteen Teachers. Classical, Scientific, Commercial, and Musical Departments. For thirteen years the best sustained boarding seminary for young ladies and gentlemen in the State. "A live Christian Institution, impartially non-sectarian." Address for Catalogues or rooms, JOSEPH E. KING, D. D., Fort Edward, N. Y.

☞ Studies accompanied by a professor from New York.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

NEW AND RARE VEGETABLES.

I make New and Rare Vegetables a speciality. Catalogues free, JAMES J. H. GREGORY, Marblehead, Mass.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes," in another column.

DARING INNOVATION.

PACKAGES by mail with seeds in them! Mammoth Sweet Corn, ears 2 to 3 lbs. weight—a most valuable variety, 25c. per package, or 6 for \$1.00. Early Garden—the finest Early Sweet Corn, 15c per package. Early York and Giant Cha-wa-wa Tomato, 15c per package. Ovoid Mangel Wurzel Beet, very productive, 15c per package. **HOEACEL THAYER,** Blackstone, Mass.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

**CHOICE SEEDS,
AND
SEED POTATOES.**

Those who want the best seed potatoes or vegetable seeds, should send for our Illustrated Priced Catalogue, before purchasing elsewhere—sent FREE. We have much the largest and best assortment of varieties of potatoes ever offered in this country; having over 100 kinds, including every sort worth cultivating—new or old. We grow our own seeds, and they cost us double what we could buy common seeds for at wholesale, but they are infinitely more valuable, as we select only the best seeds from the very best specimens of vegetables, and cultivate only a few of the best kinds, so that we are enabled to keep each kind perfectly isolated and pure.

The following are some of our best kinds of potatoes, and will be delivered to Depot or Express upon receipt of price; or money can be sent to Express Agent at Huron, to be paid to us when the potatoes are delivered. Thirty cents must be added to an order for a single peck or a single bushel, to pay for packing, otherwise packing free:—Calico, Colebrook Seedling, Coppermine, Cuzco, Early Buckeye, Early Sebec, Early White Sprout, Garnet Chili, Gleason, Jackson White, Monitor, Pinkeye Kustycot, Prince Albert, Shaker Kussett. Price of the above kinds, 60 cents per peck; \$1.60 per bushel; \$4.00 per barrel. Also, Andes, Bulkeley's Seedling, Chenango, Chenery, Davis' Seedling, Delmahoy, Early Goodrich, Early White Peachblow, Early Shaw, Early Stevens, Pluke, Mercer, Mountain Jane, Rochester Seedling, Rough and Ready, Strawberry; at 75 cents per peck; \$2.00 per bushel; \$5.00 per barrel. Also, Calico, Cascoe, Dover Seedling, Early Cottage, Early Minnesota, Early Pinkeye, Early Race Horse, Early Sovereign; at \$1.00 per peck; \$2.50 per bush; \$6.00 per barrel. Also, Chili No. 2, Harrison, Orono, Shaker's Fancy, Titicaca, Union, White Chili; at \$1.00 per peck; \$3.00 per bushel; \$7.00 per barrel. Also, Early Handsworth, Early Kearsarge, Fortfarshire Red, Irish Blue, King of the Potatoes, Patterson's Blue, Patterson's Regent, Prince of Wales, Scotch Blue Seedling Root, Skerry Blue, in four pound packages only, at \$1.00 each, post-paid.

Vegetable Seeds.—Potato seed, saved from over 100 kinds, Kaphanus (Cauliflower), Marchese's Mammoth Cabbage, Russell's Improved Sweet Corn, Mammoth Squash, Mammoth Minorca Melon; price 25 cents per packet, sent post-paid. Also, Mammoth Sweet Corn, Improved N. Y. Purple Egg Plant, Ward's Nectar Melon, Japan Pie Melon, Student Parsnip, Oyster Plant, Hubbard Squash, Turban Squash, Para Squash, Keyes' Early Prolific Tomato, New White Japan Melon, Drew's New Dwarf Pea, McLean's Little Gem Pea; at 15 cents per packet. Also, Striped Leaved Japanese Maize, Stone Mason Cabbage, Early Winnigstad Cabbage, Extra Orange Carrot, Early Turnip Beet, Chicago, Mexican Sweet Corn, Bates' Extra Early Sweet Corn, Forty Days Corn, Extra Early Russian Cucumber, Kohl Rabi, Turkish Head Lettuce, Periplann Lettuce, Improved Mountain Sweet Water Melon, Pelee Island Tomato, Yellow Globe Mangel Wurzel, Mammoth Russian Sunflower, Tom Thumb Pea, McLean's Advancer Pea, New Olive Shaped Radish; at 10 cents per packet.

For \$1.00 we will send by mail, post-paid, a four pound package of potatoes, (any six or less kinds), and ten cents worth of seeds; all warranted to reach the customer. Seeds sent post-paid at the prices given, and warranted to reach the customer.

REFERENCES, by permission.—Hon. W. D. Lindsay, Sandusky, O.; Hon. Z. Phillips, Berlin Heights, O.; D. C. Richmond, Sandusky, O., President Erie Co. Agricultural Society.

Address, **L. D. SCOTT, Huron, O.**
mar-11

TAKE YOUR CHOICE!

To any person sending one new subscriber, with the money for one year, we will send a first-rate gold pen, No. 3, 4, 5, or 6, that will fit any ordinary pen holder.

To any person sending two new subscribers, and the payment for one year, we will send a gold pen. No. 3, 4, 5, or 6, with a gold stock plate holder, complete and ready for use, in a morocco case.

To any person sending three new subscribers, with payment for one year, we will send the Gold Fountain Pen, No. 5 or 6 complete, with gold stock plate holder, in a morocco case.

A \$55 Sewing Machine, either Wheeler & Wilson, or Grover & Baker, will be sent to any person sending us the names of eighteen new subscribers to the

NEW YORK OBSERVER,

with the money (\$63) for one year in advance.

We have sent away as premiums more than Seven Hundred of these Machines, and they give universal satisfaction.

The new subscribers may be from one, or from various places. Send by check, draft, or post-office order.

Sample Copies and Circulars Sent Free.

Terms, \$3.50 a year, in advance.

SIDNEY E. MORSE, Jr., & Co.,
mh-2t **37 Park Row, New York.**

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

SAVE YOUR MONEY.

THOMAS WRIGHT, COMMISSION TREE BROKER,
35 Arcade, Rochester, N. Y.

A great amount of Surplus Stock—all kinds of Trees, Vines, Plants, Stocks, Tree Seeds, &c., &c., offered through me by reliable Rochester Nurserymen and others elsewhere. Much of it at very reduced prices, wholesale and retail. Over twenty years experience in the Nursery business. Commission paid by the seller. No charge to purchasers. Send stamp for wholesale lot price list. mh-1*

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

POST-PAID FOR FIVE DOLLARS!

12 PHILADELPHIA STRAWBERRY.—12 Jucunda, 12 Durand, 6 Charles Downing, 3 Thornless Raspberry, 3 Do-little, 6 Philadelphia, 3 Wilson's Early, and 3 Kittatiny Blackberry. Send for Catalogue containing other variety lists. Also prices of the leading Strawberries, Raspberries, Blackberries, Grapes, &c., Potatoes. Peach trees, \$7 per 100, or \$60 per 1,000. THOS. C. ANDREWS, Moorestown, N. J.

mh-2t
SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

GREAT REMEDY FOR THE PILES!

WARRANTED TO CURE, OR MONEY REFUNDED.

I will send to any person a remedy that will cure this painful and troublesome disease, by two or three applications.

UTIOA, March 16th, 1867.—This is to certify that I have been troubled with the Piles for the past thirteen years, having tried every remedy that has come to my knowledge without a cure, until I accidentally heard of Tillinghast's Pile Remedy. I have used it but a short time, and am now entirely cured. I now feel like a new man.

CHARLES MILTON COOLIDGE.

Sworn to before me, this 16th day of March, 1867.

D. BENNETT, Justice of Peace.

Sent by mail for Seventy-five cents. Address,

JOHN TILLINGHAST,
No. 129 Genesee Street, Utioa, N. Y.

Certificates of cure may be seen at my office from persons residing in almost every State in the Union. feb-6t

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

GEO. P. ROWELL & Co.

HAVE JUST ISSUED

**A COMPLETE LIST OF THE
AGRICULTURAL PERIODICALS IN AMERICA,**

Giving the Rates Charged for Advertising in each.

It will be found a great convenience to persons wishing to advertise in newspapers of this class.

Sent to any address on receipt of

Price, 25 Cents.

40 PARK ROW, N.Y.

SPRING GARDEN SEEDS.

The following are selections from **Thorburn's Catalogue** for 1883, constituting the choicest of their sorts.

☞ If ordered by mail, add 8 cts. per lb. for postage.

The five best **Beans** are:

	per qt., cts.
Early Rachel, Bush	40
Black Wax, Bush, (fine yellow pod)	50
Ketfgee, Bush	40
Horticultural, Pole	50
Black Wax, Pole (fine yellow pod)	75

The two best **Beets** are:

Carte's St. Oysth	per lb., \$4.00	per oz., 40 cts
Early Blood Turnip	" 1.00	" 15 "

The five best **Cabbages** are:

	per lb., \$8.00	per oz., 75 cts
Early King of Dwarf	" 5.00	" 40 "
Early Winningsadt	" 3.00	" 30 "
Early Oxheart	" 3.00	" 40 "
Drumhead Savoy	" 5.00	" 40 "
Large Flat Dutch	" 4.00	" 40 "

The two best **Carrots** are:

Early Scarlet Horn	" 1.50	" 15 "
Long Orange	" 1.25	" 15 "

The three best **Cauliflowers** are:

Extra Early Erfurt	per packet, 25
Early Paris	per oz., 1.25
Thorburn's Nonpareil	1.00

The three best **Celerys** are:

Early Dwarf White	per oz., 75 cts
Early Dwarf Crimson	" 50 "
Dickson's Mammoth White	" 40 "

The four best **Corns** are:

Extra Early Dwarf Sweet	per qt., 40 cts.
Trimble's Improved Sweet	" 50 "
Stowell's Evergreen Sweet	" 80 "
Striped Leaved Japan	per oz., 40

The two best **Cresses** are:

Extra Curled	per lb., 75 cts.	per oz., 10c
Broad Leaved Winter	" 3.00	" 80c

The three best **Cucumbers** are:

Early Russian	per lb., \$2.00	per oz., 20 cts
White Spined	" 1.50	" 15 "
Long Green	" 2.50	" 20 "

The best **Kohl Rabi** is:

Early White Vienna	per lb., \$4.00	per oz., 40 cts
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The four best **Lettuces** are:

Early White Forcing	per lb., \$5.00	per oz., 50 cts
Tennisball or Boston	" 4.00	" 40 "
Wheeler's Tom Thumb	" 3.00	" 30 "
Ice Drumhead	" 2.50	" 30 "

The three best **Melons** are:

Early White Japan	per lb., \$5.00	per oz., 40 cts
Fine Nutmeg	" 1.50	" 20 "
Ice Cream Water	" 1.50	" 15 "

The three best **Onions** are:

Early Red	per lb., \$2.00	per oz., 20 cts
Yellow Danvers	" 2.00	" 20 "
White Portugal	" 3.00	" 30 "

The best **Parsley** is:

Extra Curled	per lb., \$1.50	per oz., 15 cts
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The six best **Peas** are:

McLean's Little Gem (1 foot high)	per qt., 80 cts
Carte's First Crop (2½ feet high)	" 80 "
McLean's Advancer (2½ feet high)	" 75 "
Hair's Dwarf Mammoth (2½ feet high)	" 60 "
Napoleon Marrow (3 feet high)	" 60 "
McLean's Princess Royal (1½ feet high)	" 50 "

The best **Parsnip** is:

Sutton's Student (fine flavor)	per lb., \$1.50	per oz., 20 cts
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The four best **Radishes** are:

French Breakfast	per lb., \$1.50	per oz., 15 cts
Early Scarlet Turnip	" 1.50	" 15 "
Long Scarlet	" 1.00	" 10 "
Scarlet Chinese Winter	" 3.00	" 30 "

Also,
Raphanns caudatus (edible pod variety) .. per packet.... 25 "

The two best **Spinages** are:

Large Flandre	per lb., 75 cts.	per oz., 10 "
Round Leaved	" 75 "	" 10 "

The three best **Squashes** are:

Summer Crookneck	per lb., \$1.25	per oz., 10 cts
Yokohama Winter	" 4.00	" 40 "
Hubbard, Winter	" 2.50	" 30 "

The four best **Tomatoes** are:

Large Red Smooth	per lb., \$4.00	per oz., 30 cts
Fejee Island	" 4.00	" 30 "
Cook's Favorite	" 4.00	" 30 "
Valencia Cluster	" 4.00	" 30 "

The four best **Turnips** are:

Red Top Strap Leaf	per lb., \$1.00	per oz., 10 cts
White French	" 1.00	" 10 "
Yellow French	" 1.00	" 10 "
Improved Rutabaga	" 1.00	" 10 "

Also, apply for **Descriptive Catalogue** containing directions for the cultivation of vegetables.

J. M. THORBURN & CO.,
15 John Street, New York.

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

A NEW SMUGGINS, AND AMUSING GAME, Price 50 Cents.

Sent post paid, on receipt of price, by S. D. NEWCOMB, 171 Broadway, N. Y. m-2t

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

ONE OUNCE OF GOLD will be given for every ounce of adulteration found in "B. T. Babbitt's Lion Coffee." This coffee is roasted, ground, and sealed "hermetically." under letters patent from the United States Government. All the "aroma" is saved, and the coffee presents a rich, glossy appearance. Every family should use it, as it is 15 to 20 per cent stronger than other pure "Coffee." One can in every 20 contains a \$1 Green-back. For sale everywhere. If your grocer does not keep this coffee, and will not get it for you, send your orders direct to the factory. B. T. BABBITT, 64 to 74 Washington Street, New York. mh-1t

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

ESSAYS FOR YOUNG MEN on Errors and Abuses incident to Youth and Early Manhood, with the Humane View of Treatment and Cure. Sent by mail free of charge. Address, HOWARD ASSOCIATION, Box P, Philadelphia, Pa. mh-1t

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

GOLDEN HILL SEMINARY for Young Ladies, Bridgeport, Ct. Address, MISS E. NELSON. mh-1t

SEE Geo. W. Best's advertisement of "Early Rose Potatoes" in another column.

\$100 A MONTH SALARY,
WILL be paid for Agents, male and female, in a new, pleasant, permanent business. Full particulars free, by return mail, or sample retelling at \$4.50 for 50 cts. A. D. BOWMAN & CO., 48 Broad St., New York. [Clip out and return this notice.] mh-18t

ANOTHER GRAND TRIUMPH!!

AT THE FAIR OF THE AMERICAN INSTITUTE just closed in New York, after a six weeks session, the

FLORENCE SEWING MACHINE

has again carried off the honors, it having been awarded the

FIRST PRIZE

over all competitors. This triumph following close upon the award of

THE GOLD MEDAL,

(the highest prize,) at the Fair of

THE MECHANICS ASSOCIATION,

(the great Fair of New England,) at Lowell, in October, as well as the

FIRST PRIZE

for a Double Thread Machine at the late

NEW YORK STATE FAIR AT BUFFALO,

establishes, beyond question, the superiority of THE FLORENCE, as a Family Sewing Machine.

FLORENCE SEWING MACHINE COMPANY,

No. 505 Broadway, New York. dec

CROSBY'S EARLY SWEET CORN.

THIS new Corn is the kind for Market Gardeners, and all who want a variety that is of Good Size, Early, and Sweet. It is larger than Darling's Early, will average Twelve Rows, and the ears are finely filled out. The Market Gardeners around Boston are dropping every other early sort for this. Per package, 10 cents; per half pint, 30 cents; per pint 50 cents; per quart, \$1.00. Sent postpaid, to any address, on receipt of price. My Seed Catalogue gratis to all. JAMES J. H. GREGORY, Marblehead, Mass. mh-3t

SEEDS AND PLANTS

FOR THE SPRING OF 1868,

WILLIAM WEBSTER,

IMPORTER AND DEALER IN CHOICE SEEDS, PLANTS, AND BULBS,

Rochester, N. Y.,

Respectfully informs his friends and customers that his Spring Catalogue will be ready for mailing by the first of February.

This Catalogue contains

DESIGNS FOR THE LAYING OUT AND PLANTING OF GARDENS, FROM A QUARTER OF AN ACRE TO FIVE ACRES IN EXTENT,

Together with a vast deal of useful information relative to the improvement of Country Places. Also complete lists of SHRUBS, ROSES,

FLOWERING PLANTS, AND SEEDS.

It will be found of great value to the Farmer, the Gardener, and the Mechanic. Mailed free to all customers, and to all others on receipt of 10 Cents.

Address,

WILLIAM WEBSTER,

LANDSCAPE GARDENER, Rochester, N. Y.

NEW AND RARE VEGETABLES!

I MAKE NEW AND RARE VEGETABLE SEED a speciality besides raising a large variety of the standard kinds. I have had on my three seed farms the past season, over fifty acres under cultivation in seed and seed stock. I grow over one hundred varieties of vegetable seeds, and import many choice kinds from England and France. Farmers and gardeners, do you want fresh seeds directly from the grower? If you do, send for my Catalogue, which will be sent free to any address. Old customers will receive it without writing for it. Seed warranted to reach each purchaser. JAMES J. H. GREGORY, Marblehead, Mass. jan-3t



Squash Seed. GROW THE BEST. Send Three Cent Stamp for a Circular, with engravings and full description of the best five varieties, with directions how to grow them successfully. Address, A. Pangman Norton, P. O. Box 2841, and 117 Nassau St., New York. Grower of Seeds. jan-3m

MARBLEHEAD MAMMOTH SWEET CORN.

THE Ears are of an enormous size, often weighing between Two and Three Pounds. Very sweet and excellent for table use. My specimens of this corn recently took the First Premium at two of the Annual Fairs of the Massachusetts Horticultural Society. Per package, 25 cents, or five packages for \$1.00. My Seed Catalogue gratis to all.

JAMES J. H. GREGORY, Marblehead, Mass. mh-3t

A SIXTY-POUND CABBAGE.

AS the original introducer of the Marblehead Mammoth Cabbage, I offer the public seed *grown by myself* from the choicest specimens of the purest stock. This Cabbage has been grown in nearly every State in the Union, weighing from 25 to 60 pounds. For several years past it has been the standard wonder at almost every Agricultural Fair in the United States and Canada. The public may rely on my continued care to keep the seed pure from all admixtures, and fully up to its previous high standard. Each package has on it a fine engraving of this remarkable Cabbage, with very full directions for cultivation. Price per package, 25 Cents; 5 packages for \$1, or 100 packages for \$17, sent post-paid, to any address. JAMES J. H. GREGORY, Marblehead, Mass. jan-3t

FRUIT, FOREST, AND ORNAMENTAL TREES—FOR SPRING OF 1868.—

The largest stock in the country. For sale in large or small quantities. A descriptive and illustrated priced catalogue of fruits, and one of Ornamental Trees and Plants. Sent, prepaid, for 10 cents each. Wholesale Catalogue FREE. ELLWANGER & BARRY, Mt. Hope Nurseries, Rochester, N. Y. feb-3t

TWENTY-TWO VARIETIES OF TOMATOES.

EIGHTEEN of these are of my own raising. Seed for sale by the package and ounce, and warranted to reach each purchaser. Catalogues gratis to all. JAMES J. H. GREGORY, Marblehead, Mass. jan-3t

AGENTS WANTED.

TO SELL ENGRAVINGS AND PRINTS. Also Stationery Goods and Silver Watches. \$30 invested will realize \$100. Address, HASKINS & CO., 36 Beekman Street, New York. dec-4t

130 ACRES SMALL FRUITS. Philadelphia and Clarke Raspberries, Early Wilson and Kittatiny Blackberries. 40,000 Peaches, Apples, Pears, and Cherries. Send stamp for Catalogue. WM. PARKY, Cincinnati, N. J. jan-3t

ESTABLISHED 1840.

HENRY S. MACKIE,

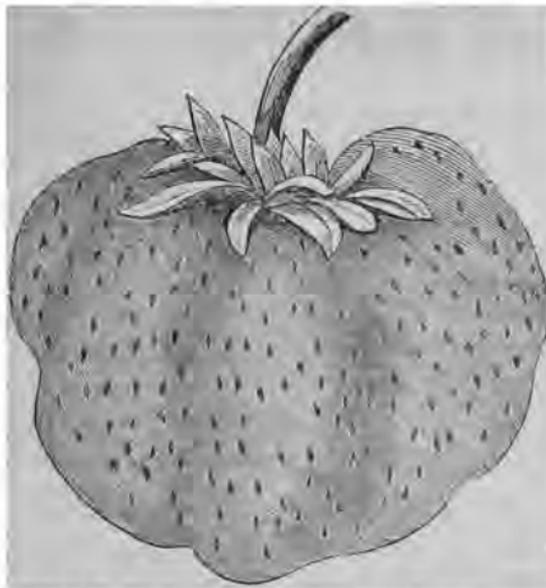
IMPORTER, WHOLESALE AND RETAIL DEALER IN Pianos, Organs, and Melodeons, Sheet Music, Books, Musical Instruments, Strings, &c.

CITY MUSIC STORE, 82 State Street, Rochester, N. Y. Jy-17

HOP SETS

FURNISHED TO ORDER. ADDRESS, F. W. COLLINS, 1 Trowbridge St., Rochester, N. Y. dec

THE GREAT
EUROPEAN STRAWBERRY!



THE LARGEST
BERRY KNOWN!

"DR. NICAISE."

IMPORTED BY FROST & CO., SPRING, 1866.

PRICE 1.00 EACH. \$9.00 PER DOZEN.

The following are extracts from European Catalogues:
"Fruit enormous, the berries weighing 1½ ounces. Early, red, bright, and glossy. Flesh white, of first quality, and highly perfumed."
Having fruited it the past season, we think it will fully come up to its European reputation. For further information relating to this remarkable berry, see Moore's Rural New Yorker, of July 6, 1867, and The Gardener's Monthly, for November, 1867.

ALSO, the following novelty—

**THE NEW DOUBLE PETUNIA,
"EDWARD BECH,"**

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Chronic Catarrh usually affects the head, fauces, and bronchial tubes. It is invariably caused by humoral or inflammatory blood, by which the mucous membrane is made sore or inflamed, producing a copious effusion of viscid matter. If it be produced by Scrophula in the blood it is almost certain to end in Consumption, unless speedily cured, because it is impossible to entirely prevent the matter from running down the Bronchial into the air vesicles, and such is the exorbitating, or sealding property of the matter, its contact with the delicate linings of the air-cells at once causes irritation, and invites the humoral properties of the blood to deposit therein Tubercles and Ulcers.

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In Oxygenized Air we have a positive cure for this disease. The remedy is taken by inhalation—breathed directly into the lungs, and through them carried into the blood; thus as soon as the blood will carry it, it reaches all parts of the system, decomposing the impure matter in the blood, and expelling it through the pores, and through the natural channels from the system. Thus you will see that the cause of the disease is removed, and the disease itself must follow.

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CONTENTS OF THIS NUMBER.

AGRICULTURE.

March.....	78
Spring Work.....	78
New Foreign Strawberry.....	74
Deep Plowing.....	74
Rabbits and Fruit Trees.....	74
Hops.....	75
Notes by "S. W.".....	76
Game Cock.....	77
Size of Nails.....	79
Underdraining.....	80
New Commissioner of Agriculture.....	80
Department Report.....	81
Is America the Worst Fruit Growing Country in the World?	82
Hot Bed.....	83
Bees.....	84
Horticultural Society W. N. Y.....	84

SPIRIT OF THE AGRICULTURAL PRESS:

Steam Plows.....	86
Fences.....	86
The Poultry Fever.....	86
Wearing out the Land.....	86
Boiled Peas for Milch Cows and Hogs.....	86
Railroad Doors and Barns.....	86
Sheep Keeping Profitable.....	87
Scalding Cream.....	87
Cement.....	87
Sweet Potato Seed from Bloom.....	87

HORTICULTURE.

Trees for Timber and Shelter.....	88
Vegetable Garden.....	89
Transplanting Large Trees.....	90
Our Kansas Letter.....	90
Best Six Varieties of Apples.....	91

LADIES DEPARTMENT.

Household Cares.....	92
Domestic Receipts.....	92

EDITOR'S TABLE.

Agents and Patrons.....	98
New York State Agricultural Society.....	98
The Markets.....	98, 99
Wisconsin State Agricultural Society.....	94
Literary Notices.....	94
The Honey Bee.....	95
Advertisements.....	96

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Publisher and Proprietor, Rochester, N. Y.



VOLUME III.

ROCHESTER, N. Y., APRIL, 1868.

No. 4.

SPRING.

Proceeding now, in more majestic steps,
The varying seasons join the mystic train,
In all the blooming hues of florid youth,
Gay Spring advances smiling; on her head
A flowery chaplet, mixed with verdant buds,
Sheds aromatic fragrance through the air;
While little zephyrs, breathing wanton gales,
Before her flutter, turning back to gaze,
With looks enamored, on her lovely face.
Summer succeeds, crowned with the bearded ears
Of ripening harvest; in her hand she bears
A shining sickle; on her glowing cheek
The fervent heat paints deep a rosy blush;
Her this light garment waving with the wind,
Flows loosely from her bosom, and reveals
To the pleased eye the beauties of her form.

*Dodley.***WORK FOR APRIL.**

WITH April commences the busy season on the farm. Nothing should be left undone that can be effected this month, to lighten the labor of the coming season of seeding time and harvest. The prospects in this section are good for an early spring, and the ground is rapidly getting in fair condition for work. Light soils and underdrained land are even now, (March 24th) in prime condition for plowing, and much of it can now be done, and the land got into fine tilth for the spring crops.

PLOWS—should be set going as soon as possible, and kept going until all the work is thoroughly done. In plowing and planting, we must be governed entirely by the state of the land we cultivate; it is well to "make haste slowly," as land that is wet and unfit for the plow, is only damaged by too early plowing.

SPRING WHEAT, OATS, AND BARLEY—may be sown as early this month as the land can be got into condition—the earlier the better.

CLOVER SEED—may be scattered freely, if not already sown.

MEADOWS—that are uneven will be benefited by a good rolling this month, and should be made as level as possible, and free from all obstructions to the scythe or mower. In the

HOP YARD—grubbing will be the order of the day, which comprises the taking out of all runners,

cleansing or scattering the manure, and covering up the roots. New yards should be started this month as soon as the ground is in good condition—the earlier the better, though they may be planted from this time until June 1st, with a good prospect of making a good growth. Much profitable time may now be spent in the

VEGETABLE GARDEN.—Peas, lettuce, onions, early potatoes, &c., ought to be sown as early as possible. How pleasant will be the first dish of green peas, and other vegetables fresh from the garden, raised by a little care, and a few hours spent at different times! For further directions see horticultural department.

STOCK—will require great care and attention this month. When turned out to pasture, let them have some dry food each day. Cows that are "coming in" should be turned out a few hours each day, they will do better than when confined in the stable all the time. Careful watching will be required, but the less they are disturbed the better.

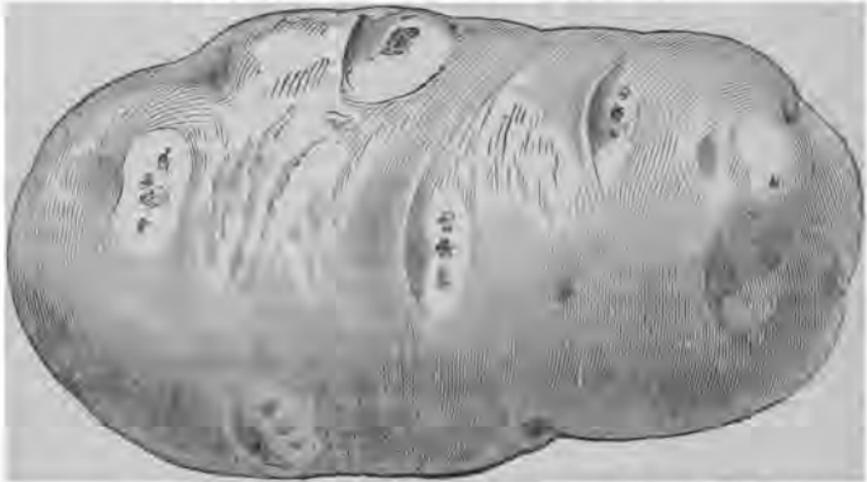
FOWLS—that are laying away from the henery or accustomed place, should be watched, and the early broods brought to the house or barn as soon as discovered. Early chickens make the best birds, and will, if kept for future stock, commence laying early in the fall.

BEES—Now require immediate attention. Every stock must be thoroughly renovated. Puff a little tobacco smoke into the fly holes. Gradually raise and invert the hive. A little smoke will now keep the bees in the top of the hive. Prune out all imperfect pieces of comb; also the most of the drone comb. Scrape all filth from the hive and bottom board, that no moth or worm may find a harbor. Next, have they sufficient food? This is very important at this time. Without it, you cannot have early swarms. Diluted sugar, quite thin, is a good substitute. Place a piece of empty comb in the top of the hive, and fill it with the sirup—the bees will carry it immediately below. Continue feeding until flowers appear. Every morning raise your hive, and clean out the worms; otherwise they may get the upper hand of the bees. The above treatment belongs to common hives; but with the use of screen

or moth detective bottom, the above labor is entirely saved. It is applicable to all kinds of movable frame hives. Each frame should be taken out, and should their feces be found deposited upon the frames, or in the hives, clean it thoroughly off. Prune the combs as above stated. Buckwheat, oat, and rye meal, is an excellent substitute for bee bread. Have these grains all ground together,

which is the best for them. Place it in a tin baking pan, and mix a few oats with it to prevent the bees from getting into the flour. Put a piece of honey comb into the pan with a little sweetened water in it to attract the bees. They will very soon be seen carrying this upon their legs to their hives apparently very much delighted. This will hasten early breeding.

THE EARLY ROSE POTATO.



The above cut of the Early Rose Potato, will give a better idea of this new variety than any description we could give. It is a seedling of the Garnet Chili, originated in 1861, by Albert Brezee, an intelligent farmer of Vermont, who being convinced of its decided superiority over all other early potatoes, placed the entire stock in the hands of D. S. Heffron, the well known disseminator of the Goodrich Seedling Potatoes. It has been thoroughly tested by Mr. H. and others for two years past, and found to be all that was claimed for it. Mr. H. sold all his stock to two gentlemen in New Jersey, a part of which was bought by Geo. Best, of Utica, at the rate of \$80 per bushel, the highest price ever paid. It is described as follows: skin thin, tough, of a dull bluish color, flesh white, solid, and brittle, boils through quickly, and very mealy. It is claimed to be superior to the Early Goodrich, and we shall next fall have more to say of this and other new varieties.

It is stated that Mr. John Colly, a Canadian, recently sent to Boston a Leicester sheep, three and a half years old, and weighing alive, 458 pounds, dressed 358 pounds. This sheep was sold for \$100, and is claimed to be the largest sheep ever raised in America.

A LARGE LITTER OF PIGS.—Mr. Benjamin, of Gden, Monroe County, has a sow that presented him a morning or two ago, with a nice litter of pigs numbering *nineteen*. If all pigs do as well, and we had only enough to feed them on, pork would be cheap next fall.

LATER.—We have received a dispatch stating that the sow thought that *eleven* good pigs was better than *nineteen poor ones*, and so she gave eight of them a slight pressure against the sides of the pen.

RECKONING TABLE FOR THE CALVING OF COWS.—The average period for calving after service is 285 days, so that a cow

Served.	Will Calve.	July 2	Apr. 18
Jan. 1	Oct. 18	July 16	April 27
" 15	" 27	" 30	" May 11
" 29	Nov. 10	August 18	" 25
Feb. 12	" 24	" 27	June 8
" 26	Dec. 8	Sept. 10	" 22
March 12	" 22	" 24	July 6
" 26	Jan. 5	Oct. 8	" 20
April 9	" 19	" 22	Aug. 3
" 23	Feb. 2	Nov. 5	" 17
May 7	" 16	" 19	" 31
" 21	Mar. 2	Dec. 8	Sept. 14
June 4	" 16	" 17	" 28
" 18	" 30	" 31	Oct. 12

An early spring—jumping out of bed at 5 o'clock in the morning. But this is not to be compared to our new premium list, for which see May number.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

STEAMING FOOD FOR FARM STOCK.

It did me good to ride at 2.40 speed, mercury near zero, with Joseph Wright, in his well muffled cutter. Five minutes brought us to his matchless farm, when driving into a deep shed he covered his fast equine with a Buffalo skin, and took me to the building where the steam cutting machine was placed, the steam engine and boiler adjoining. Here three men were busy, one pitching the hay and straw to the machine, another feeding the cutter, and the third filling the large steam cistern or tub with the cut fodder, first a layer of fodder, then a sprinkle of water, then a dressing of shorts or Indian meal, and then alternately other layers and sprinkling, until the tub containing a hundred bushels is full; the steam is then introduced at the bottom until the whole mass is cooked, and all its starch dissolved into available food: it now gives forth an odor as agreeable as that of new hay.

The process of cutting and steaming fodder for an hundred animals, takes the better part of a short day with three hands once a week.

We went into the extensive stables and enclosed sheds, for even his seventeen fine sheep this cold day clung to their warm, covered enclosure. Every cow had her stall where she was secured at night, but turned loose in the stable and yard by day with access to plenty of spring water. I never before saw so many extra fat milch cows in any season, and Mr. W. attributes it entirely to the cooked food. He says the cows have not so much increased in the quantity as in the richness of their milk; it is a sort of semi-cream, and such hard, yellow butter, I never saw before in January. The process of steaming the food brings out its coloring matter. He has his butter put up in fancy tubs, and it brings in the New York market two or three cents more per pound than the famed Orange County butter. I went into the milk house, which is warmed by steam pipes; here the dog was buckled to his treadmill, churning butter. The warm, even temperature favors the rising of the cream, and the color and quality of the butter.

Mr. Wright raises clover seed both to sow on his land and to sell, the hay and chaff of which is also steamed for feeding. To keep so much stock he has to buy straw by the stack, some hay, and many tons of shorts from our flouring mills. He also grows immense crops of timothy and clover on his extra manured, well tilled acres, and all his extra large crop of dent corn is also appropriated to feeding his farm stock. He says that he is of opinion that the same quantity of raw food will put on one-third

more flesh if cooked. But what puzzles him most is, that cattle will eat quite as much food after it is cooked as they would eat if supplied with all they could eat in the raw state. This shows clearly that cooked winter food is the most palatable to farm stock; even the sheep ate cooked food with great voracity. As the grass of good pasturage holds its starch in a soluble state, it is no wonder that sheep prefer starch and mucilage to insoluble woody fiber.

THE WINE CELLAR.

Mr. Wright has a warm, deep cellar, as well stowed with casks of Isabella wine, large and small, as a stevedore could stow them; each cask had marked on it the number of pounds of refined sugar it contained. I drank wine five years old from a cask that had received no sugar; it was well fined, not as dark colored as claret, but of much the same flavor. He had one cask of pie plant, yclept "wine-plant" wine, which was indebted to a very large allowance of sugar for its drinkable status. The Isabella wine left a much wholesomer flavor on the palate than the over-sacharine pie-plant empiric.

Sad to say, Mr. Wright's steam works and brandy still were burned down last week. He had over five tons of grape pomace ready for distilling destroyed by the fire. His total loss was \$5,000.

CHARCOAL AS A MANURIAL AGENT—BURNED CLAY.

"N. F. B." writes to *The Rural New Yorker* an interesting article on charcoal and its office as a manurial amendment to the soil. He says truly, of its power of absorption, "that it will take up ninety times its bulk in ammoniacal gases, and what is equally remarkable, it will yield them all to the demands of growing plants when brought in connection with them." But it must be recollected that charcoal is only thus absorptive when thoroughly dried as it comes from the pit. When exposed to the weather it becomes saturated with water to the exclusion of a large portion of the "ninety times its bulk of gas." Burned clay is also a capital absorbent for the ammonia of the cattle stalls; burning not only increases its absorptiveness, but it destroys its subsequent adhesiveness, even after it is as friable as the fine sand of the Sciota bottoms. As charcoal is nearly indestructible for a long time, its mechanical aid in keeping the soil loose and friable so as to be amenable to atmospheric influence, adds to its value as manurial agent.

S. EDWARDS TODD has written and will soon publish a work called "Todd's Country Homes." It will contain suggestions in regard to saving money, how to build neat and cheap cottages, and much other information of value to young men who are commencing life without other capital than stout hearts and strong arms.

HOPS---SOIL AND LOCALITY.

WRITTEN FOR THE AMERICAN FARMER, BY F. W. COLLINS.

THE number of inquiries daily received in regard to the situation and kind of soil best adapted for hop yards, suggests that this subject is not so well understood as it should be. An old, deeply seated prejudice clings to a man like a bur, and being imbedded in his intellect, is with far more difficulty eradicated than a bushel of burs from his clothing. A prejudice in favor of the worst kind of localities, and the very poorest of soils for this purpose, has grown up in the older hop regions of the States, and has been transmitted from these to the newer portions devoted to the culture of hops. The basis of this prejudice lies in the necessities of the past. Formerly, in selecting a plot of ground for a hop yard, the lowest portion of the farm—often a piece of swamp land, or a portion sheltered wholly or partially by hills or wood land—was chosen. The reason was obvious. Indeed, reasons were plentiful and imperative. Pole whipping was to be avoided. Planted out in a sunny exposure, upon a hill-side, especially over the brow of a hill where the winds could have a fair chance, every hop as it ripened, every arm stretching out from the long poles, would be threshed fine, and the lupulin scattered about over the ground long before the picking season arrived. The idea that marsh lands were favorable for hop yards arose from this apparent necessity for keeping the hops sheltered from the winds.

Hops are now picked three or four weeks earlier than formerly. Of late years, these high and sunny exposures, open to the action of the atmosphere, produce all the first quality of hops found in market. Trained upon stakes and twine, there is no longer any danger to be apprehended from pole whipping.

A free circulation of air is absolutely essential to produce a good crop. Light and air are the first requisites. Hops will grow on any soil that is not wet and springy. Good wheat land is good hop land. Like wheat, hops require lime, and if the soil does not naturally contain limestone, it must be supplied in some shape. A good practice for the hop grower is to lime the yard in the spring, and manure it in the fall. Land which is wet, springy, or for any reason, too cold, should first be made warm and dry by underdraining. Land just the reverse from the above, is equally benefited by underdraining, as it is enabled to effectually resist the effects of a drouth.

By proper management there is scarcely any part of our broad country which may not produce a fair sample of hops, but with every variety of location to select from, do not tuck a hop yard away under the lee of hills and woods, in a marsh—the very

worst, and very likely the only unfavorable locality for a hop yard upon the farm.

[By reference to our advertising department it will be seen that our correspondent has hop sets for sale, and those about to plant out yards will do well to write him at once.—Eds.]

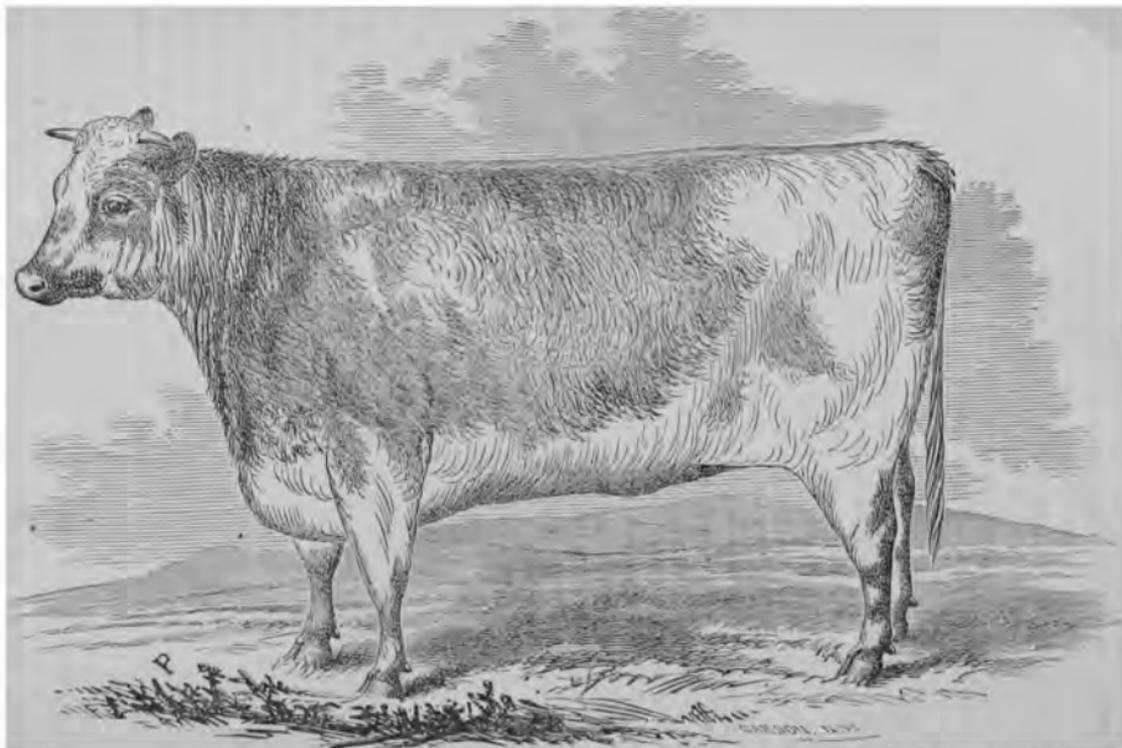
NOTES FROM CANADA.

ON the whole, the winter of 1867-8 has been a cold one, the temperature going below zero several times, and twice into the twenties below. There was enough snow to make passable sleighing until the 24th of February, when we were favored with a northeast snow storm of two days duration, accompanied by high winds that drifted the snow so much as to block up the railways, and put a stop to travel for a time. These drifts had scarcely been broken and travel resumed, when another heavy snow storm from the westward occurred on the 1st of March, again blocking the lines of travel with huge drifts. The average fall of snow in these two storms will reach 30 to 33 inches. March 6th, a thaw set in with an accompaniment of 48 hours of heavy and continuous rain, which has taken off most of the snow, and filled the rivers and water-courses to overflowing. Owing to the soil being frozen, it is likely that but little of this large amount of moisture can be absorbed so as to replenish the earth for next season's crops, after the long, severe drouth we experienced last fall.

Field Peas.—In answer to an inquiry in the February number, I may state that peas are extensively grown as a field crop in Canada, and are an easily cultivated and profitable crop. They are usually sown the first thing in spring, on a newly turned sod, and take the place of a summer fallow on any land that it is desired to grow fall wheat upon. If the sod can be deeply plowed under in the fall, so much the better; it is then only necessary to sow the peas on the surface in spring and cover them with a two-horse cultivator, or very sharp-toothed harrow.

The peas cover the ground with a dense growth of haulm that completely smothers all weeds and grass, and when the crop is harvested, which is usually the last of July or first of August, the land is in fine mellow condition for wheat, and requires but one plowing to prepare it for seeding with fall wheat.

The average yield here is 25 bushels per acre, but 40 is common, and I have raised 60 bushels per acre on a heavy timothy sod turned under. Clay soils are best for peas. We usually sow pretty thick, say three bushels per acre of small peas, and four to six bushels of Marrowfat or other large varieties. The haulm makes good sheep fodder in winter.—*Mac, London, Canada.*



SHORTHORN HEIFER "ROWENA 2nd," at Twenty Months Old.

PROPERTY OF H. G. WHITE.....SOUTH FRAMINGHAM, MASS.

RENOVATING WORN OUT LAND.

WRITTEN FOR THE AMERICAN FARMER BY "MAC."

As much of the so-called worn-out soils are usually of a light, sandy nature, too deep and porous to admit of benefit being derived to any great extent from the application of barn-yard manure in the ordinary way in which it is applied, and yet such soils are capable of being again made productive, by patience and good management, as shown in the results of the policy of the late Mr. Coke, of Norfolk, England, (afterwards created Earl of Leicester,) who formed a magnificent and productive estate out of 50,000 acres of a barren sandy waste that had remained utterly worthless for centuries, simply by means of fresh clover and sheep, and afterwards kept it up by clover, sheep, and turnips. I will here give a method adopted in an actual experiment under my own eye some years ago, to reclaim some land of that description. The land was so utterly exhausted of all fertility that it had become blowing sand on which not even a mullein would grow, and constituted a corner of an otherwise productive farm. The first thing done was to level the soil with a harrow and roller after the fall rains set in. The land was then covered with a thin coating of the chaff from a large crop of clover seed that had just been threshed and cleaned up; over this was spread a coat of about five inches of straw, mostly old and rusty. The winter's snow and frost kept this in place, and by spring the straw was tolerably rotted, in early spring before the snow went, a seeding of eight lbs. of clover seed per acre was given, and the ground rolled as soon as the snow was gone.

The first summer the ground was left undisturbed, and by autumn was covered with patches of clover, but still a few bare spots remained. In the fall another coating of straw was spread over, and during the ensuing winter sheep were allowed to run over the frozen surface. The bare spots were seeded with clover the second spring and a liberal dressing of gypsum given, by midsummer a fair crop of clover covered the ground, and this was repastured by sheep till just after wheat harvest when they were taken off, the land again left undisturbed till that was covered with a crop of second growth clover, which was plowed in to a depth of eight inches when in bloom, and the soil left exposed all winter, sheep only being allowed to run on it. Early the third spring it got a heavy seeding of 20lbs of clover seed per acre, followed by a liberal dressing of gypsum and ashes in equal parts; by autumn another crop of clover covered the ground, which was pastured by sheep in late autumn and winter. The crop of clover was cut for soiling pur-

poses the fourth year till July, when it was again given over to the sheep and made into a sheep pasture for the next two years, when the clover was again plowed under when in bloom, and a hoed crop of white beans raised to admit of cleaning the land without loosing the soil, which was then reseeded to clover, and has since proved the most productive portion of the farm.

BEST FEED FOR COWS.

WRITTEN FOR THE AMERICAN FARMER, BY "W. D. D.," MEDINA CO., O.

WHICH is the best kind of feed to give cows to produce the greatest amount of butter and cheese? is a question often asked by farmers and dairymen, and various are the answers received in reply. I saw a statement in one of our leading agricultural papers which stated that corn meal was the poorest feed that could be fed to a cow, inasmuch as it caused the cow to grow fat, and to secrete a smaller quantity of milk, &c., but stated that ground oats were far preferable, and was the best kind of feed to produce butter and cheese.

So far as my experience goes, I should give the preference to *corn meal alone*, or if mixed with anything at all, would mix it with wheat bran. I have fed corn meal alone, and corn and oats ground, equal parts; also corn, oats, and barley mixed; also rye and wheat bran. I have carefully noted the results, and have always made the most butter and cheese, and of a superior quality, when I fed corn meal alone, than any other kind of feed I have ever used.

Notes on the Weather.—Our winter has been very steady, so far, (March 2,) with none of the extremes of cold we have suffered in former winters. The coldest day the thermometer indicated 17° below zero. So far, wheat has suffered but little; it has been covered most of the time with snow. The steady cold weather has caused an advance in all kinds of feed. Hay is now selling for \$12 per ton. Corn \$1.10 per bushel. Many farmers who thought in the fall that they had plenty of fodder to last them through the winter, are now out, and buying hay, &c.

P. S. (March 2.)—We are having one of the hardest snow storms we have ever experienced at this season of the year. It commenced snowing last night at about 7 o'clock, and continues up to this time with unabated fury. Wind blowing very hard from the northeast; snow now 15 inches deep on a level.

DR. RANDALL says he should not dare to winter sheep without salt, especially when any kind of disease is prevalent. The best way is to give sheep constant access to it, allowing their instinct to guide.

HOLSTEIN BUTTER MAKING.

WE copy the following account of the manufacture of butter in the Holstein province, written by an English dairyman, from *The Canada Farmer* :

In the large dairy farms in Holstein—having in many cases 100 to 200 cows, sometimes more—the greatest attention is bestowed upon everything bearing upon the production of butter; upon the feed and care of the cows, the manufacture of the butter, and the arrangement of the dairy buildings. The result is a very high average price obtained for their produce, which commands the preference, especially in the northern markets of England.

The make is divided into winter, or fodder make; new milk; grass, or summer make; stubble, or autumn make.

Fodder begins when the cows come in from the fields at the end of October, and is neither large in quantity nor superior in quality, as the cows yield but little, and purely old milk. This sort is not fitted for keeping, and is usually sent to market promptly.

New milk, of course, begins according to the time of calving, usually some time at the end of February, and early in March. The quality of this make is very fine, sweet, and fresh, and in March, April, and May, usually meets a bare market, and realizes high prices. Being fodder-made, however, it is not calculated for keeping beyond a few weeks.

Grass butter begins when the cows are turned into the fields, about the middle to the end of May (spring being late in that climate), and lasts till the month of August. This is a fine, rich, well-keeping butter, though it sometimes suffers in the extreme heat of summer. This make is usually shipped in the late autumn, unless the markets are sooner favorable.

Stubble butter is so called, from the cows being put after harvest on the after-meadows, corn stubbles, &c., where they are kept till housed for the winter, about November 1st. This sort is usually of very superior quality—mild, rich, and yet capable of being kept for some months without much injury. Shipment is made about the last months of the year.

The great characteristics of Kiel or Holstein butter, are clear, solid, waxy texture, freedom from butter milk, richness of quality, delicacy of flavor, and mildness of cure. It is rarely coarse in salt or texture, the defects to which it is most liable being bad flavor, as some farmers will occasionally overhold until it becomes rank and strong or tallowy.

As to the feed: In summer and autumn, while the cows are out in the meadows and stubbles, they are sometimes tethered, by no means as a rule, and they remain out night and day. When once

taken in-doors, they remain under cover entirely, in a warm, well-ventilated space, and are fed something after the following order: About 5 A. M. they have about as much meadow or clover hay shaken down before them by degrees as they will consume in about two hours; they are then supplied with water; chaff cut from oat or barley straw mixed with 4 to 5 lbs. (sometimes even more) of bruised oats or barley is now given to the cows, moistened in their troughs); at 1 o'clock the second feeding takes place, similar to the first, and between the two some hay or straw to pick at as they choose while chewing the cud; for the evening and night they must put up with plain straw. About 2 oz. of salt per cow is given daily to relish the food, and help digestion. Oats are considered to increase the quantity, barley the richness of the milk: equal parts from each form the mixture. Oil cake yields more milk, but affects the flavor of the butter unfavorably, as also do turnips, mangels, swedes, potatoes, and all roots but red carrots, and therefore the latter only are given to cows when in milk. It is very important that the cows should leave the stall when spring comes, in good condition, and thus continue a full yield of milk when they first get out to grass.

Manufacture of Butter.—The milk, as it is brought into the dairy, is strained into the pans through a fine hair sieve, taking care that any splash of spilt milk is at once wiped up, lest it should taint the air in evaporation, and sour the settings. To secure a pure flavored and well-keeping butter, the utmost cleanliness in all utensils, and a pure air in the dairy, are of course essential, but after that much will depend upon skimming the cream just at the proper moment. This must always take place before the milk can become sour, and in order to get the largest amount of cream, an even temperature in the dairy is of the greatest help. Pure air does not mean a strong draft, as the surface of the milk must not be ruffled. What the proper moment for skimming is depends on the temperature and atmospheric conditions generally. In Holstein the rule is—in the heat of summer (temperature 55° to 60° Fahrenheit in the milk room) skim after the milk has stood for from 32 to 36 hours; in spring and autumn (at 40° to 50°) about 46 hours; and in winter (43° to 45°) about 60 hours. This should get the whole of the cream; but if at any time earlier the milk begins to sour, it is skimmed at once. The cream, as it is removed, is strained into the cream tubs, and kept occasionally stirred. It remains there until it has sufficiently thickened, and has acquired a pleasant acid taste.

It is as well to repeat that choice keepable Lutter can only result when the milk has kept perfectly sweet, as the souring develops curd. The cream, or

the contrary, should have an acid taste before churning, which must not, however, be confounded with the sourness just mentioned, which is altogether different, and arises from the whey, from thunder or close atmosphere, sometimes from standing too long, from damp or badly cleansed utensils, or from general want of care and cleanliness.

In summer the cream generally stands about 12 hours before churning: in winter about 24 hours. The room may require cooling in summer and warming in winter; but with pure air, free from bad smells, smoke, or such like, as the cream easily takes up the flavor. Potatoes, roots, herbs, or anything of the sort, should never be stored in the same place. The temperature of the cream considered best for churning is about 57° to 60° , though that varies somewhat with circumstances. The churn is rinsed out, before putting in the cream, in summer, with fresh cold water; in winter, warm water is used, as a certain moderate range of temperature much facilitates the coming of the butter, and the addition of a pailful of iced water in warm weather, and warm water in winter, into the churn, is sometimes made for this purpose during the churning. When the butter comes it is taken out, and the whey pressed out to some extent, put into trays, and carried away to the butter cellar. Here it is placed in a long trough, slightly on the incline, with a few holes at the lower end to carry off the moisture. This trough is first rinsed with hot water, and then with cold, to prevent adhesion, and the dairy-maid washes her hands in the same order. She now breaks off with her hands a lump of some 5 lbs. or 6 lbs. of butter, and presses it against the side of the trough with both hands opened; rolls it up and presses it out again till all the buttermilk is got rid of. It may require the operation of several times before this is thoroughly effected. Piece by piece the butter is treated in this manner until the whole churning has been manipulated and placed on one side; then wipe out the trough again with a cloth and hot water, rinsing off with cold, ready for salting and coloring. We may remark, in passing, that color is added in the winter months, for which purpose annato is used, prepared previously by melting down in a small quantity of butter.

In salting, only fine, dry, clean salt, free from mineral taints, is used, which must have been stored away from all possible contamination by dirt or bad odors. At the rate of about 3 1-2 lbs. per cwt., it is first strewed over the surface of lumps of butter about 30 lbs. to 40 lbs. each, and then distributed through the mass with the hand, fingers extended, but kept close together. At this stage it is not kneaded in, but when fairly spread the butter is again worked up in 5 lb. or 6 lb. lumps, as at an earlier stage. It is then left for 12 hours or longer, if there is not sufficient to fill a cask.

Then, for the third and last working, add 1 lb. more salt per cwt. Spread fairly through, and work up the butter till all the liquids not belonging to it are finally expelled. A cask should be filled at one packing to get a perfectly even color and quality, and should be firmly and closely packed, so that all sides are filled. The system of washing the butter itself in cold water is never followed in Holstein, as it is found to impair the delicacy of the flavor.

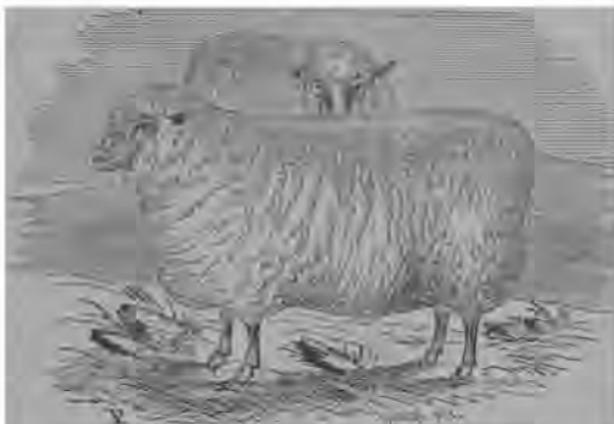
The casks are made of young red beech, felled in December, when the timber has least sap, and seasoned in the open air before it is stored, to dry perfectly, previous to use. The cooper is required to furnish packages water-tight, and that when closed will be nearly air-tight. Before use, fill the cask for 24 to 48 hours with strong brine, in which is a dash of saltpetre, then wash with hot water, rinse with cold, and rub dry with salt. These precautions will largely prevent sidey, moldy, or tallowy butter, even when kept some time, provided the casks have all along been kept dry and clean.

From the foregoing statement it is easy to gather that the prominent points in the Holstein treatment are extreme cleanliness and regulated temperatures. These can only be obtained by suitable arrangements of buildings and free space. Hence their dairies are models of order; and on a large estate the buildings devoted to butter (almost always detached) are the first consideration, to which the other farm buildings take the second place. The rooms for setting the milk, making and storing the butter, depend much for their success on position and suitability. The buildings usually run from south to north, with trees planted conveniently as a shade from the hot sun. The milk room has brick or stone walls, often double, the free space between tending to keep it cool in summer and warm in winter. It is usually sunk from three to five feet below the outer surface with a height of from 16 to 25 feet, to give free vent to all exhalations from the milk. This is further provided for by roof-ventilation through shafts, and by windows 4 feet wide, 5 feet high, 5 to 6 feet above the floor. Shutters and louvres are also customary. The floor is laid with tiles or flags, set in cement, sloping slightly to the gutter on each side; so that the water used in flushing runs off, leaving it easy to dry and wipe up all moisture. Nothing tends so much to sour the milk in summer, and thereby lessen the quantity of sweet cream, as dampness. The pans should have room to stand free, and not be placed one upon the other. The size of the milk room depends, of course, on the number of cows kept. In a dairy of 140 cows, the measurements were for the milk-room, 50 feet long, 35 feet wide, 20 feet high from roof to floor, which was sunk 5 feet lower than the outer surface. The other rooms were in proportion

with ample space for air and ventilation. All store-rooms are separate, and the dairy building is always far removed from the cow-houses, pig-sties, dung-heaps, or anything whatever that is offensive and can taint the air. With regard to the utensils mostly used, there is nothing of such marked difference as to call for special notice, except that the old-fashioned round pans, whether of wood or ware, are largely going out of use. The preference is now given to pans of cast-iron, enamelled white in-

side, about 6 feet long and 2 feet wide, for which it is claimed that the cream rises more quickly and in larger quantity.

This slight sketch of the system in force in most of the best Holstein butter dairies is not intended necessarily as giving a model plan which is practicable everywhere. By the close comparison of different methods, however, no doubt valuable hints may be gained, tending to the general improvement in the manufacture of that important article, butter



SOUTHDOWN EWES. The Property of H. G. White, South Framingham, Mass.

TREES---THEIR BEAUTY AND USEFULNESS.

WRITTEN FOR THE AMERICAN FARMER, BY C. N. HEMENT.

AMONG those living in the country there are many who seem to care little for the beauties of landscape gardening, who are yet interested in those trees which are remarkable for the beauty of their forms, their foliage, their blossoms, or their useful purposes.

How much might be added to the appearance of many, indeed, most of our farms and country residences, if proper attention were paid to the planting of shade and fruit trees in their appropriate places! Nothing in our estimation contributes so much to the pleasantness of a place as the presence of fine trees, and surely no luxury of money, the value can be procured for the same price. The cost of procuring and planting either a fruit or a shade tree is so trifling, that on this score at least, there is no excuse for the frequent omissions of duty in this respect. We say duty, because the planting of trees, and particularly of fruit trees, is obligatory upon every one who has enjoyed the labors of his predecessors in the same direction. Every generation is

to a great extent dependent upon the one which precedes it for its supply of fruit and shade. The obligation, therefore, is one which we are proud to owe our fathers, and which is to be discharged by us toward our children.

But there is another light in which the planting of fruit and shade trees may be regarded as a duty. The decrease of insectivorous birds, and the consequent alarming increase of destructive insects, is a great measure attributable to the fact that one by one the trees which offered them a refuge have been cut away, and these useful little fellows properly indignant not only at this decided want of taste, but total disregard of their comfort, have taken up their abodes in other sections never to return until the favorite haunts—trees—are restored to them.

Handsome fruit and ornamental trees, judiciously planted, not only advance the beauty, but add greatly to the value of the farm. Take, for instance, ten farms of equal size and quality, let one have a thriving orchard of fruit, and a reasonable share of well located shade and ornamental trees while the other is shorn of all these glories; put them to auction, and our word for it, the one with the orchard and ornamental trees will command an

vance of more than five times the cost of the planting and attending to the trees. Do it at once brother farmers, at least at the proper season. Do not delay, from year to year. "Procrastination is the thief of time." Make a resolve and carry that resolve into effect, and that two trees at least shall be planted every year for each man, woman, or child on the farm.

Passing by the consideration that a tree is a house, furniture, and fuel, that it may be made clothing and even bread, that it forms part of almost every implement and every machine by which the genius of man has taught him to lighten the labor of his hands, setting aside the considerations that we lean upon it as a staff—that we ride on it as a carriage—that we cross the river on it as a bridge—and that by means of it, as a ship, we traverse the widest sea, and circumnavigate the globe itself: passing by these and many other utilizers in all their modifications there is that in a tree, considered as an individual work of the Creator, which may well excite our attention, and most amply reward our study.

Other productions of nature are soon gone; the insect sports for an hour and then wings its way to other lands; one crop annually succeeds another; domestic animals wax old and must be replaced, the gray-haired man talks of those of the days of his prime as of beings of a period almost forgotten—but the man who recalls these as otherwise lost to memory may be sitting the while under the same elm, maple, oak, chestnut, or hickory, beneath which his grandsire sported in infancy, and to reach the oriole's nest was one of the earliest stimuli to his ambition.

A tree of this description is in short, a sort of perennial calendar to the village from the time its size first renders it an object of general notice and after it has outlived the rise and fall of successive generations, like the famous elm of Pittsfield, and the Charter Oak, of Hartford, it becomes the most ancient of living calendars. It registers events and it registers the seasons. Children play under it; faiths are pledged, farewells taken, and friendships renewed, and when friends are apart, the tree is a sort of artificial memory to them. If the spring is early, it is borne in mind as the one in which the great tree budded so soon; if it is late, the tree is a record equally faithful. So many are the recollections that when one who has spent boyhood in a village where there was such a tree, and returning after a life spent in other parts, finds the tree gone, nothing that is not human can cause so much regret.

So also the tree which the man plants is among the chief of his inanimate favorites; and it is always the more dear to him, the more that it is the one he planted. The sentiment here is far from a bad one.

It is the duration of a tree to which our fondness clings. An annual plant is soon gone, and we forget it in our attention to the plant of the next season. But the tree summers and winters with us, and is probably one of the most expressive of simple monitors in leading us to think beyond the pressing hour and its fleeting appearances. To some, it may seem that these charms of the trees that we have mentioned are but trifles; but of such trifles the happiness of man is made up, and when we analyze those matters which are usually styled great, we always find that they are ultimately resolved into elements generally trifling. The tree summers and winters with us, and is at once the key and calendar of the year, and rooted as it is to the spot, it has many lessons to teach us. It comes into leaf in the spring, is green and spreading, flowering and fruiting during the summer; the leaves get sear and yellow in the autumn; the connection between their footstalks and the twigs lessen, and they separate in such a manner that the places which they leave are not wounds, but cicatrices, the very moment that they drop.

This putting off its summer garniture is no disease, no casualty or misfortune, so to speak, to the tree. On the contrary, it is a protecting measure—a most wise provision, without which the life of the tree would be periled, or its boughs sent one from another. Any one who has noticed the havoc which a single night, even a single hour of frost can make upon trees when they are in action, must be aware that if that action should continue through the winter, we should have no aged trees in the forests. But nature provides against such catastrophe; the leaves expand, and the shoots lengthen to the measure of their year's growth—the latter bearing their rudiments of buds according to the habit of their tree, sometimes on the end of the shoot, and there only, as in the pine; sometimes just under the leaf, and sometimes as far covered by the petiole, or foot-stalk of the leaf that the bud is hardly seen till the leaf drops off.

Before the leaves begin to decay, the wood begins to ripen, and by the time that they fall off, the twig, which in the early part of the season was succulent and juicy, becomes firm and elastic with ligneous fibres. The buds, too, are cased in armor—in plates and scales, and folds covered with a resinous matter which the temperature cannot easily affect, and the mechanical structure of which is such that it cannot easily be opened, except by an effort from within. The head of the common beech is a very beautiful instance, but it may be seen in most trees. Even if the tree is an evergreen, its winter economy is nearly the same. Though those who have not attended to the facts are apt to confound them, an evergreen tree and an ever-growing tree are far

from being the same. During the winter months vegetation is as still in the leaves of the evergreen as in the twigs of the deciduous tree; and when buds are prepared and brought to a state of forwardness, as is the case of the pine, they are as well protected as in those trees that shed their leaves. Although, therefore, the evergreen does not drop its leaves till the winter be over, and the vegetable action of the tree be considerably advanced in the spring, yet the winter is as much a season of rest to the pine or fir, as it is to the mulberry, which puts forth not a leaf till the summer be fully come, and drops them all in the earliest part of the autumn. Now, as the action of the tree depends upon the season—is called forth by a certain degree of heat, and rendered quiescent by a certain degree of cold—it follows that by observing the reasonable aspects of the trees in our country, and knowing the climates of other countries, the habits of trees there may be determined. The tree has been taken as one of the most striking instances, but the very same principle applies to all vegetables, and thus it is easy to extend one important part of the knowledge of them to every region of the globe.

BEES AGAIN.

EDS. FARMER:—Noticing in the January number of THE FARMER, an article on the honey bee, and bee hives, by J. H. Graves, of Rochester, N. Y., giving the result, &c., from three stocks of bees in his late improved movable comb hives, and also a report by Mr. Hazen, giving his success, and having the Graves hive in use, and being fully satisfied of its superior advantages over other hives, (I except none,) and know well the success of others who have adopted the said hive—called out the article or statement given by me in the February number relative to the Graves and Hazen hive, to which articles I again call the attention of your readers.

Mr. Hazen, in the March number, requests me to state full particulars, and the result of a certain number of stocks in the Graves hive last season. I regret that I am not able to comply with Mr. Hazen's wishes, further than to again call his attention to Mr. Graves' article in the January number, which I trust will be satisfactory to Mr. Hazen for the present. I will, the coming season, endeavor to keep a full record of my transactions, and report the same through your journal for the benefit of all concerned. As to the simplicity and practicability of the Graves hive, and its advantages for securing the surplus honey, I am convinced that it has not its equal.

It is true, as Mr. Hazen states, the field or location has very much to do with the honey harvest; this is understood by all apiarists. To satisfy Mr.

Hazen as to the field of labor, I learn that Mr. Graves' bees are located about the center of the city of Rochester, a very poor field indeed, for bees to harvest honey in. The bees must necessarily go into the country for their honey.

I admit my mistake as to the dimensions of the brooding department of Mr. Hazen's hives. From his former statement, I got the impression that his hive contained 4,000 cubic inches, that is the brooding department.

Will Mr. Hazen inform us if he uses the movable frame? and also state the location of his bees?—*Apiarian.*

THE CASTOR BEAN.

THE culture of the castor bean is much like that of corn, being regarded by many as less laborious and expensive. Good corn land is suited to the castor bean. If not fertile, it should be heavily manured, as the plants are great feeders. The plowing and dragging should be done in the most efficient manner. Plant when the frost is well passed, and the ground has become warm. The hills should be at least four feet apart each way. Some cultivators prefer seven feet. One plant to the hill is enough, but several seeds should be planted to guard against accident. Sometimes, a space is left once in four rows, wide enough to admit a farm wagon, so as to facilitate harvesting the crop. The ground should be cultivated several times, that the plants may attain a vigorous growth. Scarcely any crop pays better for thorough cultivation than this. Twenty bushels per acre, is a full average yield. The market price is variable. During the past winter the beans in the St. Louis market have ranged from \$1.90 to \$1.25 per bushel. As the cost of growing does not differ materially from that of corn, the approximate profits can be calculated. At the present depressed condition of the market, an acre of beans would yield about \$25, leaving but little margin for profit. The oil is quoted at \$3.10 to \$2.25 per gallon. As the yield of oil is about 68 gallons per acre, the manufactured oil would amount to about \$150 per acre. This gives \$4 to the manufacturer to \$1 to the producer, a division which cannot be regarded as equitable. Formerly the castor bean was largely cultivated in the southern counties of Illinois, but had become unprofitable previous to the rebellion. This event, causing an advance in price of two hundred to four hundred per cent, revived its culture from almost nothing in 1860, and many thousand bushels in 1864. St. Louis is the great market for the crop, more oil being manufactured there than at any other point in the country. The receipts at St. Louis from all sources during the last year, exceeded 50,000 bushels.—*Prairie Farmer*

AGRICULTURE IN COMMON SCHOOLS.

THE future is auspicious with evidences of a widely spreading interest in industrial education. Colleges are every where springing up, and the right men will eventually be found to fill the professorships, and great good will finally result, while comparative success will, for many years, be mingled with failures, in the numerous experiments growing out of these great educational enterprises. But the facilities to be furnished by these schools will never reach, directly, the great mass of the children in common public schools. Would it not be well to introduce into every district school in the country some primary works, inculcating elementary principles of science, in their application to the practice of agriculture? An interest in agricultural education would thus arise among the youth in common public schools, from whose ranks our new industrial colleges would be filled. A series of such manuals, of foreign origin, have been submitted to several officials and men of science, by Mr. Joseph L. Smith, for a recommendation of the introduction of such means of instruction into the elementary schools of the land. They involve the principles of agricultural geology, chemistry, farm accounts, farm practice, and domestic economy, and are written by Johnston, Stephens, Hodges, Campbell, Pringle, and others well known to science and to practical agriculture. The importance of the subject has been endorsed by Professor Henry, General Howard, the Commissioner of Indian Affairs (Hon. N. G. Taylor,) and officers of the Department of Agriculture, and others.

There is a want in this direction that should be supplied by American writers. The peculiar circumstances of American agriculture render necessary works expressly prepared to meet such conditions. Who is able to prepare one or more such manuals, in a manner worthy of the subject, and of this progressive era? He who could worthily accomplish it would be a great public benefactor. There are good farmers who know little of science, and men of science with less knowledge of agriculture; but it is difficult to find a thoroughly scientific writer who is also thoroughly acquainted with agricultural practice, and is thus able to apply correctly the principles of abstract science to the processes of agriculture. A clear thinker and lucid writer, who could thus unite truth with action, and marry thought to labor, would be worthy of higher honors than the greatest savans of the time.—*Ag. Rep.* for Feb.

A celebrated horticulturist said: "If I had 'a fall' to preach a sermon on gardening, I should take this for my text—*stir the soil.*"

ITEMS.

Manure for Potatoes.—Take one cask of lime and slack it with water, and then stir in one bushel of fine salt, and then mix in loam enough so that it will not become mortar; it will make about five barrels. Put in half a pint in a hill, at planting.—

Mass. Plowman.

The Cottage Gardener of London, says that earthing up potatoes diminishes the produce and retards the ripening of the tubers. Long experiments in England have proved this fact—that hilling up the potato will reduce the crop one-fourth.

The last thing to be done before going to bed is to go out to the barn and give a good look at all the cattle and horses, and they will be likely to have a good look in the morning.

Apple worms may be caught in large numbers by winding hay ropes around the trunks of the trees, immediately before the worms begin to leave the fruit. The grubs will hide in the ropes for the purpose of spinning their cocoons, and may be found by unwinding the coils.

England needs on an average about one hundred millions bushels of wheat from other countries a year, after importing guano, bones, and other phosphates, fertilizers in the shape of seeds and oil cake, and manufacturing so much manure at home.

Many of the Vermont farmers are turning their attention from sheep raising to the dairy. It is said that twenty new cheese factories will be built in that State this year.

It is said that the value of the horses, sheep, and horned cattle in the United States is equal to the sum total of the national debt—\$3,000,000,000.

An importing and stock breeding company has been organized in St. Louis. It is designed to have a capital of \$50,000 before operations are commenced. It is intended to purchase 200 or 300 acres of land, and go extensively into breeding all kinds of farm stock.

DOES THE BARBERRY INJURE WHEAT?—A correspondent of *The Wisconsin Farmer* states that all who are acquainted with the Barberry, must have noticed how frequently the leaves are covered with rust or minute fungi, and thinks that it will not be strange if it should be found that the Barberry is really injurious to wheat, acting as a hot-bed from which some form of these minute fungi or their spores may be wafted in myriads over a wheat field. He also thinks that the matter should be settled by sowing wheat around barberry bushes and carefully watching the result. Will some of our readers try it, and report the result?



SENECA BLACK CAP RASPBERRY.

THIS new variety of the Black Cap family originated with Mr. Doolittle, and is said to be a great acquisition. The berries are of large size and fine flavor. It is ten days later than the Doolittle. As a late berry, it will be valuable. The Black Caps do well on a sandy soil, but a sandy loam is preferable. Mulching the plants will be found to add to

the size and quality of the fruit, and will help to keep the ground free from weeds.

Training should be done by means of wire, stakes, or trellis. Some drive stakes, and tie the canes to them, while others use trellis. A cheap way is to draw a wire along each side of the row, supported at intervals by stakes driven into the ground.

SPIRIT OF THE AGRICULTURAL PRESS.**The Dangers of Benzine.**

The Boston *Journal of Chemistry* cautions its lady readers against bringing the liquid called benzine, which they use so freely for removing grease and stains from clothing, into proximity with any sort of flame.

"A very small quantity is capable of doing irreparable mischief. The contents of a four-ounce phial, if overturned and vaporized, would render the air of a moderate sized room explosive; or, if ignited, a whole family might be seriously burned or lose their lives from it. It should never be used in the vicinity of flame; and it is important to remember, that through the medium of the escaping vapor, when the phial is uncorked, flame will leap to it through a space of several feet. Benzine is often sold under various fanciful names; and, therefore, any article procured from druggists for removing oil or grease from fabrics, should be handled with the utmost care."

Clover and Timothy.

A. Hadley, in a communication to *The Northwestern Farmer*, gives what he regards three important reasons why clover should always be grown with timothy. First, the clover being tap-rooted penetrates deeply, stands drouth, mellows the soil, and the timothy grows much stronger and holds up the clover. Secondly, if sown for pasturage, the timothy almost universally prevents the clover from swelling cattle. Thirdly, hay is too binding, especially for cattle, and clover too washy, (succulent), hence both together are better than either alone. To these we may add, under the head of the first, that where grass comes in a rotation, it is of the utmost importance on a clay soil that at least a part of this grass crop be clover. It will serve to mellow and loosen the heavy soil in a remarkable degree, so that when turned over with a plow, it will not only be rich, but loose and friable. If, on the other hand, timothy alone is sown, (which some do because the hay sells better,) the sod will turn over heavy and clammy, and be unfit for any crop which is to follow. The same correspondent says that he is partial to rye for calf or sheep pasture, which he occasionally sows in the summer or autumn, after a crop of corn; and then, after being pastured winter and spring, it is turned under for a spring crop—corn, if the soil be strong enough—or it may be allowed to go to harvest.

Liquid Wax.

As the time for pruning trees is approaching, I may do a service to the readers of *The Cultivator* by giving the composition of a wax, as a covering for wounds, which has given me much satisfaction. Shellac dissolved in alcohol has been the common varnish for wounds long in use. There are two objections to this: the lac covering is exceedingly thin and brittle, and is therefore, but a partial, and not a sufficiently permanent protection. Again, the alcohol required to dissolve the lac is in such large proportion that I think some injury results to the bark and new and delicate texture of the wood from its application. Instead of

this, take two pounds of rosin, one pound of beeswax, and one pound of beef tallow; dissolve as much shellac as 10 ounces of alcohol will take up. When the wax is just melted (in bottles standing in a kettle of hot water is best) pour in the varnish. After this, alcohol may be added to reduce the thickness to the desired point. It will be found that this mixture is sufficiently waxy to yield to the growth of the tree, and also that it causes the least possible injury to the tender woody tissue.—*W. C. Strong, in Boston Cultivator.*

Garget in Cows.

A subscriber in *The Maine Farmer* writes that having found much trouble from this filthy disease, I have at last found, I think, a sure cure. I was getting some saltpetre for my cow at a store, when an old friend of mine remarked, "Don't give that to your cow, but give her two quarts of dried beans boiled, water and all, when cold, and by giving two doses you will find a permanent cure. I tried it, and have so far found an easy cure from one dose of two quarts of beans."

Fattening Calves.

A sensible practical farmer says that he has often noticed that calves would thrive better on milk that is not rich in butter, than on what is commonly called very rich milk. The nutritive elements of milk reside chiefly in the caseine. If you have a cow that gives particularly rich milk, and one that gives a quality poorer in butter, it is better to feed the calf on the milk of the latter. The calf will thrive better, and you will get more butter from the milk of the first cow.

Deep Tillage.

Most farmers, says *The Rural American*, would plow their lands two or three inches deeper than they now do, if it were not so hard work for their teams. A pair of horses will turn a furrow of seven or eight inches deep, and plow an acre and a half or two acres a day; but when the plow is run down to 10 or 12 inches, it is too hard for most teams to draw it; consequently, many farmers prefer to plow more shallow, and take their chances for a good crop.

For corn, when sod ground is turned over, it is not advisable to plow only just deep enough to turn the sod over flat, with some six inches of the earth besides, making with sod and all about eight inches. This is about as deep as sod land should ever be plowed, because when you go deeper, the sod is turned more upon its edges, which is a bad system of plowing; but the next time the land is plowed, after the sod has become rotted, it would be well to plow a foot deep, at least, and some soils 15 to 18 inches would be better, if one has teams to do it, two pair of horses, or two yoke of oxen.

Not all soils, however, will bear plowing so deep, and be advantageous. Light, sandy soils should never be plowed so deep as to throw up a stratum of sub-soil that is almost wholly unproductive; but clay loams, that extend down 18 inches, may be plowed as deep as any ordinary plow can be made to run, and it will be greatly benefited thereby.

Deep plowing, not only benefits the land, by mixing the surface and subsoils; but it also prevents any

serious loss of crops from drouths. Indeed, hardly an instance is on record where a crop has been badly injured by drouth, when the land was plowed from 12 to 15 inches deep. The reason is this: the porosity of the soil below the roots of the plants allows a constant rising of moisture from below, which could not occur if the land had been plowed no deeper than the roots of the plants penetrate.

Sawdust as Manure.

In an article on sawdust as a litter, the *New England Farmer* says:—We have no doubt that a barren piece of land may be brought into a high state of fertility by the use of sawdust, and without the application of manure. The process would include a period of several years, undoubtedly, but might be cheaper in the end than any other, if the sawdust were abundant and near at hand. It would be something as follows: Apply a dressing of sawdust in the spring, and plow it in just so as to cover and mix it with the sand. In midsummer add another dressing and plow. If weeds appear, plow again in the fall. A single horse will be sufficient to do the work, so that the cost of labor in applying the sawdust and plowing the land will be all that is invested in it, excepting interest on the value of the land—and that would go on if it were not touched.

In the course of two or three years, under this management, weeds and grasses would appear, and when they become numerous, plow again: sow clover seed, and when the plant is nearly ripe, plow that under. Level, sow clover seed again, and so continue until the land is so abundantly supplied with vegetable matter as to bring any of the common crops of the farm.

The Vetch.

A correspondent of *The New Hampshire Mirror and Farmer* gives the result of his experience with vetches as follows: "Last spring I procured a peck of seed, which was sowed the last week in May, mixed with a like quantity of oats, which is the rule. The vetch is a running plant of the leguminous species, resembling the pea. The oats are to keep it from the ground. The seed did not come up well, yet in spots it made a heavy growth. We commenced to cut about the first of August; it was eaten with a relish by all kinds of stock, and appeared to contain a considerable amount of nutriment. Were it sown early in April, it would be ready to cut the last of June, and would be found valuable in a regular soiling course. Unless used for this purpose, I do not think it profitable for farmers to raise. We need something to feed when pastures fail. This is well met by corn fodder, which comes nearer to our case than the vetch."

Sorghum.

A writer in *The Journal of Agriculture* (St. Louis) says: "At present the manufacture of sorghum is on the decline. Farmers like it as well as ever, and pay a good price for what they use, but there is no sale for the surplus. City consumers have a prejudice against it on account of its looks and color; and the refineries refuse to pay more than half the cost of

its manufacture. As it does not pay on this account, nearly all the large, skillful makers are going out of the business; it being impossible to sell the surplus crop for more than 35 to 50 cents a gallon, at which price, taking out the cost of commission, freight and barrels, a loss of fully \$4 a barrel is incurred."

The Last Milk from the Udder.

Dr. Anderson, in "Dickerson's Practical Agriculture," says he has found by practical analysis, in one instance, that the last cup of milk drawn from the cow's udder contained sixteen times as much cream as the first one. The separation of cream from milk takes place in part in the udder of the cow, particularly if she is suffered to stand at rest for some time previous to milking. If there are people who doubt that there is a difference in the richness of milk first drawn from cows and that last drawn, their doubts will be speedily removed by milking a half dozen cows and setting the first half drawn from each cow separate from the last half.

Lime as a Soil Improver.

Old gardens are frequently unproductive through being manured year after year with the same kind of manure, and growing the same crops. In such cases the vegetables are rank in growth and ill-flavored. Potatoes and other roots watery and liable to disease, and peas and beans unproductive, and cauliflowers and cabbages subject to club disease. When such is the case, use no manure for a couple of years. The first spare ground you get, trench it two spits deep, if the ground will allow of it, and thoroughly mix with the earth, as you turn it over, a good dressing of fresh slaked lime, the fresher the better. My plan is, when the top spit is thrown to the bottom of the trench, to throw over the hot lime and to fork it in, and to repeat the dose of lime over the lower spit thrown to the surface. Employed in this way, lime acts as a complete renovator of old and over-manured soils, as the produce afterwards will show. The second year I repeat the lime dressing (about half the quantity of the first year,) forking it in instead of digging the ground, as by that means the lime becomes more completely mixed with the soil. I add also a surfacing of road scrapings, if the ground is heavy, or inclined to be so. By these means, giving up manure for two years, I have succeeded in bringing an old garden soil, which would positively grow nothing well, into a first-class soil, producing good crops and of the best quality.—*Am. Fruit Culturist*.

Colic in the Ox.

This is occasioned usually by the presence of some irritant matter, generally undigested food. The symptoms are pain of a violent character, evidenced by the animal frequently lying down and rising up again, turning round his head to the flank, and attempting to strike the belly with the hind legs, or horns. The pain is not continuous, but comes on by fits, which go on, and for the time leaves the animal comparatively free from pain, returning again with renewed violence; there is loss of appetite, and rumination is suspended. This affection, however, is comparatively rare in the ox. Treatment consists in administering the following combination:—Epsom salts, one pound; aromatic spirits of ammonia, one ounce; tincture of opium, two ounces; water, one pint; mix. Injection of tepid water should also be administered.—*Prairie Farmer*.

Horticultural.

HORTICULTURAL SOCIETY OF WESTERN NEW YORK.

(Formerly Western New York Fruit Growers' Society.)

(Continued from page 85.)

The second question was then taken up:

Is fruit growing becoming more difficult by the clearing away of forests, and thus exposing to severe winds, and is it practicable to plant belts of evergreens or other hedges for screens?

Lewis F. Allen, argued that he thought the subject of little importance, and cited in support of his position the successful efforts at fruit growing on the shores of Lake Michigan in the vicinity of St. Joseph.

William Webster asked Mr. Allen if St. Joseph was opposite Chicago, and being answered in the affirmative, requested to know why, if the severity of winds had no influence on fruit growing, it was impossible to grow apples and many other kinds of fruit in the vicinity of Chicago unless protected by garden fences or screens; while 15 or 20 miles further north, where the shores are lined with timber, some kinds of fruit like apples, currants, raspberries, &c., grow quite spontaneously.

Some further discussion on the subject ensued, and it appeared from the testimony of the most practical, that it certainly was necessary to plant for shelter on the borders of orchards, although no vote was taken on the subject.

EVENING SESSION.

A resolution was offered by E. C. Frost, that a committee of three be appointed by the chair to memorialize the Legislature on the subject of transportation of nursery stock on railroads.

Laid on the table.

Question three:

What plants are best adapted for fencing?

Mr. Allen thought this question should be submitted to a committee to report at a future meeting.

Discussion was called for.

Mr. Hooker thought plants for hedges should be hardy, vigorous growers, and make a barrier against stock, and stand the climate. He named the Honey Locust and Osage Orange.

Mr. Allen objected to the Locust, that it suckered badly.

Mr. Ellwanger and others thought this a mistake, and said it made a compact hedge.

Mr. Warner—I have had it on my place twenty years, and it never suckered.

J. J. Thomas spoke in favor of both, though they had not done well in this State. *It wants proper management.* I have 80 rods, and do not think that any one could go through it. It requires to be cut back continually.

E. W. Sylvester—I have 40 rods of Osage Orange planted 10 years ago, which makes a perfect fence. Plants eight inches apart, and cut back every year. In

Illinois they grow one year, and cut half back, and lay down the shoots, which has proved satisfactory treatment. In regard to the Honey Locust, or Three Thorn Acacia, one of my neighbors has half a mile, and I never saw a sucker.

The Barberry being asked for, Mr. Weld, of Boston, said it sprouted from the roots, and was not used much in the East.

J. J. Thomas had been acquainted with it forty years. It is a slow grower, and he only knew of one hedge that succeeded.

E. C. Frost spoke in favor of it.

H. E. Hooker said Prof. Turner, of Illinois, had effectually stopped rabbits with the barberry: it proved an effectual barrier against them. Rabbits will not touch it.

W. Webster thought the Gleditschia Triacanthos or Honey Locust the best, and Osage Orange next.

In regard to screens for shelter, Mr. Hooker spoke in favor of a mixture of evergreens and deciduous trees.

The Norway Spruce and Hemlock were spoken of as the best plants for this purpose.

H. G. Warner announced the death of Naaman Goodsell, and spoke in the highest terms of the deceased. A committee was appointed to report suitable resolutions, which will be found in another place.

SECOND DAY.

Question four:

What is the best method of cultivating the apple in the orchard?

L. F. Allen said there is no doubt of the importance of the apple crop for Western New York. Any soil that is dry will do. We require hardy wood. Many trees that are sold, are inferior in quality. A good deal depends on the hardiness and age of the wood. I am in favor of growing the branches high enough for a wagon to go under, or to cultivate the ground. I have grafted some trees three times. Lime is one of the best things for an orchard; does not want stable manure. He did not believe in plowing an orchard, for it cuts off roots that rob the trees. Sheep are good in orchards. I never had them bark my trees in summer, but they will do it in winter.

J. J. Thomas—By the annual growth of the shoots we can judge of the culture we should give. I am satisfied that sheep are good in orchard in summer.

E. Moody—I am sorry to differ with these horticulturists. I am of the opinion that an orchard should never be seeded down. It always affects the color of the leaves and injures the trees. Anything that makes the leaves look sickly, injures the trees. Keep up a dark color of the leaves. In regard to good culture, I would plow deep in the first place, and would continue to plow. I do not think you can cultivate without plowing.

L. F. Allen—Swine should run in the orchard; they will eat up bugs and worms, and keep rooting in the soil. Six pigs will do a deal of work.

Mr. Hazleton had had trees spoiled with sheep in his orchard.

T. G. Yeomans—Instead of having branches six or

eight feet high, I would cut off every branch at planting. By keeping the branches trimmed, they will not be subject to trouble from the wind; the roots will get a better start, and the tree get a firm foothold. I like the plan of cultivating the ground until the trees shade the ground, and after the trees come into full bearing to seed the ground. I think well of lime for an orchard. My trees are planted two rods apart, and I have peach trees between them. The more the ground is shaded in a young orchard the better. I do not see why the peach should not grow as well as an ground by themselves. Strong loamy soil, subsoil hard-pan. I do not think the roots penetrate the hard-pan. I keep my land cultivated for twelve or fourteen years after planting; then seed down when the trees will protect the ground.

Mr. Herendeen thought apple trees should be planted 16 feet apart each way, and after growing to a good size every other row should be cut down.

L. F. Allen and others objected to this plan. He gave an instance. If every other tree in a piece of wood land be cut down, many of the remaining trees will die in consequence.

The Committee appointed to draft resolutions on the protection of the grounds of Charles Downing, at Newburg, reported as follows:

Resolved, That the fruit growers of New York, and indeed of the whole country, are under lasting obligations to Mr. Charles Downing, of Newburg, for his pomological researches, and for his experimental orchards for testing varieties of fruit, and for the free dissemination of scions and plants. That it is in our opinion the most valuable of any amateur collection in the United States; that it has been, and is now, of incalculable advantage in establishing the nomenclature of fruit, and advancing valuable varieties and rejecting those which are worthless; that in our opinion the preservation of the garden, under the superintendence of Mr. Downing, is an advantage to the fruit growers of New York, in addition to the honor of having the most valuable amateur collection in the United States located in our midst.

Resolved, That our members of the Legislature be urgently requested, so far as may be compatible with the public interests, to protect these grounds of Mr. Downing from being used for any other purpose whatever, as we believe their preservation to be invaluable to the pomological world.

E. WARE SYLVESTER,
J. J. THOMAS,
T. G. YEOMANS,

Committee.

On the death of Naaman Goodsell, the Committee reported as follows:

The Horticultural Society of Western New York, now holding its annual session in the city of Rochester, having just heard of the death of Naaman Goodsell, late of Oswego county, and formerly of this city, feel constrained to express in this place their deep regret at the occurrence. It is therefore

Resolved, That Western New York, and especially the city of Rochester, owes much to the efforts of Mr. Goodsell for the introduction and cultivation of the choicest varieties of fruit of all kinds, and the rearing of a high standard of taste in horticulture and rural gardening, and may properly be called the pioneer among fruit growers of this region. He was a man of great intelligence, high attainments in many branches of science—had traveled extensively in Europe, making observations on the subjects of manufacture, rural taste, and the natural sciences—was possessed of remarkable social qualities, an untiring zeal in promot-

ing the interests of arboriculture, horticulture, and floriculture, and will be long remembered as editor of the old *Genesee Farmer*, commenced in 1831, by his able and instructive essays on his favorite topics.

Fifth question:

What six varieties of apples are most profitable for market?

After some discussion, a ballot was taken with the following result:—Baldwin 42, Rhode Island Greening 40, Roxbury Russet, 26, King of Tompkins County 22, Northern Spy 21, Twenty Ounce 19.

Sixth question:

What varieties of raspberries are most profitable for market, and what most suitable for family use?

A. M. Purdy named all the Black Cap family except the Ohio-Everbearing; spoke highly of the Clark; if restricted to one variety, would name the Miami Black Cap.

E. Williams, of New Jersey, thought the Doolittle the best. It was early, hardy, and productive, and does not fill the ground with suckers. Philadelphia is hardy, productive, and profitable, but not as good in quality as he desired. The red raspberries always sell best in New York. He thought the Clark suckered badly.

Mr. Babcock said there was a plantation of 12 acres in Lockport, that were hardy. He never covered in winter. Had no trouble in shipping it to market.

A. M. Purdy—Suckers should be hoed off the same as weeds.

E. Williams thought mulching the best method of cultivation. It improves the flavor of the fruit.

A. M. Purdy said good cultivation was better than mulching.

P. G. Yeomans spoke in favor of the Doolittle. He thought those that found fault with the Franconia had not the true variety. They did well with him.

No decision was come to on the two last questions, only discussion on the different varieties.

Seventh question:

What varieties of blackberries are most profitable for market, and what most suitable for family use?

E. Williams, of New Jersey, in reply to questions said that for all the desirable qualities, the Kittatinny was best, ten days earlier than the New Rochelle, and fully as productive. My plants are six feet apart, and eight feet in rows. Cut off the tops, and throw the fruit on the lower branches. I grow on trellis. I think pinching in in the spring about five feet from the ground with thumb and finger. In some places we only put a stake to tie to. Blackberry plantations will last 12 years. The finest crop I ever saw was in a garden where some plants of the Kittatinny were grown for 12 years.

A. M. Purdy spoke in favor of the Lawton.

J. J. Thomas—I formerly cultivated the Dorchester, and gave it up because of the small berry and light crop, and inferior in quality. Plant in rows, eight feet apart, and five to six in the rows. Pinch off the tops at five feet to develop laterals early. Used stakes and trellis to support the plants.

E. W. Sylvester had found the Kittatinny perfectly hardy, fully as productive as the New Rochelle, and ten days earlier.

J. J. Thomas—I find the Kittatiny perfectly hardy in Western New York. The New Rochelle will be put aside, and the Kittatiny take its place. Had cultivated the Dorchester, but had discarded it being too small.

C. L. Hoag—I notice the Dorchester does not yield as well on heavy as light soil. The Lawton I have grown longer, but do not find it a good market fruit. When the Dorchester is black, it will do to send to market.

Mr. Ellwanger—I have cultivated the Dorchester and think it of more value than the Lawton, and wonder it is not more extensively cultivated.

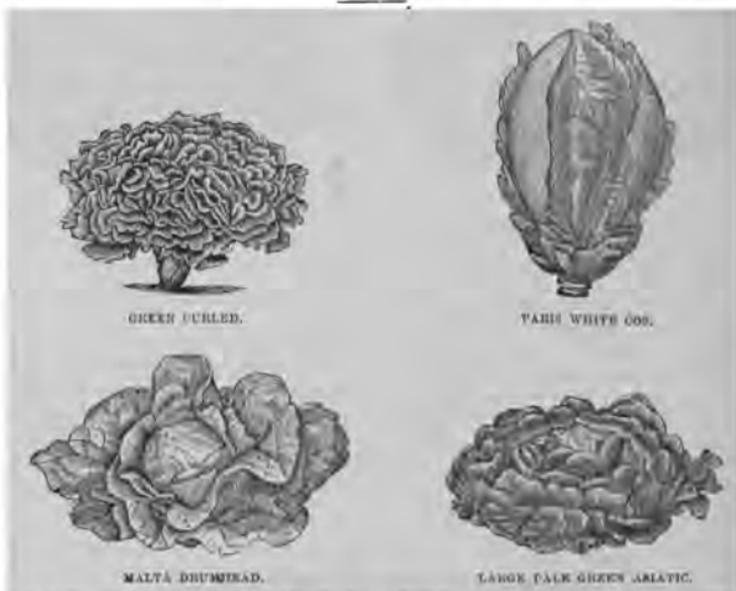
The President found it very difficult to keep the Dorchester from freezing in our section.

Judge Warner wanted some information on currants, and stated that it was one of the best fruits we have, and now that we have something by which we can subdue the currant worm, attention should be again called to its culture.

At the close of the discussions Mr. Barry made some interesting statements in regard to what he saw in Europe last year, and the impression left on his mind was that the cultivation of fruit in this country was much easier and of better quality than in Europe. The strawberry market of Paris was enormous. Their leading variety was Trollope's Victoria. Prices are a little higher than in Boston.

The Society then adjourned.

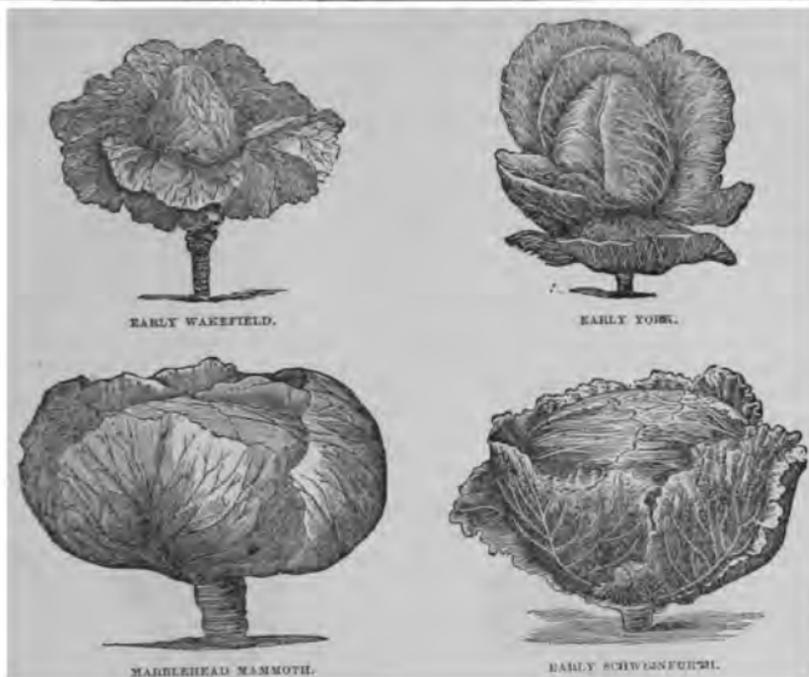
THE VEGETABLE GARDEN.



To Raise Early Cabbage Out-doors.—Seeds of the Early York, Little Pixie, or any other early sort of cabbage, may now be sown in a warm border out-doors, in shallow drills, 6 or 8 inches apart, and when large enough, they should be transplanted into rows two feet apart, the ground having previously been well manured and thoroughly dug. Hoe the plants frequently, and water freely during dry weather.

Tomato.—Tomato plants, for an early crop, should be transplanted to the open ground as soon as the weather will admit, to insure the plants against danger from severe cold, it will be necessary to cover them with a box having a glass cover. The box should be 15 to 18 inches in height, and 10 by 12 inches across, so as to allow of being covered by a pane of 10 by 12 inch window glass. The box should be removed

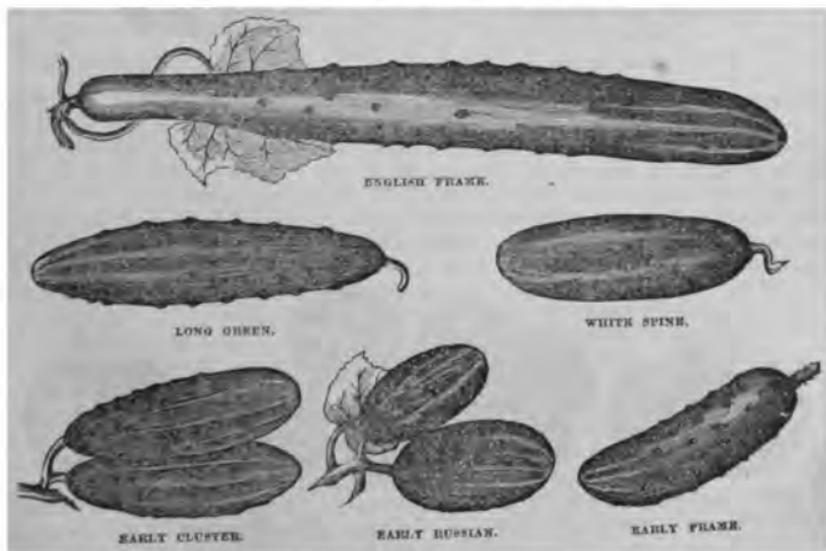




during fine weather, so that the plants may have an abundance of air and sunshine, and covered only during the continuance of cold, or very wet and cold weather. Those who do not wish to take the trouble of staking and tying can lay some brushwood upon the ground around the plants. By this means the fruit will become fully exposed to the influence of sun and air, and prevented from coming in contact with the ground. When the vines are allowed to run on the ground, it fre-

quently results in a large portion of the crop becoming rotten. Hay or straw is a good substitute for brushwood, and can be used in lieu of it.

Early Salad.—Those who cannot command the advantages of a hot-bed may now make preparation to sow the early varieties of lettuce in a warm and sheltered border. The beds may be protected at night by a covering of straw, which can be removed during the warmer part of the day. Care should be taken to lay



the straw on lightly, and to uncover by interfering as little as possible with the plants. When large enough some of the plants can be thinned out and used at table, and others transplanted into rows out-doors. The ground to be appropriated to this purpose should be made very rich, and the plants should be copiously watered during their growth.

Onions.—The sooner onion beds can be prepared after the frost has left the ground, the better it will be for the crop. To prepare the beds properly, the soil should be thoroughly and deeply spaded, highly manured, and slightly rolled. The seed should be sown in drills about one inch in depth, and the drills should be set not less than 12 inches apart, and while growing, the beds should be kept clear from weeds, and the rows should be thinned from time to time until there are no more left than are necessary for a crop.

To Raise Cucumbers for an Early Crop.—A very economical and expeditious mode of raising early cucumbers, is to procure fresh sods, say one foot in width, eighteen or twenty inches in length, and from four to five in depth. Place these on a hot-bed with the grass side down, mark them into squares of four inches, and in the center of each square scoop out a hollow similar to the inside of a small flower pot. Fill the hollow with good compost, and plant three or four seeds in each. After the plants have attained a sufficient size, if the weather is moderate, the squares containing the plants may be separated with a knife, and transferred to hills out-doors. In this way, the plants do not receive as much injury in transplanting as they would in the ordinary way of raising in pots, and transplanting from the pots, because the roots are preserved from injury by the earth which encloses them. If the plants are protected at night after being transferred to the open ground, by covering with a box or barrel, an early crop will be the result.

We are indebted to Mr. James Vick, the well-known "prince of florists and seedsmen," of this city, for the accompanying illustrations of vegetables.

NEW ROSES.

AMONG the newer ones offered this year in American catalogues, we note the following:

Adrien Marx—bright cherry red; Charles Verdier—bright rose, petals, bordered white; Glorie de Monthlaiser—brilliant red; Madame Puliat—beautiful deep rose; M^{lle} Marie de Villeboisnet—tender rose; Jules Cesar—deep cherry red; Madame Chas. Baltet—beautiful clear tender rose, seedling of the rose, Louise Odier; Fisher Holmes—brilliant scarlet; Carl Coers—large deep purple; Fanny Petzold—clear rose, light shade of white; Lacepede—brilliant clear red; Pline—reddish velvet violet; President Mas—brilliant reddish violet, shaded violet purple; Souvenir of Dr. Jamain—bluish violet, very fine; Glory of Waltham—large purple red; Mme. Emile Boyau—large, full, flesh color; Triomphe de Ronen—brilliant carmine rose; reverse of Petals Violet Rose.—*Gardener's Monthly.*

ALWAYS give the soil the first meal.

MOUNT VERNON PEAR.

THIS new variety of the pear is a chance seedling, which originated upon the homestead of the late Hon. Samuel Walker, at Roxbury, Mass., about the year 1847. The tree came up in such close proximity to a one-story building as to be nearly denuded of branches, and completely so on the northerly side to the height of about ten feet: but its vigorous habit of growth has overcome this impediment to its proper development; and it has made a strong and symmetrical growth above the point of obstruction, and produces annually a generous crop of fruit, notwithstanding it has been neglected.

The tree first exhibited its fruit in sufficient quantity to permit of its distribution for trial in 1860, in which year Mr. Walker presented specimens of the fruit to a number of his personal friends for their examination. Among those to whom the fruit was at that time sent, were the late Dr. W. D. Brinckle and Thomas Meehan, Esq., of Philadelphia, both of whom agreed at that time in considering it "probably the best pear of the season."

One of the marked characteristics of this new variety of the pear is the novel strain of flavor which it possesses, and a collection of the more distinct and desirable kinds of the pear would be very incomplete unless it comprised the Mount Vernon.

The tree is symmetrical in its habit, and sufficiently vigorous in growth to insure its annual fertility; and the fruit has the desirable quality of clinging so tenaciously to the tree as to withstand our autumnal gales. The fruit is, in size, large to above medium; form obovate, inclining to pyriform, but somewhat irregular and knobby; color a dark yellow russet, with a red cheek on exposed specimens; stem short, thick, set on one side in a slight depression; calyx open in shallow basin; flesh of a peculiar greenish white, rather coarse, melting, with a rich and peculiarly spiced vinous flavor; quality good; a very desirable variety on account of its peculiar flavor. Its season of maturity is from the middle of November to the middle or latter part of December.

We have tested this fruit year after year since it first fruited, and we do not hesitate to recommend it for amateur cultivation certainly; and time may show it to be valuable for market purposes.—*Jour. of Hort.*

At the meeting of the Royal Horticultural Society of England, December 3d, the following were voted as winter premium pears:—Glout Moreeau, Triomphe de Malines, Triomphe de Jodoigne, Broom Park, For-elle, and Easter Beurre.

A new Conifer from Arctic America is described by Andrew Murray in *The Journal of Botany*. It is the most northerly tree on the Northwest coast, being found in a latitude nearly seven degrees further north than the tree limit of the Eastern side of the American continent. It is allied to *Abies alba*.

EXAMINE your fruit trees for caterpillar eggs.

Ladies' Department.

TO THE LADIES!

A CHANCE FOR ALL!

DESIROUS of presenting our Annual on Flower Culture, &c., to all our lady readers, we make the following offer:—We will send a free copy of "The Ladies' Garden Companion for 1868," postage paid, to any person who shall send us

ONE DOZEN ORIGINAL DOMESTIC RECEIPTS,

to be published in future numbers of THE AMERICAN FARMER. We hope a large number will avail themselves of this liberal offer, to take effect from this time. Who will be the first to respond?

HOUSEHOLD CARES--No. 13.

"Have you put up any eggs, this spring?"

"Oh, yes! I always put up a quantity, both in the spring and fall. Many persons think it far the better plan to wait till September; but I find no objection to packing them at any time when I can obtain them the most freely, and when at their lowest market rate. Almost every housekeeper has some favorite method of keeping or packing the eggs needed for winter use. Some make a preparation of lime and water, and half filling a large crock, place their eggs in it as soon as brought from the nests. An excellent housekeeper of my acquaintance, says that she merely fills a clean market basket with eggs, and hangs them in her cellar, and that they will keep for months. Some grease the shell, and others pack small end down, in salt, bran or sawdust. Now, all of these methods are good, and have their advantages, according to the different circumstances of time and place. For instance, if the atmosphere of your cellar is very pure and always cool, and of an even temperature, and the eggs are not stored till September or later, it is probable that they may keep perfectly during the winter by simply placing in a basket, as does my neighbor; but a surer way and one which would suit most circumstances, would be the lime and water, or the application of grease or tallow. But I consider no method equal to mine, as it is founded on natural law. The principle of keeping eggs is this: the outside air must be kept out. The inside air, of which I suppose there is an infinitesimal quantity in each egg, however fresh—should be kept in as quiet a state as possible. If the shell is full, and all new laid eggs are nearly full, it is evident that there must be evaporation from the inside before the outside air can gain admittance. Now, how can this evaporation be prevented? Simply enough. Did you ever notice what a peculiar, thick, impenetrable substance the white of an egg is after it is boiled? And did you ever notice what a beautiful firm skin there is immediately surrounding the inside shell of every egg? If you have, don't you think if you should take that skin

and line it perfectly, no matter how thinly, with a little cooked white of egg, that that would prevent evaporation, and so keep out the air?"

"Certainly; but how shall I do it?"

"Merely by immersing the egg for a moment in boiling water. This is my manner of proceeding. I have a small basket which will hold about a dozen, and as they are brought from the barn day by day, I thrust basket and all into a pot of boiling water. I count twenty as rapidly as possible, and out again, and every little bottle is thus as hermetically sealed as any bottle of canned fruit. After this, I pack in salt or dry bran, or oats, or anything, and have new-laid eggs for breakfast in the middle of winter.

AUNT ROSA.

DOMESTIC RECEIPTS.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER.

HOW TO MAKE A CEMENT FOR STOVES.—Take iron filings, and mix to about the consistency of putty for glazing, with white lead and linseed oil. Fill in the joints as securely as possible, while the stove is cold, and let it stand a day or two before using.

CRUMPLETS.—Take one pound of sifted flour, a large teacupful of sweet milk, and two eggs. Beat the eggs and add to them two table-spoonful of thick brewer's yeast, or a small teacupful of home-made yeast. Beat well together, then stir in the milk and flour, mixing thoroughly. Set in a warm place to rise; when well risen, they should be baked on the griddle in rings for the purpose. Bake slowly. They may be eaten at the time of baking, or set aside and toasted, buttered, and served for tea.

OYSTERS.—Many persons toughen the oyster in cooking, but it is quite unnecessary. Drain the juice from them, add the proper quantity of water, milk, butter, &c. When the soup is boiling, throw in the oysters, and let them just simmer.

A NICE MEAT PIE—MADE EASILY AND QUICKLY.—Take some beef, veal, or chickens, rub with salt and a little pepper; cut into pieces; put into a kettle with cold water; cover closely, and stew one hour. Weigh two pounds of flour and sift it. Weigh three-quarters of a pound of lard and rub into the flour until there are no lumps. Add two heaping teacupful of salt, and two medium sized tumblers of water. Mix up and roll out about a third of an inch thick. Rub a large pudding dish with lard. Line it with the pie crust, letting it come well over the edge, that it may not melt down into the bottom of the dish. Roll out another crust, and turning a flat tin cover, about the size of the top of the pudding dish, upside down, cover that with the crust, and if you choose, ornament it with a wreath of leaves cut out of the crust. Set this on some pieces of brick if the handle is in the way. Also line a large pie plate with another crust. Bake these all a light brown. Take a half teacupful of flour or corn starch. Pour in gradually a half teacupful of water and stir it smooth. Pour it into the kettle of boiling meat and gravy, and stir it three or four minutes. Then dip out the meat and gravy into the pudding dish, until it is half

full. Lay in the crust from the pie plate. Fill up the dish with the meat and gravy, and lay on the ornamented cover. Supposing that the vegetables were put on at the same time that the meat was, your dinner will probably all be ready together.—*Mrs. R. U. S., in Country Gentleman.*

TO FRESHEN RANCID BUTTER.—Here is a fact worth a year's subscription to a paper: "To a pint of water add thirty drops (about half a teaspoonful) of liquid chloride of lime. Wash in this two and a half pounds of rancid butter. When every particle of the butter has come in contact with the water, let it stand an hour or two; then wash the butter well again in pure water. The butter is then left without any odor, and has the sweetness of fresh butter. These preparations of lime have nothing injurious in them."—*Ec.*

GRAFTING is to be done when the buds on the stalk show signs of starting.

A SISTER'S INFLUENCE.

"That man has grown among kind and affectionate sisters" I once heard a lady of much observation and kindness remark. "And why do you think so?" said I. "Because of the rich development of all the tenderer feelings of the heart, which are apparent in every word." A sister's influence is felt even in manhood's later years; and the heart of him who has grown cold with its chilling contact with the world will warm and thrill with pure enjoyment as some incident awakes within him the soft tones and glad melodies of his sister's voice. And he will turn from purposes which a warped and false philosophy has seasoned into expediency, and weep for the gentler influence which moved him in his earlier years.—*Lady's Magazine.*

HAPPINESS is like manna; it is to be gathered in grains, and enjoyed every day; it will not keep; it cannot be accumulated; nor have we to go out of ourselves, or into remote places to gather it, since it is rained down from heaven at our very doors, or rather inside of them.

Young People's Page.

GOOD ADVICE TO THE BOYS.

WRITTEN FOR THE AMERICAN FARMER, BY MRS. M. S. M.

Boys, don't be driven from home by the endeavors of mother or sisters to make you tidy. If they are busy cleaning, try to assist them. This is both manly and consistent. Promise you will go up those stairs no more with dirty feet. You know your loved ones have to do most of this work themselves, as they cannot trust Bridget—she does not know how. You begin to understand that farmers' wives and daughters, and of course the farmers, are growing refined, with a cultivated taste, as much as any other class.

If you think you are in the way, go out in the fresh air, dig the path so long needed around the house up

to the barn, garden, and wherever you wish. Dig it about one foot in depth, and two or more wide, according to fancy; take the dirt and fill up some low place near by. Go to the lake, and get some clean gravel, or nearer by you may have some slate, and fill it up, and you will have a nice clean walk, saving much time and trouble in cleaning feet when you come into the house, and likewise adding to the satisfaction of the tidy housewife. When this path is done, leave about one foot of sod or grass along the edge of the path, then dig the earth about two feet from it, and one foot in depth, taking most of the soil out, and replacing it with rich mold, compost, and finely rotted manure, and you will have a desirable flower bed, showing to advantage, and easily kept clean. The strip of grass can be kept cut close, with lawn shears, or even with sheep shears, through the summer. This bed can be planted with roses or perennials, whatever you wish leaving a little space for annuals, and you will have flowers all the summer. Then how many hours of recreation and improvement you can find there! Try it now, this coming spring.

If you have sisters, take them to work with you; while you exercise the more manly part, they can sow and transplant, and urge an inveterate war against those abominations to all beauty, *weeds*. How beautiful this will render home! You will have no wish to leave it, hardly for an hour, for there will not be time. There is Dolly, the horse, and the beautiful, Bessy to feed and comb down. Oh, how healthy it is for them, and you too, to be thus employed, how expressive of gratitude, are their mute faces upturned to yours, how gentle and docile they are when treated so. Then there is so much for boys to do, to make home an Eden, as it should be, when all labor is a pleasure, not a burden. The turkeys, ducks, and chickens, all want your attention. How delightful it is to watch the nests, sometimes finding a new one, the results of which are a cap full of eggs. No, boys do not leave farming and home for the city. These city boys you think have fine fun; depend upon it they do not have half the pleasure you have. And besides, you think they make money; not so, as the end of the year shows, while you can point to the well adorned homestead, surrounded with so many blessings. They have not a place they can call by the symphonious name of home. While too many of them are sowing the seeds of dissipation and distress for after life.

No, boys, we want—our country wants—in those times that are coming as well as now, more true, strong minded men, in the fresh air, amid rural scenes and pursuits. No, indeed! go not up to "Niles' Corner," nor any other Corners, to stand idly around, leaving vituperations and slanders against your neighbors and friends, made more noisome by the frequent outpourings of that nauseous juice, tobacco, from those lips, that we are commanded in the book of books to keep clear. Then, too near by, is that plain road to destruction to those that turn in thereat—the dram shop. Turn away from it; enter not therein, for how much there is at home calls for your care, kindness, and the cultivation of the beautiful.

Editor's Table.

PREMIUMS.

OUR Premium List published in January and February numbers is still open, and we continue to send off valuable presents to agents who work for THE FARMER. There is yet time for others to start a club in their respective neighborhoods, and take one or more of these prizes. Next month we shall offer a new and still more valuable list of premiums, and those who wish can send on names at once, and select from the list as soon as published in our next issue. Back numbers from the commencement of the volume, can always be supplied.

Premiums for One or Two Subscribers.

To any person sending us the name of one subscriber, with the year's subscription, *one dollar*, we will send a copy of our beautifully illustrated and instructive Annual for 1868, on the culture of bulbs and flowers.

To any person sending us *two* subscribers with the subscription, *one dollar* each, we will send a copy of *The Illustrated Annual of Rural Affairs* and *The American Farmer Annual* for 1868. These works should be in the hands of every person who works a rod of ground, and we hope many of our friends will avail themselves of this liberal offer.

Inquiries and Answers.

BRAHMA FOWLS, (Inquirer)—This breed is acknowledged by many to be the best we have: and from experience we can say that they are excellent layers, especially in winter. They are of large size, hardy, very prolific, and great sitters. Their flesh is of superior quality. H. G. White, South Framingham, Mass., in a recent letter, informs us that during the month of March, since keeping Brahmas, he had 92½ dozen eggs from 55 fowls, an average of 20 eggs to each fowl for the month. This speaks well for the Brahma.

"D. B.," (Schnylkill County, Pa.)—Your subscription for 1868 is received. The receipt of the paper is acknowledgment of receipt. We do not send papers without the order for so doing with the cash in advance.

GEO. MORRISON, (Hinds County, Miss.)—You can obtain Brahmas by addressing H. G. White, South Framingham, Mass.

"W.," (Montclair, N. J.)—We do not know his address. Will try and find out and let you know.

PARRISH, (Tenn.)—Did you receive colored fruit plates with bound volume of THE FARMER for 1868?

"D. S. L.," (Burlington co., N. J.)—Your subscription is received, and back numbers sent.

Will you inform me where I can purchase pure blooded Cotswold and Leicester sheep?—J. F. W., Palmyra, N. Y.

THE Canada Provincial Fair will be held this year at Hamilton, Sept. 21st-25th.

Wheat Prizes.

WE notice that prizes are offered to the amount of \$300, for the best samples of wheat. \$100 for the best two barrels white winter wheat; \$100 for the best two barrels red winter wheat; and \$100 for the best two barrels of spring wheat. To be awarded at the next New York State Fair.

PULLING FLAX BY MACHINERY.—A late number of *The Canada Farmer*, describes a new invention for pulling flax by machinery. The machine has a share like projection, similar to that at the outer end of scythe of a mowing machine, which engages off the swath to be pulled. The flax is drawn in between a drum, revolving horizontally, and a strong rope, held so tight that it is pulled up as the drum revolves, and dropped as the drum and rope separate again. The writer assumes that the great labor of pulling the flax by hand has been a chief obstacle to its cultivation, and that this machine will make the cultivation much more feasible. This invention will help growers of flax in California.

New York State Fair.

THE prospect now is that the next annual fair of the New York State Agricultural Society will be held in this city. The committee having the matter in charge feel confident that the necessary funds will be furnished in full, the amount already subscribed being nearly all that is required. We should be pleased to see the suggestions made at the annual meeting of the Society by the President, M. R. Patrick, Esq., in regard to locating the State Fair at three, four, or five different points where the fair can be held in rotation, carried out, and the plan of raising large sums of money each year for temporary structures, such as were erected at Buffalo last year, entirely abolished. A prosperous and thickly populated agricultural community like the State of New York, should by this time have permanent grounds and buildings in which to hold the annual fair, which should be a credit to the State, and we hope to see this subject agitated until some such system is adopted.

Literary Notices, &c.

WESTERN FARMERS' ANNUAL.

We invite attention to the advertisement of the "Western Farmers' Annual and Rural Companion" in this number, with the assurance to our readers that it is a valuable work, worth many times the price asked for it.

THREE LITTLE SPADES. By the author of "Dollars and Cents," "Mr. Rutherford's Children," "Casper," &c. New York: Harper & Bros. Price \$1.00

This is a pleasant and instructive work on the culture of flowers for the young folks. Coming from the pen of an amateur florist makes it of real value to all lovers of flowers. It should be read by thousands of boys and girls, and even older persons will find much instruction in its pages. It will prove of great value

in fostering a taste for out door work among the young people, and a large amount of practical information will be derived from its pages.

Annual Address by Marsena R. Patrick, delivered before the New York State Agricultural Society, Feb. 12th, 1868.

Whitlock's Horticultural Advertiser, "All Nurseries in One," for March, is received. Published monthly by L. L. Whitlock, 245 Broadway, New York. Price 1.50 per annum. It contains a great deal of horticultural information, with price list of all kinds of nursery stock.

From A. M. Halsted, New York, pamphlet containing the standard of excellence, as adopted by the American Poultry Society, being a reprint of the same as compiled and adopted by the London Poultry Club, with alterations and additions adapting it to America.

Pomona Garden and Nursery Catalogue of Small fruits, fruit and ornamental trees, vines, and plants cultivated and for sale by William Parry, Cinnaminson, N. J.

Fifth Annual Report of the proceedings of the New Jersey Fruit Growers Association, with a list of officers and members for 1867-68, from the Secretary, William Parry, Cinnaminson, N. J.

From Messrs. Ellwanger and Barry, of this city, No. 1, Descriptive Catalogue of Fruits; No. 2, Descriptive Catalogue of Ornamental trees and shrubs, roses, flowering Plants, &c.; No. 3, Catalogue of Greenhouse and Hot-house Plants, Chrysanthemums, Dahlias, &c., beautifully bound together, in green cloth cover.

From Mahlon Moon, Morrisville, Pa., catalogue of small fruits, trees, &c.

A pamphlet containing eight pages, on "the Ramie," the new textile plant for southern cultivation from A. B. Bacon, chairman of the Academy of Sciences, New Orleans. The fiber of the Ramie is said to be superior to the finest cotton, and of its introduction into this country, Mr. B. says:

"This plant, introduced into Louisiana in March, 1867, by D. Benito Roetzl, who, after eleven years of trial in Mexico, has domesticated it on the Western Continent, is a native of Java. It was brought to Europe for investigation in 1844, and then received the botanical name of *Bahmeria tenacissima*. It was studied by Mr. Roetzl, in its native island, in 1853-4, and introduced by him into Mexico in 1855, but under difficulties and with losses which prevented its successful propagation and application to purposes of utility there, until 1864. It was brought by him to New Orleans, 21st March, 1867, and was first planted in Louisiana by A. B. Bacon on the 22d of March, 1867. Since then it has been successfully grown in nurseries in Louisiana, Mississippi, Texas, and Arkansas."

Efforts are now being made to introduce this new plant into general cultivation in the Southern States.

From C. E. & J. S. Fritts, Elwood, N. J., spring circular of small fruit specialties.

An essay on the cultivation and curing of flax and hemp in Missouri, by S. A. Clemens.

The Wool-Growers' Manual, a treatise on Sheep Husbandry in Missouri, by S. P. Boardman, Lincoln, Ill.

Ohio State Board of Agriculture.

At the meeting of the Ohio State Board of Agriculture, at Columbus, March 17, it was decided to hold the State Fairs for 1868 and 1869 at Toledo, as that place offered facilities nearly or quite as favorable as those guaranteed by Dayton, and it being thought advisable to hold the Fair in the northwest part of the State. The premium list was revised, and the premiums largely increased. The aggregate sum now offered in premiums is fully \$15,000. Among the premiums added are liberal ones for dairy stock, displays of meadow or pasture grass seeds, and the grasses growing in pots.

The prize essays, or reports on agriculture, from five counties in the State, for which a premium of \$100 each is offered each year, are offered for 1868, to essays from Belmont, Defiance, Erie, Greenc, and Lawrence.

Essays by T. C. Jones, of Delaware County, and H. Paul, Jr., of Summit County, and on Entomology by Dr. John A. Warder, were accepted, and the premium of \$100 each was ordered to be paid to each of the writers.—*Western Rural*.

Bound Volumes.

WE have a large number of volumes of THE AMERICAN FARMER bound in good substantial binding, now ready for delivery, embracing the issues for 1866 and 1867. They will be sent to any address, by mail, prepaid, for \$1.25 each; or to any one sending us 12 names, at our lowest club price of 75 cents each, we will send either volume to the agent getting up the Club, or for twenty subscribers at the same rate, we will send both the above volumes bound, postage paid.

PRIZE ESSAYS.—We purpose shortly to make out a list of subjects for Prize Essays to be published in THE FARMER, and shall be glad to receive from our readers any questions or suggestions on any subjects that they wish discussed in our columns.

B. P. JOHNSON.—We regret to learn just as we go to press, that the venerable and worthy Secretary of the New York State Agricultural Society, B. P. Johnson, lies dangerously ill at his residence in Albany.

WE will send The Farmers' Record and Account Book to any address, postage paid, on receipt of price, \$3.50. This work will last four years.

Annual Register of Rural Affairs for 1867, for sale at this office. Price 30 cents, by mail, postage paid.

MISSING NUMBERS.—We hope our readers will inform us of their failure to receive any numbers of THE FARMER by reason of the mails. We will furnish such missing numbers on information to that effect by our subscribers.

PRICES OF PRODUCE AT THE PRINCIPAL MARKETS IN THE UNITED STATES AND CANADA.—BY TELEGRAPH, &C.

	NEW YORK, Mar. 27.	ROCHESTER, Mar. 27.	CHICAGO, M: 27.	ST. LOUIS, Mar. 26.	TORONTO, Mar. 26.
Flour, white wheat	\$12.00 @ \$14.00	\$16.50 @ \$20.00	\$ 9.50 @ \$10.50	\$ 7.00 @ \$10.50	\$ 7.75 @ \$ 8.25
" red		14.00			
Wheat, white, $\frac{3}{4}$ bu.	3.15 3.37	0.00 2.15	1.92 2.04	2.10 2.75	1.80 1.85
" red,	2.58 0.00	2.55 0.00		2.50 2.73	
Corn, $\frac{3}{4}$ bu.	1.25 1.80	1.18 0.00		.33 .91	
Eye, do.	1.91 1.92 $\frac{1}{2}$	0.00 1.70	1.55 0.00	1.72 1.75	1.08 1.08
Barley, do.	1.65 2.12	1.90 1.95	2.45 2.54	2.80 2.85	1.45 1.50
Oats, do.	.86 .87	.82	.67 $\frac{1}{2}$.59 $\frac{1}{2}$	.71 .76	.60
Beans, do.	5.75 5.85	4.75 5.00	4.50 5.00	5.30 5.55	
Peas, do.	1.55	1.50 1.50			.80 .81
Butter, $\frac{3}{4}$ lb.	.45	.35 .40	.98 .41	.00 0.00	
Cheese, do.	.13 .16 $\frac{1}{2}$	.00 .00	.12 .18	.14 $\frac{1}{2}$.15 $\frac{1}{2}$	.10 .11
Eggs, do.	.25 .30	.20 .22	.21	.15 .16	.15
Potatoes, $\frac{3}{4}$ bu.	4.50 5.25	3.00 .00	1.05 1.10		
Chickens, $\frac{3}{4}$ lb.	.18 .22	.00 .24	4.50 0.00dz	0.00 0.00dz	
Live hogs, $\frac{3}{4}$ 100 lbs.	.12 $\frac{1}{2}$.12 $\frac{1}{2}$	.12 .12	8.50 9.50		0.00 0.00
Wool, $\frac{3}{4}$ lb.	.35 .50	.00 .00	.00 .00	.00 .00	.20 .22
Beef, $\frac{3}{4}$ lb.	.00 .00		5.75 7.75	5.00 8.00	5.00 7.50
Hay, $\frac{3}{4}$ ton.	.00 27.00	18.00 28.00	00.00	16.00 17.50	12.00 16.50
Hops, $\frac{3}{4}$ lb.	.30 .60	.00 .00	.00 .00		0.0 .00
Clover Seed	.18 $\frac{1}{2}$	6.75	7.50		

THE MARKETS.

OFFICE OF AMERICAN FARMER,
ROCHESTER, N. Y., Mar. 23, 1868.

Potatoes in this market are in active demand at increasing rates. Shippers are buying freely at \$3 per barrel for Peachblows of decidedly inferior quality. Owing to the drouth nearly half the potatoes are quite small—so small, in fact, that many farmers thought they would be able to do nothing with them except for seed, or to feed. The buyers, however, are not as particular as they were last year. The prospects now are that potatoes will be very high before the middle of May. At the East, the crop was seriously injured, and in fact almost destroyed, by the excessive rains, while in this section and throughout the West, there was not more than half a crop on account of the severe drouth.

Beans are very scarce. A choice sample would bring \$5 per bushel.

Canada peas for seed are worth \$1.50@ \$1.75 per bushel.

Corn brings about \$1.25 per bushel.

Oats are very scarce. They bring from 80c to 85c.

Clover seed retails at \$7.50 per bushel. Buyers pay from \$6.75 @ \$7 for medium. There is little large clover seed in market. It would bring about \$10 per bushel.

Timothy seed retails at \$3 per bushel.

Red and amber wheat is a little lower. White wheat is scarce and unchanged.

Wool is worth about 45c per lb.

Hay has been very high owing to the storm, but is now lower. It was sold for a few days as high as \$35 per ton. It now brings from \$17 to \$23, according to quality. Straw is worth \$12 to \$14 per ton.

Butter is lower. It has been worth during the past month from 45c to 55c—or about as much during the storm, as any one had conscience to ask. It is now worth only 40 cents per lb.

Lard is worth 15 cents.

Dressed hogs 12c.

Eggs have fallen to about 22 cents per dozen.

Apples bring \$3 to \$4 per barrel.

Maple sugar of a choice quality, brings 25 cents per lb., for the best, and from that down to 16c for the poorest.

ORDERS FOR ALL AGRICULTURAL or Horticultural Works

Will Meet with Prompt Attention,

by addressing

THE AMERICAN FARMER,

Rochester, N. Y.

Special Notices.

TO THE LADIES.
FOR ONLY ONE DOLLAR.

We are selling *Silks, Shawls, Dry and Fancy Goods* of every description, also *Silver Ware, Furniture, &c.* *Valuable Presents*, from \$3 to \$500, sent *free of charge* to agents sending clubs of ten and upwards. Circulars sent free to any address.

MESSENGER & CO.,

P. O. Box, 2931.

42 Hanover St., Boston, Mass.

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in THE AMERICAN FARMER for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 18th of the previous month. THE FARMER has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

GERMAN ALSIKE CLOVER.

THE SEED of this superior kind of Clover is kept by the undersigned, and sold at figures that render the cost per acre very little, if any more than the common. Everybody should try it.

Price, 60 Cents per lb., by mail,

Address, JOHN RAPALJE,
ap Rochester, N. Y.

BOOK AGENTS WANTED—FOR DR. WILLIAM SMITH'S DICTIONARY OF THE BIBLE.—Written by 70 of the most distinguished Divines in Europe and America. Illustrated with over 125 Steel and Wood Engravings. In one large Octavo volume. Price \$3.50. The only edition published in America, condensed by Dr. Smith's own hand. We employ no General Agents, and offer extra inducements to Agents dealing with us. Send for descriptive circulars, and see our terms.

ap-4t J. B. BURR & CO., Publishers, Hartford, Ct.

FUN! FUN! FUN!—Have you seen THE STAR SPANGLED BANNER for April, a large eight-paged paper, 32 columns, filled to the brim with rich and racy stories, jokes, &c., &c.? Has no equal; circulation immense; only 60 cents for whole year. Send NOW; dont delay. Specimens 10 Cents.

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DECORATIVE GARDENING.

WEBSTER'S NEW AMERICAN STYLE. Designs and Catalogues of Bulbs, Shrubs, and Roses, with a beautiful colored plate sent free to all applicants. Address,

WILLIAM WEBSTER, Rochester, N. Y.

NEW STRAWBERRY.

WE now offer for spring planting our NEW STRAWBERRY
 "NICANOR,"

One of the most hardy, productive, and valuable for family use or market in cultivation. Price, \$5 per dozen, sent free by mail.
 Our collection of Strawberries embraces all the American and foreign sorts worthy of cultivation.

Descriptive Catalogue of Fruit and Ornamental Trees sent prepaid for 10 c. each.

ELLWANGER & BARRY,
 Mount Hope Nurseries,
 Rochester, N. Y.
 (Established 1840.)

ap-1t

SENT FREE!

CATALOGUE OF CHOICE EARLY

FLOWER & VEGETABLE SEEDS.

M. O'KEEFE, SON & CO., SEEDSMEN AND FLORISTS,
 Rochester, N. Y. ap-8t

2,000,000

EVERGREEN AND DECIDUOUS TREES,

FROM SIX INCHES TO THREE FEET HIGH. 100,000 American Arbor Vitae, hedge size, two years transplanted. For sale from April 1st to June 1st,

A. P. CHAPMAN, 141 Fulton Street, New York.
 Any other time, Portland, Me.
 Price list sent free on application. ap-1t

CROSBY'S EARLY SWEET CORN.

THIS new Corn is the kind for Market Gardeners, and all who want a variety that is of Good size, Early, and Sweet. It is larger than Darling's Early, will average Twelve Rows, and the ears are finely filled out. The Market Gardeners around Boston are dropping every other early sort for this. Per package, 15 cents; per half pint, 30 cents; per pint 50 cents; per quart, \$1.00. Sent postpaid, to any address, on receipt of price. My Seed Catalogue gratis to all. JAMES J. H. GREGORY,
 Marblehead, Mass. mh-8t

PEAS! PEAS!!

NOW IN STORE, AND READY FOR OUR CUSTOMERS, at Kapajie's Genesee Seed Store, Rochester, N. Y.: —
 150 bushels Canada Creeper (held) Peas,
 200 bushels Black Eye Marrowfat Peas,
 200 bushels Early Washington Peas,
 100 bushels Daniel O'Rourke Peas,
 100 bushels Early Emperor Peas,
 50 bushels Dwarf Blue Imperial Peas,
 50 bushels Prize Taker Peas.

ALSO,

150 bushels Timothy Seed, best quality,
 25 bushels Red Top and Blue Grass,
 25 bushels Orchard Grass,

SPRING WHEAT,

And a full assortment of ALL the leading kinds of Garden and Flower Seed, Agricultural Implements and Machines, the best that can be found in this section.

**WANTED, AGENTS—TO SELL
 DR. W. M. SMITH'S
 BIBLE DICTIONARY.**

The Cheapest and the Best. See that the work you get contains over 1,000 pages. Agents are doing a splendid business with this work. To those who want the small London edition, from which the "Juvenile American edition" (an inferior work) has been copied, will be furnished in March at \$2.75 a copy, 75 cents less than the American edition. For full particulars, send for circulars. S. S. SCRANTON & CO., 126 Asylum St. Hartford, Ct.

20,000 AGENTS WANTED.—
 A sample sent free, with terms, for any one to clear \$25 daily, in three hours. Business entirely new, light and desirable. Can be done at home or traveling, by both male and female. No gift enterprise or humbug. Address,
 W. H. DAILY & CO.,
 268 Broadway, New York.

ap-1t

EARLY ROSE POTATOES.

PERFECTION ATTAINED AT LAST.

The "EARLY ROSE" is a seedling of the Garnet Chili, originated in 1861 by Albert Brezee, Esq., an intelligent farmer, and the whole stock was sold by him to D. S. Heffron, Esq., of Utica, N. Y., the well known disseminator of the "Goodrich Seedling."

In a letter to Messrs. B. K. Bliss & Son, of New York, Mr. H. says of the Early Rose: "It has uniformly ripened ten days earlier than the Early Goodrich, produces less small tubers, is equally healthy and productive as that justly celebrated variety, and it is superior in table quality. It is the best early potato that I have ever grown or seen, all things considered." "Skin thin, tough, of a dull bluish color. Flesh white, solid, and brittle, boils through quickly; very mealy."

CARD FROM D. S. HEFFRON, ESQ.

To whom it may concern:—Having recently sold nearly my entire stock of the Early Rose Potato, to John L. Conover and Stacy P. Conover, they have sent me an order to deliver a portion of them to Geo. W. Best, of Utica, N. Y.
 D. S. HEFFRON.

Geo. W. Best has purchased of Messrs. John L. & Stacy P. Conover, of Monmouth County, N. J., a part of their stock of Early Rose Potatoes, at the enormous price of eighty dollars (\$80) per bushel, and proposes to send them out in pound packages as premiums to those purchasing Grape Vines of him. The following will convince the public that \$80 per bushel is the actual price paid.

City and County of New Jersey, ss—John L. Conover and Stacy P. Conover, of Monmouth County, New Jersey, being duly sworn, depose, and say that on this 21st day of February, 1868, they sold to Geo. W. Best a part of their stock of Early Rose Potatoes at the cash price of \$80 per bushel.

JNO. L. CONOVER,
 STACY P. CONOVER.

Sworn before me, this 21st day of February, 1868,
 A. WILLIAMS GLEASON, Notary Public, New York.

I have a very large stock of

CHOICE NATIVE GRAPE VINES,

consisting of the most desirable varieties, among which are Adirondac, Allen's Hybrid, Concord, Croveling, Delaware, Diamond, Union Village, Hartford Prolific, Rogers' Hybrids, Iona, Isabella, &c., &c., which I intend to send out in connection with the Early Rose.

TERMS:

For \$5, invariably to be sent with the order, I will send TEN CHOICE GRAPE VINES from the above list, reserving the right of selection for myself, but will endeavor to suit purchasers as far as possible, and

ONE POUND OF EARLY ROSE POTATOES:

all to be securely packed, and sent by mail, postage prepaid.

INSTRUCTIONS FOR PLANTING.

By cutting into single eyes, and planting but one eye on a hill, one bushel may be readily raised from a pound, and will be worth next fall, at the very lowest calculation, double the price paid for both Vines and Potatoes.

Not more than Five (5) packages sent to one address.

No Early Rose for sale in quantity at any price, and only in connection with the Vines.

No order will be accepted unless accompanied by the cash.

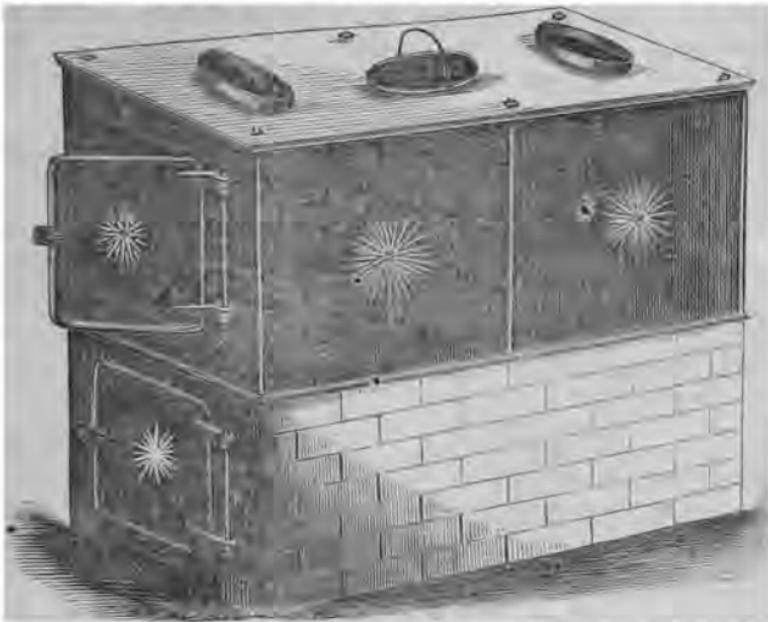
Orders will be booked in order as received, and Potatoes and Vines mailed as early in the spring as the weather will permit. Order early, as the stock is limited.

Address, GEO. W. BEST,
 Utica, N. Y.

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CO-OPERATIVE FOUNDRY--ROCHESTER, N. Y.

HOP STOVE.



C. F. HALL, Agent.

We take the liberty of calling your attention to our new HOP STOVE, feeling confident that it is better calculated for the purpose of Drying Hops than any other stove in use. The above cut represents the No. 4, (the largest size,) constructed for burning four foot wood; the No. 3, (smaller size,) burning wood three feet in length.

The same are constructed for coal when desired. We also manufacture an Ashpit of cast iron, to be used in connection with the Stove, when preferred to one of mason work. We think this Stove cannot fail to give the fullest satisfaction.

No. 4,	\$	No. 3,	\$
No. 4, with Ashpit,	\$	No. 3, with Ashpit,	\$

Address as above.

ONE DOLLAR COLLECTIONS.
OF EARLIEST KINDS OF
VEGETABLE SEEDS FOR SPRING SOWING.

Cabbage, Earliest Dwarf.....	packet.	1
Cañiflower, Early Paris.....	1	1
Celery, Early Dwarf White.....	1	1
Cucumber, Early Russian.....	1	1
" Early Short Green.....	1	1
Egg Plant, Early Long Purple.....	1	1
Lettuce, Early Curled Silesia.....	1	1
" Early Tennis Ball.....	1	1
Radish, Early French Breakfast.....	1	1
Tomato, Early Smooth Red.....	1	1
Parsley, Fine Double Curled.....	1	1

The above choice assortment will be mailed free to any address on receipt of One Dollar.

Address, **WILLIAM WEBSTER,**
149 State Street, Rochester, N. Y.

SQUASHES AND ONIONS.

I have written two very thorough works, one on the cultivation of each of these Vegetables, in which the directions given for every step of the process, for selecting soil, preparing, manuring, planting, protecting from insects, weeding, gathering, ripening, storing, and marketing the crop, are so very minute, that the new beginner can be equally successful with experienced growers. Each work is fully illustrated. Sent to any address, and warranted to reach the purchaser, at 80 cents each. If on reading them, any person thinks he has not got his money's worth, I will refund it gratis. Catalogues of warranted choice vegetable seed, over one hundred varieties of which are of my own growing, sent free to all. **JAMES J. H. GREGORY,**
Marblehead, Mass.

PISCATAWAY SMALL FRUIT FARM.
New Brunswick, N. J.

WILSON'S EARLY, KITTATINNY AND LAWTON
Blackberry Plants. Doolittle Raspberry, and Strawberry Plants of all the good varieties, cheaper than the cheapest. Peach trees \$6 per 100. Lower by the quantity. Early Goodrich potatoes. Send stamp for price list. G. W. THOMPSON.
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LEAD-ENCASED BLOCK TIN PIPE.

The only pipe yet presented for public use which combines safety to health, with strength, pliancy and durability. It is cheaper and stronger than lead-pipe, and is a sure protection against lead poisoning. Recommended by Chemists, Physicians, Water Commissioners and Practical Plumbers. Pamphlets containing information sent free.

Address, THE COLWELLS SHAW & WILLIARD MF G. CO.
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WE want first-class Agents to introduce our NEW STAR SHUTTLE SEWING MACHINES. Extraordinary inducements to good salesmen. Further particulars and sample work furnished on application to W. G. WILSON & CO., Cleveland, O.; Boston, Mass.; or St. Louis, Mo.

ESTABLISHED 1840.

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IMPORTER, WHOLESALE AND RETAIL DEALER IN
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82 State Street, Rochester, N. Y.
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SEEDS AND PLANTS
FOR THE SPRING OF 1868,
WILLIAM WEBSTER,

IMPORTER AND DEALER IN CHOICE SEEDS, PLANTS,
AND BULBS,
Rochester, N. Y.,

Respectfully informs his friends and customers that his Spring Catalogue will be ready for mailing by the first of February.

This Catalogue contains
DESIGNS FOR THE LAYING OUT AND PLANTING OF GARDENS, FROM A QUARTER OF AN ACRE TO FIVE ACRES IN EXTENT,

Together with a vast deal of useful information relative to the improvement of Country Places. Also complete lists of
SHRUBS, ROSES,

FLOWERING PLANTS, AND SEEDS.

It will be found of great value to the Farmer, the Gardener, and the Mechanic. Mailed free to all customers, and to all others on receipt of 10 Cents.

Address,
WILLIAM WEBSTER,
LANDSCAPE GARDENER, Rochester, N. Y.

FRUIT, FOREST, AND ORNAMENTAL TREES—FOR SPRING OF 1868.—The largest stock in the country. For sale in large or small quantities. A descriptive and illustrated priced catalogue of fruits, and one of Ornamental Trees and Plants. Sent, prepaid, for 10 cents each. Wholesale Catalogue FREE.
ELLWANGER & BARRY,
Mt. Hope Nurseries, Rochester, N. Y.

MARBLEHEAD MAMMOTH SWEET CORN.

THE Ears are of an enormous size, often weighing between Two and Three Pounds. Very sweet and excellent for table use. My specimens of this corn recently took the First Premium at two of the Annual Fairs of the Massachusetts Horticultural Society. For package, 25 cents, or five packages for \$1.00. My Seed Catalogue gratis to all.

JAMES J. H. GREGORY,
Marblehead, Mass.

FLOWER SEEDS! FLOWER SEEDS!!

FROST & CO., have just imported a fresh lot of Flower Seeds, containing many very rare novelties, to which they would respectfully call the attention of the public. They have also a large collection of

Fruit and Ornamental Trees, Shrubs, Roses, &c.
Also a splendid lot of **EVERGREENS.**

The following Catalogues contain full particulars of the stock in the different departments, and will be sent to all applicants on receipt of stamps, as follows:

- No. 1—Descriptive Catalogue of Fruit Trees, Vines, &c. 10c each.
- No. 2—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c. 10c each.
- No. 3—Descriptive Catalogue of Greenhouse Plants, Dahlias, Verbenas, &c. 3c each.
- No. 4—Wholesale Catalogue or Trade List for Nurserymen, &c. 8c each.
- No. 5—Catalogue of Flower Seeds imported spring 1868. 5c each.

Address,
FROST & CO., Genesee Valley Nurseries,
Rochester, N. Y.

POST-PAID FOR FIVE DOLLARS!

12 PHILADELPHIA STRAWBERRY, 12 Jucunda, 12 Duranda, 6 Charles Downing, 3 Thornless Raspberry, 8 Doolittle, 6 Philadelphia, 3 Wilson's Early, and 3 Kittatiny Blackberry. Send for Catalogue containing other variety lists. Also prices of the leading Strawberries, Raspberries, Blackberries, Grapes, &c., Potatoes. Peach trees, \$1 per 100, or \$30 per 1,000.

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Moorestown, N. J.

NEW AND RARE VEGETABLES.

I make New and Rare Vegetables a speciality. Catalogues free,
JAMES J. H. GREGORY,
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1868, THE 1868.
ILLUSTRATED ANNUAL
REGISTER OF RURAL AFFAIRS.

Nearly 150 Engravings.

Among the Leading Chapters it contains, beside the usual Calendar Pages for the year, are the following:

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Single Copies only 80 Cents, post-paid. Eight Copies for \$2; Thirteen Copies for \$3; Fifty Copies, \$10. Very favorable terms on larger orders. Address

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PUBLISHER AND PROPRIETOR AMERICAN FARMER,
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J. E. CHENEY & CO.,
MANUFACTURERS
OF
WATER FILTERS
for Purifying Lake, Rain, and River Water.



With this Filter the most impure water is made free from all foreign matter, clear as crystal, without taste, color, or smell.

83 Exchange St.,
next door to F. Tully's Stone Store,
Rochester, N. Y.

WESTERN FARMERS' ANNUAL.

THE Publisher of *The Northwestern Farmer* issued on the 1st of January, a hand-book for the Farmer, Fruit Grower, and Gardener, entitled, "The Western Farmers' Annual and Rural Companion for 1868," a neat and valuable work of 64 pages, containing Calendar and List of Farm, Garden, and Orchard Duties for each month; Essays on Strawberry Culture, Grape Culture, Flower Culture, and a variety of other useful and interesting subjects, written expressly for it. The regular price of this book is 25 cents, and thousands of copies have been sold at that price; but as we have a large edition on hand, we propose to send copies by mail, post-paid, to all who order before the 15th of April for 15 cts each. Address,

T. A. BLAND,
Publisher of *Northwestern Farmer*,
Indianapolis Ind.

PRINCE & COS.
AUTOMATIC ORGANS
AND MELODEONS.
Forty thousand are now in use
BUFFALO, N.Y. CHICAGO, ILL.

DRAIN TILE MACHINE.

FOR manufacturing draining Tile. Send for circulars to
A. LA TOURRETTE,
Waterloo, N. Y.

SPRING GARDEN SEEDS.

The following are selections from **Thorburn's Catalogue** for 1883, constituting the choicest of their sorts.

If ordered by mail, add 8 cts. per lb. for postage.

The five best **Beans** are:

	per qt.,	cts.
Early Rachel, Bush	40	
Black Wax, Bush, (fine yellow pod)	50	
Refugee, Bush	40	
Horticultural, Pole	50	
Black Wax, Pole (fine yellow pod)	75	

The two best **Beets** are:

Carter's St. Osyth	per lb.	\$4.00	per oz.,	40	cts.
Early Blood Turnip		1.00		15	"

The five best **Cabbages** are:

Early King of Dwarf	per lb.	\$8.00	per oz.,	75	cts.
Early Winningstadt		5.00		40	"
Early Oxheart		3.00		80	"
Drumhead Savoy		5.00		40	"
Large Flat Dutch		4.00		40	"

The two best **Carrots** are:

Early Scarlet Horn	"	1.50	"	15	"
Long Orange	"	1.25	"	15	"

The three best **Cauliflowers** are:

Extra Early Erfurt	per packet,	25
Early Paris	per oz.,	1.25
Thorburn's Nonpareil		1.00

The three best **Celerys** are:

Early Dwarf White	per oz.,	75	cts.
Early Dwarf Grinson		50	"
Dickson's Mammoth White		40	"

The four best **Corn**s are:

Extra Early Dwarf Sweet	per qt.,	40	cts.
Trimble's Improved Sweet		50	"
Stowell's Evergreen Sweet		80	"
Striped Leaved Japan	per oz.,	40	

The two best **Cresses** are:

Extra Curled	per lb.	75	cts.	per oz.,	10c
Broad Leaved Winter		8.00		80c	

The three best **Cucumbers** are:

Early Russian	per lb.	\$2.00	per oz.,	20	cts.
White Spined		1.50		15	"
Long Green		2.50		20	"

The best **Kohl Rabi** is:

Early-White Vienna	per lb.,	\$4.00	per oz.,	40	cts.
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The four best **Lettuces** are:

Early White Forcing	per lb.,	\$5.00	per oz.,	50	cts.
Tennisball or Boston		4.00		40	"
Wheeler's Tom. Thumb		8.00		80	"
Ice Drumhead		2.50		80	"

The three best **Melons** are:

Early White Japan	per lb.,	\$5.00	per oz.,	40	cts.
Pine Nutmeg		1.50		20	"
Ice Cream Water		1.50		15	"

The three best **Onions** are:

Early Red	per lb.,	\$2.00	per oz.,	20	cts.
Yellow Danvers		2.00		20	"
White Portugal		8.00		80	"

The best **Parsley** is:

Extra Curled	per lb.,	\$1.50	per oz.,	15	cts.
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The six best **Peas** are:

McLean's Little Gem (1 foot high)	per qt.,	90	cts.
Carter's First Crop (2 1/2 feet high)		80	"
McLean's Advancer (2 1/2 feet high)		75	"
Hair's Dwarf Mammoth (2 1/2 feet high)		60	"
Napoleon Marrow (8 feet high)		60	"
McLean's Princess Royal (1 1/2 feet high)		50	"

The best **Parsnip** is:

Sutton's Student (fine flavor)	per lb.,	\$1.50	per oz.,	20	cts.
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The four best **Radishes** are:

French Breakfast	per lb.,	\$1.50	per oz.,	15	cts.
Early Scarlet Turnip		1.50		15	"
Long Scarlet		1.00		10	"
Scarlet Chinese Winter		8.00		80	"

Also,

Raphanus caudatus (edible pod variety)	per packet	25
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The two best **Spinages** are:

Large Flandre	per lb.,	75	cts.	per oz.,	10
Round Leaved		75		10	"

The three best **Squashes** are:

Summer Crookneck	per lb.,	\$1.25	per oz.,	10	cts.
Yokohama, Winter		4.00		40	"
Hubbard, Winter		2.50		80	"

The four best **Tomatoes** are:

Large Red Smooth	per lb.,	\$4.00	per oz.,	80	cts.
Fejee Island		4.00		80	"
Cook's Favorite		4.00		80	"
Valencia Cluster		4.00		80	"

The four best **Turnips** are:

Red Top Strap Leaf	per lb.,	\$1.00	per oz.,	10	cts.
White French		1.00		10	"
Yellow French		1.00		10	"
Improved Rutabaga		1.00		10	"

Also, apply for **Descriptive Catalogue** containing directions for the cultivation of vegetables.

J. M. THORBURN & CO.,
15 John Street, New York.

A NEW

SMUGGINS, AND AMUSING GAME,

Price 50 Cents.

Sent post paid, on receipt of price, by S. D. NEWCOMB, 171 Broadway, N. Y. m-2t

TAKE YOUR CHOICE!

To any person sending *one new subscriber*, with the money for one year, we will send a first-rate gold pen, No. 3, 4, 5, or 6, that will fit any ordinary pen holder.

To any person sending *two new subscribers*, and the payment for one year, we will send a gold pen, No. 3, 4, 5, or 6, with a gold stock plate holder, complete and ready for use, in a morocco case.

To any person sending *three new subscribers*, with payment for one year, we will send the Gold Fountain Pen, No. 5 or 6, complete, with gold stock plate holder, in a morocco case.

A **\$55 Sewing Machine**, either Wheeler & Wilson, or Grover & Baker, will be sent to any person sending us the names of *eighteen new subscribers* to the

NEW YORK OBSERVER,

with the money (\$68) for one year in advance.

We have sent away as premiums more than **Seven Hundred** of these Machines, and they give universal satisfaction.

The new subscribers may be from one, or from various places. Send by check, draft, or post-office order.

Sample Copies and Circulars Sent Free.

Terms, \$8.50 a year, in advance.

SIDNEY E. MORSE, Jr., & CO.,
mh-2t 37 Park Row, New York.

\$100 A MONTH SALARY,

WILL be paid for Agents, male and female, in a new, pleasant, permanent business. Full particulars *free*, by return mail, or sample retailing at \$4.50 for 50 cts.

A. D. BOWMAN & CO., 48 Broad St., New York. [Clip out and return this notice.] mh-3t

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For Sale at the Office of the American Farmer.

American Farmer for 1866, bound.....	1.25
Allen's Farm Book.....	\$1.50
Allen's Rural Architecture.....	1.50
Bridgman's Fruit Manual.....	75
Bridgman's Young Gardener's Assistant.....	2.00
Brown's Field Book of Manures.....	1.50
Bulst's Kitchen Gardener.....	1.00
Burr's Garden Vegetables.....	2.50
Canary Birds, Manual for Bird Keepers.....	.50
Coles' American Fruit Book.....	75
Dadd's Horse Doctor.....	1.50
Dadd's Cattle Doctor.....	1.50
Danas Muek Manual.....	1.00
Downing's Fruits and Fruit Trees of America.....	3.00
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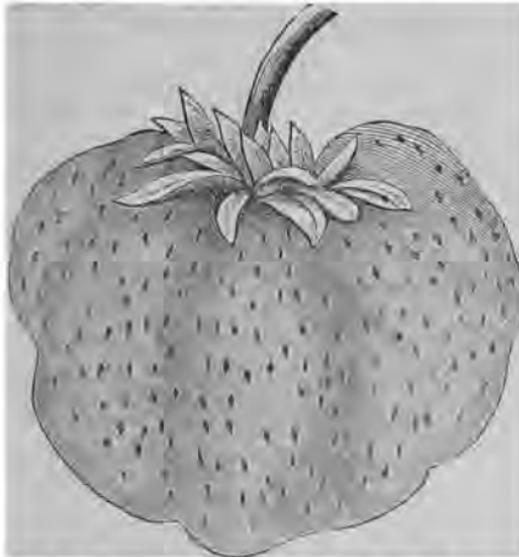
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CONTENTS OF THIS NUMBER.

AGRICULTURE.

Spring	105
Work for April	105
Early Rose Potato	106
Reckoning Table for the Calving of Cows	106
Notes by "S. W."	107
Hops—soil and location	108
Notes from Canada	108
Renovating Wornout Land	110
Best Feed for Cows	110
Holstein Butter Making	111
Trees, their Beauty and Usefulness	118
Bees Again	115
The Castor Bean	115
Agriculture in Common Schools	116
Does the Barberry Injure Wheat?	116
Seneca Black Cap Raspberry	118
SPIRIT OF THE AGRICULTURAL PRESS:	
Danger of Benzine	118
Clover and Timothy	118
Liquid Wax	118
Garget in Cows	118
Fattening Calves	118
Deep Tillage	118
Sawdust as Manure	119
The Vetch	119
Sorghum	119
Last Milk from the Udder	119
Lime as a Soil Improver	119
Colic in the Ox	119

HORTICULTURE.

W. N. Y. Hort. Society	120
The Vegetable Garden	122
New Roses	124
Mount Vernon Pear	124

LADIES DEPARTMENT.

Household Cares	125
Domestic Receipts	125
A Sister's Influence	126

EDITOR'S TABLE.

Inquiries and Answers	127
Wheat Prize	127
Pulling Flax by Machinery	127
New York State Fair	127
Literary Notices	127
The Markets	129

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VOLUME III.

ROCHESTER, N. Y., MAY, 1868.

No. 5.

MAY.

The sunny days have come at last.
 The wintry bonds are burst, and waking life
 Makes earth rejoice, while nature hastes to put
 Her somber robes aside, and don her dress
 Of emerald hue, to welcome in the spring.
 The latest snow bank softens in the shade;
 The buds swell full, and feathery blossoms push
 From out the willow's tips, while blades of grass
 Peep thickly out from 'neath their coverings.
 O'erhead the skies take softer, brighter hues;
 The early birds pipe forth a sweet refrain,
 And earth and skies with all their multitude,
 Smile out a welcome to the coming May.

Belfast, Me.

G. K. B.

WORK FOR THE MONTH.

ALTHOUGH the season has been somewhat backward this spring, we think most of our farmers will have got in their spring grain before this month, and work will be mainly confined to preparing the soil for roots and corn.

CORN needs a good, well tilled, warm soil, and responds handsomely to good heavy manuring. It is the heaviest crop grown in America, and the difference of a few bushels per acre in its yield on each farm, exercises a great influence on our national prosperity. It is liable to be cut off by late spring frosts, consequently it is well not to be in too great a hurry to get the seed into the ground. The general rule we have seen adopted by successful cultivators, is not to plant till the leaf of the white oak, *Quercus alba*, is expanded. When the young corn is up, do not be afraid of giving it too much tillage, but run the scarifier or horse hoe through the rows as often as you have a spare day, and particularly in the hot sun, which will do much to kill off the weeds. Give a handful of plaster to each hill about first of June.

POTATOES.—The bulk of the potatoes grown are planted this month. Be sure to have your soil in good condition. Whether you plant in hills or drills is immaterial, at least it is yet undecided which is most productive. We hope some of our readers will try an experiment of that, and let us know the results. We are not among those who have combated the prejudice that manure is injurious

to potatoes as inducing the rot. We should not be afraid to try even guano, and we believe gypsum and superphosphate are great helps to this crop. We always cut ours, and while fresh cut strew plaster and ashes on the cut surface, as well as apply it to them in the hill when planting.

BEANS—generally do best on light, warm soils. They get most of their plant food from the atmosphere, and require to be kept clean and well hood till they blossom, but after that should be left undisturbed.

TURNIPS AND MANGEL, &C.—In another column will be found a good article on their culture. We may remark that parsnips have been found to be an exceedingly sure and profitable crop for feeding to milch cows in winter, and can be grown precisely as carrots, only can be sown earlier, say by 1st of May. They have the advantage of being unhurt by frost, if left where they grow all winter, and can be taken up in early spring just at the time when most want to make rich milk and good butter.

STOCK—Must not be allowed to go to grass too early. A farmer we knew who was a very successful stock raiser, never allowed his cows or sheep to get into the meadows in spring till there was a good top of grass, and his horses were kept in stables till the spring work was finished. Of course he grew roots for them in spring, and when they are used, the change from dry fodder to grass causes no inconvenience to the stock.

SHEEP WASHING—under the present operations of wool buyers is an exploded humbug. The fact is just now, that the man who can sell the most dirt with his wool, makes the most money, for it seems to be an accepted rule of trade among wool buyers to deduct one-third for dirt from all fleeces, whatever may be their condition.

WEEDS.—Do not allow them to get a foothold on the farm, if you can help it, especially the Canada thistle, pigeon weed, and daisy. Cut every one you see before it blossoms, as if you allow one to go to seed, it becomes the parent of thousands more.

BEES.—We trust no bee-keeper who reads THE FARMER, has failed, as recommended in the April number, to see that each hive has been thoroughly

renovated, repaired if needed, and placed on suitable stands for the season. After bees have been established in their hives in the spring, it is a great loss to change their location, unless they are moved a distance of a mile or more. The offal in a common box hive often becomes so great that it is impossible for the bees to remove it, and makes a fine harbor for the moth, and they will in a very short time become possessed of this sweet and sacred castle. Neglect your bees, and they will neglect you. There being but little swarming in this month, there is but little attention required. If your bees cluster upon the outside of their hives, raise it upon blocks half an inch from the bottom. This will admit cold air, which will cause the bees to return to their labor. This is quite important. Those using the Graves hive drop the auxiliary bottom by means of a button; thus the hive is thoroughly ventilated, no bees will collect outside, no robbers admitted, the offal and worms fall through the screen bottom, keeping the hive healthy and free from the moth or worm.

GARDEN.—Be sure and have a good supply of wholesome vegetables and fruit in your garden, and do not be satisfied to live on salt pork and beans only, but stir up your dormant love of the beautiful and take a pride in seeing your farm well tilled, your garden well kept, your fences good, your stock thrifty, your children educated, and your home happy.

OUR FLORIDA LETTER—No. 5.

WRITTEN FOR THE AMERICAN FARMER, BY J. D. MITCHELL,
PORT ORANGE, FLORIDA.

MESSRS. EDS.—THE AMERICAN FARMER makes it monthly appearance with commendable regularity, and is a very welcome guest at all times, though its instructions about farming are given for a somewhat different latitude from this. It is in this respect like all the almanacs. They are made upon the supposition that everybody lives in the civilized portion of Uncle Sam's domain, or if he don't, he don't know enough to want an almanac, or to read it if he gets one. To read in one's almanac, which is supposed to be especially a farmer's "companion and guide," against the date of May 15th, "Now is the time to plant corn"—when one's corn is ready to eat—is amusing, if not instructive. So when one plants *something* from the 1st of Jan. until the 31st of December, he must have some better guide than an almanac, even for the time of the sun's rising and setting. Evidently the almanacs are not intended for use in this part of Dixie. The "spring work" of this latitude commences in September, Irish potatoes, peas, beets, cabbages, &c., are planted, also vines laid for the early crop of sweet potatoes,

called "stand overs." The potatoes grow to the size of one's fingers before frost kills the vines, as it usually does, and then are ready to continue their growth when the vines sprout again in February. I commenced corn planting the 5th of January, and have planted from time to time ever since. My ground was covered with last year's crop of native squash vines, upon which were blossoms and squashes in every stage of growth. These have continued to ripen until I was obliged to pull up the vines to make room for the new crop. Some vines planted in October, but not getting large enough to bear, have lain nearly dormant through the cool weather, but are now bearing profusely, sunflowers, beans, melons, Hubbard squashes, &c., have been planted as was convenient since 1st of February, and are in various stages. Melons and squashes ready to blossom, beans in pod, sunflowers two feet high, first planted corn as high as my shoulders, say five feet full.

I received a package of seeds from your enterprising and most reliable townsman, James Vick, all of which I find adapted to our climate, and all of the best quality. I have bought seeds of a great variety of seedsmen in every part of the country, and for a good many years, but for the past few years have settled down upon Vick, both for flower and garden seeds, as furnishing the most trustworthy. If there is any extra charge for this notice, please send me your bill.

As I wrote you in my last letter, we have begun cane planting, with the intention of improving the advantages of this most favored locality in the production of sugar. The business was once very flourishing here, but the Seminole troubles and the rebellion broke it up, so that there was no seed cane to be bought a year ago. Last year there were about 25,000 canes raised, which were all used for seed this year, and this with the ratoons, or old roots, will give at least 250,000 canes this year. If the settlers from Georgia who propose coming next fall to open sugar plantations, should come, it will all be wanted for seed and much more. Nearly every man, black and white, has more or less planted this year, and as several crops are raised from the same roots, a man can usually increase his area sufficiently fast by planting the tops, which are not good for grinding. From the relics and ruins of mills and machinery, and the traditions of the old settlers, I conclude that it will be some time before we shall reach the production of former days, or before our plantations will approach theirs in size, but our system of labor will be more economical. The quality of sugar made by the small planters is very fine—equal to B refined in flavor, and of a bright golden color. The sirup is not pleasant—too sharp.

The New York and Boston press seems to have been pretty well represented in our State during the past winter. The correspondence from here has as a whole, been very favorable, as far as I have noticed. "Solon" seems to have found very little to find fault with except our politicians, and they are a nuisance anywhere. The style of living, and the houses and means of travel, are a source of amusement to strangers when not annoying, but if they do not like them, let them come and help us make them better. No one finds anything amiss with our climate, and but one writer has discovered that we have no fertile soil. I wish he had the contract of keeping my cane field free from weeds. If he didn't get astonished before the summer was over at the product of poor soil, I should be mistaken. When the weeds are kept down, crops grow beyond conception. The soil *may* have something to do with it, or it may be entirely owing to the climate—but as we get the crops, we are quite indifferent as to which gets the credit.

A good deal is said as to the possibility of raising vegetables in winter for northern markets, and some experiments have been made, but as the most of these newspaper correspondents confine their observations upon Florida to that portion of it that is furnished with steamboats and railroads, and as that portion is unfortunately subject to spring frosts, and cannot be relied upon with any certainty, these men assume the negative with as much confidence as if they had actually seen Florida instead of St. Johns River. It was the intention of Solon Robinson to have taken a trip across to the coast, visiting Indian River, Mosquito Lagoon, and Halifax River, but I presume he did not do so, as I have seen nothing of him. Had he made this trip, he would have found where vegetables and early fruit could be raised and shipped north just as soon in spring as northern weather would permit. He could have seen roasting ears upon Indian River, tomatoes, squashes, onions, murphies, and cabbages, anywhere along here for 200 miles—all winter, and I could have shown him ripe strawberries in February, from plants set in January. It is to this coast region, bordering the 200 miles of inland navigation parallel with the ocean beach, that northern markets must look for their supply of cheap early fruits and vegetables. At present, the Mosquito Inlet, 200 miles south of Savannah, is our only outlet, but the chain of inland navigation can be extended to Savannah by a very few miles of canal to connect the series of lagoons, creeks, and rivers that lie just inside the coast line the entire distance. A little help to Judge Stickney's scheme, for which he has a charter, will easily accomplish this, and northern cities be put in cheap communication within five days, with a semi-tropical region

producing cocoa nuts, pine apples, oranges, limes, lemons, bananas, figs, grapes, strawberries, &c., &c., beside being the only accessible section of the country which is adapted to the cultivation of very early vegetables and small or exotic fruits without the use of glass.—April 1.

MAKING SOIL.

WE make soil when we ditch it. Before, it was wet and unreclaimed, fit only for water grasses, and in many cases not even these. Now, it is land. You look upon it, and you think it almost a miracle; and indeed, a miracle it is in farming, such as we want to see more of. This is the farmer's praise, that he has reclaimed useless soil. It is better than to make new soil, as it is done in sandy districts accessible to good markets. It relieves your land of a cesspool, where it is swampy, and removes a danger to cattle. An eye-sore is also removed, and you can now go about your farm. It is dry—it is land—it is healthy. It will last; but this only when you make your ditch well, if covered; if open, you need not keep it clear—but cover, that is the beauty and the benefit of the thing. If all our land was underlaid with numerous ditches, laid deep, what a world it would be!—what an increase of the arable quantity of land!—and what a wonderful increase of its productiveness!—*Cor. of Rural World.*

FOUNDER IN HORSES.—"H." in *The Rural World*, says a foundered horse may be cured by throwing a tablespoonful of pulverized alum well back in the mouth of the horse as soon as the founder is discovered. The animal should be kept from water a day or thereabouts. This was tried on several occasions, and never without success.

THE Tetofsky is a new apple from Russia; sour, of fine quality, hardy; grows nearer the north pole than any other, and blossoms and ripens within sixty days.

THE institution of a farmers' club in each town now destitute of one would, as a general thing, prove a good investment.

BRAN, saturated with tepid water, and flavored with salt, fed to cows, three times a day, it is said, will augment the flow of milk twenty-five per cent.

CROP prospects in Ohio and the West of wheat is much better than was expected.

A farmers' club in Montgomery county, Pa., has voted by a large majority, in favor of drill-planting of corn.

BEETS AND TURNIPS.

[WRITTEN FOR THE AMERICAN FARMER, BY "MAC."]

It is strange that among American farmers so little is known about the *modus operandi* of how to grow root crops, as we can see by the constant inquiries in the agricultural journals, "Will some one tell us how to grow turnips," &c., and "How much seed is required per acre?" Here in Canada, where turnips, mangels, or carrots, are grown on almost every farm, we have no trouble in the matter. It seems to be an accepted opinion among our American cousins that their climate is unsuited to the growth of root crops; but we are sure that is a mistake that has been originated and spread more from a disinclination to go through the necessary amount of trouble and hard work required to ensure success in growing root crops. Their climate is the same as ours, yet we generally succeed in raising crops of Swede turnips, mangels, beets, carrots, &c., that can be counted by the thousand bushels per acre. Last year was an exception to the general rule, and the root crops were a comparative failure, owing to the long continued drouth in the autumn.

The root crops make their largest growth during the fall months of September and October, and with a fair amount of rain in those months, and good cultivation during the early period of their growth to keep them free from weeds until the fall rains set in, we expect to realize good crops of roots.

The land in all cases requires to be in good condition, and made as mellow on the surface as possible before seed time. Manure is usually applied in the drills which are made with a plow 2 1-2 feet apart, though sometimes a little closer if the land is very rich. Having made your drills by opening furrows at the distance required, fill them with barn-yard manure, and cover by turning back two furrows to each drill, leaving a slight ridge, on which the seed is sown by hand or a machine, and afterwards rolled with a light roller. If the manure is distributed broadcast, or it is desired to use portable manure, such as guano, superphosphate, &c., the seed may be sown on the level surface, with a turnip drill, taking care to make the lines of drills perfectly straight and parallel, in order to facilitate the after culture with the horse-hoe or scarifier, and the guano or superphosphate may be drilled in with the seed or sown on the drills immediately afterwards. Two hundred pounds per acre of guano or superphosphate is enough. Beets, mangels, or carrots require to be sown early—say by the middle of May, as the seed takes some time to germinate, and as soon as the young plants are visible in the rows, they must be hand-hoed to give them a chance to get ahead of the weeds. Beets or mangels will require four lbs. of seed to an acre, which

may be dropped at two inches apart; carrots half a pound, Swede or white turnips 1 3-4 lbs.; the last should be sown pretty thickly, as the turnip fly often takes a large proportion before the plants get into the rough leaf. We have succeeded in saving them from the fly by mixing radish seed with the turnip seed at the time of sowing, at the rate of half a pound of radish to the acre. The fly prefers the radish, and will eat every one before touching the turnips. Swede turnips are generally sown the 1st to the 10th of July, white turnips from the 10th of July to 1st of August. A good crop of Swedes, well filled in the drills will under favorable circumstances give 1,200 bushels per acre. The after culture consists of keeping the ground clean and free from weeds by occasionally hoeing till the middle of September. The plants must be thinned out at the first hoeing to the width of a hoe blade apart, and at the second hoeing to about nine inches apart in the rows. Do not be afraid of hard work in warm weather, and you will succeed in raising good roots of any kind.

CURE FOR HORSE DISTEMPER.—When a horse is first taken with the distemper, almost the first symptoms of the disease which will be noticed, are that the animal refuses to drink water when offered, appears languid and dull, and eats little. After two or three days the horse begins to cough and swell under the throat. To cure this disease, is to take away most of the feed, especially hay. Dissolve a small quantity of indigo in a pail of water, and make the horse drink it. Let him have no other water but that which has the indigo dissolved in it. This is said to be a sure cure.—*M. D. D., Spencer, O.*

TREE PLANTING IN CALIFORNIA.—A bill is before the California legislature providing that persons who shall plant highways with trees, and sustain the growth of the same for five years, shall have a reduction of their tax at the rate of \$1 annually for every tree thus planted.

THE more perfectly the butter and milk are worked from butter, the smaller the quantity of salt necessary to preserve it. Well worked, the ratio of salt to butter should be as 1 to 24.

LOCUST seed designed for planting should be immersed in water three or four days, then planted in drills eighteen inches apart, and four asunder in the rows. At a year old transplant.

OVER 200 acres of land are devoted to the production of horseradish in the vicinity of New York. The small rootlets are removed for planting. The crop is highly remunerative.

OUR EASTERN LETTER---No. 9.

WRITTEN FOR THE AMERICAN FARMER, BY G. E. BRACKETT,
BELFAST, MAINE.

EDS. AM. FARMER:—I will occupy a little spare time on this squally 6th day of April, in posting your readers upon matters and things in this section of "down east," as reflected from an agricultural stand-point. There will not, of course, be much to write of that is peculiarly interesting as transpiring, for the farmer's season is only just about to begin. After one of the most severe winters on record we are again blessed with warmth and sunshine, and I hope that ere this comes to me in type, the spring and the seed time will have come in earnest. March gave us many warm days, but April weather in this latitude is always fickle and unreliable—to day fine, to-morrow squally and cold. The snow is nearly all gone from the fields and open land, but the heavy drifts yet linger by the roadsides and in the woods. The roads are very muddy, and the traveling bad and disagreeable.

Considerable discussion is going on in our State in regard to the question of raising our own bread-stuffs, or in other words, the growing of wheat as in former years. During the past ten years but little wheat has been grown here. Previous to that time Maine produced quite a large amount of wheat of the best quality, and the soil seemed to be well adapted to its cultivation. The principal reason of the falling off in its raising, was because of the depredations of the midge which destroyed whole fields. During the past two or three years the midge has caused no trouble in the few fields grown, and many think they will not injure it for some time. For the purpose of encouraging wheat raising, a law was passed last winter authorizing the county agricultural societies to award one-fourth the amount of money they receive from the State, as premiums for the best crops of wheat. This amounts to about \$75 for each society, which will prove quite a stimulus to the farmers, and we shall know by next fall whether wheat can be profitably grown in Maine again.

Markets for farm produce are generally very good. Hay, pressed, brings in our market, from \$14 to \$16 a ton; loose, \$11 to \$13. There is no scarcity of hay in this State this spring, nearly every farmer having enough and to spare in his barns, hence stock is generally coming out well. Quite an amount will be summered over. Potatoes are bringing a good price. For the past month they have averaged \$1.15 per bushel in our streets, and \$1.35 in Boston. The price during the winter averaged about \$1.00. Vessels are being loaded and sail daily from our wharves. They are almost

wholly of the Orono variety. Some colored sorts sell in market at 75 and 85 cts.

Stock is not in much demand. Good beef sells readily at \$10 to \$14 per hundred. Working oxen girting from 6 feet 6 inches to 7 feet and over, can be purchased at from \$200 to \$250, according to quality. Milch cows are not in demand. Veal is scarce and high, as farmers are keeping more of their early calves than formerly. They are beginning to learn that one early calf is worth more to raise than two late ones. Prices of young stock nominal. Spring pigs, four weeks old, \$4 to \$5.

General markets are as follows at this writing:—Apples, green, \$1.50 bushel; dried, 14 cts.; butter, 35 to 40 cts.; eggs, 20 cts. a dozen; oats, \$1; wheat, spring for seed, \$4.50 a bushel; maple sugar, 20 cents a pound. The season for making maple sugar has been very good, and considerable quantities of sugar and sirup now come into market.

The indications are good for an early spring. Our farmers do not find their soil in readiness to work usually till the first of May, or later, though there is much preparatory labor that can be done before that time. There will be, at least, the average amount of seed put into the ground in this State the coming season, and hoping that as we sow, so shall we reap, we shall work with a will, relying upon the injunction that "harvest shall not fail."

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

ENGLISH FARMING AND CHEESE MAKING.

X. A. Willard, of Herkimer County, has done the farmers of the United States some service in his details of English farming and cheese making, as learned by him during his late tour through the best agricultural counties in England. Methinks no farmer can read his account of the management on the Harding farm without especial wonder that a farmer can pay \$2,500 yearly rent, and \$850 tithes and taxes, for a farm of 300 acres, and clear a net yearly profit of \$3,000. Yet so far from impoverishing the soil by growing such heavy crops, the tenant has continually fertilized it by the aid of bone dust and superphosphate, and the organic manure from his cattle stalls and his hog pens. His cattle were fed on oil cake, barley meal, &c., and his hundred pigs on whey and barley meal. But it must be recollected that a part of the profits must go to pay the interest on the large capital used to pay for superphosphate, oil cake, store sheep and cattle, labor, &c. It is not so much the extra price the English farmer gets for his farm products, but the extra quantity he raises and sells as compared with the American farmer's sales of his meager crops.

Put an American farmer on a farm like Harding's, without capital, and he would soon run emptyings; the soil would deteriorate, until rent, taxes, and labor would eat him up. The American farmer, if he reads this report, cannot fail to be impressed with the necessity of employing more capital in his farming, not only to make his farming profitable, but to save his soil from impending sterility. How often do we see a farmer, who instead of employing his surplus earnings to recuperate his farm and increase his crops, *lends his money, or invests it in bonds*, while his broad acres become but little more productive than a desert waste!

Mr. Willard's sympathy for the poor English farm laborers, male and female, oppressed as they are by the high prices of articles of living and extreme low wages, does him credit; and the example of the great Rothamsted farmer, J. B. Lawes, in lifting up his farm laborers from their depressed condition physically and intellectually, shows up in bright relief, the philanthropy of the man who has done more for improved agriculture than any other farmer in England. Mr. Willard says that "Messrs. Lawes and Gilbert have inaugurated a movement which on that estate has tended largely to the comfort and moral elevation of the peasantry. A commodious public hall has been erected for the use of their laborers. It is furnished with chairs, tables, and papers; the laborers and their families meet here every week; some one reads to them, and they talk and enjoy their cheap ale in moderation." Let every one who would be a progressive farmer, "read, mark, learn, and inwardly digest" X. A. Willard's address before the State Agricultural Society, as published in the 1866 Transactions.

THE MAGIC EFFECT OF BONE SUPERPHOSPHATE.

A letter from Cayuga County says:—"Our farmers are now using the superphosphate of lime with great success; it is made at Coxsackie, and sold by S. Mosier on Poplar Ridge. Some of our old penurious farmers now yield to the evidence of their own eyes and begin to use it. John Hussey drilled in a field of wheat last fall, applying this substance to every *bout* but one, and this neglected *bout* could be detected from the road in riding by the field during the fall months."

This superphosphate was probably made from crushed raw bones, which contain about three per cent of nitrogen, and about the same amount of phosphoric acid as is contained in the best Peruvian guano. Calcined (burned) bones contain no organic matter, hence the superior value of the raw bone superphosphate. The flour of bone itself would be as good as the superphosphate, if it was as immediately soluble. The application of sulphuric acid and water is necessary to decompose and make it directly soluble food for the roots of plants.

THE VALUE OF SWAMP MUCK.

It was a question before the New York Farmer's Club the other day, whether muck was worth enough as manure, to pay for hauling it three miles. All depends on its quality. If it is nearly all vegetable remains, leaf mould, &c., it is rich in nitrogen, potash, and phosphoric acid, and if thrown up and dried, a large bulk may be hauled to the load at a great profit. But if it is muck from a swamp in a sandy region, it may contain so much sand as to be worth very little more as manure than the sandy peat bog from the ferns of the great south bay of Long Island.

PERUVIAN GUANO AND SOLUBLE MANURES.

David Dickson, of Hancock County, Ga., tells us in *The Southern Cultivator*, that he used twelve thousand dollars worth of Peruvian guano, and superphosphate of lime on his pine-bearing, sandy plantation last year. This very soluble manure he says, returned him the principal with 100 per cent profit in his cotton crop. Soluble bones, pure Peruvian guano, salt and plaster, are his favorite manures for his sandy soil; the more soluble and less lasting the manure the larger the crop. Be also ever vigilant, he says, "in making and saving animal and vegetable manures on the farm, pine straw, swamp muck included. Manipulate your sandy land with clay, and your clay spots with vegetable mold, plow deep, rotate your crops, buy lots of soluble manure, and save twice as much on the farm as if you bought none. Put the cotton seed back and the straw with it for manure, corn, oats, and shucks, with the straw used to save the manure and bed the stock; also what the crops got from the atmosphere, I would like to have my land exhausted that way." Mr. Dixon is acknowledged to be the best and most successful farmer in middle Georgia; he has made himself rich in growing large crops on a thin soil.

BASSWOOD FOR BEES.—An intelligent and successful bee-raiser of our acquaintance, says that the flowers of the basswood tree form the most valuable feed for honey-making of anything yet known. We have noticed them very thickly scattered over the trees when in blossom, but were not aware it possessed the value attributed to it by our friends. What facts have been elicited on this point by other bee masters?—*Maine Farmer*.

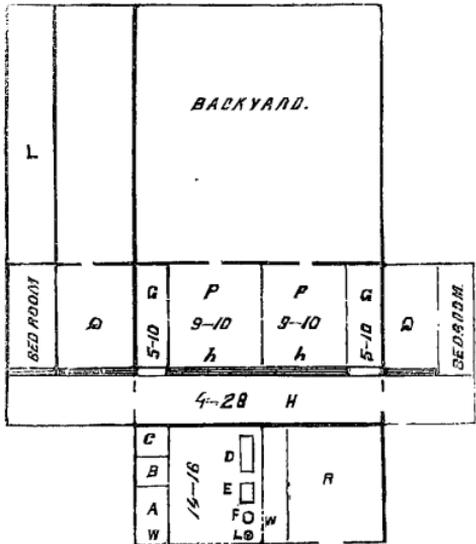
WHERE IS THE SCHOOLMASTER?—The Manchester (N. H.) *Daily Union* vouches for the following warning note, which it says was copied literally from one posted upon a tree by the road side in North Weare:

"Awl percons are Forbid To pick buries or Plumcs of on this plase.

"fp. s. Nor blubres."

CHEAP PLAN FOR A HOG PEN.

For a cheap pen not less than 14 by 16, suitable for a small farm, the accompanying plan and description will be of interest to those of your readers who desire to build a hog pen that will be serviceable. The front part should be 1 1-2 stories at least, with wing, shed or hovel back to be 14 by 28. *A*—storage for roots, &c. *B C*—Meal and provender. *L*—Water. *F*—Steaming apparatus. *E*—Steam box or tank. *D*—Cooler or mash tub, and also scalding tub. *H*—Alley. *P P*—Pens. *G G*—Bed rooms. *H H*—Troughs. *W W*—Windows. For a larger plan with little extr expense, additions, or wings may be added, *Q Q*—and if more room is needed, or if a little more expense can be afforded for looks and convenience, I would first build the main part two stories over the whole, including pens, *P P*, &c. The space *R*, can be used for a part of the hog pen or work shop tool house, or other purposes, as may be thought best. Then with the additions, *Q Q*, a pen amply sufficient for 30 to 50 hogs, according to size, &c., may be had, or if it is desired to extend still further for a larger number of hogs, add on a long shed from one of the wings, *Q Q*, running rearward, and fronting the back yard, and wide enough for an alley and tier of pens. The manure can be thrown into the back yard convenient for composting. The back yard should be accessible for a team to haul in muck, leaves, compost, &c., and also to haul out the manure so composted. The compost heap ought to be covered, and no water allowed to flood and waste it away. The advantages of this plan over others will be readily seen: All the appliances, fixtures, and arrangements are such as to be able to save a large amount of travel in preparing feed, feeding, composting, &c. It will also readily be seen by glancing at the plan at troughs *h h*, pens *P P*, and feed box *D*, (which is also scalding vat,) that a person may stand at his feed box, and by taking one or two steps, can feed direct without carrying. Now with this plan, the pen can be kept neat and clean in front, and in the yards about, while the common plan of having the aisle in the center and pens on each side, makes the necessity of casting out the manure at each side for the whole length, thus spoiling the outside appearance in front, and yards around, besides wasting the manure, making it a necessity of bringing the hogs upon both sides for getting in and out, thus spoiling the back yard, (principal as explained,) together with its advantages of composting, letting out hogs for exercise, egress and ingress of teams without trespassing on front yards as shown in all former plans. Alteration in size or arrangement can easily be made to suit all classes.—*D. R. P.*



BEES.

WRITTEN FOR THE AMERICAN FARMER, BY JASPER HAZEN.

EDS. AM. FARMER:—Probably your correspondent who signs himself "Apiarian," and inquires concerning the Eureka bee hive, may with others, be gratified with a description of it. I send you a few particulars.

Size.—The Eureka hive is 23 inches high, and 23 inches wide. Its depth from front to rear is 14 inches. This is inside measurement. This gives a box 23 inches high, 23 inches long, and 14 inches wide, of the capacity of 7,400 cubic inches. Two boards, 23 inches long, form the front, and two the rear of the hive. Each two are fastened firmly together by nailing a board to each, 10 1-8 inches long and 16 inches wide. These are nailed one edge even with the bottom end, and equi-distant from the outer edges of the 23 inch boards. They form the front and rear ends of the central apartment for the swarm. The sides of the central apartment are composed of two moveable partitions, half-inch boards 16 1-2 inches long, and 1 inches wide, confining the bees to the center space, 13 by 10 1-8 inches, with a height of 16 inches. This gives for the home of the bees, 2,171 cubic inches. A board is placed upon the top of the central apartment, thus enclosing them for winter. It will be seen that by removing the partitions at any time we come directly to the sheets of comb their whole height and width, and can remove them laterally from both sides. I use moveable bars and side guides, without the cross-bar at the bottom. I think it the better way. But bars may be nailed to the

upper edges of the 10 1-8 inch boards, or bars and side guides may be placed upon them or comb frames, and laterally be moved from the sides, or lifted from the center directly up, as the operator pleases. It will be seen that this gives a chamber upon each side of the central apartment for six surplus honey boxes six inches long, and seven inches wide, 5 1-2 inches high, reaching just to the top of the central apartment, leaving a chamber at the top of the central apartment and side boxes for six boxes, 7 1-2 inches long, and 7 inches wide, 18 surplus honey boxes of the aggregate capacity of 125 pounds. They are so arranged that the bees have to go but six inches from the central apartment to reach the furthest end of the boxes.

Now, I do not say that the Graves hive is not much better than the Eureka, but let every man judge for himself. I think there are numerous doubtful questions relating to the most successful bee-keeping and the most profitable hives that must be settled by careful experiment, and we should allow neither our interest nor our partialities to give a wrong or hasty decision.

RECREATION AND AMUSEMENT.

WRITTEN FOR THE AMERICAN FARMER, BY "M. S. B.," AURORA, N. Y.

THE recreations and amusements of farmers and their families, seems to imply *home* amusement around the social hearth described by Whittier in his "Snow Bound." In these days of railroads and telegraphs, it is the useful cooking stove, or the black bureau in the parlor. The family all there—no vacant chair, if vacant, trying, however dear, to dry the tear which war has made. Perfectly beautiful and laudable are those home amusements where father, mother, all, join in the circle, and we would add necessary, in those long winter evenings, far from the lecture room, and debarred by weather and roads from other modes of recreation, scorning the bar room or shop, where flock the idle and busy-tongued, they become indispensable. Then what shall they be? Reading aloud in turn, with pause for conversation and comment, is very instructive. Questions on the Bible and its historical events, has led to searching the Scriptures, and has ended in happy results. I know it will be asked, where is the chess board? Well, those who like that amusement can indulge their taste, but it is unsocial, besides taxing the brain too much ere we crave the quieting influence of sleep. Do you want a good romp and laugh, ere the long winter nap? Well, then, for some of the old-fashioned games: take care of the kerosene lamp, remove the chairs, and now for "puss, puss, in the corner," "blind man's buff," "snap and catch em," and others perhaps more quiet. What, old folks and all? Most cer-

tainly! It would rob old age of half its shadows in the eyes of the young. A good hearty laugh from father and mother, then why not? Sleep will settle more sweetly and promptly around your pillow, when retired to rest. This we found by having quite a young girl with us whose want of a playmate we endeavored to supply. It was quite amusing to observe how much more elated she was in the frolic than if her playmate had been younger. And from wakeful nights we were rewarded with sweet and refreshing sleep. Who would deem such amusements beneath them, that brought such a priceless boon?

All innocent amusements and recreations that tend to keep alive the faculties and sympathies, and tend to health and invigoration, and warm the heart with gratitude to the Giver, from whom every good and perfect gift is received and enjoyed, are proper and useful in our families.

DONT SLIGHT OLD BRINDLE.

WRITTEN FOR THE AMERICAN FARMER, BY A. H. PEBRING, IND.

A good cow I consider the most valuable animal belonging to the farm, as she may be said to be almost indispensable in every well regulated family. Just think, kind reader, what a deplorable state of affairs it would be were she blotted out of existence! Would there not be many a longing glance across the table, for the accustomed yellow roll of butter, a little of which would add so much to the flavor of our otherwise faultless bread? Would't your wife, (if you have one,) look with downcast eyes on the tea and coffee, as she passed it around without a drop of sweet cream in it! And as little Jake and Molly hand up their tin cups for their daily supply of sweet milk, would't it go pretty hard with you to fill them up with "Adam's ale," and tell them they would have to drink water after this? Most assuredly it would. But it is useless for me to try to enumerate the advantages that arise from keeping good cows. We are all aware that they are not a few. What I wish to urge upon farmers generally is, that they pay more attention to the selection and breeding of cows for dairy purposes, and less to fast horses. The former, when raised, are really a benefit—yes, a luxury to mankind, while the latter are in comparison, almost worthless. At our last Indiana State Fair, there was offered as a premium, \$1,000, for the *fastest trotting horse*, which brought out quite a number of animals noted for speed, and also fast young men and gamblers in abundance, while good old "Sukie," with her many fair daughters, was passed by almost without a notice, and looked, as the saying is, "like a poor man at a frolic," beside the race horses. Now, why is this? "Oh," say the managers of the fair, "We

offered the big premium to the fastest trotter, so that it would get up an excitement, draw a large crowd, and enable us to haul in the greenbacks in abundance." True enough, that was the very reason; but we contend that no agricultural societies, when rightly conducted, will cultivate a taste for horse racing and gambling, which are inseparable. Better by far give \$500 or \$1,000 to the farmer whose cow has given the greatest quantity of milk during a year, out of which was made the greatest weight of good butter and cheese, the facts being well authenticated. This would be stimulating farmers in the right direction, instead of inducing them to raise fast horses which are generally fit for nothing but for gamblers to bet on. Let the usefulness of a thing, always be decisive of the greatest merit. Next month, I propose to give you a few items respecting cows, as to the selection of good milkers, the best winter feed to produce the greatest return for the food expended, how to cure a cow from holding up her milk, &c., with such other items as I think of interest to every owner of a cow.

ITEMS FROM OHIO.

WRITTEN FOR THE AMERICAN FARMER, BY "J. O. W.," SUMMIT CO., O.

A few days ago, while reading a book of travels in Egypt, my eye met the following curious statement, in substance as follows:—"In the garden of a distinguished person of that country, the traveler saw a tree which was the product of the combination of three different kinds of seeds—the orange, citron, and lemon; and each particular fruit of the tree contained qualities of each sort of fruit. The mode of producing this tree is as follows. Three seeds, one of each kind, are taken, and the outside shell or coating of one seed is stripped entirely off, and placed in the middle of the other two seeds, that have each one of its side coatings taken off, and then the three seeds are closely bound together by fine grass, and deposited in the earth, from which in due time there springs forth a germ which subsequently develops into the tree, and fruit above described." Query: may it not be practicable to so combine other seeds, such as are indigenous to our own land, and develop fruit having qualities common to them all. It is doubtless known to some, and perhaps to many readers of THE FARMER, that apples have been produced which were both sweet and sour—part or parts of it sweet, and other parts sour. I have eaten of the apples, and now have in mind a tree producing such apples. How such fruit is produced I cannot positively say. It is said, however, to be by halving two buds, one from a sweet apple tree, and the other from a sour apple tree, and combining a sour and sweet part, and then subject them to the inoculating process.

Notes and Items.—Most of the month of March was unusually mild and pleasant for this latitude, though we had the two extremes of cold and heat the first part of the month. The 3d of March was the coldest day of the winter season—14° below zero; and March 15th the warmest, the thermometer being 69° above zero. I plowed corn stubble land the last day of March, which I do not recollect ever doing before. April 3d, I began to sow a field of spring wheat and oats. Since that (now April 7th,) we have had two considerable falls of snow, so that plowing and seeding appear to be done with for a time, and March and April have in some way changed places this year. The prospect of a good crop of wheat the coming harvest in this section is fine, though the breadth sown is rather limited.

Potatoes.—More acres of potatoes will probably be planted in this county this spring than ever before. Generally it is a paying crop in this section. I had nearly 200 bushels to the acre last year, which selling as I have, and can now, for from \$1.00 to \$1.20 per bushel, makes a pretty good thing in the farming line. Considerable attention is being given in some parts of the county towards introducing the best varieties of potatoes. Early Goodrich is having quite a run among farmers for an early potato, and the Garnet Chili, (known also as Cherry Blow) and the Peachblow, at present maintain the ascendancy for late varieties. The Harrison potato is beginning to enter its claim for public favor. I shall try some this coming season, and in due time will report results to the readers of THE FARMER. The common varieties of potatoes are worth \$1 per bushel, with the prospect of being higher about planting time, the rare varieties are from \$2 to \$3 per bushel, wheat from \$2.50 to \$3 per bushel, barley \$2.50 per bushel, oats 68 cents, shelled corn, \$1, butter 88 cts. per lb., and hay \$20 per ton.

We have just organized a farmer's club in our town (Tallmadge) which bids fair to become a fine institution. It is a great mutual benefit society for farmers to get together and tell each other's experience in their modes of management in the different departments of farming. In this way, what one knows all know, and each acquires a fluency in expressing himself, and will feel an increased interest and delight in his vocation. Such associations should be multiplied, for with proper attendance upon them they cannot fail to be highly beneficial to the members.

FOOT ROT OINTMENT.—Lard and Venice turpentine, 4 ounces of each; melt and add 1 ounce blue vitriol. Good also for cows or sheep.

CRACKED HOOF OINTMENT.—Tar and tallow, equal parts melted together.



DAVISON'S THORNLESS RASPBERRY.

THIS variety of the Black Cap family, is said by those who have cultivated it to be a decided acquisition, and all who have gathered fruit from the other varieties, and been pricked at every turn, will appreciate a *thornless* variety. It is claimed to be earlier than the Doolittle, quite as large, and the habit of the plant better.

Any good soil adapted to the production of corn or potatoes may be used, a position shielded from heavy winds would be preferable. A partial shade, as a young orchard, is no impediment. In the fall or early spring prepare the ground as for corn or potatoes, then proceed to strike furrows in the direction you wish the rows to run, seven feet apart,

three inches deep, leaving the bottom of the furrow broad and level. Cross mark with corn marker three and a half feet apart, and in planting place a plant at each crossing, carefully spreading the small fibers out in the furrow with the sprout or germ upward, then with the hoe carefully cover all the roots with fine soil two inches deep. After this with cultivator and hoe, see that neither grass nor weeds are allowed to grow. They will need no pruning the first summer. Let the whole growth trail on the ground, and during the latter half of August and through September attention should be directed to layering the tips for the purpose of producing a crop of plants. When the tips of the

trailing vines seem swollen, and become free from leaves, of a reddish color, and semi-transparent, they are ready for layering. The following spring, after the young plants are removed from the ground, cut off the ends of the previous season's growth to within one and a half to two feet of the root. There will now spring up large, upright canes, for the next season's fruiting; these, when one and a half to two feet high, in the latter half of June, should be cut or pinched off at the tips. This causes numerous side branches to start, and the main canes to grow more stocky, which prevents their being blown down by the wind, and also the necessity for staking and tying up to support the next crop of fruit. The following winter or early spring, these side branches are also to be cut off, at least one-third to one-half their length: and then such shallow cultivation as is sufficient to keep the weeds and grass subdued, is all that is needed till after the fruit is gathered, when all the old bushes may be cut away, and the ground thoroughly cultivated or plowed, not too deeply, turning the furrows toward the rows. And after this, in each year, the same course of treatment is advisable. No pinching nor cutting back the young canes after the first of July.

GRASSHOPPERS IN TEXAS.

A correspondent of *The Rural New Yorker* writes from Texas, under date of March 1st:

About the first of November last the grasshoppers made their appearance in this country in large numbers; they deposited their eggs, eat off the vegetation, and disappeared. Now, these eggs have hatched, and to-day the surface of the earth is covered with young grasshoppers from three to five days old. They are innumerable, but I may safely say there is all of one hundred to the square foot of surface. Our young corn is just coming up; all the common garden vegetables are young and tender, and in a few days not a vestige of them will remain; all will be devoured. We can plant again, but the second crop will share the same fate. I learn that the wheat crop is already destroyed by them. Last fall they eat the grass so close that the owners of large herds of cattle are killing them at the rate of from one to five hundred per day, to secure the hide before the animals starve to death, hence the extraordinary large shipments of hides from Texas during the winter. What are we to do? Can ingenuity devise ways and means to relieve us of this pest?

CHURNING.—In churning butter, if small granules of butter appear which do not "gather," throw in a lump of butter, and it will form a nucleus, and the butter will "come."

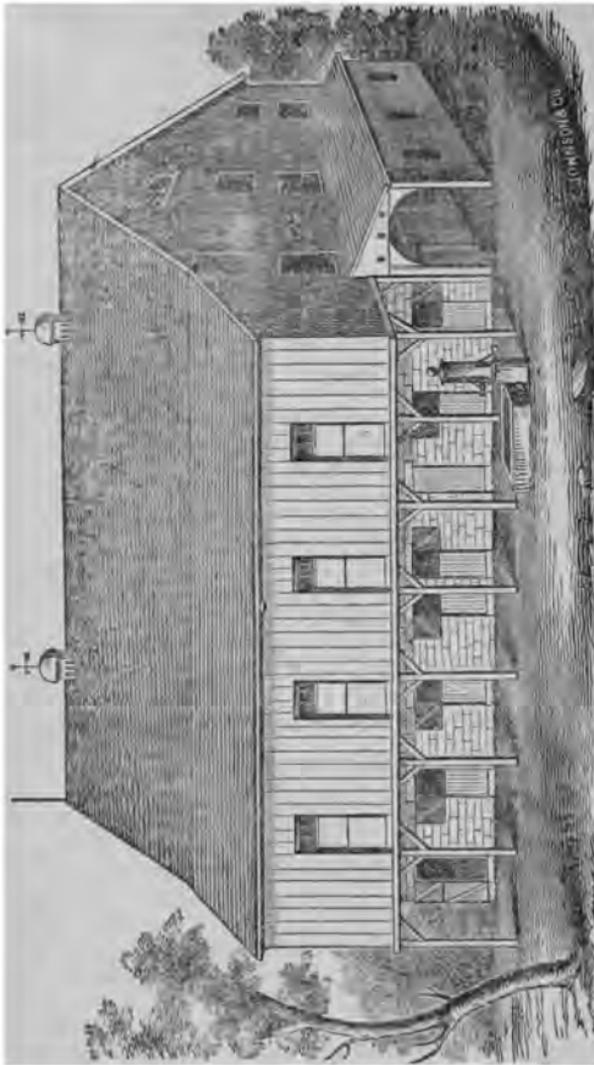
PROFESSOR GAMGEE.

OUR readers have probably noticed in the journals of the day the arrival in this country of Prof. John Gamgee, of London, a gentleman who has distinguished himself not only for the eminent position in his profession, (that of veterinary surgeon) which he has attained, being in advance of any man who speaks the English language, but also for his untiring efforts to prevent the spread of contagious diseases among animals.

The government was advised by him of the immense loss sustained by those diseases, and was forewarned that unless precautions were taken the rinderpest would be added to the list of destructive diseases in the British Isles. But, as in Massachusetts, when pleuro-pneumonia arrived in it, some of the knowing ones who were afraid that their private business might suffer, interfered. The consequence was, the loss of three hundred thousand head of cattle and upwards of twenty millions of dollars.

His visit to this country is in connection with a supply of animal food at comparatively small cost. It is well known that a large number of cattle in South America and Texas, are slaughtered, the hides and tallow being the only part of the animal from which any revenue is derived. By a process for which he has letters patent, meat is subjected to heat for several weeks, and remains perfectly sweet and nutritious. We ate last week a piece of mutton killed the first of November, which was subjected to eighty degrees of heat for ten weeks, and then transported across the Atlantic in the hold of a ship. It was perfectly sweet, juicy, and retained the flavor of mutton: in fact no one could have supposed it had been killed more than ten days.—*Mass. Ploverman.*

FOULS IN CATTLE.—At a recent meeting of the Herkimer County (N. Y.) Farmers' Club, a member, Mr. Whitman, said he had found out a certain and speedy cure for the pest to dairy herds, foot-rot. It is reputed to be very damaging to cows, causing a loss of flesh, and a partial and sometimes an entire cessation of the flow of milk. An ointment of lard and precipitate, in the proportion of one to four, mixed and applied to the sore, will prove effectual. He usually melts one-quarter of a pound of lard and lets it cool until it begins to thicken, and then adds an ounce of precipitate, and mixes thoroughly. Apply to the parts affected, and rub in well twice or three times, and a cure will be the result. Before making the application, clean the feet well with soap and soft water. Sometimes it is necessary to draw a rope between the hoofs—a hair one, if attainable, is the best.



BASEMENT, OR "BANK" BARN.

We give above an engraving of a style of barn that is quite popular in many sections of the country, and which possesses some undoubted advantages. It is best adapted to a situation where the land slopes enough to bring the main floor nearly level with the surface. In deciding on building a barn of this kind, the nearness and cheapness of stone for the basement will, of course, be considered.

A principal advantage of this style of barn is the large amount of room that is given for stables for all kinds of stock. These stables are very warm in winter, and if properly lighted and ventilated, are very desirable. As the hay, straw, and grain for feeding can be kept directly above the stables, feeding is done with but little labor. The basement also gives fine opportunities for cheaply constructing root cellars. The grain in the sheaf, hay, straw, &c., can all, or nearly all, be stored in bays, from the floor up, thus saving much labor in pitching.

The internal arrangement of such a barn can readily be varied to suit the tastes of the builder. The stables in the engraving, open into a large yard. It would be better to divide this into smaller yards for each class of stock.

LIME IN THE SOIL.

WRITTEN FOR THE AMERICAN FARMER BY "W. H. W."

ALL soils to be remuneratively productive should contain lime in some form; this has been found the result of universal experience wherever agriculture has been advanced to the state of an art. A soil which will not show, upon investigation, the presence of lime in some of its forms, is found in experience a barren one; while if to the same lime be added, it renders it susceptible of cultivation. We sometimes find a sandy soil, or a clay, as well as different soils, deficient in lime, to which, if it be

added in judicious quantities they become at once changed in character.

Sometimes a surface soil may be deficient in lime, while that lower down may possess it in sufficient quantities; this often arises from the tendency of lime to sink downwards in the soil. This will furnish one argument in favor of deep plowing and thorough mixing soils, for to have lime perform its proper offices, it should be thoroughly mixed with the surface soil. This presence of lime appears to be essential, for it is found in the ash of all parts of different plants and their seeds, whenever and wherever grown, and many plants only attain

complete health and luxuriance where they can the most readily absorb the lime into their growth.

It will, then, be seen, that if lime is an essential component of the soil for the support of all plants, and that those plants derive their lime from the soil, as they do, and all their mineral matters, that a soil is continually losing its lime and other mineral matters, where it is cropped year after year, and the crops removed; and that unless a return is made from time to time, or as frequently as a crop is removed, that the soil in time must become deficient in some or all of these minerals.

As the quantity of lime removed by any one crop of a particular kind is small, it follows that soils in which the presence of lime to the amount of one per cent is detected, will stand a much greater draft, and will need less frequent or abundant application, than one containing a less amount. Often by returning to the soil, once in four or five years, the value of a single year's growth, we supply a quantity which will enable the soil to retain its productive capacity for ages, especially where a good rotation and thorough working of the soil is practiced. And were it not that lime has peculiar functions aside from entering into the composition of plants, to constantly perform, there might never be a necessity of any larger application to insure continued fertility.

NOTES FROM CANADA.

OUR correspondent "Mac.," under date of April 9th, writes;

We have had some three weeks of very warm, open weather, and farming operations have become very general, many having sown their spring wheat, &c., but about the first of the month it turned very cold and stormy, and last night we had a regular snow storm, the ground is again frozen hard, and the weather looks more like January than April, and the fall wheat which came out of the snow covering of winter, is now showing signs of hard usage. The ladies, dear creatures, got badly fooled by the weather, for they have been investing extensively in spring fashions, and cannot get out to show them off. They have to stick to their furs and velvets for a time yet.

A SURE CURE FOR THE SCRATCHES.—This disease is caused by not cleansing the horse's legs after he has been used in the mud. Animals that are properly groomed, are never visited with this troublesome disease. To cure, first wash the affected parts thoroughly, and wipe dry. Then grease the raw parts thoroughly with petroleum oil. Two or three applications are usually sufficient.—*W. D. D., Spencer, O.*

HOPS---PREPARING THE SETS AND PLANTING THEM.

WRITTEN FOR THE AMERICAN FARMER, BY F. W. COLLINS.

As the frost is now entirely out of the ground the hop planter must be busy in his hop yard, preparing his sets and putting them out. The offshoots from the main root of the hill run like a vine underground, several feet from the hill. These runners should be cut off from the crown root, and if wanted for enlarging the yard, or starting a new one, should be taken out very carefully. They should be cut with a sharp knife, and raised with the hand, to avoid bruising them. The usual practice of plowing them out, crushes and splits the runners, so as to make the most of them worthless for replanting. These new roots when cut into pieces, from three to five inches long, with two pairs of eyes each, are called sets, and are ready for planting. Two sets in a hill are sufficient, if they both grow. I think that a dibble is very convenient to plant them with, putting in the sets endwise, with the buds looking upward. They should be put in deep enough to have the upper end of the set covered, as there is less danger of their being injured by drouth. Many have lost their labor and seed by throwing in their sets and lightly covering them with earth.

One eight-foot stake should be put one foot in the ground, at each hill, either when the sets are planted or soon after. Every tenth hill in every tenth row should be a male hill. At these hills a taller pole is placed two feet in the ground, about eighteen feet long, for the male vines to run up, and the wind will blow the pollen over the yard.

The hills of hops should never be nearer than eight feet apart each way. It is better to put the hills eight and a half feet apart, which makes six hundred hills to the acre. Where the land is rich, nine feet is near enough for the hills, making five hundred and thirty-seven to the acre. The English Cluster and Grape varieties are the best for our country. Many kinds that are favorites in England do not prove as good in our dry, warm climate.

Corn should never be planted among the hills, as it grows so high as to shade the vines. Low hoed crops, such as beans and potatoes, do no harm. Cabbage, tomatoes, or anything of the kind, can be grown among them the first year to advantage.

TO PREVENT RABBITS GNAWING FRUIT TREES.—After losing quite a number of apple and other fruit trees by rabbits, and trying almost every remedy to stop their depredations, I at last applied lard to the trees, greasing them as high as the rabbits could reach. Since then I have never lost a single tree. The lard or grease must be fresh; if salted, the rabbits will eat it.—*W. D. D., Spencer, O.*

SPIRIT OF THE AGRICULTURAL PRESS.**Dairying and Raising Calves.**

A correspondent of *The Cultivator and Country Gentleman*, writing under the above caption, manifests wonderful surprise at the profound ignorance of farmers in regard to raising calves on skimmed milk. He writes:

"Every calf can be raised without making one pound less of butter, and the calves be as good at a year old as any which have sucked their dams. Even where cheese is made it can be done, though, not quite as easily as when the butter only is produced. Having seen it done for forty years, and having done it myself, and being now raising some from three to nine weeks old, I can say with confidence that any man must be a little wanting in sound agricultural knowledge who does not understand this simple, and in many districts universal, way of breeding, weaning and rearing the best dairy stock in the world. The calves I am now weaning on milk, which stands thirty-six hours, and then has the cream taken off, are in as thriving and growing a state as any can be."

To which S. Edwards Todd, of the *New York Times*, replies:

"All this seems exceedingly plausible. But it is one thing to write about rearing calves on skimmed milk, which will be equal in every respect to other calves that have been fed with new and pure milk, and it is quite another thing to produce just as fine calves on buttermilk as those same animals would have been had they received the same milk before the cream was separated from it. With due respect for the integrity of 'G. G.,' we must confess that his emphatic assertions have the appearance of random and shrewd guessing. If farmers can rear as fine calves on skimmed milk as can be produced by the same milk, when taken pure by the young animals, then they deserve to be upbraided for their stupidity more sharply than 'G. G.' has done it. We do not believe the thing is practicable. We have never met with a person who has done it, and have never before heard of its being done, and we do not believe 'G. G.' or any one else ever has or ever will be able to rear as valuable calves on a given quantity of skimmed milk as they would have been if they had received the same milk pure from the cows. Separate the cream from the milk, and it lacks phosphatic material which is so eminently essential to the most perfect and symmetrical development of the animal frame. For this reason young animals that are reared on buttermilk pap, hay tea, or on skimmed milk, are apt to be 'pot-bellied,' as every intelligent farmer knows, because an essential part of their food has been withheld.

"It is admitted that excellent calves have been reared on skimmed milk. We have often done it. No doubt 'G. G.' has reared fine young animals on skimmed milk. But will he affirm that those calves were just as fine and valuable as if they had been fed with the same milk before it was skimmed? This is the fundamental point at issue. Beginners are interested in the result. If such a thing can be done, we will take a humble place at the feet of any one who will tell the world

how to raise just as good calves on skimmed milk as on pure milk. When a person affirms that it can be done, and that he has done it, the whole agricultural fraternity would read the details of the operation with growing interest. Let us know, whoever can tell, how such a thing can be accomplished."

Fattening Poultry.

The *London Field* states that poultry, properly fed, will acquire all the fatness needful for marketing purposes, in a fortnight or three weeks at most. Their diet should be Indian, oat, or barley meal, scalded in milk or water—the former is the best, as it will expedite the fattening process. They should be fed early in the morning, at noon, and also in the evening just before going to roost. A plentiful supply of pure fresh water—plenty of gravel, sliced cabbage or turnip tops. If the fowls are required to be very fat, some trimmings of fresh mutton suet may be chopped up and scalded with their other feed, or they may be boiled in milk alone and poured over the meal. This renders the flesh firmer than it otherwise would be. When fit to kill, feeding should be stopped for twelve hours or more, that the intestines may become comparatively empty.

Corn, Beans, and Pumpkins.

"B. B." in *The Maine Farmer*, gives the following as the result of his experience in planting corn, beans, and pumpkins together, and his mode of culture:

"In the spring of 1866, I prepared one acre of land for corn by spreading on forty-one horse loads of old manure, harrowing it in thoroughly. I then furrowed it lightly, and planted my corn in drills, each kernel four or five inches apart, with beans every four feet, and pumpkins every eight feet. The result was as follows: 70 bushels of good round ears, with five bushels of soft corn, 5 bushels of excellent beans, and 15 cartloads of pumpkins. This was on newly broken up land. Last spring I plowed my last year's potato ground, (three-fourths of an acre) and prepared one-half of it as before. The other half I drilled the manure in the furrow, and planted as before. The result was, on the first half of the piece, thirty bushels of good sound corn. On the other half, 35 bushels of larger corn, no pumpkins, and a few beans. I used one-half each of plaster and ashes. I consider ashes worth twice as much as plaster, to put in the hill with corn. I think five or six inches apart is near enough to put the kernels.

Grafting.

The Germantown Telegraph remarks on grafting as follows:—A sharp pen-knife and a good fine saw are indispensable. Splitting the stalk so that the bark shall not be bruised—and shaping the scion wedge-fashion both ways, preserving also the bark uninjured, and placing the rim of the wood of both stock and scion exactly together, so that the sap can intermingle—there is no danger of failure if properly waxed. We make a shoulder to the graft and think it adds to the certainty of success, though probably weakens it. We prefer also two eyes or buds to a graft, and would rather have only one than more than two. One year's

wood should always be used when it can be obtained, as it is more certain to take, and grows more vigorously. We wish to remind those preparing grafting wax, that we have found four parts of rosin, one part of beeswax, and one part beef tallow, to be the best proportions. Melt them together in a skillet, (which is the best,) or a tin cup, and mix well. It should remain in the vessel and be used as needed. Twenty or thirty scions can be waxed at one heating up. When much grafting is to be done, a little fire for heating the wax should be made on the spot, between two bricks or stones."

Let Well Enough Alone.

The following good advice we clip from *The Germantown Telegraph*:—"When you have a good strawberry or raspberry which suits your soil, don't throw it aside for any new sort with a high-sounding name and high-sounding praise; but stick to it. If the new sort turns out to be a real acquisition, you can grow it if you like quite time enough to enjoy any good qualities it may possess. We know of persons who are always changing their varieties of small fruits—always experimenting—and are nearly always without a good supply. In our experience of a series of years we have found the 'let-well-enough-alone' policy to be the best. When convinced that a new variety of this or that was an improvement, it was adopted and recommended, and our readers we think will vouch for us that we have not often been mistaken.

Steam Plows.

One of the most remarkable features of the annual show of the English Agricultural Society at Bury, last July, was the illustration given of the economical application of steam power to light land cultivation. By means of two engines, one at either end of the cultivated field, two tools are worked at once; and when the widest tools were used—Fowler drags a 13-tine cultivator which takes a width of four yards at once—the cultivation was accomplished at the rate of fifty acres in a day. It seems plain that on light land farms as well as clays, whenever the area has been properly laid out for steam cultivation, there need in future be no more horse power provided and kept throughout the year than will suffice for the harvesting and marketing of the crops; in fact, for all the work of carriage. With Fowler's or Howard's double engine, each with double drum, working two tools simultaneously, there is no reason why a square of twenty acres, or even more, of land which had been plowed by steam power before winter, should not be grubbed or cultivated, and receive a thorough harrowing all at once in a single day in spring, or why a thorough fallowing after winter's frost upon the autumn tillage of stiff clays should not be thus accomplished at a blow.—*Quarterly Journal of Agriculture, (England.)*

The Shovel Plow.

Mr. Joseph Watson writes to the *Clyde Times* that the shovel plow is an excellent implement for digging potatoes. He uses it for making the furrows to drop them in, for hilling them, and by attaching two horses,

for digging, and claims that it throws out the potatoes in as good shape as do the patent potato diggers.

Cheese and Butter.

After giving an estimate of the amount of cheese consumed in Europe and in this country, and also of the amount produced, X. A. Willard says:—"We must either get in the habit of eating more cheese in this country, or if we go on producing at the rate indicated by the above figures, both the home and foreign market will be glutted and cheese will not command 12-2 cents a pound. While the price of cheese has been declining, that of butter has been rising; hence if the factory system is continued and more largely developed, the lesson of these figures is rather to stand by the churn."

Lice on Poultry.

If infested with lice, damp the skin under the feathers with water, then sprinkle a little sulphur on the skin. Let the bird be covered with insects or parasites, they will all disappear in the course of twelve hours.

Remedy for Roup.

A correspondent of *The Germantown Telegraph* says: "My remedy for the disease is sweet or olive oil. Apply to the heads well all over, and half teaspoonful give inwardly; repeat every day until a cure is effected. I have tried it on my chickens, and found it better than many cures that I have seen published in the papers."

Poll Evil.

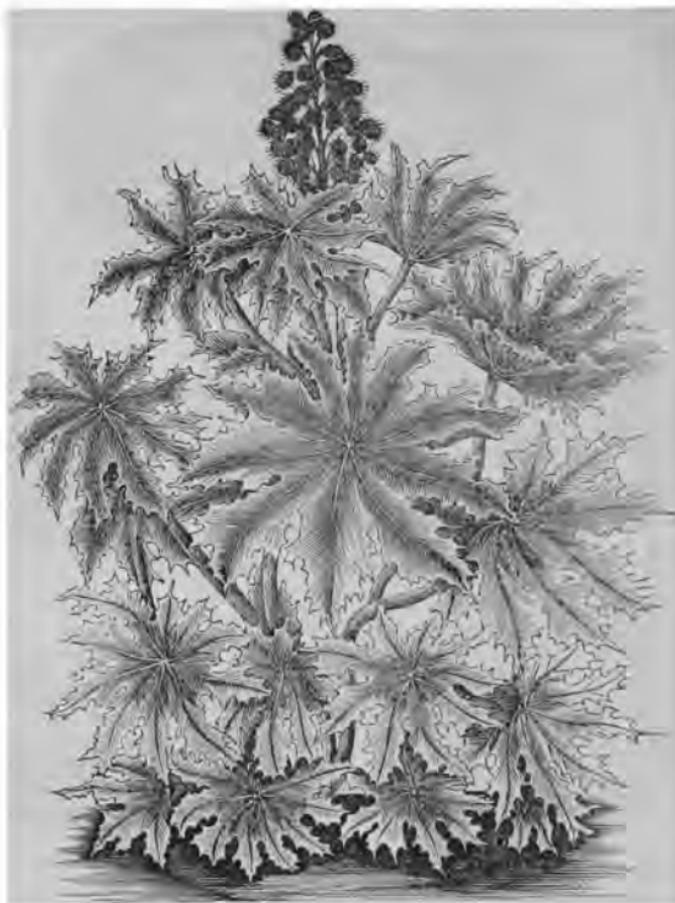
Some persons regard the poll evil as incurable. It is sometimes called *fistula*. No matter how long the sore has been running, it can be cured in a brief time, and at a cost not exceeding ten cents. One dime spent in muriatic acid will be sufficient to effect a radical and permanent cure of the most stubborn fistula. The sore should be first thoroughly cleansed by some absorbent fluid, and for this purpose pure water is perhaps as valuable as anything that can be used, and drop eight or ten drops of the acid in twice a day till it has the appearance of a fresh wound; then wash clean with soap suds made of Castile soap, and leave it to heal, which it will speedily do if the acid has been used long enough. Should it, however, heal slowly, apply the acid a second time, and in the manner above described, taking care to wash out the pipe thoroughly, and it will be found an infallible remedy in the most inveterate diseases of this sort; but it must be remembered that in order to do so, the acid must be applied till the corrupt or diseased flesh is all burned out.—*Cor. Germantown Tel.*

Weather and Crops.

The *Pittsburg Commercial* gives a very cheering report of the fruit and crop prospect in Pennsylvania. At a recent meeting of an agricultural society in that State, reports were given from different parts, and all agreeing that peach buds are yet uninjured; that wheat and clover were well protected during the winter, and show uncommon good signs of a bountiful harvest.

To Ensure Good Crops.

Subscribe for *THE FARMER*, and get your neighbors to do likewise.



RICINUS, (CASTOR OIL BEAN.)

PLANTS with very ornamental foliage and showy fruit, of stately growth, and quite a tropical appearance. With other ornamental-leaved plants, they make a most attractive bed on the lawn, and are also desirable when grown as single specimens. Plant the seed in the open ground, in a dry situation, and as early as safe in the spring. The same soil and treatment that will give good early corn is just suitable for the Ricinus. In the latter part of summer the splendid spikes, composed of the seed vessels, will be gorgeous. Some of the varieties have spikes of a beautiful metallic green, others of a fine, almost transparent pink and scarlet, which seem almost to illuminate the grounds until hard frosts.—*Vick's Floral Guide.*

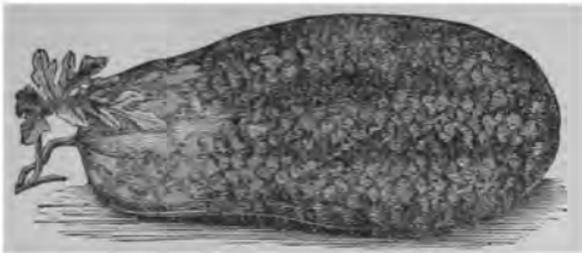
Horticultural.

THE VEGETABLE GARDEN.

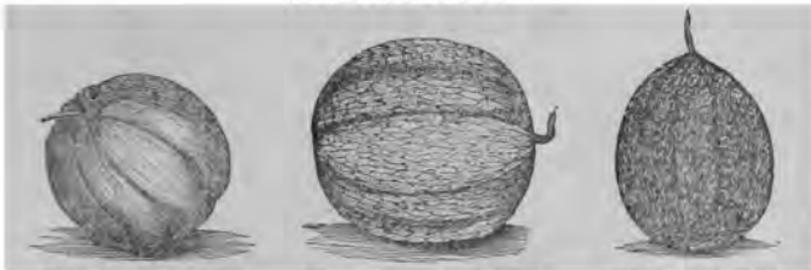
SUCH vegetables as were not planted in April, may now be attended to.

Musk Melon.—About the middle of May, plant seeds of the different varieties of musk melon. An excellent plan is to excavate holes not less than 3 feet in diameter, and 18 inches deep, and fill the holes with partly decomposed stable manure. If the soil which is dug from the holes is of poor quality, it should be taken

away, and some good compost should be placed on the manure to the depth of at least a foot; this will form a hill, and in the center of the hill the seeds should be planted. The hills should be six feet apart each way. When the plants commence to grow, they should be examined frequently, and if any bugs make their appearance, the plants should be sprinkled with ashes, soot, or the refuse of black pepper. This, if it does not exterminate the insects, will keep them in check, so that the plants will outgrow their ravages, the earth should be frequently hoed, and be lightly drawn around the stems of the plants; the points of



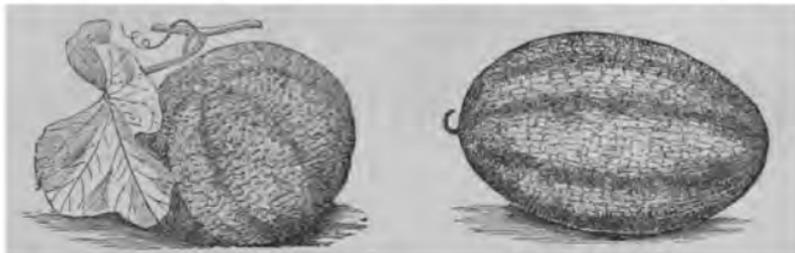
MOUNTAIN SWEET WATER MELON.



WHITE JAPAN MUSK MELON.

PROLIFIC NUTMEG MUSK MELON.

NUTMEG MUSK MELON.



GREEN CITRON MUSK MELON.

NETTED MUSK MELON.

the branches as they push forward should be pinched off, so that they may throw out laterals, and bear fruit more abundantly. The earliest varieties are the White Japan and Jenny Lind, and for a later crop the Nutmeg Pine Apple, Skillman's Netted, and Large Yellow Cantelope.

Water Melon.—The culture of the water melon is nearly the same as that of the musk melon, except that

it requires a more sandy soil, and should be planted eight feet apart instead of six.

Egg Plant.—If seeds of the egg plant have not already been sown, they should be attended to at once, as much depends upon the strength of the plants when transplanted from the hot bed. To raise the egg plant in perfection, the seeds should be planted in a hot-bed as soon as possible after the cold weather has left. When



LONG PURPLE.

PURPLE EGG PLANT.

IMPROVED NEW YORK PURPLE.

the plants have attained the height of a couple of inches, they should be transplanted into another bed, and allowed more room. As soon as the weather becomes perfectly settled, say the latter end of May, in latitude 40°, or early part of June north of that, after they are transplanted to the open ground if the nights are cool, and the weather proves wet, it will be necessary to protect the plants by covering with a box having a glass cover. When the plants commence to grow, the earth should be frequently stirred around them with a hoe, and if the weather is very dry they should be

Beans.—Some of the early varieties of beans should be planted as soon as the weather becomes settled in May. A warm and rather light soil in some sheltered part of the garden should be selected. The ground should be thoroughly dug and manured, but not too heavily. Mark off the ground for rows, two feet apart, by stakes at each end; then with a garden line and hoe, make drills from one to one and a half inches in depth. The beans should be dropped in the drills about two inches apart, and covered one inch deep.

watered judiciously. There are several varieties of the egg plant, but the large New York Purple is the best for table. When properly cooked this is one of the most delicious of vegetables.

Squash.—One of the most delicious among esculent vegetables is the squash, and those who desire to raise it in perfection should follow the directions we give for the culture of the melon. The earliest bush varieties are the Summer Crookneck, the Early Golden Bush, and White Scallop Bush.

The late varieties most worthy of cultivation, are the Yokohama, the Hubbard, and Winter Crookneck.

Onion.—The directions which we gave for the cultivation of the onion should be continued and those who have yet neglected to sow should delay no longer, but plant at once, and of such varieties as we mention, as they are the best for a main crop:—Large Red, Yellow Danvers, and White Portugal. The latter is the best of all for pickling, and should be sown pretty thickly for this purpose.



WETHERSFIELD RED.

LARGE ROUND MADEIRA.

YELLOW DANVERS.

SILVER-SKINET.

FRUITS TO SUPPLY A FAMILY.

The question is often asked, "What shall I plant in order to obtain a full supply of fresh fruit for a family the year round?" It is difficult to give a precise list, as in some seasons the crop may be many times greater than in others; and again, some will bear abundantly and others fail in the same season. The following, however, will serve as an approximation:

The earliest fruits, about the first of summer, will be strawberries. A selection of the most productive sorts, well cultivated, with the runners kept cut off, will afford about one quart a day from each square rod for a month. Three or four square rods, will therefore give an abundant supply for a family. Four or five hundred plants will be sufficient for this extent of ground. These will be followed by the earliest cherries, and by currants, raspberries, and gooseberries. Two dozen bushes of each of the four best sorts of currants, the same number of raspberries, and two dozen gooseberries, will if cultivated, furnish an abundant supply. One dozen cherry trees will be enough. Two or three dozen bushes of the blackberry will supply a quart or two a day for some weeks towards the close of summer. Apricots, early apples, and early

pears, and a few of the earliest plums will commence the season of abundance which, with the later varieties of these fruits will last till near winter. Winter apples and pears, and all the good keeping varieties of the grape will continue the supply until spring. Long keeping apples, such as the Northern Spy, Roxbury Russet, and other sorts, if placed in a good cool fruit room or cellar, will continue until the commencement of the new supply of strawberries.

To obtain this supply there may be half-a-dozen apricot-trees, a dozen or two of plums, two dozen of summer and autumn pears, and as many more of winter varieties, the same number of summer and autumn apples, and from fifty to one hundred trees of winter apples. A dozen or more of peach trees, and the same number of well managed grape vines will contribute materially to the variety and excellence of the supply. The fourth of an acre of well cultivated vineyard will be sufficient to furnish several pounds of fresh grapes daily through the autumn and winter months.

The extent of ground required will be about ten or twelve square rods for the different summer fruits, and an acre and a half or two acres more for all the others except the winter apples. A plantation of dwarf apples and dwarf pears will enable the owner to reduce

considerably this extent of ground.—*American Fruit Culturist*.

PEACH TREES IN POTS.

THE general opinion among fruit growers is, that when the mercury falls as low as ten degrees below zero, the fruit buds of the peach will be killed. This may not be strictly true; but it is true that the peach often fails when the winters are severe; and this repeated failure has led many persons to abandon the culture of this most luscious fruit. Now, there is not, perhaps, among all the fruits that can be grown in a Northern climate, one more generally esteemed and admired than this; and the question is often asked, How can it be raised where the winters are so unfavorable? We would suggest growing them in pots or tubs, and placing the tubs in a house or warm barn-cellar in winter, where they will be perfectly protected from the severe weather. This cannot be done on an extensive scale, perhaps, or in such a way as to yield a profit, but may be, to some extent, by every lover of this fruit, to supply his own table. We take great pains to raise grapes and other fruit under glass; and why not take some trouble to raise peaches in this way? The expense is not large; for, if earthen pots are used, they will last many years, and serve for several generations of trees; or a cheaper article can be made to answer the purpose. The large size iron-bound white-lead kegs, sawed in two, make very good tubs for this purpose; and even the light Malaga grape and raisin casks will last as long as one set of trees can profitably be kept. Each tub or pot should hold about three-fourths of a bushel of good earth and compost well prepared.

The trees may be set in the spring, the roots shortened, and the tops well cut in; and, if they are in pots, the pots may be plunged in the ground in some position not too much exposed to the hot sun the first year. They will need to be watered once in a while, but not nearly as often as those not so treated. If they are in tubs, they cannot be put into the ground, because of the danger of rotting the wood, so that they would not last long enough for even one set of trees. When they have made a fair growth, the shoots should be pinched in for a double purpose—to have them ripen up their wood, and also to cause them to form fruit-buds for the next year; for they ought all to produce some fruit the second year after being planted. They may require several successive pinchings in during the season. They should receive an occasional watering with manure water, especially the second and successive years, when they are carrying a crop of fruit. On the approach of extreme cold weather, say about the last of November or first of December, take these pots or tubs up, and place them in some good cellar where they can remain all winter; requiring no care beyond an occasional watering, if the cellar be very dry. Care must be used in setting them out in the spring; for it sometimes happens, that even after all the trouble of housing them in winter, they are set out only to have their blossoms or fruit all destroyed by a

late frost. When they are ripening their fruit, they should be exposed to the sun, that the fruit may be high colored and fine flavored. We have often seen two or three dozen beautiful specimens of fruit on such trees. It is not best to keep one set of trees more than four or five years. All the varieties may be grown in this way; though the dwarf varieties, such as Van Buren's Golden Dwarf and the Italian Dwarf, are better adapted to pot culture.

This system is recommended to amateurs who are fond of peaches, and are willing to make special efforts to secure good specimens. We advise a fair trial of peach trees in pots in those parts of the country where the winters are too severe to permit of their being raised in the orchard with success.—*Journal of Horticulture*.

KEEPING VEGETABLES.

SINK a barrel two-thirds of its depth into the ground (a box or cask will answer a better purpose); heap the earth around the part projecting out of the ground, with a slope on all sides; place the vegetables that you desire to keep in the vessel; cover the top with a water-tight cover; and when winter sets in, throw an armful of straw, hay, or something of that sort, on the barrel. If the bottom is out of the cask or barrel, it will be better. Cabbages, celery, and other vegetables, will keep in this way as fresh as when taken from the ground. The celery should stand nearly perpendicular, celery and earth alternating. Freedom from frost, ease of access, and especially freshness, and freedom from rot, are the advantages claimed.—*G. S. G., Jour. Hort.*

QUASSIA FOR INSECTS.

IN the report of the Alton (Ill.) Horticultural Society, Mr. G. G. Myatt, Richmond, Ill., gives an account of his experiments in killing black and green aphid in cherries, by using Quassia. We quote:

"I made a decoction of the wood of Quassia, which is found in all druggist shops, say four ounces of Quassia, to a pail of water; boil fifteen or twenty minutes. I used a large dish-pan with handles—filled it about half full when cold. An assistant carried the pan while I carefully bent the infested part over the edge of the pan, and gave it a few lateral motions; and shook it to prevent too much waste of the decoction."

MARTHA, IONA, AND ADIRONDAC GRAPES.—"J. H.," in *The Gardener's Monthly* says:—"I have on the same trellis with a Martha, the Iona on one side and the Adirondac on the other, of the same age (4 years,) and the same care and cultivation. But the Martha is now fully $\frac{3}{4}$ of an inch in diameter above the ground, and fruited twice, while these have never shown a blossom, and are now the size of a wheat straw. At about mid-summer, the leaves drop from the vine, killed by mildew, and the vines stop growing. I do not expect they will ever fruit with me."

Ladies' Department.

SPECIAL PREMIUM FOR THE LADIES.

We have made arrangements to offer the following Dress Goods as Premiums to our lady friends in raising Clubs for THE FARMER. The goods are of the best quality, and will be carefully packed and delivered to Express Companies for delivery according to order. Any color will be sent that our friends may desire. Subscriptions will be at our regular Club rates, 75 cts each. Subscriptions can commence with our next issue for one year, or back numbers will be supplied from January, and continue to December, as preferred.

	Yards.	Value.	No. Sub.
Cocheco Calico.....	12	\$ 1.80	8
Muslin Delaine.....	12	2.64	10
Mohair Travelling.....	12	4.50	12
" ".....	12	6.00	16
" ".....	12	9.00	20
Black Alpaca.....	10	7.50	18
" ".....	10	10.00	24
" ".....	10	12.50	28
Colored Alpacs.....	10	12.50	28
French Poplin.....	10	15.00	34
" ".....	10	17.50	38
" ".....	20	20.00	40
Black Silk.....		25.00	50
" ".....		30.00	60
" ".....		40.00	75
" ".....		50.00	90

We hope all our lady friends will go to work energetically, and secure some of the above prizes. Who will be the first to respond?

TO THE LADIES!

A CHANCE FOR ALL!

DESIROUS of presenting our Annual on Flower Culture, &c., to all our lady readers, we make the following offer:—We will send a free copy of "The Ladies' Garden Companion for 1868," postage paid, to any person who shall send us

ONE DOZEN ORIGINAL DOMESTIC RECEIPTS,

to be published in future numbers of THE AMERICAN FARMER. We hope a large number will avail themselves of this liberal offer, to take effect from this time. Who will be the first to respond?

HOUSEHOLD CARES--No. 14.

How much better it is to rise early in the morning! I am sure if as the old proverb says, "The early bird catches the worm," the early rising housekeeper has the best bread, the nicest breakfast, the pleasantest children, the most orderly house, and the most satisfied husband.

No, I have not always known it, or at least have never realized it as at the present time. Often when the baby has been cross in the night, and the children have had scarlet fever, measles, or hooping cough, and the hour to rise has come, the idea that I have had a bad night has been an inducement to a little more sleep,

and the consequence has been, the fire only half lighted, the rolls half baked, the children peevish and fretful, the coffee over-boiled, the breakfast late, and worse than all, Tom cross. Now a few of these bad mornings, followed by miserable days, have led me to consider that it would be much better to defer my nap till the middle of the day or afternoon, when the work would be done, the children playing and happy, and Tom. away at his business.

The difference has been marked. Bridget with a few suggestions can make a good fire, and with a little help the hearth is brushed, the tea kettle soon singing, the coffee made, and set back to settle, the rolls browned to a nicety, the plates and potatoes warmed, the children washed and dressed, and the fire all clear and bright for the steak to be broiled. When Tom. comes in, tastes his coffee, breaks his egg, and sits himself back to spread his napkin, his smile of approbation and satisfied countenance are enough to make any woman resolve that she would never again take a morning nap at the expense of her husband and children's breakfast.

Mrs. E. was telling me to-day about her peaches—no luck in doing them up. She had four baskets of as elegant peaches as were ever gathered, and even when she opened the bottles they were handsome, clear, and of good shape, but alas, musty, and of course uneatable.

"Then your bottles were bad?"

"No; strawberries all kept well, and the same kind of bottles used."

That was strange. I would rather put up peaches than strawberries. The latter will appear to change in color often, and the fruit soften, the juice appear watery, although the flavor will be good; but peaches never. It makes my mouth water to write about them. I almost think a nicely canned peach is preferable to a fresh one. The small amount of white sugar used has penetrated every vein, and what more delicious? Nothing.

If it had not been that I had canvassed this bottling subject so thoroughly, and gone into the ways, means, and principles, so much the past year, I should be tempted to drill at it again, but as it is, I shall content myself with an occasional introduction.

The Doctor asked Tom, who he got to trim his grape vines. "Wife and I did them ourselves," answered Tom. "You don't mean that she can and will do such things?" "Certainly she will," rejoined Tom. "I have a pair of patent pinchers which she uses, and declares it fun. Mighty dull work it would be to come out here for an hour at a time, working all by yourself, but with a tidy little woman by your side, with nimble fingers helping, and lively conversation floating, quite charming. What do you think?" The doctor laughed. "I'll tell you what Tom.,"—he always calls him Tom., "I wish we had a woman at our house good for something!" The fact is the doctor has a wife and daughter quite good for something—good housekeepers, excellent players on the piano, fine sewers and *au fait* in society and polite literature, but would no more think

of helping father to sow seeds or trim vines, than I should think of doing a large washing or scrubbing the kitchen floor when it was not necessary.

Do any of your readers know for a certainty that salt is bad for all kinds of birds, and that it will kill chickens, ducks, turkeys, &c.? If they do, they will do a kindness to me and the rest of your subscribers, if they will tell us the facts and their experience; also if bread is bad for them at any time, and if fowls have been known to die through eating too much soft food in winter? I ask for information because we sometimes have a little stale bread or crusts, leavings of ham, or pork, picked codfish, hash, &c., all of which must be rejected from the pen-yard for fear our pure-bred Brahmas, and Black Spanish shall receive their death warrant too unexpectedly.

"I'll tell you what it is," said Mrs. S. to me the other day, "If I could not keep house nicely without any children, I would not try, but go to boarding. Now, there is Mrs. W.: she puts a chair in a certain place, and there it will stay six months if she don't move it herself. What does Mrs. W. know about mud? Would her husband or any of her friends dare to come in without scraping their feet and afterwards rubbing them on the mat? What does she know about saws and hammers, and jackknives—of scratched furniture, or buttons off sofas, broken looking-glasses, cracked tumblers, and smashed crockery? What does she know of marks on the counterpane, and the impress of little shoes across the new flower bed? What does she know of strings off caps, buttons off little aprons, and patches on pantaloons?—and the unmentionable and innumerable incidents and accidents which happen in everyday life to the woman with six children? Alas, she knows nothing of it, and she knows nothing of the other side of the picture. She knows nothing of the pleasant walks, of the afternoon lessons, and the evening prayers—nothing of unfolding intellects, and of curious and amusing questions—nothing of the holy joys, the pure love and refining influences of children, nothing of the anticipations of a companionable old age—nothing of the tender tear, the grateful heart, the uplifted eye, as after each little cot has been snugly tucked, and the "bye, bye" kiss imprinted on it—the gentle mother thanks her Heavenly Father that they are all there, and prays to Him for their future health, welfare and happiness—for more patience, disinterestedness and wisdom for herself, for the morrow, and for the future.

AUNT ROSA.

"I hope, my little daughter," I said one morning, "that you will be able to control your little temper to-day." "Yes, mamma; and I hope you will be able to control your big temper."

The Empress Eugenie, at last accounts, had three thousand dresses. According to a fashionable woman, it must be a delightful thing to be an Empress.

DOMESTIC RECEIPTS.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER BY "M. S. B.,"
AURORA, N. Y.

Elderberry Wine.—2 quarts of berries to 5 quarts of water. 1 pound of sugar, to 1 quart of the juice and water together.

Tomato Catsup.—Scald and peel your tomatoes; then place them in a kettle to boil. When done, cool and strain them through a sieve; then add pepper, salt, and cloves. Scald them again, and add one tablespoonful of brandy to 1 pint of the catsup, place in bottles, cork, and seal while hot, setting it in a cool place.

Tincture of Rhubarb.—1 tablespoonful of rhubarb, 1 do. of magnesia, 3 cents worth of cloves, 6 cents worth cinnamon. Steep the spices in a little water, then add about 1 quart of water, and brandy and loaf sugar to keep. A perfect cure in diarrhoea.

To Clean Silver and Gold.—Rub on aqua ammonia with buckskin, and polish with a soft cloth.

Iceing Cake.—Take the whites of three eggs, beat to a froth, and add 6 tablespoonsful of sugar, and flavor.

Apple Sweetmeats.—To 12 pounds of sweet apples, add 4 pounds of sugar, 1 pint of vinegar. Put the vinegar and sugar together to dissolve, then put in the apples, with lemon, ginger root, cloves, &c.

Watermelon Rind Pickles.—Peel and throw in salt and water for two or three days. Then drain, and put in water, and cook until soft. Add sugar, and spice slightly steeping them in the vinegar, having enough to cover them. A little alum, or a handful of peach leaves while cooking, will make them clear and green.

To Clean Silk or Kid Gloves.—Wash them in a mixture of equal quantities of ammonia and alcohol, rubbing them until dry.

Ice Cream.—Take 1 quart of milk, and scald it very little; beat the yolk of 4 eggs to a froth, and stir in slowly. Add $\frac{1}{2}$ pound sugar. Flavor as you like it, and freeze.

Raspberry Vinegar.—Pick the raspberries and place them in vinegar over night, sufficient to cover them. Then strain through a cloth, adding 1 pound of sugar to 1 pint of the juice. Boil and skim until clear, and when cool bottle and cork, setting in a cool place.

A Good Lemon Pie.—1 cupful boiling water, 1 cupful sugar, 1 tablespoonful of corn starch, 1 lemon. Place between a rich paste.

Coloring Cotton Yellow.—Half a pound of sugar of lead dissolved in hot water, $\frac{1}{2}$ pound of bichromate of potash, dissolved in cold water, in wood, dip first in one, then the other, until the color suits. For orange, dip the above in strong lime water.

Splendid Indian Pudding.—3 quarts of milk scalded, 1 quart of Indian meal, 2 cups of molasses, 2 eggs, 3 tablespoonsful of butter, 1 teaspoonful of salt.

SWEET POTATO PUDDING.—One pound of sweet potatoes, boiled and mashed fine, or grated while hot, six eggs well beaten, $\frac{3}{4}$ lb. of sugar, the same of butter, a grated lemon rind, and nutmeg, a wineglass of brandy; line the dish with paste. When baked sprinkle the top with fine sugar.—*Cor. Germantown Tel.*

Editor's Table.

SUMMER CAMPAIGN OF THE AMERICAN FARMER!

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Now is the time to solicit your friends and neighbors to give THE AMERICAN FARMER a trial for Six Months or a Year, commencing with the July number.

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For **Ten** Subscribers, at 37½ cents each, a free copy OF THE AMERICAN FARMER for 1868. Or, Rodgers' Scientific Agriculture. Or, Emerson's Manual of Agriculture.

For **Twelve** Subscribers, a bound volume AMERICAN FARMER for 1866 or 1867. Or,

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For **Sixteen** Subscribers, at 37½ cents each, The Horse and his Diseases, by Jennings. Or, Everybody's Lawyer.

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For **Two Hundred** Subscribers at 75 cents each, for 1 year, from January or July, 1868, a 5-Octave Choral Organ, Single Set Reeds. Price \$125.

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☞ All names sent in before the 1st of July, will receive the June number extra.

☞ Names, Post Office, and State, should be written plainly, and when practicable, remittances should be made by Post Office Order, or Draft on New York.

☞ All names sent in for a year, count double in taking any of our half-yearly Premiums.

☞ Postmasters, and all friends of agricultural improvement, are respectfully solicited to obtain and forward subscriptions.

Address, JOHN TURNER, *Pub. & Prop.*,
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SPECIAL BOOK PREMIUMS

FOR YEARLY SUBSCRIBERS.

For **One** new Subscriber with the subscription price, \$1.00, we will send to the party sending the name, either of the following works:

The American Farmer Annual for 1868.

Tucker's Annual Register for 1868.

The Horse Doctor and Horse Tamer.

Scribner's Ready Reckoner.

For **Two** Subscribers, with the subscription price, \$1.00 each, we will send to order, either of the following books:

Miner's Domestic Poultry Book.

A pamphlet on Hop Culture.

For **Five** Subscribers at our club price of 80 cents each, we will send to the getter up of the club both the following works postage paid:

American Farmer Annual for 1868, and

Tucker's Annual Register for 1867-68.

For **Eight** Subscribers at our club price of 75 cents each, we will send to the getter up of the club either of the following works:

Manual of Agriculture, by Emerson & Flint; or, Rodgers' Scientific Agriculture.

For **Ten** Subscribers at our club price of 75 cents each, we will send

THE AMERICAN FARMER, bound, for either 1866 or 1867.

For **Twelve** Subscribers at club price of 75 cents each, we will send to the getter up of the club either of the following works:

The Horse and his Diseases, by Jennings.

Everybody's Lawyer. Or

The American Miller and Millwright's Assistant.

Subscriptions for the above can commence with the July number for one year, or back numbers will be supplied from January and continued to December, as preferred.

☞ We will send The Farmers' Record and Account Book to any address, postage paid, on receipt of price, \$3.50. This work will last four years.

☞ Annual Register of Rural Affairs for 1868, for sale at this office. Price 80 cents, by mail, postage paid.

Inquiries and Answers.

EDS. AM. FARMER:—Having seen in your valuable paper that bee-keeping was both pleasant and profitable, I thought I would like to keep them, and ask of you information on the subject. What kinds of bees are considered the best? Also the best hives, and the price of bees and hives, and where they could be procured?—*Mrs. E. B., Rahway, N. J.*

We do not usually take notice of anonymous communications, and should feel obliged if our correspondent would give her name in full, when we can communicate directly with her. Correspondents must in all cases furnish their names and address, though not necessarily for publication.

In answer to the above questions we say it is still a disputed question which are best; some prefer the Italian. In regard to hives, opinions differ as to the best. The Graves, Langstroth, Quinby, Kidder, and Hazen hives, all have their champions. We are somewhat acquainted with the Graves hive, and think it has some advantages over others, but should be pleased to hear from our readers on the question. The prices of bees and hives vary in different sections, but can be obtained from \$10 to \$15 anywhere. In common box hives the cost would be less.

Mrs. A. H. writes:—"Can you tell me what is the reason I have such poor luck in raising parsley. I succeeded with almost every kind of seed but this. Only a little ever comes up, and that only presents a parched, half-formed appearance. Any directions you may give will be gladly followed, as I am extremely partial to parsley."

Parsley seed germinates very slowly; but the operation may be forwarded very much by soaking for a few hours in lukewarm water, and let it stand till the next day. A rich light soil is best. If you have a hot bed, sow a few seeds, and when two or three inches grown, transplant.

A. W. S.—The earlier the better. The soil should be light and very rich. Well rotted manure may be used freely. Danvers' Yellow is fine. Our better half persists in disliking red onions, so we never sow them. The Wethersfield Red is an excellent onion of good size.

I. K.—You want a sandy soil. A southern exposure is best. Make hills at least a foot and a half in diameter. Spread horse manure and mix mold, manure, and sand. Make a hill, and when the weather and soil is quite warm, with us about the first or second week in May, plant three or four seeds in a hill. Melons and cucumbers will thrive together, though the latter adapts itself better to any kind of soil.

E. B.—You planted your beans too early. They probably rotted before the soil was warm enough to germinate them. Nothing is gained by sowing beans too early. Try again. A light soil is best, though they will do almost anywhere if they get a good start. Let the soil be warm before planting.

MISSING NUMBERS.—We hope our readers will inform us of their failure to receive any numbers of THE FARMER by reason of the mails. We will furnish such missing numbers on information to that effect by our subscribers.

Letter from Virginia.

MESSRS. EDS.:—Accept my thanks for the specimen copy of THE AMERICAN FARMER. It is just the periodical our farmers need in their poor struggling condition, combining the excellencies of other journals with the small subscription price of one dollar. In this benighted section winter still "lingers in the lap of spring," and it seems as if we were doomed to have another year of short crops and consequently alarming distress. Corn planted two weeks ago is rotting in the ground, and all our vegetables are damaged by the cold weather. To-day (April 13th) snow is falling.

Here on the borders of the Great Dismal Swamp your capitalists and farmers could make splendid investments in rich land and valuable timber, and would receive a hearty welcome from all classes. Lands, new, yield 100 bushels of Indian corn to the acre. The swamp could be made valuable for cranberry culture, as they already grow wild. It can be purchased at from 50 cents to \$5 per acre, timbered with pine, cypress, juniper, and white cedar. Juniper rails are invaluable to farmers, as they last upwards of half a century.—*W. H. S., Lake Drummond, Va.*

New England Poultry Association.

AN exchange says: "The poultry show at Worcester, Mass., which closed on Thursday, illustrated the hen mania thoroughly. Fowls were sold at extreme fancy prices, those exhibited by S. J. McIntosh, overseer of John B. Gough's farm, rating the highest and also taking the first premium. A trio of Crevecoeurs, from Gough's stock, sold for \$90, and their eggs are in lively demand at \$8 per dozen. Dorkings and Black Spanish at \$20 per trio are prominent, and McIntosh's pigeons are costly too, \$25 being refused for a pair of carriers. A pair of Australian cockatoos are exhibited, one of which speaks 84 distinct words, and \$400 has been offered for them."

Bound Volumes.

WE have a large number of volumes of THE AMERICAN FARMER bound in good substantial binding, now ready for delivery, embracing the issues for 1866 and 1867. They will be sent to any address, by mail, prepaid, for \$1.25 each; or to any one sending us 12 names, at our lowest club price of 75 cents each, we will send either volume to the agent getting up the Club, or for twenty subscribers at the same rate, we will send both the above volumes bound, postage paid.

DEEP TILLAGE.—Victor Rondeau, Dr. Guifot, Messrs. De Breil, Carriere, Chmeux, French writers, speaking of the various parts of France, all agree that good tillage demands for successful grape growing, and other crops as well, a loosening of the soil to the depth of two or three feet. "In Provence," says Rondeau, "the soil of the vineyard is always deepened to the extent of from two and a half to three feet; in Languedoc, fifty centimetres; in Corsica, from forty to forty-eight inches."

To Agents and Friends, Greeting!

WE would call the particular attention of every reader of THE FARMER to our new list of prizes offered in this number for those who get up clubs. We also offer to send THE FARMER on trial, for the remainder of this year, for only 50 cents, or in clubs at 37½ cents each. All new subscribers to the half volume whose subscriptions are received before the 1st of June, will receive the June number extra.

Inform Your Neighbors

of this fact, and get them to join in forming a club in your neighborhood. Are there five persons in your locality who do not take an agricultural paper? If so, solicit them to join your club. Now is a good time to introduce THE FARMER to those who do not take a paper. We hope every reader will feel it a pleasure to engage in this good work, and send us a club for the coming half volume, and with a little effort take one or more of the prizes offered.

New Premiums.

LOOK over our New List of Premiums, and see if you cannot get a club for THE FARMER, and thus secure a liberal present for little work. Now is the time. Do not delay the matter, but go to work at once with a will, and the determination to secure a large list, and you will be surprised to find how little trouble it is to create a circulation for the practical farmer's own paper in your own neighborhood.

Correspondence.

FARMERS, write for your own paper. We hope our friends everywhere, will keep us posted on facts that occur under their own observation during the coming season, and not allow their duties to prevent their writing. We shall be pleased to hear frequently in regard to the crops, weather, &c., facts and information for publication in THE FARMER.

Interest Your Neighbors.

THERE is not a village or town in the United States or Canada, where a club could not be raised for THE FARMER in a short time, with very little trouble. All that is necessary is to show the paper, mention its low price, and no one will be found so poor that he cannot afford to take it. If such there be, and the fact is properly authenticated, we will send free, if the party will take and read it.

Fairs.

WE shall be pleased to learn from the Secretaries of Agricultural Societies, or any of our readers, the dates when the fairs are to be held in their respective neighborhoods. We desire to publish a full and correct list of all State and County fairs, and our friends will oblige us by forwarding the desired information as early as convenient.

New York State Fair.

SINCE our last number went to press the requisite arrangements have been made, and it is decided to hold the next State Fair in Rochester, Sept. 29-Oct. 2. The *Utica Herald* commenting on the above, decision, says:—

"Rochester is one of the best places in the State for the exhibition. It is a beautiful city, easy of access from all parts of the State. The fair grounds are ample, and easily reached from the city, and in addition, there are the attractions of the falls, the extensive nurseries, Mount Hope, all of which must add to the visitors pleasure while attending the fair."

Special Prizes.

Special Premiums for the ladies, will be found in the Ladies Department.

A LOVELY ROSE.—In the hothouses of Messrs. Frost & Co., of this city, we recently saw a beautiful collection of roses, but one in particular attracted great attention, called "Lamarque," which has been planted now twelve years. It was completely covered with bloom, and over 1,000 have been counted on it at one time. The plant has now grown over 150 feet. It belongs to the class of Perpetual Roses. Messrs. Frost & Co., are well known as one of our leading nursery firms; a visit to their fine grounds will repay any one who wishes to spend a few hours profitably among the beauties of the floral world.

A handsome present for little work. See page 156.

Indiana State Agricultural Board.

THE State Board of Agriculture met at Springfield, says *The Northwestern Farmer*, on the 7th ult., to transact the business of the annual winter meeting. The Board took decided action on the subject of racing at the State fairs; and we hope our readers will congratulate them upon the noble and high-minded stand taken in the passage of two resolutions, as follows:

Resolved, That no trial of speed by racing, will be allowed upon the fair ground during the fair of 1888.

Resolved, That the word "speed" when it occurs in the premium list, in class B, be stricken out, and the word "action" inserted in its stead.

AMERICAN CATTLE—Their History, Breeding, and Management. By Lewis F. Allen, author of *American Shorthorn Herd Book*.

We have received a copy of this book just issued from the press of Talbot, Bros., & Co., New York. It is well printed and handsomely illustrated with portraits of prize animals, real life-like pictures of the various breeds as seen in the pastures of our native land. Besides giving all the information a stock raiser can wish on breeding and management, it also gives reliable remedies for the various diseases to which horned cattle are subject. The name of the author is a guarantee of its reliability and practical usefulness.

SEE Special premiums on page 156.

Renew.

WITH the June issue quite a number of subscriptions run out, and we shall be glad to have them renewed promptly, together with the names of friends and neighbors. Now is the time to speak a good word for the practical farmer's paper, and we hope each and all will work with a will to get up a large club in their respective localities. With a little effort we ought to receive ten or fifteen thousand new names for the coming half volume. See our new Premium List, and try what you can do.

JUST what you want. See first page Ladies Department.

Success.

WE have to thank our agents for the success which has thus far crowned our labors in the publication of THE FARMER, and we would solicit their continued efforts in increasing our circulation. On another page a list of valuable premiums will be found, offered to all who labor in extending the influence and circulation of THE AMERICAN FARMER.

The Dutchman's Hen; or Female Perversity.

[THE following lines which we published in THE FARMER some years ago, we republish by request. Any one who tries at this time to set a hen that "won't," can appreciate the Dutchman's position to the full extent:]

"If she will, she will—you may depend on't;
And if she won't, she won't—and there's the end on't,"

Once with an honest Dutchman walking,
About his troubles he was talking—
The most of which seemed to arise
From friends' and wife's perversities.
When he took breath his pipe to fill,
I ventured to suggest, that will
Was oft the cause of human ill;
That life was full of self-denials,
And every man had his own trials.
" 'Tis not the will," he quick replied,
" But it's the won't by which I'm tried.
When people will, I'm always glad,
 'Tis only when they won't, I'm mad!
Contrary folks, like mine old hen,
Who laid a dozen eggs, and then,
Instead of sitting down to hatch,
Runs off into mine garden patch!
I goes and catches her and brings her,
And back on to her nest I flings her;
And then I snaps her on the head,
And tells her: "Sit there, you old jade!"
But sitt she won't, for all I say,
She's up again and runs away.
Then I was mad, as mad as fire;
But once again I thought I'd try her.
So after her I soon makes chase,
And brings her back to the old place,
And then I snaps her a great deal,
And does my best to make her feel

That she must do as she was bid;
But not a bit of it she did.
She was the most contrariest bird
Of which I ever saw or heard.
Before I'd turn my back again,
Was running off, that cursed hen.
Thinks I, I'm now a "used-up" man;
I must adopt some other plan.
I'll fix her now, for if I don't,
My will is conquered by her won't!
So then I goes and gets some blocks,
And with them makes a little box;
And takes some straw, the very best,
And makes the nicest kind of nest,
Theu in the nest the eggs I place,
And feel a smile upon my face
As I thinks, now at last I've got her,
When in the little box I've sot her,
F'or to this little box I did
Consider I must have a lid;
So that she couldn't get away,
But in it, till she hatched, must stay.
And then again, once more I chase her,
And catch, and in the box I place her.
Again I snaps her on the head,
Until I fear she might be dead;
And then, when I had made her sit down,
Immediately I claps the lid on.
And now, thinks I, I've got her fast,
She'll have to do her work at last.
No longer shall I stand the brunt
Of this old hen's confounded won't!
So I goes in and tells mine folks,
And then I takes mine pipe and smokes,
And walks about and feels so good
That "wouldn't" yields at length to "would."
And as so oft I'd snapped the hen,
I take some "schnapps" myself, and then
I thought I'd see how the old crettur
Was getting on where I had set her;
The lid, the box so nicely fits on,
I gently raised—dunder and blitzen!
(Give me more schnapps and fill the cup!)
There she was sitting—standing up!

—Knickerbocker Magazine.

Opinions of the Press.

Many valuable ideas may be gathered from its pages, which will many times repay the subscription price.—*Sentinel, Hempstead, N. Y.*

It ought to be in the hands of every farmer in the country.—*Banner, Belleville, La.*

It is tastily got up, printed on fine paper, with new type, and makes each year a handsome volume of permanent, instructive, and entertaining matter, worthy of binding and preservation.—*Herald, Bronson, Mich.*

In point of excellence THE AMERICAN FARMER stands second to no agricultural journal with which we are acquainted. Besides its useful information, drawn from actual experience and practical tests, it contains, perhaps, the only honest and reliable market reports that can be found in any Eastern journal.—*Upper Des Moines, Des Moines, Iowa.*

KITTATINNY BLACKBERRIES, &c.

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	NEW YORK, April 28.	ROCHESTER, April 28.	CHICAGO, April 27.	ST. LOUIS, April 25.	TORONTO, April 25.
Flour, white wheat	\$12.00 @ \$14.00	\$15.00 @ \$16.00	\$11.00 @ \$11.20	\$ 9.00 @ \$12.50	\$.000 @ \$ 0.00
" red		18.00 13.75			
Wheat, white, $\frac{3}{4}$ bu.	3.15 3.25	3.00 3.12	2.13 2.20	2.60 2.80	0.00 0.00
" red,	0.00 0.00	2.65 2.70		2.50 2.75	
Corn, $\frac{3}{4}$ bu.	1.11 1.16	1.20 1.25	.80 .85	.88 .87	
Rye, do.	2.20 2.28	0.00 1.75	1.90 0.00	1.70 1.87	0.00 0.00
Barley, do.	2.25 0.00	1.70 1.80	2.30 2.50	2.60 2.70	0.00 0.00
Oats, do. ....	.85 .85%	.00 .00	.62 .62%	.70 .78	.00 .00
Beans, do.	0.00 0.00	3.00 4.50	5.50 6.50	0.00 0.00	
Pean. do.	0.00 .00	0.00 0.00			.00 .00
Butter, $\frac{3}{4}$ lb. ....	.40 .58	.40 .45	.88 .42	.50 0.55	
Cheese, do. ....	.13 .17	.14 .17	.00 .00	.14% .18	.00 .00
Eggs, do.	24 00	20 .22	.15% .16	.15 .17	.00 .00
Potatoes, $\frac{3}{4}$ bu.	0.00 0.00	1.25 .00	1.05 1.15	0.90 1.17	
Chickens, $\frac{3}{4}$ lb.	00 00	.13 .20	4.25 5.00dz	4.50 5.25dz	
Live hogs, $\frac{3}{4}$ 106 lbs. ....	.10 .13%	.00 .00	8.25 9.25	9.00 9.75	0.00 0.00
Wool, $\frac{3}{4}$ lb. ....	.00 .00	.40 .45	.00 .00	24 .45	.00 .00
Beef, $\frac{3}{4}$ lb. ....	.14 .19		7.00 8.25	6.50 8.00	5.00 0.00
Hay, $\frac{3}{4}$ ton. ....	.00 00.00	26.00 30.00	00.00 .00	13.25 19.50	00.00 00.00
Hops, $\frac{3}{4}$ lb. ....	.30 .60	.40 .60	.00 .00		.00 .00
Clover Seed .....	. 9% 10%	6.00 0.00	5.50 0.00		

Literary Notices, &c.

We are indebted to Messrs. J. W. Holland & Co., of Springfield, Mass., for a copy of their spirited and beautiful engraving, entitled "Washington at Home," size 25 by 32 inches. Painted by Alonzo Chappel, and engraved by H. B. Hall. This magnificent engraving should find a place in every house in the land. The picture embraces Washington, his wife, and step-children, which add life and interest to the group. It is sold only by subscription. Price:—artists proofs, \$15; India proofs, \$10; plain impressions, \$5.

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From J. B. Barr & Co., publishers, Hartford, Conn., advance sheets of their new work, "Grant as a Soldier and a Statesman," by Edward Howland. The price of this work will be \$3 to \$4, according to binding, and sold only by subscription. For particulars, address as above.

Messrs. Sheldon & Co., publishers, New York, have purchased the "Galaxy," which they propose to enlarge and improve. It has already become a great favorite with the reading public.

From Jas. W. Vestal, Cambridge, Ind., select catalogue of roses and new plants, flowering shrubs, grape vines, small fruits, &c., for spring of 1868.

Catalogue of agricultural and horticultural implements, machinery and hardware, and of improved live stock, from R. H. Allen & Co., 189 Water street, New York. Price per copy, \$1. This catalogue is the most complete thing of the kind we have yet seen, as it includes almost everything that is needed on a farm. Our readers will do well to send for a copy.

OHIO.—At the meeting of the Ohio State Board of Agriculture, at Columbus, March 17, it was decided to hold the State Fairs for 1868 and 1869 at Toledo. The premium list was revised, and the premiums largely increased.

Agricultural Exhibition in Belgium.

A Universal Exhibition of Agricultural Implements will take place at Brussels, Belgium, the 20th and 21st of June, 1868, under the charge of the Agricultural Society of Brabant, and under the patronage of the Belgian Government. Articles of foreign countries intended for exhibition will be admitted free of customs duties under the condition of re-exportation. They will also be transported over the Belgian railways for the purpose intended free of charge to the exhibitors. Prizes and awards will be distributed according to regulations. Articles for exhibition will be received on the ground from the 12th until the 16th of June, 1868. They are to be addressed to the "Commission de l'Exposition d' Agriculture a Bruxelles, Belgium."

For further particulars address Mr. Parisel, Secretary of the commission, Brussels, Belgium.

Wheat Prizes.

We notice that prizes are offered to the amount of \$300, for the best samples of wheat. \$100 for the best two barrels white winter wheat; \$100 for the best two barrels red winter wheat; and \$100 for the best two barrels of spring wheat. To be awarded at the next New York State Fair.

PRIZE ESSAYS.—We purpose shortly to make out a list of subjects for Prize Essays to be published in THE FARMER, and shall be glad to receive from our readers any questions or suggestions on any subjects that they wish discussed in our columns.

SEEDS.—We have received from G. Folsom, Raymond, N. H., a choice assortment of 18 varieties of vegetable seeds, for which he has our thanks.

THE tenth Annual State Fair of Minnesota will be held this year at Minneapolis, on the 29th and 30th of September, and October 1st and 2d

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We invite the attention of our readers to the advertisement of *The Western Farmer's Annual* in last month's *FARMER*. The publisher writes us that he will continue to send it for 15 cents a copy during this month.

COMPENDIUM OF HUMAN KNOWLEDGE.—"Webster's Unabridged Dictionary, with its copious and excellent illustrations, its numerous and instructive tables of signs, abbreviations, and quotations, and its etymological, explanatory, and pronouncing vocabularies, must be regarded as the most useful and remarkable compendium of human knowledge in our language."—*W. S. Clark, Pres. Mass. Agricultural College.*

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in *THE AMERICAN FARMER* for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 18th of the previous month. *THE FARMER* has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

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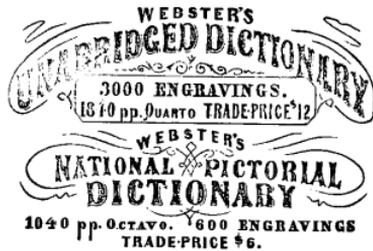
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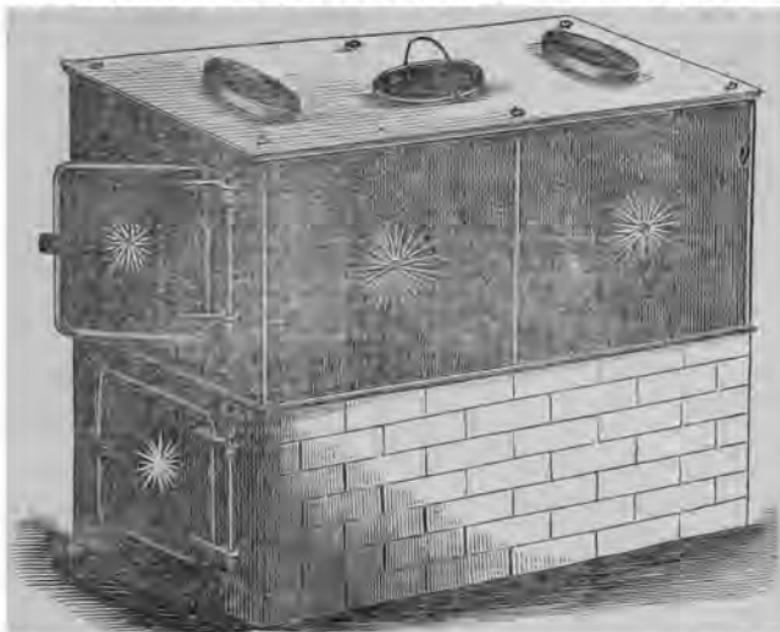
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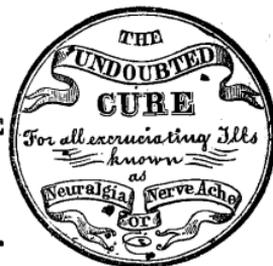
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CONTENTS OF THIS NUMBER.

AGRICULTURE.

May.....	137
Work for the Month.....	137
Our Florida Letter.....	138
Making Soil.....	139
Beets and Turnips.....	140
Cure for Horse Distemper.....	140
Our Eastern Letter.....	141
Notes by "S. W.".....	141
Basswood for Bees.....	142
Cheap Plan for Hog Pen.....	142
Bees.....	143
Recreation and Amusement.....	144
Old Brindle.....	144
Items from Ohio.....	145
Davidson's Thornless Raspberry.....	147
Grasshoppers in Texas.....	147
Professor Gamage.....	147
Fouls in Cattle.....	147
Bark Bark.....	147
Lime in the Soil.....	148
Hops.....	148
Notes from Canada.....	149

SPIRIT OF THE AGRICULTURAL PRESS:

Dairying and Raising Calves.....	150
Fattening Poultry.....	150
Corn, Beans, and Pumpkins.....	150
Grating.....	150
Let Well Enough Alone.....	151
Scare Plows.....	151
The Shovel Plow.....	151
Cheese and Butter.....	151
Lies on Poultry.....	151
Remedy for Roup.....	151
Poll Evil.....	151

HORTICULTURE.

Castor Oil Bean.....	152
The Vegetable Garden.....	152
Fruits to Supply a Family.....	154
Peach Trees in Pots.....	155
Keeping Vegetables.....	155
Quassa for Insects.....	155
Martha Grape, &c.....	155

LADIES DEPARTMENT.

Household Cares.....	156
Domestic Receipts.....	156

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A MONTHLY JOURNAL OF

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SUMMER.

From brightening fields of ether fair disclosed,
Child of the Sun, refulgent Summer comes.
In pride of youth, and felt through Nature's depth :
He comes attended by the sultry hours,
And ever-fanning breezes, on his way ;
While from his ardent look, the turning Spring
Averts her blushful face ; and earth, and skies,
All smiling, to his hot dominion leaves.

Hence, let me haste into the mid-wood shade,
Where scarce a sunbeam wanders through the gloom ;
And on the dark-green grass, beside the brink
Of haunted stream, that by the roots of oak
Rolls o'er the rocky channel, lie at large,
And sing the glories of the circling year.

—Thompson.

WORK FOR THE MONTH.

It is an old saying that a wet May makes plenty of hay, and truly we have been blessed in this region so far, with genial showers to refresh and moisten the earth, which gives abundant promise of rich blessings in store for the husbandman. The prospect in this section, and as we gather from our exchanges, is universal all over the country, that we shall have a great fruit year. The crops of all descriptions are looking better than ever before known.

This month great attention will be required to keep the crops in growing condition. Keep the cultivators going, destroy the weeds, and let the land be as clean as possible. Now is the best time to destroy weeds by the thousand with the least amount of trouble. Put in all the crops possible at this time that can be properly taken care of. It is not too late to plant

CORN—which will do well and mature if planted as late in this section as the 10th of June. The great rains at the West have delayed planting, and lessened the prospects of a good corn crop next fall. Put in all the land you can get in good order. Late planted corn is easier kept clean than early planted. Do not forget to plaster it.

POTATOES—may still be planted, especially Flukes. Potatoes covered deep can be harrowed with advantage just as they are breaking the crust. It kills the weeds and lessens the labor of hoeing. A

tablespoonful of plaster dusted on the plants frequently, is of considerable benefit. Do not hill too much, but keep the land clean and mellow by the frequent use of the cultivator, especially during the present month and the first half of July.

By the last of the month clover will be ready to cut.

BEANS—do well planted any time this month. Plant in rows 2½ feet apart, and cultivate thoroughly.

SOW PLASTER—on the clover fields, from one to two bushels per acre. It seems to do as much good and sometimes more, when sown in June or earlier, especially if we have dry weather.

HOPS.—Tie up the vines, and keep the soil in good condition and free from weeds.

STOCK.—Let your stock have a good supply of water. Sow roots for your stock. Parsnips, beets, and carrots are a good selection, especially the former, as a portion of the crop can be left in the ground for early spring use. The latter part of the month turnips may be sown.

BEES.—This is a very exciting season with those who continue the use of the box hives and allow natural swarming. We cannot say that we approve of the old system, and are fully convinced that artificial swarming or dividing is far preferable. Stocks can be divided much earlier, say in May, and if increase of stock is desired, a second may be performed by the middle of June, or in about two weeks from the first. By this treatment much valuable time in watching bees may be saved, and at least one-fourth of the natural swarms which fly to the woods. With a suitable hive, ten minutes is sufficient time for the operation. If increase of stock is not required, raise the frames and cut out the queen cells, if any be found. We are convinced that at least more surplus honey may be secured.

We cannot here refrain from recommending all who would prosper in bee culture, to abandon the old tin pan, and secure a practical hive, and adopt this new system of treatment. Gives the bees their surplus box at once, place a strip of nice comb in the top of the hive ; it will induce the bees to work much earlier in them.

CULTIVATION OF THE POTATO.

WRITTEN FOR THE AMERICAN FARMER, BY HORACE THAYER, MASS.

NOTWITHSTANDING the peculiar adaptation of the soil and climate of a large portion of this country to the production of the potato, there is still an inadequate supply grown to meet the wants of our own people, as their present scarcity and high price bear witness. Good eating potatoes, at this time, (April 25th,) readily command \$2 per bushel in our markets, and many are unable to obtain them at this price. The average price of potatoes for the last twenty years, in thickly peopled sections, has exceeded the price of corn, although every practical farmer knows the cost of production to be much less.

It is unnecessary to enter into a minute exposition of potato culture, to demonstrate its profitability. Every intelligent farmer will readily admit that no general crop will pay him better, when it escapes disease, and when he enjoys the facilities of convenient markets. Yet, with these facts in view, farmers fail to grow them sufficiently plentiful to supply the home demand. Every householder living in large towns or cities, has often experienced the impossibility of always supplying the table with this favorite esculent. It is true, in seasons of abundance, potatoes are sometimes a drug in the market, but such seasons of abundance occur less often than with most other crops.

Why is it that farmers neglect to grow potatoes more plentifully? Probably many do so from motives of prudence or self-interest, considering the potato too liable to failure to prove profitable; but it is very seldom that the potato fails when proper precautions are taken. By selecting hardy varieties and planting upon well-drained soils with well fermented manures, the potato will be seldom much affected with disease. Some neglect to plant from the supposition that owing to the increased attention now being paid to this vegetable, that the markets will become overstocked; but such fears are groundless. Potatoes have advanced steadily in price for the past twenty years, and must so continue in time, with our increase of foreign population and increasing partiality of our own native born citizens for this esculent. With such an assurance of a ready market, and with the new hardy and productive varieties, and the ease with which it is cultivated, to what crop can the farmer devote his attention with more certainty of obtaining a reward for his labors? With light manuring and indifferent cultivation, a fair crop of potatoes can be grown, under circumstances of neglect where corn and other crops would utterly fail. We would by no means advise all farmers to rush into potato-culture to the exclusion of all other crops;

but by giving more attention to this root than heretofore, they will not only promote their own interests, but confer a benefit upon the community. Plant only the best varieties; plant early, manure liberally, if possible, and cultivate well, and the result will be satisfactory. Although we believe it advisable to plant as soon as the ground becomes sufficiently warm and dry, yet it is better to plant late than never. The best crops we saw last year were planted in June. If the potato will endure neglect, no crop will better repay good culture. Weeds should never be permitted to consume the food that in right belongs to the tubers, but should be kept down by the frequent use of the hand or horse hoe. Even, if few weeds exist, frequent stirring the soil in the month of June till the blossoms appear, will greatly augment the crops.

Let those who have failed to plant extensively, strive to increase their harvest by better cultivation, with the assurance that they will not be disappointed in the result.

HOP PLANTING.

WRITTEN FOR THE AMERICAN FARMER, BY F. W. COLLINS.

THE season has been favorable, and those who prepared their grounds in the early part of May, and planted their sets by the middle of that month, have now the satisfaction of seeing their young plants up and growing, as we have had timely showers sufficient to secure the life of the newly planted hop.

I think there will be no failures this year, as there has been for some years past, of plants being killed by drouth in the spring and early summer. Every hill of hops should now have a stake eight feet long put in, and the vine trained up as it grows. This will not only secure a good strong growth of root for next year's use, but will pay well this year in hops if carefully attended to. I have known \$70, \$80, and even \$100, per acre, grown the season of planting, and a crop of roots, beans, or corn grown among the hops.

Many of our old hop planters are very sensitive on the subject of over-doing the business, and raise the cry: "You are running the business into the ground! You will bring down the price by this cheap process of growing hops and ruin the business. They will not be worth raising." It is a sad fact that every improvement will be opposed. Somebody will imagine that their interest will be hurt by it, and consequently oppose it with zeal and energy worthy of a good cause. But this kind of opposition will be lived down in time. *We ought to produce ALL that is needed for home consumption, of every variety of farm product.* The great importation of hops, such as we have had the past season, should be prevented by home industry, and if 30,000

acres devoted to hop growing will not stop the importation, let us have 60,000 acres; and even that is not more than is devoted to it in the little island of Great Britain, and they frequently do not grow half enough for their own use. Last fall the market here opened at 60c to 70c per lb., with a prospect of raising to \$1.00. This stimulated a large importation from Europe, which checked the price, and brought down the price 20 cts. per lb., so that hops now sell for 40c to 50c per lb. We ought to grow hops enough to supply our market, and export largely, which we can easily do. Instead of confining the business to Otsego county, as it was mostly for many years, they may be grown with profit in any part of our vast country. A hop planter near Richmond, Va., closes a column in the *Richmond Dispatch*, on this subject with the following:

"The writer has been familiar with hop-growing in different countries more than half a century. He regards the domestication of the hop in this State as an accomplished fact. Its yield here is heavier, its flowers more uniform, its lupuline more abundant, and its maturity ten days earlier than any Northern hop yard can produce, and a priority of ten days in the market insures at least twenty per cent greater price. These most important advantages will give to Virginia the monopoly of this crop, and if her planters do not in a few years divide among them ten millions of dollars per annum by its culture, it will be for lack of enterprise."

A writer in the *New Jersey Courier*, (who sent me a few samples of very rich and well cured hops,) publishes the following in that journal:

"* * * If your statements in regard to hop-growing on these pine lands be true, and I believe they are, the public should be awake to the subject. Your statements correspond with my own observation. I have conversed with many Jersey men upon the subject, and they uniformly say that the plant grows vigorously here, and bears largely. Hops are found around almost every cabin in the pines, and although they give no evidence of having received any particular care, either in the way of culture or manure, yet they confirm all that has been said upon the subject. With a good crop of strong and highly flavored hops you have all that can be expected of soil and climate. If in addition we are exempt from hop lice, which have been so ruinous to hop growing in other places, it will be our own fault, if we do not succeed.

"I think that *muck*, mixed with *ashes* made from burning turf taken from our low or savanna lands will furnish at cheap rates all that is desirable in the way of manures. The supply of manures therefore, is only a question of labor with those who may lack, but are possessed of strong hands.

"The growers of hops will be glad to learn that

the expense of putting a hop yard in operation has been very materially reduced by the invention of Mr. F. W. Collins, of Rochester, N. Y., known as 'Collins Patent Horizontal Hop Yard.' Common bean poles, eight feet long, are made to take the place of the long and expensive hop poles of other days. While the hops are brought within reach for picking, the vines are much less subject to damage from high winds, than from the high pole system. Various other advantages are claimed by Mr. Collins, but one great advantage to those who with limited means are desirous of planting hop yards in this section, will be found in the great saving of expense, or the outlay of cash required to put the yard in operation."

The discovery that plaster dusted over the leaves will remove the aphid or plant louse, is so effectual in preventing disease, that it is likely to secure a good crop for all who use it. The practice of picking the crop without cutting the vine, will obviate the necessity of manuring so heavily as has always been the case when long poles are used, the vine cut, and the root weakened by the sap flowing. Cultivate hops as you would corn. Keep the weeds down and let the skunk take out the grubs.

NOTES FROM CANADA.

WRITTEN FOR THE AMERICAN FARMER, BY "MAC."

NOTWITHSTANDING the early opening of spring, everything presents a dreary and backward appearance owing to the long continued dry weather. There has not been enough rain yet, (May 14,) to start the grass or spring crops, and nature seems to be at a stand-still. The farmers are well through with their spring work, and have got in the seed in good order, and are now planting potatoes, and getting the ground ready for root crops and corn, of which last, however, there is not much grown in Canada.

The fall wheat looks remarkably well, much better than it did the latter end of April, and with a fair amount of rain, which will no doubt be given before long, it will prove the most profitable crop of the season.

I spent a week in Rochester, N. Y., during the last of April, and was much pleased to note the improvements made in that city since my last visit. I visited James Vick's seed establishment, and was quite astonished at the magnitude of his business, as well as the admirable regulations to ensure every order being filled with certainty and promptitude. He may well be called the "great seedsman of America."

50,000 cherry trees are in blossom on Staten Island.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

HAY SELLING FARMERS.

I walked over a mile yesterday to a farm where a load of fine early cut timothy hay was just loaded up at the barn to draw to a village customer at \$20 per ton. True, the hay was cut so early that it had yet made no draft on the soil for its seed; but to sell even such hay without bringing back an equivalent in manure, is very poor farm economy. If he had put some boards by the sides of his hay rack, he could for one dollar have loaded back his wagon with the best horse manure, from the very stable where he left the hay. By the side of that stable I saw a huge pile of grain enriched manure, steaming away its ammonia to enrich the "desert air" This farmer complained sorrowfully of the deterioration of his soil. He said he could not make manure enough with all his stock for his corn and wheat fields, yet only half a mile north is the great swamp where the best deciduous leaf mold lies festering from two to five feet deep! In the face of the yearly wearing out of the soil by cropping without manuring, it is passing strange that so few farmers seem to take the hint, that unless they now begin to feed their land, it will soon cease to feed them.

Joseph Wright and John Johnston are almost the only farmers in this region who keep up the original fertility of their farms by judicious manuring. Mr. J. pays 36 cents a load for muck of doubtful quality, at the Seneca outlet, and draws it two miles to his farm to be enriched by the droppings of cattle and sheep; yet no farmer within two miles of this village will pay to our livery stables a dollar the two-horse load for well fed horse manure full of potash, phosphoric acid, and ammonia, and haul it to their well worn farms. Joseph Wright keeps 32 milch cows to make both manure and butter, while his pigs glory in the nitrogenous and phosphatic buttermilk, and also enrich the farm. Although he has but 140 acres, he sold for it last year, 6,180 lbs. of butter in New York, at from 32 to 55 cts. per lb., put up in Seneca Falls fancy tubs. He also sold 450 bushels of white winter wheat, 300 bushels of potatoes, and 100 bushels of red clover seed, to say nothing of the horse flesh, and the grapes and wine of his seven-acre vineyard. John Johnston sold more wheat from 26 acres than his neighbor did from 40 acres; yet 40 years ago his neighbor's farm produced, as well and even better than his own. The farmer I called on yesterday sold all the wheat he had to spare, 50 bushels, at \$27.5 per bushel. He said he had but one neighbor in the compass of several miles, who raised any more wheat than enough for their own families. Methinks the old Pennsylvania Dutch farmer was right, when he said

all the smart boys went west, and left the lazy ones to farm at home.

THE EVILS OF TOO MUCH RURAL PROSPERITY.

A very intelligent practical farmer writes from Champaign County, Ill., that "they have voted great sums for colleges, schools, and railroads under the stimulus of glorious times and high prices for farm products, until now the local county tax is \$300,000. To help pay this sum wild lands are taxed on an average 40 cents per acre; the result is that the price of land has depreciated heavily, and forced sales of wild lands are made at one half the price such lands have been selling for during the last ten years. Notwithstanding the present extreme high prices of farm products, improved farms are lower in value here than they were when corn was 25 cents, wheat 50, and oats but 20 cents a bushel." Per contra,

"BLESSED ARE THE USES OF ADVERSITY,"

as is now begun to be manifested at the South, in the transition from slave to free labor. Trying and sacrificing as the experiment has been to the hereditary slaveholder, it is now fast being attended with those healthy moral and physical results which are the never-failing fruits of honest industry, economy, and self-denial. A system of farming and mixed husbandry is now being inaugurated at the South, which while it requires less labor and capital than exclusive cotton growing, it also gives rest and fertility to the soil, and a more bountiful supply of food to the people.

RED CLOVER.

Joseph Wright says red clover should be broken up in two or three years, or as soon as its roots have attained their maximum growth. Per contra, Dr. Daniel Lee says, red clover for all practical purposes is a perennial plant, more so in the Southern than in the Northern States. To enrich the soil for a grain crop, Mr. W. is right; but for permanent meadow my little experience is with Dr. Lee. Twenty years ago, I seeded a small patch of ground with clover and timothy; the timothy was run out in three years by June grass, but by cutting the grass early, and leaving the second crop to go to seed, the clover has always maintained its status; top dressing with plaster and hen manure has kept up the fertility of the soil, and I never fail to cut two crops of June grass and clover, cutting the second crop as soon as the clover begins to shed its seed. Mr. Lawson, seedsman, of Edinburgh, says that a pound of red clover seed contains on an average 250,000 seeds. They have great tenacity, and will come up even after being long buried in the soil. In upper Georgia, red and white clover bloom early in the spring.

TREES.

WRITTEN FOR THE AMERICAN FARMER, BY N. FOSTER.

THE best soil for trees is elevated, rough, and stony ground—far better I think, than rich, moist land. The orchard should be kept free from sod, and well mulched and manured to keep the soil in the right condition. It needs stirring often around the tree, and the trees need careful pruning.

In pruning, the peach (for an example) may be cut back within two feet of the crown, not even leaving a twig or limb, and still in the fall the tree will be found to have several sprouts with abundance of small branches. The best time for pruning fruit trees I have found is in the month of June. Trees should be trimmed right when small, and then there will be no necessity for cutting large limbs unless they are decayed. When the tree is pruned in June while the tree is making the most vigorous growth, any of the small branches when removed by a knife and a clean cut, will soon heal. In pruning, take out all the small branches that cut each other, and shorten any that are making an excessive growth.

In taking care of trees, they must be well protected from stock, and also mice. To keep the latter away, clean off all the weeds and all other rubbish around the stem, and in winter they can be kept from the trees by tramping the snow down hard all around the tree. A good way to keep rabbits from barking the tree is to sprinkle blood on the trees. As rabbits have a dislike to all such matter, they will leave them alone. Before setting out the trees the land should be well plowed and made as mellow as possible, then dig the hole deep and wide. Prepare the tree by cutting off with a sharp knife all broken or bruised roots, and cutting the top so as to have it in some proportion to the root. Place the tree in the hole, and spread out the roots in all directions. Then fill up the hole with earth, being very careful to make the soil fine, so that the little fibers can have easy access to the air, when the hole is full, press it down firmly by stepping with your whole weight upon it. When convenient lay stones around it, if not, cover the surface with small pieces of old boards, straw, or old hay. Apple trees when properly planted will often bear in four years, and pears in six. It will not only be economy to have an orchard, and to have trees about a farm, but it makes everything look better, as it does in a town or city; then let not only farmers, but also men that live in cities and towns plant trees.

TO PREVENT CATTLE FROM JUMPING.—On dit, that by clipping off the eyelashes of the under lid with a pair of scissors, the ability or disposition to jump is as effectually destroyed as Sampson's power was by the loss of his locks.

WHAT MADE THE DIFFERENCE?

WRITTEN FOR THE AMERICAN FARMER BY J. E. R., MASS.

MR. C. and Mr. P. were near neighbors in a thriving country town. Last spring each of them bought a pig. Mr. C. bought a nice clean animal, judged to weigh about 100 lbs. Three weeks later Mr. P. bought just as nice and thrifty an animal, which weighed about 75 lbs. Last November Mr. C. killed his pig, which weighed when dressed, 380 lbs. Mr. P. kept his pig through the winter, and this spring it will not weigh 200 pounds.

The question arises, what made this great difference? Some may say that one had good and the other poor luck. This is not true, for there was no "luck" about it. *Care and feed*, and nothing else, made the difference. Mr. C. had a nice clean pen for his pig, fed him well and regularly, and gave him a comfortable place to eat and sleep in; while Mr. P. kept his pig in a dirty, muddy place; the only covering over him except the sky, was made of four foot wood laid on the rafters, and when he bought meal for him, he carried it home in a paper bag under his arm, from which fact his manner of feeding may be inferred. *Care and feed* almost invariably make the whole difference between the sleek, fat, clean, healthy animals of the good farmer, and the poor, lousy, lean, lank, slab-sided, ungainly, and unthrifty creatures which the shiftless farmer calls his "cattle."

THE CORN CROP.

THE corn crop has several formidable enemies to contend with, and among them is what is commonly called the white grub, which damages the crop seriously. One of the best and most judicious remedies, perhaps the best ever suggested, is the application of salt as soon as the plant makes its appearance above the ground. Take one part common salt and three parts plaster gypsum, and apply about a tablespoonful around each hill, and it will be found to be a sure protection. The mixture should not come in contact with the sprouts, as it may destroy them. This method has been tried over and over again by some of the best farmers of Pennsylvania, Delaware and Jersey, and when properly applied has never failed to be perfectly successful. We hope our farmers who have reason to fear the depredations of the grub this season, will try this mixture, leaving a few alternate rows of corn without the salt, and communicate to us the result. We are aware some writers say salt has no effect upon vermin, but we speak in this matter on the best authority.—*Germanatown Tel.*

A suds made from soft soap is good for watering house plants.

BAROMETERS.

WRITTEN FOR THE AMERICAN FARMER, BY J. E. REED, MASS.

THE various and conflicting statements which from time to time have appeared in agricultural papers concerning barometers, has suggested a few thoughts to my mind in regard to their utility to the mass of farmers. These thoughts I will briefly give.

The design of barometers, as most intelligent persons are aware, is to foretell approaching changes in the weather. If they would do this accurately and in a manner which could be easily understood, they would be of great and constant value to the farmer. The question is, will they do this? I do not think they will, and therefore I would not recommend their general use.

Those writers who advocate the general use of barometers tell us of the great value of these instruments to sailors, of their wonderful power to foretell the coming of the storm, and by thus giving time to put the ship in readiness, save both property and life. This I readily admit, but it should be remembered, that for certain philosophical reasons, barometers are much more reliable on sea than on the land. Another point, of perhaps greater importance, is this: sailors, by long experience, and careful, continued observation, can judge much more accurately of the indications of the barometer than the ordinary farmer. Again: high winds are much more dangerous to sailors than rain, and these instruments indicate the approach of severe gales almost as surely as rain storms, and therefore have a double value to men at sea. With farmers, however, the case is different, rain causing them much more damage than wind.

The marks, "changeable," "fair," "rainy," are not accurate, and of course are useless, except when the instrument on which they are engraved is at the level of the sea, as the height at which the mercury will stand depends in a great measure upon the height to which the instrument is carried above the sea level. It should also be borne in mind that great accuracy of observation, long experience, and good judgment, are essential to enable any one to form a definite opinion of the state of the weather in advance by the use of a barometer. This is evident from the fact that the whole range of the mercury, from its greatest extreme is only about three inches in a column of thirty inches, which is the height in ordinary instruments. The Aneroid barometer is not as reliable as the mercurial, and needs no comment. A little certainty would be better than a great deal of guesswork, but as long as ordinary farmers must guess at the weather, it is cheaper to do it without a barometer.

For farmers who have the taste and time for accurate observation, and who do not care for the expense, they may be useful in some degree, but for the reasons above stated, I doubt their usefulness to the common farmer.

[Our correspondent forms conclusions as to the reliability of the barometer as a weather indicator which are common among those who imperfectly or superficially understand the instrument. Absolute certainty is not always to be expected, and the careless observer will often judge incorrectly, but this we will say from an experience of many years, that any one who will carefully and daily note the motions of the mercurial barometer, and the attendant condition of the atmosphere, will be enabled to obtain in the large majority of instances, such indications of climatic changes, as would in portions of the year, be of immense advantage to the farmer. For instance, in time of haying and harvesting, how extremely important to the farmer is the knowledge of the weather for the succeeding day! Untold damage has frequently resulted from this want of knowledge. Now, there are few occasions when the barometer will not indicate the approach of wind or rain storms 9, 12, 15, and 24 hours previously, giving time to arrange protection and safety in the fields. Very frequently to the eye, weather indications are uncertain, when it would be important to the farmer in arranging his labors, to be assured of this or that weather—a resort to the glass only can solve the problem. We know of a manufacturer in this city whose business is dependent on certain conditions of the atmosphere, who if he was unable to procure another, a thousand dollars would not purchase his barometer, so highly does he value its importance. There are times, however, when the instrument appears indifferent to approaching atmospheric changes, but it is seldom the case, and is mostly caused by disturbances at a high altitude in the atmospheric equilibrium which have not reached the denser air below, frequently precipitating rain before corresponding action on the lower atmosphere. We advise every farmer to procure one of these useful instruments, study its character, and note his observations, and although he may not be as the almanac-makers, "weather-wise," yet he will find himself well fortified against the adverse influences of rain, wind, and thunder storms.—S.]

HOP PRODUCT OF THE UNITED STATES.—The hop crop last year is estimated at 20,000,000 pounds, of which 7,000,000 pounds are credited to Wisconsin, and 4,000,000 of that to Sauk county in that State. This year's crop in Sauk county was raised on 2,548 acres, took 20,000 pickers to gather it, and brought into the county \$2,000,000.

HINTS ON BUTTER MAKING.

Salt per Pound.—As to the quantity of salt to be used for butter, something will depend upon its manufacture, and the market for which it is intended. The Orange county butter makers, who obtain the largest prices for their product, use at the rate of a pound and two ounces of salt for a batch of 22 pounds of butter. For winter butter, or butter designed for winter use, a little more salt is used at the last working.

Washing out Buttermilk.—There is difference in opinion among butter makers in regard to washing out the buttermilk. We are strongly impressed that butter will keep best that is properly washed. It is the caseous or cheese particles in the buttermilk, the decomposition of which causes the butter to become frowey or rancid. The more perfectly these are expelled, the better will the butter be preserved sweet and sound. Washing properly, to our mind, secures best that result. It is certainly much less work to get rid of the buttermilk by washing, than by the "kneading process," besides there is less danger of spoiling the butter by overworking, since overworking injures the grain, rendering the butter salvy. It is claimed by some that when the buttermilk is worked out without washing, a more delicate aroma is retained; and this principle is observed in Holstein and Normandy, where a very superior butter is manufactured for the London market.

We have tested hundreds of samples of butter in London, which came from France and Holstein. The butter is very lightly salted, and when fresh has a most delicious flavor, but much of it does not keep well.

Packing.—A most important point to be observed by butter-makers who hope to make a reputation for fine goods, is to pack in suitable tubs or packages. In our opinion, there is no wood so suitable for butter packages as white oak. The timber should be well seasoned, and the packages strongly hooped, so as to be water-tight. No leaky package can preserve butter for any considerable length of time.

In salting cheese, much will depend upon manufacture and the time it is desired to have it ready for the market. From two and a half to three pounds of salt are usual for one hundred pounds of curd. The usual quantity at the factories is two and seven-tenths pounds salt to one thousand lbs. of milk. In spring, when it is an object to have the cheese go into market early, two and one-quarter pounds salt, and even less, are used to the thousand pounds of milk—*X. A. Willard in Utica Herald.*

WHEAT will be ready for harvesting in Georgia in about two weeks.

THE ENGLISH SPARROW.

In the spring of 1866, four pairs of the English sparrow came to Union Square Park, and there built. Three pairs occupied the trees; one ejected a wren from her little house, the only bird-house then in the Square, and took possession; a fifth built in the ivy of Dr. Cheever's church, facing the Square. The industry of these little fellows in devouring the measuring worm—(so great a nuisance that most persons avoided passing through the Park, preferring to go around during their occupancy, and so numerous were they that they did not leave a leaf on any tree except the ailanthus)—was such that boxes were provided on almost all the trees for them. They are very prolific, those hatched in the spring rearing a brood in the autumn, and the old pair rearing four or five broods. In one year they increased from five pairs to a flock of seventy. The Park keeper now estimates them at 600, making over sevenfold increase yearly. Last summer a reward of one dollar a head was offered for worms, but the birds had eaten the last one—they also eat moths, grasshoppers, and many other insects, and they are very fond of bees, which I consider a sinful appetite. Thus far these birds have benefited the city, and have extended to about forty miles in every direction. The estimate that they destroy in Europe one-half million bushels of grain is probably correct; but how much, more or less, would the insects they devour, destroy? The question is simply, which is the greater evil, worm or bird, and which most readily controlled? I have somewhere read that in one of the provinces of France a reward was offered for the heads of sparrows, owing to their depredations in the grain fields; in a few years the grain was more injured by the insects which these birds eat, than the birds ever consumed: it amounted to an almost total loss of the crop. The reward ceased, and in a few years they had an increase of birds, and a decrease of injurious insects. We can control the number of birds by protection, poison, or gun, and they can catch worms much faster than we can.—*Cor. Coun. Gentleman.*

A NEVER-FAILING CURE FOR CHOLIC IN HORSES.—Put a handful of salt in a junk bottle, and fill it up with urine; shake and dissolve, and then insert the nose of the bottle behind the horse's teeth, and discharge the contents down his throat. Relief within half an hour is insured by—*Peedee.*

If you want to keep poor, buy two glasses of ale every day at ten cents each, amounting in the year to \$73; smoke three cigars, one after each meal, counting up in the course of the year to as much more, and keep a big dog.

MARKET FAIRS.

"G. G." in *The Country Gentleman* relates the following year in which a fair was started in Gloucestershire, England, and its first failure and after success. We do not see why monthly fairs for sale of stock would not take well in this country. We would like to see the subject thoroughly discussed in our columns.—EDS.

As failure has to be guarded against, let me relate how it occurred. The hotel keepers, the tradesmen, and inhabitants generally, had a meeting and fixed the days in the year which they considered most likely to suit the requirements of the vicinity, having invited some of the leading agriculturists to come and give them the benefit of their advice. It was decided to advertise and invite by letters, too, all the known dealers in cattle and sheep, which was accordingly done, and on the day arriving there were buyers enough came to purchase 20,000 sheep, and 5,000 cattle; but the farmers being slow to take to anything new, did not believe it would be a likely place to sell at, and there were not more than 1,500 sheep and 200 head of cattle there—consequently the dealers, (drovers they are called in America,) were much disappointed, but the farmers who had stock there sold readily and well, so that when the next fair day came round the sheep and cattle were exceedingly numerous, there being a very fine display, but unfortunately the buyers were so thin, through the former lack of sellers, that now the farmers were defeated in expectation and hope, and future days for fairs were so unsatisfactory in every way, that very little business was done. However, a railroad was made which had a station at the town, and a second attempt was made, and experience having warned them, the inhabitants succeeded in getting most of the farmers in the vicinity to pledge themselves to keep back everything they had to sell, and to bring it to the fair, and to help draw a concourse, every innkeeper gave a dinner free with some wine. This time every precaution was taken to avoid errors, and the undertaking was a complete success. Lord Redesdale, whose Batsford and other property adjoined the town, took great interest in establishing fairs there, and as business was done on the first day of the second start which was satisfactory and convenient for all parties, most of the chief butchers and great dealers, with all the principal farmers, dined at the hotels, where pains had been taken to provide ample accommodations, and thus all parties enjoyed themselves; speech-making and toasting was indulged in, and the fairs from that time became a regular institution. The hotels had their ordinaries, which in England are always well patronized, the trade of the town increased, and Moreton-in-Marsh is now a country town of four or

five times the importance it was prior to the establishment of the agricultural market fairs. It would be an immense benefit to any town in America, to bring about a weekly market for selling grain, and a monthly fair for the sale of live stock, also a real boon and convenience for the farmers to buy and sell at.

REMEDY FOR RUST IN WHEAT.—The following, from a distinguished German agriculturist, is taken from a Bremen paper :

"For thirty years I have found this method successful in preventing rust in wheat: some hours, at the longest six or eight, before sowing, prepare a steep of three measures of powdered quick lime, and ten measures of cattle urine. Pour two quarts of this upon a peck of wheat, and stir with a spade till every kernel is covered white with it. By using wheat so prepared, rust of every kind will be avoided, and I have often noticed that while, in the neighboring fields, a great part of the crop is affected by rust, in mine, lying close by it, not a single ear so affected could be found."

The same writer says he takes the sheaves and beats off the ripest kernels with a stick, and uses the grain thus obtained for seed.

SHEEP IN CALIFORNIA.—A California paper estimates the annual expense of a flock of sheep in that State, at 25 cents per head for pasturage (interest on cost of land used) and attendance, and the annual yield of wool at 6 1-2 lbs. per head, worth 18 to 25 cents a pound. The flocks, without shelter or other food than the natural pasturage, are said to weigh 10 per cent more, to yield a fleece 20 per cent heavier, and to increase 100 per cent more rapidly, than the average flocks of the East. "One sheep-owner began the business in debt in 1853, and now he owns 40,000 head of sheep and 70,000 or 80,000 acres of land—all made with sheep."

ALSIKE, crimson, and spotted, yellow, California clover, gives fair grazing crops the year round, but Bermuda grass is the most reliable grass for summer grazing, the legumes for fall, winter, and spring. So says Dr. Lee. The spotted clover will not stand our winters, yet it is up a full bite in February, in upper Georgia.

THE superiority of Herkimer County, N. Y., pastures, is attributed to the presence of clover. This has more nitrogen than the grasses, and hence better for the dairy.

THE Painesville, (O.) *Telegraph*, gives Lake County the credit of having exported 400,000 bushels of potatoes this spring.

OUR KANSAS LETTER--No. 7.

WRITTEN FOR THE AMERICAN FARMER, BY A. M. BURNS, MANHATTAN, KANSAS.

SINCE the frost "came out of the ground," I have been so busy planting vines and other small fruit roots, that I have made no inquiry in regard to the prospects of a fruit crop among the few who have standard or small fruits growing in this new country, but my own peach orchard at the present writing presents good prospects for a heavy crop. The trees planted 11 years ago, have given a crop only once since, the trees "winter-killing" in the rich bottom land. Last year I cut 30 old peach trees down, for the purpose of planting grapes. I have, however, some young trees growing on the bluffs, (in your country called "hilly" land,) which is not as rich ground as the river (formerly timbered) bottom land, and I think is the place for standard fruit; at least, I will plant in future in no place, except on these limestone bluffs. The soil is rich enough, but not as rich as the low prairie or timbered land. This spring, I got a man to plow five days with six yoke of oxen on the bluffs. I have been trying for 10 years to get this bluff prairie land broken, but money would not induce any "prairie breakers" to make the attempt with the common breaking plow among the stones, but this man plowed five days before he "mashed" the plow. As soon as repaired he will try it again. So that I am in a fair way of getting an orchard of standard fruit trees on the bluffs, which will be the first one so far as I know, in Middle or Western Kansas. We have millions of acres of bluff, stony land in this region which is open for settlement under the homestead law, that is admirably adapted to growing fruit but fruit growers do not come to this region, although on the route of the Pacific Railroad, the cars running about 300 miles further west than this place, and a mile or two of rails are laid daily. If we had a plow which could break the stony bluffs, or if a stone fence (costing \$2 per rod,) would be built around an orchard to keep the fire out, and holes dug eight feet wide for trees, and then mulched with prairie grass (of which there is plenty,) a distance of 20 feet or even less, we could raise fruit in abundance; in fact, I know of no better opening for a young man who wants to commence the fruit-growing business with a small capital. He can get 80 acres within 20 miles of the railroad, or 160 over 20 miles from it by living on it five years, and paying officers' fees amounting to \$15. At the end of five years, government gives him a title, and he can leave if he sees proper. He can buy apple trees for \$20 per 100, grapes from \$15 to \$40, according to quality and variety, and other fruit trees at very reasonable rates. Why then, remain as hired men

at the East? If your purse becomes empty, you can get \$1 per day at farm work while your fruit trees are growing. If you want farm land that can be cultivated by the plow, you can get it by going further West.

In the first settlement of a country grafted fruit trees cannot be obtained; the first settlers must plant an orchard from seeds; my grafted trees are not yet in a bearing condition, but I have some apple trees, the seeds of which I planted eight years ago, where they now grow on a formerly timbered hill side, which show a large amount of young apples, and if they are not killed by the frost, will this year give me a heavy crop. It will be the second crop. Since 1856, I have had grape vines killed back to the old wood—two years as late as the 10th and 11th of May. No frost later any other years than 25th of April.

I have an excellent prospect for a crop of grapes this year, enough to pay the expense of cultivating my five acres. Those bearing now, were planted to test the adaptability of different varieties to our soil and climate, with the addition of a few roots added yearly to make an acre in bearing, from which I propagate as well as produce fruit. It is almost impossible to say which variety will do the best here, although that question is oftener asked than any other by persons writing from the East for information. Being geographically situated in the center of the United States, more varieties will succeed here than east, west, north, or south. This letter is in answer to several correspondents, and they must understand that I speak *only of my own* experience which may be different from others a distance of 80 or 100 miles. Among the grapes that so far have done well, I would name the following: Amanda, Allen's Red Hybrid, (the white not fruited yet,) Blood's White, so called, but of the color of the Diana, large bunch and berry, very healthful, Creveling, Catawba, Concord, Clinton, Delaware, Diana, Dracut Amber, Early Isabella, Flickwir, Franklin, Garrigues, Hartford Prolific, Huntingdon, Isabella. The Iona and Israella are not yet fruited but very healthy. Logan, Louisa, Labe, Mary Ann, Northern Muscadine, Perkins, Rebecca, Rogers Hybrids, Nos. 2, 3, 4, 15, and 19, Saluda, Taylor, Union, Wright's Isabella, and some varieties the names of which I do not know.

The reader must not understand that I have raised largely of fruit, with the exception of Concord, Clinton, Isabella, and a few others. I have fruited only one or two vines. When I found a vine healthy, I propagated, for fear the parent would die. I also wanted several of the same variety to fully test it. If the frost does not take them this year, I will fruit 50 or 60 additional varieties, and next fall give a full report through THE AMERICAN

FARMER. I have not now spoken of quality, only of health, and the names of the varieties that have fruited.

The great drawback with me has been ill health, but my health is improving, and as my vines commence to produce fruit, I can hire help. I did not plant for profit until the spring of 1867, but from my experience since 1856 with the vine, I am satisfied that we have an excellent grape country.

I planted this spring the Doolittle and Kirtland raspberry plants to produce fruit for market. I have a few plants of other varieties on trial. I am also testing the Wilson, Kittatiny, and Missouri Mammoth blackberries. The Wilson strawberry is a success here, and I am planting for market.

We want hardy fruits here. I have tested the Fallstoff, Victoria, Orange, and other raspberries, but unless covered they winter-kill. Pears, cherries, and quinces, have not produced fruit here yet.

I will fully give my experience with the grape in my next and future letters.

Last year the locusts alias grasshoppers, were hatched in the spring, but disappeared without doing any injury. They are here now, just hatched, about the size, perhaps not quite as large as a common house fly. They have not done any great injury yet; the future must tell what will be done hereafter.

DO SHEEP IMPROVE PASTURES?

WE are acquainted with a pasture near the sea coast, which many years ago was an exceedingly foul piece of land, abounding in a great variety of bushes, among which were the barberry and many climbing-plants; and so closely laced and intertwined by the wild rose that they formed an almost impenetrable jungle. Twenty years afterward we saw the same pasture with a flock of sheep on it, grazing upon a close, compact turf covered with short, sweet grasses, and without a weed or bush of any kind upon it.

"How has this reclamation been accomplished?" we inquired, as we stood looking upon it.

"By the sheep," said our informant.

"Without plowing or seeding?" we asked.

"Yes, by the sheep alone;" was the reply.

The pasture was quite uneven and rocky, but the sheep had exterminated every vestige of wild plants, and clothed the surface with rich perpetual herbage.—*New England Farmer.*

JOSIAH QUINCY, enumerates the principal advantages of soiling as follows: 1. The saving of land. 2. The saving of fences. 3. The economizing of food. 4. The better condition and greater comfort of the cattle. 5. The greater product of milk. 6. The attainment of a greater quantity of manure, of improved quality. Mr. Quincy says: "One acre soiled will produce as much as three acres pastured."

ITEMS FROM OHIO.

WRITTEN FOR THE AMERICAN FARMER BY "J. O. W."

AT this date, (May 11th,) the weather is quite pleasant, and farmers are busily engaged in planting potatoes and getting their ground ready to plant corn. An unusually large quantity of potatoes are being planted in this vicinity. One of my neighbors has planted eight acres of the variety Early Goodrich. It is through no negligence of farmers in this (Summit Co. O.) and adjoining counties, that potatoes sustain such an unprecedented price as they do at present. 10, 20, and even 50 acres, have been planted by a single farmer. A strong effort will be made this season to bring the price down to usual rates. A severe and extensive drouth at the West, and heavy and long continued rains producing rot, at the East, mainly contributed to produce the high prices which so severely affect consumers of this ever-necessary article of food. The usual amount of potatoes in the United States is 150,000,000 bushels, but the last year's crop reached only 75,000,000 bushels.

Wheat is looking very fine indeed; the prospect has not been better for years, and it is to be hoped that the harvested products will be sufficient to reduce the prices of wheat and flour. Never in my remembrance have the staple articles of food for both man and beast, attained to so enormous a price as at present. At our county seat, Akron, red wheat has sold for \$2.80 per bushel, potatoes, \$1.50, oats 75 cents, corn \$1.00, and other eatables at almost fabulous prices. I noticed in an Eastern paper that onions were being imported into this country from Germany. What an idea! Previous to this importation they sold as high as \$5.50 per bushel.

It is indeed very strange, that with the vast amount of unoccupied land in this world of ours, together with the numberless labor-saving agricultural implements that are at hand, that mother earth can not be made to yield food sufficient to feed her 1,200,000,000 of children at reasonable rates. There must be fault somewhere in the relations of production to consumption. One grand cause of this state of things is, that there are too many drones in the great hive of humanity, vegetating and hanging around our many cities and villages, whose apparent claim is, that the world owes them a living whether they work for it or not. Pity that such fellows could not be stoned out of their holes and forced to scatter into the country, and undergo a sort of transformation that would fit them for being tolerable laborers on the many hundred thousand farms that are in great want of their services, towards securing two very desirable ends—the reduction of the present high prices for

provisions and farm labor. Twenty to thirty dollars per month, for ordinary help on a farm, absorbs profits fast, and some way, if possible, should be devised to remedy this evil. This matter of obtaining farm help is becoming a perplexing thing. Circumstances within a few years past, have effected a reversion in the relations of the employer and employe. Formerly the employer had something to say about price and conditions of labor, but now the employe has it pretty much his own way, fixes his own price, and does well or ill as inclination may chance to prompt. The employe knows that his employer will submit to almost any amount of impudence and unfaithfulness on his part, before he will dismiss him from his employ, as the chances of finding and obtaining another are extremely doubtful. This great lack of available farm help, together with the large share of deficiency when obtained, is beginning to tell seriously upon the outward appearance of farms in many parts of the country. Many things in the line of fixing up, have to be neglected through mere want of time. A sufficient amount of help to meet the adequate wants of farmers throughout the country is not to be obtained, hence the truthfulness of the remark of a Minnesota farmer:—"The great curse of this country is that we have too much land." To make farming really profitable, pleasant, and attractive, the only alternative is, either less land or more help. Too many farmers degrade their employment (of which none is more noble) by making it a regular dog's life—labor too incessantly, too many hours per day, take too little recreation, and pay too little attention to mental culture. As a class, farmers are below mechanics in general intelligence, whereas the reverse should be the case; for no other physical employment furnishes better opportunities for cultivating the mental faculties and acquiring general information; and moreover, success in farming demands the exercise of an inquiring mind. This must supplement all other qualities and agencies, natural and legitimate to the business, and is essential in order to render the man master of the situation.

SHEEP---IMPORTANT EXPERIMENT.

WE copy from *The Country Gentleman* the result of a very important experiment in feeding Leicester and Merino sheep, conducted during the past winter by Mr. J. Winne, of Albany county. This experiment was conducted by Mr. W. for the sake of setting at rest the claim so often advanced by those specially interested in Merinos, that if they weigh less than English sheep, they also consume less food, and are equally profitable to feed.

Two lots were set apart, consisting respectively of 60 Canada Leicesters and 61 Merinos; they were

weighed Feb. 10th; a careful account was kept of all the food they consumed during the continuance of the experiment, 46 days, to March 28, when they were again weighed and sent to market. These numbers were thought to represent fairly the whole, and were taken as avoiding the trouble and additional risk of error which would have been incurred by larger numbers. The experiment began after both lots had been got in good progress—the previous and subsequent treatment of both having been precisely alike. The Merinos were an extra good lot, the 180 having been selected out of 600—and no complaint could exist against them, as we know by personal examination, on the ground of being below the best merits of their kind.

The following are the figures as regards weight, &c.:

Feb. 10—60 Coarse Wools weighed	8,870 lbs.
March 28 do. do. do.	9,878 lbs.
Gain in 46 days	1,008 lbs.
Total cost of feed, (hay, grain, oil-meal, roots, &c.)	
for the 46 days	\$178.43
February 10..61 Fine Wools weighed	6,909 lbs.
March 28 do. do. do.	7,850 lbs.
Gain in 46 days	480 lbs.
Total cost of feed as above	\$144.78

When both lots were sold, March 31st, the former realized 10 3-4 cents per lb., and the latter 10 1-2 cts.

A calculation in simple proportion will show that if the coarse wools gained 1,008 lbs. at a cost of \$178.43 for feed, the gain of the fine wools at the same ratio upon an expense of \$144.78, should have been 836 lbs., whereas it was only 480 lbs., or a little more than one-half a proportionate amount as compared with cost. As compared with live weight, Feb. 10th, the coarse wools gained 11 1/4 per cent in the 46 days—the fine wools not quite 7 per cent.

HAYMAKING.

GRASS and clover, when ready to be cut down, contain a considerable quantity of sugar, gum, mucilage, albuminous, and other soluble compounds, which are all liable to be washed away by heavy showers of rain. As long as grass is still quite fresh, rain falling upon it has little or no injurious effect, for fortunately a coating of waxy or fatty matter covers the epidermis, and wraps, so to speak, the whole vegetable matter in a waterproof mantle. Rain, for this reason; may fall for days on newly cut grass without doing any injury to it; but the case is very different if, by repeated turnings, the crop has become more or less bruised, and rain then descends upon the half-made hay; not only are sugar, gum and other soluble matters then liable to be washed out, but the bruised state of the plants, admitting at least a partial diffusion of the various constituents through the lacerated cell walls, induces fermentation, which, if not checked at once, causes further loss. During the fermentation soluble albumen and sugar are destroyed—two of the

most valuable elements of nutrition. In showery weather, grass recently cut should, for this reason, not be turned over more than is absolutely necessary, and under all circumstances it is desirable to handle the crop as lightly as possible, in order that it may not get much bruised.

I have seen farmers spending labor in turning hay on overcast days, on which a dew-point hygrometer showed the air to be nearly saturated with moisture, proving that evaporation could not possibly take place at the time, and rain might be expected at any moment.

As long as grass and clover are still quite fresh the proportions of water to sugar in the green plant are too large to encourage fermentation; the nitrogenous constituents in newly-cut grass, moreover, only become ferments after the vitality of the plant has been destroyed, and the vegetable cells and vessels have become ruptured by partial drying, and their contents have been mingled together. With the evaporation of water, and the more or less complete destruction of the living organization of the plant, the conditions become more favorable for active fermentation. Should the weather unfortunately turn showery at that stage of the haymaking process, and the air become saturated for many days and weeks together, the half-made hay often begins to ferment already in the field. When this takes place, the hay loses in quality, and becomes much more liable to heat afterwards in the stack. If, on the contrary, fine and warm weather sets in, and evaporation proceeds with rapidity, the per centage of moisture soon sinks sufficiently low to prevent altogether, or greatly to retard fermentation. The hay remains sweet, and shows far less tendency to heat in the stack, even if it actually contains more moisture than hay made in unfavorable weather. The more quickly the hay can be made in the field, and the less it gets bruised, or loses color there, the less likely it is to heat in the stack. Much hay is injured, however, when it is quickly made, and in a fine season it looks to be ready before it is so.

If dried ever so much and ever so carefully in the field, hay nevertheless heats to some extent in the stack. A slight fermentation, so far from being injurious, may be useful, for, as is well known peculiar aromatic principles are thus generated, which certainly renders hay more palatable, and it may be more nutritious. As long as the green color is retained, there is no danger of the hay losing in quality, but if the heat in the stack becomes so intense and continuous as to turn the hay decidedly brown, I have no hesitation in saying that considerable loss in feeding matter is incurred.—*Dr. Voelcker, in Journal of Royal Agricultural Society of England.*

THE army worm has appeared in Louisiana.

FOREST TREES.

AN ACT TO ENCOURAGE THE GROWTH OF FOREST TREES.

Be it enacted by the Legislature of the State of Kansas:

SECTION 1. Every person planting one acre or more of prairie land, within ten years after the passage of this act, with any kind of forest trees, and successfully growing and cultivating the same for three years; and every person planting, protecting, and cultivating for three years, one half-mile or more of forest trees along any public highway, said trees to be so planted as to stand at the end of said three years not more than one rod apart, shall be entitled to receive for twenty-five years, commencing three years after said line or grove of trees has been planted, an annual bounty of two dollars per acre for each acre so planted, and two dollars for each half mile so planted, to be paid out of the county treasury of the county in which said line or grove of trees may be situated. *Provided*, the bounty hereby given shall not be paid any longer than said grove or trees shall be cultivated and kept in a live and growing condition.

The above is the law passed by the Legislature in February, 1867, in regard to the cultivation of forest trees, and has been in force since its passage and publication.

The second section relates to the manner of proof, the party having planted and cultivated the trees as required by the above section, must present the necessary proof to the Clerk of the District Court, who is authorized to draw on the county treasury for the stipulated bounty.

The Illinois State Agricultural Society has also offered four liberal premiums to the parties who will plant the largest, second, third, and fourth largest timber plantations within the bounds of the State, which shall appear most valuable on the first of October next. Kansas and Illinois have set a noble example, which should be followed by all the States.

PUNCH advises farmers to sow their P's, keep their U's warm, hive their B's, shoot their J's, feed their N's, look after their potatoes' I's, and take their E's.

A Canada farmer objects to feeding whey to cows, as it affects unpleasantly the flavor of the butter produced after such feeding.

ON stiff, heavy soils, designed for wheat, it will be found to pay well to sow peas as a prelude to the former.

THE first wheat sown in Ohio was at Marietta, in 1788.

PLOW LESS AND CULTIVATE BETTER.

WRITTEN FOR THE AMERICAN FARMER, BY "L," BRENTWOOD, N. H.

THIS is a good text, and is so admitted by most farmers. From it, a long practical sermon might be written, but I have not the time nor the right to so much space in our paper as it should occupy. Farmers generally admit that it would be better to cultivate less land and do it better, but still they go on in the old way of plowing ten or fifteen acres, while they have only manure enough for five or six acres, dropping a heap here and one there, and after being spread one would hardly know that there had been any dressing put on at all. The result must be slim crops, besides sapping the ground, and leaving it in a worse condition than before it was plowed. Let me explain more fully. A has a field of fifty acres; he keeps stock enough to eat all his hay and other fodder; perhaps he has to buy some hay in the spring; he is very apt to, or have poor cattle. Perhaps he has forty loads of manure. He goes to work and plows up eight acres of ground, two of which he breaks up; had'n't time last fall, he says, to break up any—"It come on cold so early, and had a good many 'taters to dig." Well, on these two acres he puts no dressing; he plants them with potatoes, using no plaster or ashes, and then complains that his "taters are dreadful small." On the six acres he spends the forty loads of green manure, by putting in the hill, a part of which he plants with corn and beans together, and a part with potatoes. He says he "guesses he won't sow down any ground this year." He is "short for dressing, and help is scarce, and wages high," so he is planting some of his ground the seventh year in succession. Now for the result: his corn comes up looking yellow and sickly, a drouth comes on in July, the green manure in the hill dries up, and so does his corn, and after all his hard labor and expense, he gets only half a crop of poor corn. His potatoes are small indeed; his beans are blighted and he cannot sell them for hardly half price; so he says, "farming is hard work and don't pay." It does not pay *him*—that is a fact; and why? Because he goes over too much land, and does not cultivate it at all. If he had plowed only three acres, worked his manure fine and nice, spread on the coarsest, and plowed it under, put the finest and oldest in the hill, hoed early and well, keeping down the weeds, he would have got double the crop that he did from the eight acres. Perhaps some will not believe this, but it is so!

Let us see how Mr. B. manages, for he sees farming in a different light. B has a field of the same number of acres and of the same quality naturally, as A's. He keeps double the stock, and has hay to

sell. He makes four times the dressing by hauling into his yards, muck, loam, &c., keeping hogs to work it up. He plows only five acres, two of which he sows down to grass, after giving it a very liberal dressing of good strong manure. The three acres he plants with corn and potatoes, dressing not only the crop, but the land, so he may see the good effects in years to come, and when he gets ready to sow it down to grass, the grass will grow, and where A gets only half a ton from an acre, B gets four tons, and where A gets only 40 bushels of small potatoes from an acre, B gets 200 bushels; and where A gets only 20 bushels of corn to the acre, B gets 60 bushels of sound corn; and where A gets no grain at all, no ground laid down for the want of dressing and help, B will get 100 bushels of barley, beside the straw, and next year six tons clover hay, and with a little top-dressing in the fall, I have no doubt that he will cut four tons to the acre, eight tons tip top timothy and clover hay from the two acres he has sowed down this spring as much or more than A will get from twelve acres.

Now comes the secret of B's success, and it is no secret either, for any man with half common sense can see through it at once. First B plows deep and well, plows no more than he can dress and take care of, as it ought to be. Sows and plants in season, hoes early, and keeps the weeds down. Improving every hour in collecting waste muck, loam, and everything that will make manure, and keeping the hogs at work all the time, mixing up, condensing, and refining, for without manure, here in New England, it is of no use to plant on sod; but with a little forethought and a little extra labor, a farmer can get together quite a pile of good fine dressing. A can have as much of everything as B, if he is so inclined, and looked upon farming as a paying institution, instead of the contrary; not plowing any more than he can dress and take care of as he ought. Improve the land, and his crops will improve in quantity and quality, or in other words, "plow less, and cultivate better."

THE greatly increasing demand for horticultural products at the West, has taxed to the utmost all our Western nurserymen to meet it. Nearly all we know of are sold quite out of the staple articles of merchantable age. Neither is the demand confined to these; for the florists are meeting with good sales, showing that the ornamental tastes of the people are advancing equally with the useful department.

THE *Maine Farmer* says that a new interest has been awakened among the farmers of that State in regard to wheat growing, and that very many have sown.

SPIRIT OF THE AGRICULTURAL PRESS.**Rupture on Colts.**

In reply to an inquiry how to cure a rupture, *The American Stock Journal* says:

Ruptures are of two kinds, reducible and irreducible. When the protruded organ has become adherent to the abdominal walls, and does not shift its position when pressure is applied, it is called irreducible, and in such case, when an operation is attempted, it is almost invariably with a fatal result; but where the rupture is supple and may be displaced by pressure, it is termed reducible, and the rupture may be reduced by pressure and applying a bandage round the body. We would advise you to put a wide bandage around the body of the colt, keep it on for some time, and it will most likely effect a cure. If it does not, an incision must be made through the skin, the part protruding returned, and the edges of the lacerated muscles brought together by wire sutures. In many cases, however, rupture may exist without interfering with the horse's health, and in such cases it is for the owner to consider whether an operation is expedient.

Bran for Milch Cows.

Plain bran or ship stuff, says *The Stock Journal*, is one of the very best kinds of food to increase milk. It is not fattening. A steer could not be fattened on bran alone, and a cow, if fed on the best of hay and bran alone, might fall off in her yield, unless her strength and condition were kept up by Indian meal, or stronger food. If there is anything in which there would seem to be no strength, it is bran—the mere hull of wheat. It is not stimulating, like brewer's grains, and can certainly do no harm, if it does no good; and yet any farmer who will make the experiment will find—or, at least we have found—that a cow being otherwise kept in a proper condition, her yield of milk will be very considerably increased by giving her, twice a day, a feed of pure bran. The fact is patent, although we are not able to explain it. If there is any one article, which while keeping up the health and strength of the cow, will also increase the supply of rich healthy milk, in our experience it is cotton seed cake meal. We have found this to have a great effect on the milk secreting organs. The cows, at first, do not seem to relish it, and it should be mixed with some other feed, but they soon come to like it, and we have never seen any bad effects in any way.

Killing Potato Bugs.

"S. M. A." in *The Prairie Farmer*, gives the benefit of his experience in killing potato bugs, as follows:—

In the year 1860, in passing through my patch of $\frac{3}{4}$ of an acre one day in July, I found about a quart of bugs. I took a club and killed the last one, so I thought perhaps that would be the last for that season. But behold, in a week there came about a bushel. I stood and looked on in amazement for a few minutes, as I studied up the following successful plan:—at the upper end of the patch was a lot of old hay—I took my pitchfork, carried the hay and piled it in the midst of the bugs, between two rows. I then got a bush

and drove the bugs into the hay and set bugs and hay on fire. This settled the hash with them for that year and saved the potatoes. In 1863, I repeated the same process using straw with good effect. In 1865 I used the straw and fire three different times in a few weeks, placing the straw in the same place, and driving the bugs to the straw. In 1866 I had to use fire but once, and if the bugs see fit to visit my patch this year, they will be apt to get the same kind of fare again.

Time to Cut Timber.

A correspondent of *The Southern Cultivator* in communicating the following experiments, remarks that the best time to cut timber is when in full leaf—July and August—and that the knowledge would have been worth thousands of dollars to him, had he possessed it years ago:

Lot No. 1, was cut in July, 1860—house logs to put up cabins; red oak. They were put up, but not covered; been exposed the whole time; still sound.

No. 2 was square timber for gin house, of red oak, post oak and over cup, was gotten out in December, 1860; piled and covered with plank till 1863: exposed since that time; sound on the outside about two inches; perfectly rotten in the heart; red oak the worst rotted.

No. 3 was of the same kind of timber, subject to more exposure; gotten out in June, 1861; much sounder than No. 2; green timber sawed in July, 1861; subject to same exposure as No. 2; still quite sound.

My conclusion from this is, cut your timber when in full leaf—July and August best. All timber cut after the fall of the leaf will heart-rot.

Labor Question at the South.

The labor question at the South seems to be the absorbing question at this time. A correspondent of *The Southern Cultivator* gives the following as his plan for the future:

I have 40 men, my former slaves. I can select from them 10 men that I know are faithful. I will hire them now at fair wages per month, giving them a garden of two acres of land for their wives, and plow it for them as in old times. With these 10 ten men, I will cultivate 150 acres in corn and cotton, made rich with barn yard stable manures, rotating, and not permitting the same land to be cultivated but once in four or five years. Every planter can surely pick from his flock of negroes 20 per cent of good, reliable workers; if not, take what you can get, and make the best of it. The question may be asked, who is to gather up this manure. I answer, one of the hired men, whose business it should be to do nothing else, and if any change be made, give your manure maker aid, rather than take him to the aid of others. I hold that manure made on the plantation is cheaper and better than that which is bought.

Ashes for Wheat.

A correspondent of *The Rural Gentleman*, in Delaware, writes strongly in favor of ashes to prevent rust in wheat, and from experience has found them of great value. As to the effects of ashes, he says they have, like Shakspeare's "sherry sack," a "three-fold operation":

1. The ashes operate as a manure upon the wheat, even in the limited quantity of eight bushels per acre.

2. They push the wheat forward several days, and in time to escape the hot, sultry days which often prevail about the time of the "heading out" of the wheat; and

3. They strengthen the stem, giving it substance and solidity.

I may add one or two more properties of the ashes, beyond the "sherry sack"; they afford just that kind of pabulum or food, which is best for the development and perfection of the grain, and will, in my opinion, also prevent the ravages of the fly in wheat. I would here venture the remark, that whoever once tries this experiment will thereafter spread his wood ashes upon his wheat, as above indicated; and, in so doing, he will effectually guard against and prevent "the rust" in his wheat.

Sheep Raising.

Lient. Governor Stanton, of Ohio, says in regard to sheep raising in England :

One thing that struck me very forcibly was, that all farmers testified that sheep raising was absolutely indispensable to successful farming; that their manure was necessary to preserve the fertility of the soil; and that without them the whole kingdom would, in a few years, be reduced to barrenness and sterility. It is in this view that I regard sheep raising in this country as more important to the ultimate and permanent prosperity of the country, than on account of their profits. Whatever else may happen, we cannot permit the virgin soil and these beautiful fields of ours to be reduced to barrenness by the time they pass into the hands of our children and grandchildren. Their fertility must be preserved at all hazards, even at the expense of present profit.

A Bee Flower.

An excellent bee plant, writes a correspondent of *The Cottage Gardener*, is the *Phacelia tanacetifolia*, or Tansy-leaved *Phacelia*. It is a tolerably hardy annual, some seeds of which were brought into this country from California in the year 1832. Although but little cultivated, it is remarkable for its elegant foliage and fasciated spikes of violet flowers, which continue to blow during the greater part of the summer and autumn months, but chiefly in June, July, and August.

This plant is easily raised from seed, which should be sown in the spring in ordinary garden ground, and it requires no protection after the severe frosts are over. Besides being a great acquisition to apiarians and to amateur bee-keepers on account of the special attraction of its numerous flowers for bees, it is highly ornamental, and deserves to be generally grown in flower gardens, and in the neighborhood of apiaries.

Ox Yokes.

A correspondent of *The Valley Farmer* saw iron ox-bows at use at the navy yard in Philadelphia, found the teamsters approved of them, went home, and for eight years used none but iron. He used a $\frac{3}{4}$ inch rod of round iron with screws on the ends with a nut three by two inches. With a $1\frac{1}{2}$ inch hole required by wood

bows, the yoke is much more weakened than by those of only $\frac{3}{4}$ inch for iron.

Salt and Lime for Wheat.

At a recent meeting of the Farmers' Club of The American Institute, in New York, Mr. George Steele, of Thorndale, Chester County, Pa., stated that he has used salt with lime, and alone, as a manure for wheat, for a number of years, with good effect. He thinks that one and a half sacks of merchantable ground salt, or an equivalent of dirty salt, and 25 bushels of lime per acre, produce as good wheat as a moderate dressing of stable manure, and the grass after the wheat is as good. The salt and lime have been applied after plowing, and harrowed in; the lime spread with a shovel or lime spreader, as soon as slaked, while in a powdered condition, and the salt sown broadcast, or mixed with the lime before spreading, or the lime slaked with brine. The rocks on Mr. Steele's farm are talc slate. The soil, gravel, clay, and loam, was exhausted about 74 years ago, and its cultivation abandoned. It has since been reclaimed from barrenness by an improved system of agriculture, and the use of lime as a manure. The land to which the salt was applied had been frequently limed, which fact may be important in considering the effect of the salt applied alone, Mr. S. believes to be as good for this land as the salt and lime.

Agricultural Papers.

"S. W. J.," in the *St. Louis Journal of Agriculture*; thus discourses on the value of agricultural papers :

My neighbor who had two acres of raspberries to trellis this spring, says it does not pay to take agricultural newspapers. He called on me to help him devise a cheap yet substantial trellis. After many suggestions, and much deliberation and debate, we decided upon a plan which we thought would cost about \$40 or \$50. But before the time for beginning the work came on, there appeared in an agricultural journal the subjoined mode of putting up a trellis for raspberries, and other such vines. It was adopted, and my neighbor saved \$20 in money, and had a better trellis than the one thought of. With his \$20 saved he is enabled to take two good agricultural journals for the next five years. There are many instances, to my knowledge, similar to the above; yet there are many farmers who say, "I can't afford to subscribe for a paper, my income is small, and it won't pay!" How anybody can arrive at such a conclusion as this I can't tell, unless they think themselves wiser than anybody else, and need not the advice or the consultation of any one; for in public journals we may hold converse with those who have devoted their lives, and, in many instances, their fortunes, promoting the advancement of agriculture.

The European Larch.

George Husmann in *The Journal of Agriculture*, recommends the planting of the European Larch in Missouri for a future supply of posts for grape trellis in that State. It will flourish on a poor soil, is a quick grower, durable wood, easily propagated, and very picturesque. He has a number of trees ten years old, which measure from six to nine inches in diameter.

Horticultural.

THE VEGETABLE GARDEN.

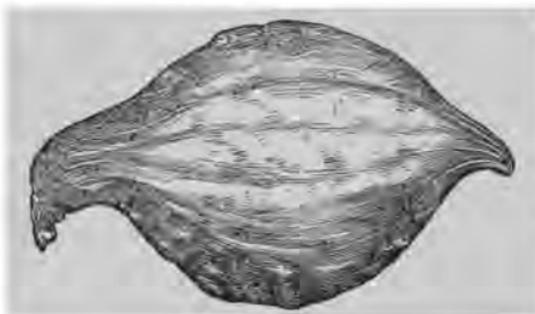
Squash.—Any of the varieties of squash which have not already been planted, should now be attended to. The planting and management should be the same as we



SUMMER BUSH CROCKNECK.



EARLY BUSH SCOLOPED.



HUBBARD.



WINTER CROCKNECK.

Late Cabbage.—The late varieties of cabbage, such as are intended for winter use, may now be sown. The ground which is to be occupied for seed beds, should be dug from 12 to 18 inches in depth, and the soil made rich and light by incorporating with it a sufficient quantity of decomposed stable manure, and thoroughly pulverize the whole. The seed should be sown broadcast, but not too thick. When the young plants appear, if they should be attacked with the black fly a small quantity of kerosene should be placed in a can of water and thoroughly stirred through it, after which it may be allowed to remain for a few hours; then sprinkle the young plants with the mixture to counteract the ravages of the little depredator. When the plants attain the height of four or five inches, transplant into highly manured ground, setting the plants 3 feet apart. Keep the ground loose by frequent hoeings and thoroughly working the soil during their period of growth. The best kinds of winter cabbage are the Marblehead, Mammoth, Large Late Bergen, Flat Dutch, Large Late Drumhead and Drumhead Savoy.

Carrot.—Carrots for a winter crop may be sown any time during the month of June or early part of July. For garden culture sow in drills 10 inches apart, and for field culture 14 inches. Thin out freely, so that the plants may have plenty of room to grow, and swell their roots. Hoe frequently and deep, and if possible,

have recommended for cucumbers and melons, except as to distance. The bush varieties require to be planted only three to four feet apart, and the running varieties from six to nine feet apart. For early we recommend the Early Golden Bush, Early White Scallop Bush, and Summer Crookneck, and for later, the Yokohama, Lima, Coconut, Hubbard, and Winter Crookneck.

choose a light, sandy loam, which should be well manured for them to grow in. The best varieties for a main crop are the Altringham, the Long Orange, and the Long White Belgian Green Top.

Beets.—The early kinds of beet, like the Early Bassano and Blood Turnip Beet may still be sown for a succession, and also those for winter storing like the Long Blood and Long Smooth Blood. They require a light, rich soil, and such as are intended to be grown in the garden should be planted in rows about 18 inches apart, and thinned out to about six inches. Mangel Wurzel intended for field culture, may be planted in rows not less than 30 inches apart, and the plants thinned out to eight inches apart in the rows. Stir the soil frequently to keep it loose, as the plants grow more vigorously; when the soil is light and porous it promotes capillary attraction by which the soil is kept above. This is most essential in the growing of all root crops. When a soil becomes compact on the surface, it is usually dry, for the reason that no moisture can arise from below to permeate the soil above.

The Cincinnati Horticultural Society will hold an exhibition in Pike's Opera House, Cincinnati, on the 6th of June next. Liberal premiums are offered, among which is a silver cup for the best new seedling



EARLY BASSANO BEET.



EARLY BLOOD TURNIP BEET.



LONG BLOOD BEET.



LONG RED MANGEL WURZEL.

**Tigridia.**

A beautiful, curious, shell-like flower, giving abundance of bloom for a long season. A small bed of these bulbs is scarcely ever without flowers. About 18 inches in eight.

Tigridia pavonia, red, spotted with crimson.

Tigridia conchiflora, yellow and orange, with spots almost black.

The beautiful and life-like engravings in this number were drawn from nature and engraved for James Vick, the well known florist and seedsman, of this city.

"ABSURDITIES."

A correspondent of *The Rural New Yorker* signed "Addi," in its issue of the 23d of May, animadverted pretty severely on an article which we published from a correspondent in our last number. However, just the criticisms of "Addi" may be of the article in question, they are entirely unjust towards ourselves—for we can assure "Addi" that we are as well versed in vegetable physiology as he or she, or any other critic who choose to amuse themselves by scribbling for the agricultural or horticultural press, and if such critics are too ignorant to understand why we publish such articles occasionally without comment, we desire to inform them that it is customary with nearly all the leading agricultural and horticultural journals to publish such articles for the purpose of inviting criticism, that the absurdity may not only be shown to be such, but that it may receive a much stronger condemnation than would be given it by the editors. In proof of this, we give a similar article from *The Rural New Yorker*, vol. 19, No. 11, where it appears without comment! We give the article which "Addi" criticises, and the article below it from *The New Yorker*, which shows the inconsistency of such a review in its columns:

"In the garden of a distinguished person, the traveler saw a tree which was the product of the combination of three different kinds of seeds—the orange, citron, and lemon; and each particular fruit of the tree contained qualities of each sort of fruit. The mode of producing this tree is as follows:—Three seeds, one of each kind, are taken, and the outside shell or coating one seed is stripped entirely off, and placed in the middle of the other two seeds, that have each one of its side coatings taken off, and then the three seeds are closely bound together by fine grass, and deposited in the earth, from which in due time there springs forth a germ which subsequently develops into the tree and fruit above described."—*Correspondent of The American Farmer*, Vol. 3, p. 145.

The correspondent of *The New Yorker* remarks on this as follows:

"The formation of the germ of the tree, laid up in the seed by the commingling of pollen or fructifying power from the blossom, he would never have regarded the paragraph which he extracted as above, as any more than a traveler's tale, written to fill up his book and amuse a gullible public. The slightest injury to the germ of a bud or seed once formed, is well known to be its destruction. In order to procure an admixture in vegetable life, as in animal life, recourse must be had to the primary source. The "sweet and sour" apple is a distinct and long well known variety, produced, doubtless, by intermingling of the pollen of sweet and sour fruits when in flower, and so intermingled and formed in the seed, that when it became a tree both parents were developed as plainly as the grape known as Rogers No. 4 develops the native Fox and the Black Hamburg varieties which crossed in the flower produced a seed from which the No. 4 was grown."—*Rural New Yorker*, p. 187.

"FRUIT FLAVORED AT WILL.—A gardener of Gand, has, after many trials, succeeded in giving any kind of fruit the flavor he pleases while it is still on the tree. Let us take an apple for instance; he pricks it rather deeply in four or five places with a large needle, and then lets it dip for a while in a bowl containing a liquid possessing the flavor he wishes to communicate. After a few seconds this will have penetrated into the pulps; and this operation being repeated two or three times, at intervals of eight or ten days, the apple is left to ripen on the tree, and will subsequently be found to have acquired the taste of strawberry, raspberry, cloves, &c., according to the liquid employed.—Galigiani."—*Rural New Yorker*, Vol. 19, No. 11.

How delightful such a revolution in horticulture, and how gratifying it must be for any proprietor to be enabled to invite his friends into his fruit garden or vinery, and lead them up to any favorite tree or vine, as he would to a soda water fountain, and ask them to partake of any flavored fruit they may choose. For instance: they visit the vinery, and pointing to the fruit, he says to them "Such grapes as you now see, before this grand discovery in horticulture, had nothing more than their natural flavor—such is common to all the tribe of Muscats, Black Hamburgs, and Frontignacs; but now, thanks to this ingenious horticulturist of Gand, I can present you with a Muscat of Alexandria, flavored with any extract you choose. Which do you prefer?—Strawberry, Pine Apple, or Raspberry?" The next grand discovery which we shall be likely to announce will be that some eminent horticulturist has been enabled to add perfume to the violet or artificial color to the rose!

AN ENGLISH CLANCE.

DARK, lowering clouds and gleams of sweet sunshine heralded in the spring; and those who will may read a lesson of life in the morning, and gladness typified in the heavens, and see that everything dark is succeeded by something bright; the night by the day, the winter by the spring, the cloud by sunshine, and the rough storm by the peaceful calm. So to read nature is one of man's greatest pleasures and proudest privileges, but only those who love her, and all that belongs to her extended realm can do so.

The dwellers in cities as they look up between the houses at the glorious august vault of heaven, sighs for the incense-breathing country, with its wood lands just bursting into life, and its birds singing joyously as they sit perched above a carpet of primroses and violets.

Oh! but to breathe the breath,
Of the primrose and drowsy sweet;
With the sky above my head,
And the grass beneath my feet.

But we Londoners, are not altogether deprived of the refreshing influences of flowers and trees. Horticulture is more than ever in the ascendant, and beautiful public parks and gardens are springing up in every part of London. It is an exotic taste, no doubt, but it has at length become naturalized, so that we find government after government spending large sums in laying out and beautifying our public parks. And we are a happier people for it; and all people, in all parts of the world are happier for a garden to walk in, and a shady tree beneath which to sit.—*London Correspondent of Farmers's Friend*.

A CURIOUS FACT.—W. C. Flagg, one of the best horticulturists of the Western States, writes that "It is a curious fact that out of 41 varieties of apples approved in ten or more districts by the American Pomological Society in 1864, 11 were recommended by Cox half a century ago." These are:—Early Harvest, Large Yellow Bough, Summer Queen, American Summer, Pearmain, Summer Rose, Maiden's Blush, Rambo, Fall Pippin, Yellow Bell-flower, Esopus Spitzenberg, and Newton Pippin.—*Horticulturist*.



GROUP OF GLADIOLI.

THE Gladiolus is the most beautiful of our summer bulbs, with tall spikes of flowers, some two feet or more in height, and often several from the same bulb. The flowers are of almost every desirable color—brilliant scarlet, creamy white, striped, blotched, and spotted in the most curious and interesting manner. When cut and placed in water, the spikes will continue

to flower for a long time. The culture is very simple. Set the bulbs about nine inches apart, and cover about two or three inches. Then keep the earth mellow, and place a neat stake to support the spikes in storms. As soon as the leaves become somewhat dry, take up the bulbs, dry in the air a few days, cut off the tops, and store the bulbs out of reach of frost, for next year.

Ladies' Department.

SPECIAL PREMIUM FOR THE LADIES.

WE have made arrangements to offer the following Dress Goods as Premiums to our lady friends in raising Clubs for THE FARMER. The goods are of the best quality, and will be carefully packed and delivered to Express Companies for delivery according to order. Any color will be sent that our friends may desire. Subscriptions will be at our regular Club rates, 75 cts each. Subscriptions can commence with our next issue for one year, or back numbers will be supplied from January, and continue to December, as preferred.

	Yards.	Value.	No. Sub.
Cocheco Calico.....	12	\$ 1.80	8
Muslin Delaine.....	12	2.64	10
Mohair Travelling.....	12	4.50	12
" ".....	12	6.00	16
" ".....	12	9.00	20
Black Alpaca.....	10	7.50	18
" ".....	10	10.00	24
" ".....	10	12.50	28
Colored Alpaca.....	10	12.50.	28
French Poplin.....	10	15.00	34
" ".....	10	17.50	38
" ".....	20	20.00	40
Black Silk.....		25.00	50
" ".....		30.00	60
" ".....		40.00	75
" ".....		50.00	90

We hope all our lady friends will go to work energetically, and secure some of the above prizes. Who will be the first to respond?

TO THE LADIES!

A CHANCE FOR ALL!

DESIROUS of presenting our Annual on Flower Culture, &c., to all our lady readers, we make the following offer:—We will send a free copy of "The Ladies' Garden Companion for 1868," postage paid, to any person who shall send us

ONE DOZEN ORIGINAL DOMESTIC RECEIPTS,

to be published in future numbers of THE AMERICAN FARMER. We hope a large number will avail themselves of this liberal offer, to take effect from this time. Who will be the first to respond?

HOUSEHOLD CARES--No. 15.

"I was saying to one of our church elders the other day, that I made it a rule to have the children in bed by six every evening, summer and winter.

"That is right," he replied: "There are three things children want—plenty of sleep, plenty of flannel, and plenty of milk."

I agreed with him, but mentally added plenty of air, and plenty of judgment and discretion. It takes a good deal of wisdom and a little experience to bring up children healthy, strong, and well. There is an old saying erroneously attributed to Isaiah, Ezekiel, or some other of the prophets:—"God tempers the wind to the shorn lamb." Whether he does or not, I shall

not here discuss. I believe He does; but take it as a text to young mothers; temper the food, clothing and daily and nightly rest of the infant lamb committed to your charge according to the atmospheric or other circumstances in which its little life is placed. A child may have too much sleep, if produced otherwise than by the call of nature. I allude to the use of narcotics to induce sleep. It may have too much flannel; if more is used than is sufficient to make it comfortable, and it may take too much milk, if it must depend upon that for sustenance when the system requires stronger and more nourishing food. A flannel bandage over the bowels, and a woollen shirt to protect the chest, I consider essential to the health of a child, and is in warm weather a great preventive to summer-complaints, especially is it so where the child runs about out-doors. To bathe the baby in tepid water every morning (never use cold—that is barbarous,) is a great preventive against colds, fevers, &c.

Many persons suppose that common scented toilet soap is better for the skin than ordinary washing soap. I think this a mistake; most of the toilet soaps are made from plain white soap highly perfumed and fancifully shaped or molded. If you wish to use a soap that will not injure the complexion, procure from the druggist, (not the grocer—their so-called Castile soap is poison to the skin,) some reliable, pure imported Castile soap, and have his warrantee that it is the genuine article. But you may be your own judge. It comes only in two forms, the greenish white and the mottled, is never molded in shapes, but is rough and irregular in appearance. If left for even so short time in water, it will be surrounded by a thin jelly, very different from common soap. It is worth at this time 80 cents a pound. Farmer's families should never be without it, as it is invaluable for burns, washing sores, &c., on horses and cattle. It is extremely healing in its nature.

We have been having a new walk made down the center of the garden, just where Jake had planted two long rows of early peas. Of course, the seed which had been buried nearly a foot deep, was thrown on the surrounding surface. I was quite indignant when I saw the mischief, and gave my ideas of procrastination pretty freely, for I argued that the walk could have been made after the peas were gathered. However, the peas came up beautifully, and I was saying to Tom, that the mischief was not so bad after all. He laughed loud, and long.

"You little innocent! Don't you know that they are good for nothing! You remember what the Bible says in the sower, "having no deepness of earth they spring up quickly, but when the sun was up having no root they withered away."

"Very good scripture, Tom., but we shall see." I expect to have one good mess from those vines yet.

The season for lamb and green peas will soon be here. Do you know that I should not care for lamb if I could not have mint sauce with it. Just the force of habit. It is made of spear mint (not peppermint.)

The green leaves—about a dozen will make enough for a family—must be washed and chopped to a pulp, when vinegar and sugar is added sufficient to make a rather thick salad. I consider spear mint excellent for the health in spring.

Two of the heaviest thunder storms ever remembered, visited this locality on Tuesday, May 5th. One occurred at six in the morning, the other at six in the evening. My five-year old remembered from last summer what thunder was, and so when he heard the first gentle distant roar, he jumped out of bed, and ran to the side door, taking up his new drum as he went. Now he has been in the habit during the winter of hollering up to the sky for God to send down the snow. I suppose I should have corrected him for it, but did not, and so the little fellow stood by the door and hollered and drummed for the thunder. In the midst of the din, and just as he had made a more imperative demand there came one of those tremendous claps, quick and sharp, more like the report of a thousand pistols than anything else. I never saw a child so surprised, or so frightened. He ran and jumped into bed, covered his head with the bed clothes, and trembled like a leaf. I fancy that he has received a pretty effectual check to his want of reverence to Deity.

AUNT ROSA.

DOMESTIC RECIPES.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER BY "M. E. S. W."

[We thank our esteemed correspondent, not only for the following recipes, but for the clear and beautiful manner in which they are written. If the penmanship is any indication of their worth, they must be excellent. We congratulate our compositor on having for once readable copy.—EDITH.]

Ginger Cake, No. 1.—1 $\frac{1}{2}$ teacups molasses, $\frac{1}{2}$ cup of sugar, 7 spoonsful of butter, 1 cup of sour milk, 2 eggs, and 2 teaspoonsful of soda, 1 spoonful to be stirred into the molasses, and the other in the sour milk. The batter should be medium thickness. The above will make two medium-sized cakes.

Ginger Cake, No. 2.—1 teacup of molasses, 1 of sour cream, 1 teaspoonful of soda, one-half stirred in the molasses, and the remaining half in the cream; 3 table-spoonsful of butter, 1 teaspoonful of ginger and cinnamon. Stir in flour to a thick batter. Bake in a square tin.

Hard Ginger Cake.— $\frac{1}{2}$ cup molasses, put in a teacupful of soda, fill up the cup with boiling water, and stir till it foams; $\frac{1}{2}$ cup of butter, $\frac{1}{2}$ cup sugar, and a teaspoonful of ginger. Mix hard enough to roll out. Bake in a square tin.

Ginger Snaps.—1 cup of molasses, 1 teaspoonful of soda, 4 table-spoonsful of water, and 6 table-spoonsful of butter, 1 teaspoonful of ginger, and a little black pepper. Mix hard. Roll thin, and cut out size of a large cup. Bake quickly.

Apple Pudding, No. 1.—Line a deep tin with a crust made same as for cream biscuit. Pare and quarter pie apples for a layer over the crust. Sprinkle on sugar enough to sweeten. Pour in enough sweet cream to

nearly cover the apples. Nutmeg. Bake in a moderate oven till the cream becomes like custard.

Apple Pudding, No. 2.—1 cup sour cream, 1 teaspoonful of soda; salt, mix, and roll one crust for lining a pie tin. Slice in apples same as for a pie. Pour in any required quantity of water for stewing the apples. Cover with crust. Bake in a moderate oven. When done remove top crust. Stir and sweeten the apples, take out a part of the sauce, lay on the crust again top down. Spread over it the sauce taken out. Spice to suit. Eat with sweetened cream.

Indian Bread.—3 bowls of Indian meal, 1 bowl of rye meal; mix the rye and Indian meal together; put in enough scalding (not boiling) water to scald the meal well; when cool, stir in 1 pint of yeast add 1 bowl of graham or bolted flour, either will do; $\frac{1}{2}$ teacup of molasses, salt, mix, and put into a five quart milking pan, smoothing over the top with the wet hand. Set over a kettle of boiling water, and steam two hours, covering over with a larger pan or cover. Then remove to a moderate oven and bake an hour.

Potato Starch Pie.—Grate potatoes, put in water, and pour into a sieve, letting the water drain through into a dish. Let it settle, then pour off the water from the starch. Add more water, stir water and starch together, then let settle and pour off as before. Use cold water. Put starch on plates and dry. 2 table-spoonsful of the starch, wet with a little cold milk, then stir it into three pints of boiling milk, sweeten, and spice to taste. Bake same as custard pie.

Potato Starch Pudding.—Pour 1 quart of cold milk over bread crumbs, and set in a warm place till soaked soft. Wet 2 table-spoonsful of starch with a little cold milk, stir into a quart of boiling milk, mix all together, sweeten, salt, and spice. Bake.

Graham Crackers.—1 cup sweet cream, $\frac{1}{4}$ teaspoonful pulverized alum dissolved in a little hot water, add $\frac{1}{2}$ teaspoonful of soda, and then stir into the cream, 1 table-spoonsful of butter; salt, mix hard with graham flour.

Tea Cake.—3 cups white coffee sugar, 1 cup sour cream, 1 teaspoonful of soda, 1 cup butter, 3 eggs, nutmeg. Mix soft, roll thick, and cut out with small cups. Bake in a moderate oven.

Plain Tea Cake.—2 cups brown sugar, 1 cup sour cream, 1 teaspoonful soda, one-half cup butter, 1 egg; mix to medium stiffness, roll, and cut out. Bake in a quick oven.

Salve for Chapped Hands.—Melt a piece of mutton tallow, the size of a hen's egg. Put in a table-spoonsful of strained honey, also a spoonful of strained pine pitch; melt, but not cook, and stir till entirely cold, else it will separate.

Washing Fluid.—Put an ounce of white vitriol into a quart of soft water, and bottle up. Put a teaspoonful of the fluid into a pint of soap. Make a suds of that. Soap the clothes with the same, and soak in the suds twenty minutes, or over night is still better. Either pound or rub out of the soaking water, and wash in the usual manner. Use the soap with fluid for making boiling suds, but when rubbing and otherwise soaping the clothes, use only the clear soap.

Editor's Table.

SUMMER CAMPAIGN OF THE AMERICAN FARMER!

LIBERAL OFFERS! TAKE YOUR CHOICE!

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Now is the time to solicit your friends and neighbors to give THE AMERICAN FARMER a trial for Six Months or a Year, commencing with the July number.

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For **Five** Subscribers, at 40 cents each, Tucker's Illustrated Annual Register for 1867 or 1868. Or, Scribner's Ready Reckoner and Log Book. Or, The Horse Doctor and Horse Tamer.

For **Eight** Subscribers, at 37½ cents each, Miner's Domestic Poultry Book.

For **Ten** Subscribers, at 37½ cents each, a free copy of THE AMERICAN FARMER for 1868. Or, Rodgers' Scientific Agriculture. Or, Emerson's Manual of Agriculture.

For **Twelve** Subscribers, a bound volume AMERICAN FARMER for 1866 or 1867. Or,

A package of Choice Flower Seeds.

For **Sixteen** Subscribers, at 37½ cents each, The Horse and his Diseases, by Jennings. Or, Everybody's Lawyer.

For **Twenty** Subscribers, at 37½ cents each, package of Choice Flower Seeds.

For **Forty** Subscribers, at 37½ cents each, Woodruff's Barometer. Or, Webster's Unabridged Dictionary.

For **Sixty** Subscribers, Woodruff's Barometer.

For **Two Hundred** Subscribers, at 37½ each, a Sewing Machine worth \$55. Or, A Lamb Family Knitting Machine, price \$65.

For **Two [Hundred]** Subscribers at 75 cents each, for 1 year, from January or July, 1868, a 5-Octave Choral Organ, Single Set Reeds. Price \$125.

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For **Four Hundred** Subscribers, at \$1 each, or 600 at 75 cents each, for one year, from January or July, 1868, we will send a piano from the manufactory of one of our largest dealers, worth \$400, to the getter up of the club.

☞ All names sent in before the 1st of July, will receive the June number extra.

☞ Names, Post Office, and State, should be written plainly, and when practicable, remittances should be made by Post Office Order, or Draft on New York.

☞ All names sent in for a year, count double in taking any of our half-yearly Premiums.

☞ Postmasters, and all friends of agricultural improvement, are respectfully solicited to obtain and forward subscriptions.

Address, JOHN TURNER, *Pub. & Prop.*,
Rochester, N. Y.

SPECIAL BOOK PREMIUMS FOR YEARLY SUBSCRIBERS.

For **One** new Subscriber with the subscription price, \$1.00, we will send to the party sending the name, either of the following works:

- The American Farmer Annual for 1868.
- Tucker's Annual Register for 1868.
- The Horse Doctor and Horse Tamer.
- Scribner's Ready Reckoner.

For **Two** Subscribers, with the subscription price, \$1.00 each, we will send to order, either of the following books:

- Miner's Domestic Poultry Book.
- A pamphlet on Hop Culture.

For **Five** Subscribers at our club price of 80 cents each, we will send to the getter up of the club both the following works postage paid:

- American Farmer Annual for 1868, and
- Tucker's Annual Register for 1867-68.

For **Eight** Subscribers at our club price of 75 cents each, we will send to the getter up of the club either of the following works:

- Manual of Agriculture, by Emerson & Flint; or,
- Rodgers' Scientific Agriculture.

For **Ten** Subscribers at our club price of 75 cents each, we will send

- THE AMERICAN FARMER, bound, for either 1866 or 1867.

For **Twelve** Subscribers at club price of 75 cents each, we will send to the getter up of the club either of the following works:

- The Horse and his Diseases, by Jennings.
- Everybody's Lawyer. Or

- The American Miller and Millwright's Assistant.

Subscriptions for the above can commence with the July number for one year, or back numbers will be supplied from January and continued to December, as preferred.

We will send The Farmers' Record and Account Book to any address, postage paid, on receipt of price, \$3.50. This work will last four years.

Annual Register of Rural Affairs for 1868, for sale at this office. Price 30 cents, by mail, postage paid.

Bound Volumes.

WE have a large number of volumes of THE AMERICAN FARMER bound in good substantial binding, now ready for delivery, embracing the issues for 1866 and 1867. They will be sent to any address, by mail, prepaid, for \$1.25 each; or to any one sending us 12 names, at our lowest club price of 75 cents each, we will send either volume to the agent getting up the Club, or for twenty subscribers at the same rate, we will send both the above volumes bound, postage paid.

MISSING NUMBERS.—We hope our readers will inform us of their failure to receive any numbers of THE FARMER by reason of the mails. We will furnish such missing numbers on information to that effect by our subscribers.

New Premiums.

LOOK over our New List of Premiums, and see if you cannot get a club for THE FARMER, and thus secure a liberal present for little work. Now is the time. Do not delay the matter, but go to work at once with a will, and the determination to secure a large list, and you will be surprised to find how little trouble it is to create a circulation for the practical farmer's own paper in your own neighborhood.

Fairs.

WE shall be pleased to learn from the Secretaries of Agricultural Societies, or any of our readers, the dates when the fairs are to be held in their respective neighborhoods. We desire to publish a full and correct list of all State and County fairs, and our friends will oblige us by forwarding the desired information as early as convenient.

Renew.

WITH the present issue quite a number of subscriptions run out, and we shall be glad to have them renewed promptly, together with the names of friends and neighbors. Now is the time to speak a good word for the practical farmer's paper, and we hope each and all will work with a will to get up a large club in their respective localities. With a little effort we ought to receive ten or fifteen thousand new names for the coming half volume. See our new Premium List, and try what you can do.

Interest Your Neighbors.

THERE is not a village or town in the United States or Canada, where a club could not be raised for THE FARMER in a short time, with very little trouble. All that is necessary is to show the paper, mention its low price, and no one will be found so poor that he cannot afford to take it. If such there be, and the fact is properly authenticated, we will send free, if the party will take and read it.

Correspondence.

FARMERS, write for your own paper. We hope our friends everywhere, will keep us posted on facts that occur under their own observation during the coming season, and not allow their duties to prevent their writing. We shall be pleased to hear frequently in regard to the crops, weather, &c., facts and information for publication in THE FARMER.

WILL *The Industrial and Commercial Gazette*, Louisville, state where that journal obtained the article on "spring work," on the second page of the issue of March 14th? Fair play, gentlemen!

Opinions of the Press.

WE like THE FARMER much, as it is a choice and valuable agricultural sheet, and contains a vast store of varied and useful reading.—*Standard, Williamsport, Pa.*

WE are glad to learn that this paper has an extensive circulation which is rapidly increasing. Every farmer ought to have it. It has the merit of being cheap, clear and practical.—*Pastoral Visitor, Loyalsock, Pa.*

THIS spirited agricultural and horticultural monthly published at Rochester, N. Y., continues to grow in public favor and interest. It is gotten up with great care, and its ability and neatness entitles it to an extensive circulation.—*Pennsylvanian, York, Pa.*

THE AMERICAN FARMER holds a first-class rank.—*News, Newport, R. I.*

IT is an excellent agricultural journal, and is well worth the price of subscription, \$1.00 a year.—*Monitor, Murfreesboro, Tenn.*

IT fully sustains its character in amount of good and useful reading matter.—*Union, Omro, Wis.*

MANY valuable ideas may be gathered from its pages, which will many times repay the subscription price.—*Sentinel, Hempstead, N. Y.*

IT ought to be in the hands of every farmer in the country.—*Banner, Bellville, La.*

IT is tastily got up, printed on fine paper, with new type, and makes each year a handsome volume of permanent, instructive, and entertaining matter, worthy of binding and preservation.—*Herald, Bronson, Mich.*

IN point of excellence THE AMERICAN FARMER stands second to no agricultural journal with which we are acquainted. Besides its useful information, drawn from actual experience and practical tests, it contains, perhaps, the only *honest* and *reliable* market reports that can be found in any Eastern journal.—*Upper Des Moines, Des Moines, Iowa.*

Doty's Clothes Washer.

Extract from Report of Farmers' Club, New York, 1867.

"WASHING MACHINE.—William D. Osborn, asks:—Will the Club give us its opinion of washing machines? Is it economy to pay fourteen dollars for one of Doty's machines? Will it wash farmers' clothes clean, and not be too hard work for the women? Washing-machines have so generally proved to be failures that I am afraid of throwing away my money upon one."

"**SOLON ROBINSON**—If you had to pay ten times the money you mention, it would be the best investment you ever made upon your farm. But you must not have that alone. Get the Universal Clothes-Wringer with it, and your wife and children will rise up and

call you blessed. For they will find washing made easy." Sold by R. C. Browning, General Agent, 32 Cortlandt Street, N. Y., and by dealers and canvassers everywhere.

Inquiries and Answers.

A correspondent desires to be informed where he can purchase a trio of Bronze Turkeys, one, two, or three years old; also wood ducks. Any one having the above for sale would do well to advertise them in the columns of THE FARMER.—EDS.

I am anxious to see in the columns of THE AMERICAN FARMER, the subject of soiling discussed by those who have had experience. Will some of your correspondents give facts upon which we can form an opinion of its advantages, &c.—*J. T., Addison, Vt.*

We are pleased to have the attention of our readers called to this important subject, and we hope some of our experienced correspondents will give full details in time for publication in the next number.

I have about 6½ acres that I could not plant with corn yet this spring, and there appears to be a poor chance of planting it, as it is raining now. I therefore desire to be informed through THE FARMER, what is the best I can do with it, supposing I cannot plant in time for a crop of corn? For a crop, what yields the best profit, the circumstances considered. I put lime on this spring, about 200 bushels to the acre. Several acres of the soil are clay, the rest is good land. An early answer is desired.—*G. B., Lebanon, Pa.*

We think corn may yet be planted and ripen. We have seen it planted in Southern New Jersey as late as the 12th of June, and it produced a good crop. Potatoes or corn may be planted, but if you think it too late for your section we should advise root crops, such as turnips or mangel wurzel, giving them thorough culture.

Literary Notices, &c.

THE WATCH: Its construction, merits, and defects; how to choose it, and how to use it. Illustrated with engravings by Henry F. Piaget, a watchmaker of over fifty years practical experience.

Published by H. F. Piaget, 119 Fulton Street, New York.

PETERS' MONTHLY GLEE HIVE.

This new monthly consists of fourteen large pages of music equal to twenty-eight pages of Glee Book size. It is a choice collection of sacred and secular glees, trios, quartets, and choruses, with an accompaniment for the piano forte.

PETERS' PARLOR COMPANION FOR THE FLUTE, VIOLIN, AND PIANO.

This is a selection from the various operas, with a fine collection of dance music. It is a work long needed, and should be in the hands of every lover of the flute or violin.

FINE BIRDS.—We have received some fine specimens of the stock of S. J. McIntosh, of Worcester, Mass., in the shape of a trio of Brahma fowls, which are as good as any we have ever seen. For layers, sitters, and mothers, this breed is unsurpassed by any of the poultry tribe. Mr. M. has the reputation of having some of the best stock in the country.

Circular to Wool Growers.

At a meeting of the Woolen Manufacturers' Association of the Northwest, held at Chicago, Feb. 15, 1868, it was decided to hold an Exposition of Wools and Woolen Goods at Chicago, on Tuesday, Wednesday and Thursday, Aug. 4, 5, and 6, 1868. It is the design of the Exposition to make such an exhibition of all the classes of wools produced in the West, and of all the manufactured products of these wools, as shall fitly show the present magnitude of the wool and woolen interests of the West, and shall best advance their future prosperity, and by bringing together representatives of the wool growers and wool workers to enable them to harmonize conflicting views, and to agree on such course as shall best advance the interest of both parties. It will also prove of great advantage to parties exhibiting, in affording opportunities for effecting sales.

There is every indication of a very large and fine exhibition of wool products. Manufacturers have also been requested to exhibit specimens of the wools of their several localities as prepared for market, and also when scoured. But for the main display of wools we must look to the wool growers. The Exposition Committee, in accordance with a resolution adopted by the Association, extend a cordial invitation to the wool growers of the United States, especially of the Northwest, to exhibit specimens of all classes of wools. Where it is practicable, it is requested that entire fleeces be sent, but where this is impracticable, samples will be gladly received.

Every facility will be granted exhibitors of wools to enable them to display their goods to the best advantage. It is requested that the delegates appointed by the Northwestern Wool Growers' Association, to attend the Exposition, and delegates from or officers of the National and State Wool Growers' Associations, will assist in the selection of a committee to properly classify and arrange the wools exhibited.

An effort will be made to have goods intended for exhibition shipped over the various railroads free of charge. If addressed to the Secretary of the Association, Jesse McAllister, 2, 4, and 6, Rush st., Chicago, they will be taken to the place of exhibition and properly placed by the committee, free of charge.

The diploma of the Association will be awarded to the exhibitors of the best and largest displays of each of the following classes of wool:—Broadcloth, delaine and combing; of the best collection of samples of each of these classes; of the three unwashed fleeces (in each class) best "put up" for market; of the three best "put up" washed fleeces (of each class); of ram's fleece (in each class) of greatest market value; of ewes' fleece (in each class) of greatest market value; and of any other exhibition of peculiar merit.

The breeders of the various breeds of sheep are requested to exhibit engravings or photographs of their stock.

Parties desiring to exhibit wool are requested to send statements of the number and kind of fleeces or samples they propose exhibiting, to G. E. Morrow, office of *The Western Rural*, Chicago, Ill., to whom all correspondence concerning the wool department of the Exposition may be addressed.

GEO. S. BOWEN, President Association.

FAIRS FOR 1868.

State.

Illinois	Quincy	Sept. 21-29
Kansas	Lawrence	
Maine	Portland	Sept. 29-Oct
Minnesota	Minneapolis	Sept. 29-Oct
New Hampshire	Manchester	Sept. 15-17
New York	Rochester	Sept. 29-Oct
Ohio	Toledo	Sept. 21-25
Canada	Hamilton	Sept. 21-25
Wisconsin	Madison	Sept. 29-Oct
Pennsylvania	Harrisburg	Sept. 29-Oct. 1

We have been delayed a few days beyond our usual time in issuing this number, in consequence of an accident in the delivery of the paper from the manufacturer, and being of an irregular size, could not at once be replaced.

THE MARKETS.

OFFICE OF AMERICAN FARMER,
ROCHESTER, N. Y., June 1, 1868.

We have had very wet weather, which has greatly delayed planting. There are reports that potatoes that were planted three weeks or a month ago, have rotted in the ground. In the great corn-growing sections of the West, the weather has been exceedingly unfavorable for preparing the land and for planting. If we may rely on the reports which reach us, it has been the worst spring for the corn crop that we have had for many years. We hope and believe the reports are exaggerated. That the weather throughout the Northern and Western States has been so wet as to greatly delay corn planting, there can be no doubt; but there is still time to plant. Corn, with a favorable season, on good land, and well cultivated, will do well planted as late as the 10th of June.

The wheat crop has not been injured by the rains, and the prospects of a fair crop are full as favorable as they were a month ago.

Barley and oats, except on low, wet land, never looked better. Grass is very abundant, and there is a prospect of a very large hay crop.

Farmers are intending to plant beans extensively, and were it not for the scarcity and high price of seed, much land intended for corn, but which cannot be planted on account of the heavy rains would be devoted to beans. As it is, such land will have to be sown with buckwheat.

Fruit of all kinds will be abundant. Strawberries may be late, but there will be an immense crop.

Garden vegetables never did better, and are greatly needed. Produce dealers and consumers are watching the crops. There is little doing.

Wheat is lower.

Potatoes are nearly out of market. This time last year we were in the height of the shipping season. This year it was concluded pretty much two weeks ago.

Beans are wanted, but there is little change in price. A good sample would bring \$5.

Wool will probably rule low—not higher than last year. Dealers still hold considerable of last year's clip, and the prospects are scarcely as favorable as a month ago.

Beef cattle in this section never were so scarce and high. A good steer would sell for 10 cents in the live weight.

Good pigs for fresh pork are worth 12 cents dressed. Contrary to general expectation spring pigs are scarce, and have sold at higher prices than last year.

Hay is a little lower, but the best timothy still brings \$80 per ton.

Butter brings a good price. A choice article is worth 28 to 80c per lb. Whenever farmers can get 80 cents, our advice is to sell; if not to hold.

BULLARD'S HAY TEDDER.—In another column will be found an advertisement of this labor-saving invention, to which we would call the attention of every farmer. These machines display superior workmanship. They will turn four acres of grass in an hour, leaving the grass lighter for drying. The work of curing the hay is much more rapid, as it can be repeated as often as necessary. They are invaluable on the farm.

New Publications.

THIRD ANNUAL REPORT OF THE AMERICAN DAIRY-MEN'S ASSOCIATION, with accompanying papers, &c. For the Year 1867. To which is added the Annual Report of The Ohio Dairymen's Association for the Year 1867. Published by the Association.

From the prefatory remarks we extract the following:

"It is undeniable that the quality of American factory cheese has not been as good as for the years 1866-7 as for some seasons previously. The aim seems to have been for quantity rather than quality. As worthy of notice, in this connection, we find that English cheese-makers have fallen into the same error; the general quality of cheese there having deteriorated for some years. And yet perfect cheese is made there, and perfect cheese is produced every year by some of our factories; showing conclusively that care and skill, on both sides of the Atlantic, will result in the perfection of the product.

"It is thought by dairymen generally, and has been urged by speakers at nearly all of the Conventions of the Society, that the gathering and dissemination in a printed form of frequent, reliable and full returns from all dairy sections respecting production of cheese, sales, prices, stocks, &c., would be an almost invaluable assistant to all who make or sell cheese. Repeated attempts towards the accomplishment of such an object have been made, and have failed. Another faithful effort in this direction is now being put forth. Whether the indifference of those most interested will again defeat the project, it is yet too early to predict."

EXPLORATION OF THE NILE TRIBUTARIES OF ABYSSINIA, the sources, supply, and overflow of the Nile, the country, people, customs, &c., interspersed with many highly exciting adventures of the author, among elephants, lions, buffaloes, hippopotami, rhinoceros, antelope, and other great game of the country; accompanied by expert native sword hunters. With illustrations. By Sir S. W. Baker. Hartford, published by O. D. Case & Co. 1868.

A handsome work of 608 pages, filled with interesting information concerning a country hitherto comparatively unknown to civilization. The recent expedition of the British to Abyssinia lends additional interest to the book. The maps are particularly well got up.

AN ADDRESS DELIVERED BEFORE THE NEW YORK STATE AGRICULTURAL SOCIETY, at the Annual Meeting, Albany, Feb. 12, 1868, on the Paris Universal Exhibition of 1867.

THE GALAXY FOR JUNE.

BEADLE'S DIME BIOGRAPHICAL LIBRARY—GENERAL GRANT.

BEADLE'S BASE BALL PLAYER.

Published by Beadle & Co., 118 William St., New York. Price 10 cents each.

STATE ITEMS.

Illinois.—The Illinois State Fair is to be held at Quincy, Sept. 21-26.

The *Prairie Farmer* comes out against the indiscriminate slaughter of birds, and states that they are the farmers best friends, and should be protected. Their principal diet, from all the information gathered, is insects and worms, and as our orchards increase their depredations on fruit will be less and less felt. Birds are the natural enemy of all insects.

A beet sugar factory is soon to be started at Aurora.

A farmer in Illinois recently imported a horse from Normandy which weighed 2,150 lbs.

The State Auditor in Illinois reports that the assessed value of neat cattle in Illinois for 1867, is \$17,144,597; sheep, \$3,510,777; hogs, \$5,221,552; manufactured articles, \$2,240,536; capital stock of bank, \$2,270,326; total, \$32,387,788. The value of horses in the State foots up more than all combined, the figures being \$32,587,228.

Maine.—State Fair at Portland, Sept. 29 to Oct. 2.

Two Irishmen were travelling, when they stopped to examine a guide board. "Twelve miles to Portland!" "Just six miles apiece!" replied the other, and they trudged on apparently satisfied at the short distance.

Maine will hold a State Fair this year after a suspension of seven years,

New Hampshire.—State Fair, Manchester, Sept. 15-17.

Gen. Head has been unanimously elected President of the New Hampshire State Agricultural Society in place of Frederick Smith, who was compelled to resign by other pressing duties.

Massachusetts.—The State Legislature has passed the appropriations of \$50,000 for the Agricultural College.

"W. A. C.," of Andover, received from the 1st of January to April 20th, 1,394 eggs from 20 hens, a cross of the White and Yellow Brahmas.

Missouri.—C. V. Riley has entered upon the discharge of his duties as State Entomologist.

A company for breeding and importing stock has been started at St. Louis with a capital of \$50,000. some 1300 acres of land are to be devoted to the objects of the association.

Michigan.—Accounts from all parts of the State speak well of the wheat crop, and that the crop will be unusually large.

An agricultural society in Michigan offers a premium at its next fair to be given to the man who can walk the fastest.

The Clinton County Agricultural Society will hold a horse show and sheep shearing June 10th, 11th.

New York.—State Fair in this city, Sept. 29th-Oct. 2.

D. L. Heffron, of Utica, sold in February last, to a party in New Jersey, 150 bushels of Early Rose potatoes for \$10,000—over \$66 per bushel.

The average yield of wheat in Dutchess county is 22½

bushels per acre. Some fields yield 27 bushels to the acre.

The Oswego County Agricultural Society are erecting permanent buildings on their show grounds. One was completed last year, and others will be added the present season.

A horse show will be held at Fredonia, Chautauque county, June 17th and 18th.

"The big apple tree" near Peekskill went down before a gale recently. It was about fourteen feet in circumference just below the limbs, and was supposed to be 150 years old.

The next annual fair of the Pleasant Valley Grape Growers Association will be held at Hammondsport, Steuben County, Sept. 23-25.

Maryland.—The Common Council of Baltimore, have appropriated \$25,000 to the Maryland Agricultural Society to be invested in lands suited to the purpose of said Association.

Iowa.—A farmer in Iowa was troubled by a lawless cow stealing hay from his stack. He sprinkled the hole with Cayenne pepper, the cow came, took a sniff, left at top speed, and forgot to come again.

Iowa exempts \$100 worth of the assessed property of a citizen for ten years, for every acre of ground planted with forest trees, and \$50 for five years for every acre planted with fruit trees. The number of acres of timber plantation exempted was 8,360 in 1863, 20,285 in 1865, and 48,774 in 1867.

Ohio.—State Fair at Toledo, Sept. 21-24.

A horse fair will be held in Highland county, June 4, 5. The Ohio Reform Farm, near Lancaster, has 1,170 acres. There are over 900 boys, mostly criminals, who behave well, who are engaged in growing small fruits, and their returns last year, after having all they wanted to eat, exceeded \$7,000.

THE WEATHER AND CROPS.

From Illinois.

EDS. AM. FARMER:—The weather for the past month has been exceedingly pleasant and encouraging for the farmers. Fruit trees are all right. Vegetation is coming on at a rate incomparable. Corn is being planted on limestone ridge. The present prospect is good.

Days and Month.	Barometer Indoors.	Bar. Outdoors.
Jan. 31.....	29 18.81	15 11.81
Feb. 29.....	29 8.53	22 4. 7
March 31.....	28 80.82	41 9.02
April 30.....	28 59.00	44 7.60
May 7.....	28 11.14	58 6. 7

The coldest day of the year, Feb. 10—22° below zero.

The warmest day, May 5—72°.

Fulton, Ill., May 7.

J. S.

From New Hampshire.

The spring opens cold. We have had but very few pleasant days since April came in, and now this 8th day of May, we are having a hard driving snow storm, two inches of snow on the ground at noon. It cleared up during the afternoon, with the wind northwest, and we will have a freezing night. Such weather makes

the farmer look blue: the common conversation among them is "Cold weather, very cold for the season, very backward indeed," &c. Sometimes, but very seldom, will you hear one say anything about the President, Congress, or anything but cold and work behindhand. Our work is two weeks behind. But very little grain has been sown, but few potatoes planted, and many farmers have plowed but little. But for all this, we have the promise of seed time and harvest from One whose promises never fail, so we will take courage and go on with our part of the work, leaving the rest to Him who doeth all things well.—*L., Brentwood, N. H., May 8, 1868.*

From Indiana.

The fourth current number of THE FARMER lays before me, and I am prepared to say it is a welcome visitor. In looking through it I find nothing from this State. I had hoped since my long silence, that some one in this section more capable, would have kept up the correspondence. It commenced snowing on the night of April 8th, and continued all next day, with a cold east wind—very cold for the ninth of April. At this writing, (13th of May,) it is raining, and has been most of the time for more than a month. About a week ago we had a very heavy rain; the waters were higher than they had been for years. Very little corn planted yet, and very few people have finished plowing. Some of the wheat has the appearance of being damaged by standing water. Farmers will be late, but let us hope and keep hoping, that all will be well. The prospect for small fruits is favorable, also for peaches. Some think apples will not be so abundant as in recent years. Not many sheep sheared yet. It is a bad time for sheep that are stripped of their coats. Some have died from the effect of shearing in a time of cold rains.—*G. W., Morrisville, Ind.*

The State Fair.

The committee upon the time and place of the State Fair of 1868, have appointed Rochester as the place, and September 29th to October 2d, inclusive, as the time.

Attention is directed to the new regulation regarding entries. The entry books will be closed on Monday, September 14th (two weeks before the opening of the Fair), and no entries will be received after that day.

This regulation is intended to insure the orderly arrangement of the exhibition, and to prevent the confusion and delay at the opening of the Fairs, which resulted from the reception of entries up to, and sometimes even after the time of opening. It is hoped that under the new rule, the exhibition will be in order, and that the judges will be able to make their examinations and awards, in great part, on the first day so that visitors on the second day may know what animals and articles have gained the premiums, and exhibitors may receive the benefit of their awards—heretofore frequently not announced until near the close of the Fair.

Entries may be made at any time until September 14th (the earlier the better,) by letter addressed to the

Secretary of the New York State Agricultural Society, Albany, N. Y., or personally at the Agricultural Rooms.

The Premium List has been much enlarged, and the regulations (to which the attention of intending exhibitors is particularly directed), have been revised, and in some other respects amended.

Copies of the Premium List and Regulations will be sent by mail on application to the Secretary as above.

JOURNAL OF AGRICULTURE, ST. LOUIS.—We regret to learn that the office of the above agricultural paper was burnt out on the morning of the 23d of April, but the spirited and enterprising publishers, Messrs. L. D. Morse & Co., with commendable energy do not allow this fact to cause any delay, but with their issue of May 2d, produce a most interesting and well got up number. They state that part of their mail books with the names of some hundred of their subscribers, was burned, and any of their patrons who may read this notice and have not received their papers, will do well to write and inform them at once.

TO CORRESPONDENTS.—It is passing strange that persons can be found who seem to be unaware that anonymous communications are seldom noticed. We have repeatedly called attention to this fact, yet almost daily we receive articles for our columns with merely initial letters appended. Will "A. B. C.," of Passaic county, N. J., whoever he or she may be, give the name in full, not that we require it for publication but that we may know who is the author of the lines sent.

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RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in THE AMERICAN FARMER for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 18th of the previous month. THE FARMER has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

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For We warrant our Bone to analyse pure. Packed in bbls. of 250 lbs. each. For Winter grain, Double Refined Poudrette, and Fine Bone, mixed in equal proportions and drilled in with the seed, have produced most remarkable effects. Sold as low as any article of same purity and fineness in the market.

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We offer this Phosphate confidently as being as good, if not superior, to any ever made or sold in this market, containing a larger amount of soluble Phosphate and Ammonia than usual in Superphosphates. For permanent, as well as for immediate powerful effect upon land, *it has no equal.*

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It is Flexible, Durable, and Easily Soldered.



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CAUTION.—Do not be imposed upon by other parties painting off worthless cast-iron machines under the same name, or otherwise. Ours is the only genuine and really practical cheap machine manufactured. Jun

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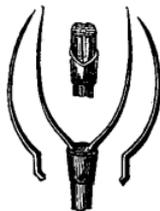
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VOLUME III.

ROCHESTER, N. Y., JULY, 1868.

No. 7.

FARM LIFE---PROVIDENT FORESIGHT.

The Farmer's life displays in every part,
A moral lesson to the sensual heart.
Though in the lap of plenty, thoughtful still,
He looks beyond the present good or ill;
Nor estimates a lone one blessing's worth,
From changeful seasons, or capricious earth;
But views the future with the present hours,
And looks for failures as he looks for showers;
For casual as for certain want prepares,
And round his yard the reeking hay-stack rears;
Or clover, blossomed lovely to the sight,
His team's rich store through many a wintry night.

—*Bloomfield.***WORK FOR THE MONTH.**

CARE and judgment are required this month in watching the growing crops. To hit the right time for cutting requires close watching, for if grain is allowed to get too ripe, great loss is occasioned by shedding, and if cut too soon will result in an undeveloped grain. Haying and harvesting will be the principal duties of the month, and will take most of the labor that is employed on the farm, but

CORN will require frequent cultivating and hoeing to keep it in a growing state, and must not be neglected. The fields around this section are looking unusually clean, and the corn growing rapidly, although late. Let the corn be well taken care of this month, and the chances will then be favorable for a large yield.

POTATOES—same care as corn.

ROAD SIDES—should be kept free from weeds, especially the Canada thistle and white daisy which are getting in some places full possession, and will soon overrun the whole land adjoining. Take the first leisure hour, morning or evening, cut them all down, and prevent their seeding.

STABLE AND COW SHEDS—should now be cleansed thoroughly with a good coat of whitewash or paint, while the stock are out. Nothing looks so well as a clean and orderly stable. The barn is generally an index to the whole farm, for where the former is kept clean and tidy the latter will be.

FARM TEAMS—require extra feed during the hard working season. Keep them in good working order, feed regularly with substantial food, and do not over-work them these hot days.

TURNIPS AND RUTA BAGA.—Sow a liberal supply of these roots early this month for fall and winter feed. The

HOP YARD—will only require watching to keep the vines trained up to the poles or on the string, and to keep poles in their places, and the ground free from weeds. Where the aphid appears use plaster freely and report to us the result.

BEES.—Directions for this month the same as for June. Remove as soon as possible all surplus honey boxes. Bees will seldom commence work in new boxes after the middle of the month. Before placing the box on, stick strips of nice comb in the tops, two inches apart. They will commence work much sooner in the boxes. If you wish to save your bees from the ravages of the miller worm, watch them closely this month. They are at this season very destructive to the young brood while in their cells.

We would throw out an inquiry for our apianian friends to answer:—How long after the egg is laid before the queen leaves her cell? At what age does she take her brood flight? Is it before or after swarming? At what age does she commence laying?

TO AND FROM EGG HARBOR CITY.

ED. AM. FARMER:—You missed it in giving up your contemplated personal share in our trip to this little nestling of the sea. If it was possible to do justice to the panorama in an esthetical point of view, I would yet send you there through the medium of this pencil sketch; but alas! the sweetness and freshness of a ride through miles and miles of gardens, orchards, graperies, strawberry patches, hop gardens—all brought nearer the weedless perfection of English cultivation than perhaps can be found in as extended a district elsewhere upon this continent. It cannot be portrayed. Visiting for the first time in years, the New Jersey "barrens," and finding them blooming like a rose—with roses indeed—and with overwhelming promise of every fruitage in its season, exemplified by the abundance of strawberries pouring in a continual stream towards the non-producing marts of our land, which, like the fabled monsters of old, stand with open,

hungry jaws, devouring all within grasp of their attraction, the change is quite miraculous. And it is wonderful too, how naturally food and luxuries gravitate toward their centers—and in what quantities! Long trains of strawberries spring from field, village, and town, rolling up, car upon car—rushing on, gathering strength, and length, and weight, to pour their burden into the city.

I took a steamer at Chambers Street, New York, for Port Monmouth, with a view of going by rail to Egg Harbor City by the Port Monmouth and Atlantic City Railroad, but too late to mend matters. The Captain informed me that the Camden Railroad Company monopolized all the travel in this vicinity, and had put a quietus upon the movements of this road. The injunction holds only until the spring of 1869, however; as at that time the monopoly granted to the Camden and Amboy Road by the New Jersey Legislature, terminates. While waiting at Monmouth, before returning to New York to take a better start for Egg Harbor City, I was enabled to see something of these New Jersey strawberries. As we lay at the wharf, the contents of a long train of cars loaded with this staple were transferred to our boat at 11 o'clock in the evening, and by 1 o'clock in the morning, we, strawberries and all, were landed in New York. It would require a long row of figures to represent the number of quarts of berries thus brought up every night to the New York market. Thence crossing the ferry, we took the Camden Road via Philadelphia to our destination. At Philadelphia, strawberries were retailed at 10 cents, and sold at wholesale for 5 cents per quart—quite a difference between that and the price, 30 to 45 cents, the same day, June 15th, in Rochester, N. Y.

New Jersey is making a speciality of four or five items in farming—grapes, cranberries, hops, sweet potatoes and berries. At Egg Harbor City great efforts are being made to bring the culture of each branch specified to its highest permanently remunerative condition possible. The city is pleasantly located between Great and Little Egg Harbors, 14 miles from the former, and 7 from the latter. The most noticeable feature is its intensely German aspect, its thrift and tidiness, its industry and earnestness, as well as its boundless hospitality. It is a city of 5,000 inhabitants, mostly producers—market gardeners. In the center of this city is located the City Park, a tract of 700 acres, owned by a company of Germans, incorporated by an act of the New Jersey Legislature in 1863, as the "Central Agricultural Association of North America." The members of the association are without exception practical hard-working farmers—intelligent men, laboring earnestly to accomplish their design of making the City Park in every respect a model farm

in the culture of the staple productions of the State. Of these 700 acres, about 400 are apportioned to hops, 20 acres only of which are yet set. These are trained upon the horizontal system. There are 40 acres of grapes in bearing. It is the intention of the company to increase the vineyard as fast as practicable. At present one of the leading features is the successful growth of cranberries. The plan is arranged for 50 acres of cranberries, though what portion is now under culture, I cannot say. They are grown on dry, sandy soil, by quite a different method from that adopted in the old-fashioned cranberry districts. The average yield is 100 bushels per acre. It is on the whole, a very safe crop, quickly picked, easily marketed, and not highly perishable like the strawberry.

Sweet potatoes are quite extensively grown, and find a ready market through the Northern States. Fields of clover are raised in the greatest perfection, and soiling of cows is practised very generally. Milk dairies sufficient for the home market afford a profitable investment for many farmers. One New York firm has its supply of champagne manufactured here, and it is called a superior article by competent judges.

Egg Harbor City contains five churches, as many hotels, three breweries, several factories, one of which is extensively engaged in statuary, from life size to miniature figures; also vases and other ornamental ware, a good and durable imitation of lava ware. Schools are numerous, one of which, a fine large five-storied College or Polytechnic Institute intended to accommodate 100 pupils, has just been completed by the Central Park Association. It is designed to be a model affair in its way. Everything raised in any quantity seemed of the best quality. Hops were looking well.

On my way down, I visited the hop gardens of Central New York, and found a large proportion of the long-poled yards backward and weak—half the hills missing, the evident result of cutting the vines at picking. Many yards were left uncultivated, and many more would, under the same treatment endure but one or two more harvests. The yards on the horizontal plan were all doing finely, and afford a beautiful contrast in every respect to the former.

F. W. C.

CORN soaked in tar water and then rolled in plaster, will yield more, be of a better color, and ripen sooner, and will not be disturbed by worms or birds.

THREE parts each of ashes and clay, and one of sand, mixed with linseed oil, makes a cistern cement.

IN hot weather remember the thirsty animal.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

"E. W. S.," in *The Rural New Yorker*, has attacked S. E. Todd's theory on the chaffing of fodder, asserting that very fine chaffing is indispensable to its economical feeding; to which Mr. Todd replies that to cut hay two inches long, it will take an hour to chaff a ton, and to cut the same one-eighth of an inch long will require sixteen hours, so that the increase will fall very "short of paying the malting." The experiments of Joseph Wright made with great care, and carefully noticed results, show that chaffing fodder without steaming it, is to lose one-third of its nutriment in the form of undissolved starch, and that coarsely cut fodder, if steamed, becomes succulent, and gives up all its nutriment to the animal fed with it. Since Mr. W.'s steam works burned down, he has fed raw chaffed fodder treated with meal or shorts to his large stock; but they fail to put on the same thriving appearance, as they did on steamed food. He will commence steaming again next fall, as he is certain that it adds one-third to its nutriment. He thinks prime hay does not pay for cutting, unless it is steamed. The assertion of "E. W. S.," that very fine chaffing will alone increase the nutriment eight fold, is probably a mistake of the printer, and needs no refutation.

HAY SELLING FARMERS, COW FEEDING, MUCK DRAWING, &c.

When hay is twenty dollars a ton, as it is now, even after a good hay season, the temptation to sell it off the farm is great, as perhaps no system of stock growing is as profitable as selling the hay, unless the most is made of the animal manure, liquid and solid, by composting and increasing it. When a load of hay is brought to the livery stable, a load of grain-fed horse manure may be there loaded and returned to the farm at the cost of one dollar—but what farmer does it? Yet such a load of manure contains perhaps twice the amount of nitrogen and phosphorus that was contained in the load of meadow hay. The English farmer living on leased land, can not afford like our farmers, to crop and starve the soil. He *must* manure and get large crops to pay the rent and tithes. A man who is called a good farmer, complained to me the other day, that with all his animals he only made manure enough for his corn land; yet he lived less than a mile from the great swamp where the deciduous leaf mold lies from two to seven feet deep, with a pair of lazy horses eating themselves up all winter in the stable. This man complained how much \$20 hay his cows eat; they go dry all winter for the want of some succulent food that would save his

hay, while it repaid its cost in keeping up the milk. A slopped village cow gives milk to within five weeks of calving, thus nearly paying for her keeping in winter. John D. Coe, of Romulus, grows nearly an acre of wurzel beets annually, and he tells us he could hardly farm without a beet crop to feed his bovines. John Johnston has of late adopted beet growing, he says, with great success; and he is the only farmer I know of, except Wright, who exercises his fat team in winter in hauling dry swamp muck to his farm. This making his horse and driver earn their living in winter, is the secret why he grows 112 bushels more wheat on 26 acres, than his neighbor raises on forty acres. I suppose as much manure may be made from a single cow by the aid of dry swamp muck or even sawdust in the stable, as many farmers make and save from all the bovines of the farm. In New Hampshire they have tight stable floors, and where neither muck or clay is to be had, they litter the stalls with that poor absorbent fine sand; straw there is too dear for litter, and in itself it makes only straw manure.

DECREASE OF THE WHEAT CROP IN THE WESTERN STATES.

From the annual report of the trade and commerce of the great and growing city of Milwaukee, I learn that nearly ten millions of bushels of wheat, nearly a million barrels of flour, to say nothing of corn, and other grain and the pork of 160,000 hogs, was shipped from that point in 1867.

It seems from the report, that the culminating point in the wheat crop was reached in 1862, when the shipment of wheat amounted to nearly 15,000,000 of bushels, and the subsequent falling off has been in the face of the increased receipts from Minnesota and the new lands that have been brought under cultivation. It is said that on farms where 30 bushels of wheat were raised to the acre a few years ago, an average of only 11 bushels is grown now. Thus it would seem that the Western farmers have exhausted the wheat-growing pabulum of their soil even more recklessly than it was cropped out by the farmers of Western New York. Forty years ago, I have seen on the opening of the canals, 36 flour and wheat loaded boats from Seneca Lake, lying ready to pass the locks on their way to tide water. This year not a flour or grain loaded boat has yet passed through the locks, and none goes by rail; 'tis true that the home demand for bread has greatly increased, but nothing in proportion to the decrease in the growth of wheat. Almost every boat going east is now coal loaded, which again goes west from Montezuma, with the exception of the bituminous coal that goes to Syracuse for the salt works.

CORN GROWING INDEPENDENT OF A BAD SEASON.

The Rural New Yorker is responsible for the

assertion that in corn growing "more perhaps depends on the season than on the fertility of the soil and the culture." I have every season in the last forty, cultivated a small patch of corn with my own hands, without a single failure to obtain a full crop. Last season was called a bad corn season, yet every ear of my corn filled to the tip end. Joseph Wright got over 70 bushels of shelled dent corn to the acre, and several other farmers boasted of their large crops of eight-rowed corn. It is true that every farmer whose *undrained* soil could not be planted until the middle of June complained of the season, and they will no doubt endorse the opinion of *The Rural*. To fence against both wet and drouth in corn growing, the soil must be not only rich, but friable and absorptive to a great depth. Although corn is a gross feeder, it gratefully repays its feeding and culture in the worst of seasons.

BRAVE ADVICE OF A SOUTHERN PLANTER TO HIS BRETHREN.

"We must not succumb to depressing influences, but learn to 'labor and to wait,' and by this means we shall ultimately surmount difficulties that appear at first insuperable. Our material prosperity, despite our troubles, is only a question of time. No such country as our genial South, with its vast inherent wealth only awaiting development can long remain depressed. Capital and population are certain to flow in ere long in immense volumes. Our present plans and efforts may not succeed as we desired and expected, but the natural wealth of the country will inevitably attract to it the means and the facilities of its development, and the difficulties growing out of the present condition of affairs will come to an end. What we desire most to say is, that the two duties now most incumbent upon all the Southern people are, *hard labor and economical living*. These two practical lessons we learned during the war. Let us return to them now when they are as much needed as ever before, and even more. Let them be imprinted on every heart, and we shall ultimately become a happy and prosperous people.—*Southern Cultivator*.

WEATHER-PROOF CORDAGE.—Cordage which is employed in hatching, for tying vines to trellises, or is otherwise exposed to moisture, may be made very durable in the following manner: it is first soaked for half an hour in a strong solution of glue, then taken out, dried somewhat, and immersed for one to two hours in a strong and warm decoction of oak bark, to which some catechu is added. After removal from the oak liquor the cordage is dried, and finally smoothed by rubbing with an oiled cloth upon which it assumes the appearance of catgut, and perfectly withstands the action of moisture.

NOTES FROM CANADA.

THE latter half of May and first ten days of June have given us an unusually liberal supply of rain, enough to thoroughly replenish the dry soil, and ensure a good supply of water in the streams and wells for the coming summer. The rainy spell seems to have ended just as the farmers were beginning to complain of getting too much of a good thing, and to fear that the crops would be drowned out. Corn has been more largely planted than usual, and most of it is well up in my neighborhood where the soil seems to be well adapted to it, being mostly reddish loam, inclined to sand in some places, and resting on a subsoil of rather coarse gravel. Potatoes have not been so largely planted as usual, owing mainly to the high price of seed, and I notice that where they have been planted early in a dry and then rather cold soil the sudden and heavy rain storms at the commencement washed the soil solidly together, and these early planted crops of potatoes have failed to grow, probably rotted in the ground. Mine were planted between the 25th and 28th of May, on land plowed some time after the rains came on, and are now up and progressing well. The crops all look very fine, especially fall wheat and hay, of which there will be a heavy crop should the fine weather which seems to have now set in continue for two or three weeks, and no untoward frost occur of which, however there seems some danger, as the air has been very cold the last two nights. There was a slight frost on the morning of the 8th of June, but no damage done that I have noticed. The soil is now in fine condition to prepare for ruta bagas, which are generally sown here from the 1st to the 10th of July. No one ever thinks of putting them in without a liberal supply of manure, and bone dust is beginning to be used. It is said that the application of bone dust to the drills immediately after the young plants come up, will keep off the turnip fly, and if it can be kept off till the first rough leaf on each plant is expanding the danger is past, as the fly eats only the seed leaf.

There has been quite a tumble down in prices of grain and dairy produce within the last two weeks, and now prices are down it seems there is abundance to be had. The fact is, many were holding on when prices were high, in expectation of getting still more, and are glad to sell now for less than they could have got had they come in when it was wanted. The best dairy butter in rolls is worth only 12½ cts. per lb. Wool brings 25 to 28 cts., and buyers are very particular to have clean samples of combing wool.—*Mac., Kenwyn Farm, Canada, June 10th.*

GREASE.—Mix 4 oz. lard with 1 oz. white lead.

BLOODED STOCK.

WRITTEN FOR THE AMERICAN FARMER, BY J. E. R., SOUTH AMHERST, MASS.

WITHIN a few years past, a great deal has been said and written in favor of blooded stock. The interest has extended to all animals from thoroughbred horses to full-blooded hens. The great cry has been that full blood was to be the salvation of the stock and stock-keepers and breeders of America. Extravagant prices have been paid for full blood animals, and large quantities of paper and ink have been used in their praise. Some of the animals were really splendid, while others were "no better than their neighbors," except that they had more fashionable blood. But there has seemed to be a general disposition among the farmers of this country to look up with reverence to the men who import blooded animals and to look with great admiration on the animals themselves. This, in a proper measure, is right. The men who import blooded animals are public benefactors, and are doing a great favor to the farmers of our country, and a really splendid animal is worthy of admiration, but these feelings may be, and we believe often are carried to excess.

And we believe that the great secret of success with blooded stock, is not entirely its superiority over native breeds or grades, but is largely owing to another reason which is this—blooded stock almost universally receives better care and feed than natives or grades. It is natural that this should be the case. They cost so much more, the owners feel a far greater interest in full blood than in other stock, and in order to save both reputation and money they feel bound, to do all for them that care and attention can accomplish.

But I would not condemn blooded stock. On the contrary, I freely admit its superiority, but I would not have the ordinary farmer feel that he cannot have good and even extra stock, because he cannot afford to buy full bloods, for the difference is not entirely with the breed, and the same care, feed, and attention bestowed upon natives, or still better, upon grades, which is received by full bloods, would greatly increase their value, and materially lessen the difference between the selling price of full bloods and other stock.

CRUELTY TO ANIMALS.

WRITTEN FOR THE AMERICAN FARMER, BY J. E. R., SOUTH AMHERST, MASS.

VERY many farmers and farmers boys, are outrageously cruel to the animals under their charge. If in any way the wrath of these "lords of creation" is aroused, it finds expression in kicks and

blows administered to their dumb animals. Many men show as much satanic malice and as mean and cowardly a spirit in their barn-yards, as ever tyrants did when tormenting their victims at the stake, or on the rack.

Look at one of these bipeds as he moves about among his animals. If a half-starved sheep calls out for more hay, its majestic owner makes it "shut up," by freely applying the toe of his boot, or the handle of a fork to the sides of the poor offending animal. If a cow, pained by his clumsy manner of milking, kicks at him the milking stool is played around her ribs at "2:40" rate, the oxen are "basted" if they do not "toe the mark," and the horse receives the free and almost unlimited application of the whip for the slightest fault.

Such treatment of the inferior animals which Providence has placed in the care of man, is not only mean and wicked in itself, but shows a mean and brutal disposition. It is an outrageous abuse of power, and is not only wicked, but also wretchedly unprofitable. There are two plain reasons for this: first the great amount of wear and tear of the nervous system, which would be saved if the animal was treated kindly; and secondly, the physical injury which it receives keeps it poor and in almost continual pain and discomfort, which conditions of the system every one knows or should know, are most unfavorable to the growth or thrift of animals. If any reader of this abuses his animals, neither fearing God nor regarding man, let him remember that his course is most unprofitable in a pecuniary point of view, and allow his love of the "almighty dollar" to restrain those passions which his sense of justice and humanity has no power to accomplish.

SHEEP HUSBANDRY IN GEORGIA.—D. B. Lamsden, of Eatonton, Ga., in speaking of sheep raising in that State, expresses the opinion that "when the *Lespedeza striata* shall cover our worn out lands and pine thickets, and root out our broom sedge, which it is fast doing, and legislative action be taken in regard to the sheep's worst enemy—dogs—Middle Georgia will become a wool-growing section. I had 30 head of sheep last winter—common stock of the country. I did not give them one cent's worth of food, and left them to care for themselves, salting them occasionally. Early in the spring they commenced lambing, and I raised 13 lambs and sold \$12.50 worth of wool. The lambs were considered the best in our section, and the sheep were in fine condition. I mention these facts to show that with proper attention sheep husbandry can be made profitable."

FISTULA OINTMENT.—Yellow basilicon, 8 oz.; oil turpentine and verdigris, each 1 oz. Mix.

WOOL, ITS CLASSIFICATION AND APPRAISEMENT.

Report of Custom House Examining Committee.

THE Committee appointed by the National Wool Growers' Association, with authority from the Secretary of the Treasury to examine the manner in which imported wools have been classified and appraised for the payment of duties in the New York and Boston custom houses, since the wool tariff passed March 2, 1867, went into effect, having discharged the duties assigned to them, would respectfully report :

Mr. John A. Bausch, the Assistant Appraiser in the New York Custom House having wools in charge, and Mr. Thomas G. Rice, General Appraiser in the Boston Custom House, having the same in charge, extended to the committee every possible facility for making a thorough examination, and evinced the utmost willingness to communicate all desired information explanatory of their official action generally or in particular cases, and also in regard to all facts tending to illustrate the practical operation of the law.

Both of these officers had put an official construction on the provisions of the wool tariff, in regard to classification, and in other respects, corresponding with that put upon them by the Committee of the National Wool Growers's Association, who assisted in framing the bill; and accordingly they did not ask, in any case, to have the correctness of their official proceedings tested by any other standard.

Invoices of wool, on being entered at the custom house, are examined by the appraiser, whose business it is to classify them and appraise their value, in order that the legal rate of duties may be levied and collected on them. Every invoice is recorded in the books of the office, with the number and weight of bales, name of vessel, name of consignee, date of entry, &c., &c., and the adjudged classification, appraisal, and rate of duties levied, are also recorded; so that the books furnish a full history of the official action of the department in every separate case.

In the examination of an invoice of wool by the appraiser, the bales are cut open, and samples taken from different parts of the bale indiscriminately, and from enough bales to determine beyond a reasonable doubt the character and condition of all the wool embraced in the invoice. When wools of different classes are found to be mixed, or any indications of intended fraud are discovered, the examinations of the bales are made more rigorous, and a more numerous samples taken from them.

The samples in the New York Appraiser's Office

generally weigh from one to three pounds each, and in cases where, owing to a mixture of different wools, or other circumstances, doubts were entertained by the appraiser in respect to classification, &c., the samples are considerably larger. They are all put up in well secured packages, marked so that the particular invoice from which they were taken can at once be determined, and hence, by reference to the records of the office, they furnish satisfactory evidence of the appraiser's action in regard to each separate invoice of wool, and enable the correctness or incorrectness of that action to be properly reviewed. That is to say, they furnish such evidence unless it can be supposed that the samples are not what they purport to be, but are false ones substituted to cover up fraudulent classifications and appraisal. The official action of the appraiser is necessarily subject to the inspection of so many persons—official persons and others, including wool importers, keenly anxious to prevent other wools of the same description from going into the market with the advantage of being burdened with less duties than their own—that any attempted fraud in this particular would be subject to immediate detection and exposure. We believe no suspicions are entertained in any quarter that such frauds have been practiced.

The committee examined samples from every invoice of wool which has been entered at the port of New York from the day the wool tariff went into effect, down to May 20, 1868, with the exception of a few invoices—not exceeding a dozen in all—which were entered in bond, and which were immediately re-shipped to foreign ports without being landed. In such cases there was no object in the appraiser's taking samples.

The examination made in Mr. Bausch's department at New York, satisfied the committee that this experienced and valuable officer has faithfully executed his duties as wool appraiser to the utmost letter and spirit of the law. Not an instance was found where a shadow of doubt was entertained by any member of the committee in regard to the accuracy of any of his official decisions or acts.

The committee found that the wool appraiser's department at Boston was conducted on substantially the same system with that of New York. Here, too, the committee examined samples taken from every invoice of wool entered since the enactment of the wool tariff down to the period of their examination. The zeal and fidelity which so signally characterized the New York appraiser's official action, were found equally to characterize Mr. Rice's official action; and this committee would deem it unjust not to avow that, in their opinion, the warm thanks of the wool growers of the country are due

to both of these officers, for their fearless and upright administration of the law.

The attention of the committee was especially directed to the practical efforts of the tariff in the admission of foreign wools, and particularly to the fact whether wools which pass the custom houses as third-class (carpet) wools, and which pay the lower duties of that class, are not wholly or in part applicable to, and actually used in the same branches of manufacture with class one and class two (clothing and combing) wools: thus, to the extent of such use, robbing the United States wool grower of the protection against foreign competing wools, avowed to be one of the principal objects of the law. If it can be shown that wools admitted as carpet wools are thus brought into competition with United States wools, by being used in the same class of fabrics, it either establishes the fact that there is no essential distinction between them, and hence no ground for the distinction made in the duties imposed on the respective classes, or else that the terms employed in the tariff classification are defective and open to evasion. In support of one or both of the latter propositions, the committee were informed by individuals, that they had seen combing machinery in operation in certain distinguished carpet mills, and knowing no occasion for its use in carpet manufacture, they were led to infer it was employed to prepare carpet wool, or a portion of it, to be used in other fabrics.

On the above subject, the committee took the testimony of carpet manufacturers and wool spinners, eminent for character and experience, and supposed to be particularly conversant with the wool manufacturers of the whole country. These gentlemen stated that they did not know of any case of wools admitted as carpet wools being sold or used as clothing or combing wools. An experienced and eminent spinner, Mr. Cameron, of Granville, Massachusetts, declared there were no intrinsic properties in carpet wools (which he described at length) which unfitted them for profitable use in any case, and even from practicable use in most cases as substitutes for Class One and Class Two wools. The combing machinery used in the designated carpet mills was found to be used in their own legitimate operations. Wool is combed for carpet manufacture, the longer portions being used for the warp, and the noils, &c., for filling.

Taking the above statements in conjunction with the important fact that there has been no unusual import of carpet wools since the enactment of the present wool tariff, the conclusion is irresistible that no appreciable amount of the wool which passes the custom houses of New York and Boston or probably the other United States custom houses, in that class, is employed in the fabrics, or brought into competition with United States wools.

The committee are fully satisfied, from the results of their investigation, that the classification of wools contained in the tariff has thus far effectually carried out in practice the objects it purposed and was intended to embrace, and that at present it needs no amendments to give the wool-growing interest of the country full security against evasions of the law, when administered by competent and honest officers. Administered by incompetent or dishonest officers, no legal provision could give the wool-growing interest such security.

HENRY S. RANDALL,
S. D. HARRIS,
EDWIN HAMMOND,
J. W. COLBURN,
WILLIAM R. SANFORD,
WINTHROP W. CHENERY,
JOHN D. WING,
BURDETT LOOMIS,
LEANDER WETHERELL,

May, 1863.

Committee.

I fully concur in the above report, so far as the New York Custom House is concerned, but not being present at the examination made at the Boston Custom House, I withhold any expression of opinion in relation thereto.

WILLIAM CHAMBERLAIN,
Member of Committee.

MILKING MACHINES.—A correspondent of the *N. H. Mirror and Farmer* gives his experience with one of these machines. He saw them advertised, and bought one, paying \$7 for it, and \$5 for the right to use it. He says: "I tried it on an easy milker, and after a good deal of effort succeeded in getting it adjusted on the cow's teats, and by working it could draw some milk, but by the time the cow was half milked the teats would not fill the cups, and the machine would drop off, there being no suction. I wrote to the agent, stating the difficulty, and asking to be referred to some one who had one in successful operation. The agent replied, giving no reference, probably for the all-sufficient reason that there was nobody to refer to, but saying that I must persevere, for it required a good deal of practice to learn to use one. I and my hired man tried until we supposed that we had exhausted all our mechanical talent, but without success, and laid the machine by, which the agent can have at a very large discount."

CORN IN DRILLS.—An experienced farmer writes: that last year he experimented in raising corn by different methods. He planted ten acres with a drill. It was manured broadcast with well rotted stable manure, at the rate of ten two-horse wagon loads per acre. To prove which would be the most profitable, he planted two strips, in different parts of the field, of six rows each, in hills—all had the same cultivation, except the corn in hills was hoed. The rest of the field never was hoed, but kept clean with a two-horse cultivator. The corn that was drilled yielded one-eighth more than that which was not.



THE HUMMING BIRD.

A FLOCK OF HUMMING BIRDS.—The Warren Co., (O.) *Chronicle* says a novel sight was recently witnessed in the yard of a citizen of that place. A buckeye tree being in full bloom, it seemed to have an especial charm for humming birds, forty or fifty of those beautiful little birds being on and about the tree at one time, and so busily engaged in gathering sweets as not to be alarmed at the near approach of persons attracted by the rare sight of such a flock of humming birds.

DRILL HUSBANDRY.—At one of the celebrated sheep shearings that used to be given by Mr. Cook, of Norfolk, at which hundreds congregated and remained for days together, he mentioned a fact that is not generally alluded to, as being founded on the observation and practice of his manager, Mr. Blaikie, a man of great sagacity. It was, that a field with a southern aspect, if rich, should be drilled north

and south; but if dry, and in want of shade, it should be drilled east and west. It is easy to see that, in the latter case, the crop would shade the land from the influence of the sun, and in a measure, counteract the effect of drouth.

THE Yellow Aberdeen Turnip has been found one of the most profitable varieties for field cultivation, being more solid and substantial, and containing more nutriment than most of the flat turnip variety. *The Country Gentleman* says that W. A. Underhill, of Croton Point, N. Y., who has had much experience and success with root crops generally, has raised his own seed of the Aberdeen for the past fifteen years, continually selecting the best and most compact specimens for this purpose. He informs that paper that during this period he has improved the variety so much, that they weigh five pounds more to the bushel than at the commencement of his experiments.

OUR KANSAS LETTER--No. 8.

WRITTEN FOR THE AMERICAN FARMER, BY A. M. BURNS, MANHATTAN, KANSAS.

I often wonder what the citizens of the East think of the far Western people, or rather those who live in the center of the United States. I suppose there is little said about them; but if you knew the "go-aheadativeness" of Western folks, they would attract your attention more. You may call to mind that since you commenced the publication of THE AMERICAN FARMER, I wrote you that in a short time we expected the cars of the Union Pacific Railroad, Eastern Division, to be running as far as Manhattan. What will some of your readers think when I inform them that these cars are now running 300 miles further west of us, and the railroad construction going on at the rate of a mile per day.

There is one thing on which your section may claim superiority over us, and that is your fruit; but the people here are awakening to the importance of planting fruit and forest trees. An agricultural and horticultural society was recently formed here, and the first theme for discussion was forest trees. Our people are planting fruit trees now with commendable energy; their progress was somewhat retarded at first on account of the difficulty of obtaining trees, and when they were obtained, they were the kind suited to the eastern climate, and propagated there, but the sale of eastern fruit trees is now over in the West, as many are not adapted to our soil and climate. Mr. Sammel Cutter established a nursery in Western Kansas, I think in 1858, and has tested all kinds of apple and other standard trees, while your correspondent confined himself to grapes and small fruits except standard fruit trees for home use. Nurseries are springing up over the West, but not in such numbers as will supply the future demand of the millions of people who will come West. The number of emigrants that have passed up the railroad is beyond any precedent; still there are millions of acres yet that can be procured by any person. If they settle on the land five years, government will give them 80 acres within 20 miles of the railroad, and 160 acres if they locate over 20 miles from the railroad. It is not such land as you have in the east. In the spring of 1858, I cleared four acres of wood land on the Big Blue River bottom; it was plowed roughly by one yoke of oxen. It has never been plowed since except by a small Indian pony with a shovel plow, and yet I have raised 60 bushels of corn per acre every year since from it. I mark it out with a shovel plow, plant the corn, run the plow on each side and cover the corn, then plow the remaining ground between the rows. After the weeds commence to grow, I send a boy into the field with the

pony and shovel plow, who plows it once at least, and if the corn is not too high, and there are weeds, it is cross-plowed; nothing more is done until "pulling time." I "pulled" the last of my corn four weeks ago, in order to get it out of the road so that I could plant a small lot this spring. It remained out all winter. The farmers here who pull the corn leave the husks on all winter, and throw it into large piles. A square pen is often built of rails ten or twenty feet high, where the corn remains over winter, exposed to rain and snow, without any cover. Would your corn keep in this way in the State of New York? Would you not have a pile of manure if you treated your corn in this way. I am no farmer, but have raised corn for my own use, and mention this to show what can be done in Kansas. The same results may be expected from prairie soil when broken and rotted.

I have not had very good success with peaches; the ground is too rich, and the fruit buds winter-kill, but this year the trees are full of peaches. I was fortunate enough to cut down 20 peach trees last year in order to plant grape vines to propagate from; the few that were left standing, if no accident happens, will produce each \$10 worth: thus you see the use of the ax a short time, has lost me \$200. The seeds of apples put in wooded ground three years ago, and the forest trees cut down afterwards, will this year give a second crop. Cherry, pear, and plum trees not yet bearing, except the native plum. The tops of the Lawton blackberry were killed this winter, it being the second time since they were planted nine years ago. The new "Farley" blackberry was uninjured; it is said to be equal to Wilson or Kittatiny. Not having fruited either of the latter yet, I can give no opinion. I planted the much talked of Missouri Mammoth blackberry this spring; it is growing well. We have some currants here; the bushes are in the shade. I can raise currants here notwithstanding every person says I cannot; they said the same about apples and grapes ten years ago, and I was laughed at for planting them. I had the sympathy of every old woman in the country; how they pitied my prodigal folly! But a quarter of an acre of bearing vines, and only one vine of a variety among them, will this year confirm their changed opinion, changed only after seeing the vines bearing three or four years. Next year I will have four acres in the third year. I would have had several acres in bearing now, if I had not been led astray by the finely wrought theories of grape growers in asserting that layers from green wood, or the present season's growth were as good as from old wood. When I commenced this letter I intended to have written upon this subject, but must defer it until my next. Green wood layers may do elsewhere, but for this

climate I will never plant another, nor will I propagate one for sale. I have found that the best plants are the cheapest, even at double the price of inferior plants. My opinion is that green wood layers would make excellent brush heaps, but they are unfit for planting, except to breed mildew, in this climate.

HORSE BREAKING AND HORSE SENSE.

A horse's sense is good common sense. Many a man does not know half so much about some things as a horse, and there is a great difference in horses. The horse is not naturally suspicious, but he is timid when young. He learns very soon what his weapons are—teeth and heels—and in what his security lies—flight. His boldness and the "glory of his nostrils" come when "he rejoiceth in his strength." With his age comes the knowledge of his powers, and if he has never been mastered—never made to yield to any will but his own—if he is to be made useful, the struggle must come sooner or later, and man's will or horse will must triumph. We think, says *The Turf, Field, and Farm*, that it is best to begin quite young with colts to control them; so advise to halter a colt while it runs with the mare, and to do it after feeding it with carrots and sugar, until it thinks it will only get caressing from mankind, and has no fear of any man. The colt submits easily, because it is the easiest and pleasantest thing it can do, provided it is not frightened, and would as lief be led as loose, since the curtailment of his freedom is made up by sweets or carrots. The sense of smell in horses is very acute, and if they are suspicious of anything they always approach it cautiously and smell it. They should be indulged in this, and harness, saddle, &c., should all be investigated by the nose as well as by the eye before a more intimate acquaintance is forced upon the horse. A horse-ring of from forty to fifty feet in diameter is one of the greatest aids a horse trainer can have. In this a horse too restive and spirited to take a lesson may be tired out so as to be very docile, and a tired horse is much more susceptible to both favors and instruction than one full of vim and fire and play. There are a very few common sense rules, which, if followed, will commend themselves to the horse as well as to the trainer, viz.:

1st. Always feel kindly toward a horse, no matter what he does to you, and consequently never show "temper." Remember the horse knows instinctively how you feel.

2d. Never go near a horse if you are afraid of him; the horse will know it, and take advantage of it before you acknowledge it yourself.

Wew wheat in St. Louis recently sold for \$7.

REMEDY FOR HARD MILKING COWS.

A correspondent of *The New England Homestead* writes that he had a valuable young cow that milked so hard from her hind teats, that it was not only very hard work, but very provoking, to be so hindered when time was pressing. By the aid of a probe, I ascertained that the obstruction was at the lower end of the teat; I therefore thought a little surgical skill might remove the evil. I took a very narrow bladed knife, gave it a keen edge, took the teat in my left hand, inserted the point very gently into the milk passage, and then without fear of trembling, gave a sudden thrust of the knife in the right direction, and the cure was affected. The cow started a little, and stood still. A few drops of blood followed the cut only. I then operated on the other teat with the same result. Another young cow that came of the above mentioned, had lost one-quarter of her bag, and milked so hard from one teat that the stream of milk was no larger than a small knitting needle. With the same success I operated upon that. They milked afterwards as easily as any one could desire, and no leaking of the milk followed.

LONG WOOLED SHEEP.

THERE is, just now, decidedly increased attention to long-wooled sheep. Two or three years ago some of our friends felt that we were not good friends of the Merino, because we insisted that, in some localities and circumstances, the long-wooled sheep were the most profitable, and endeavored to encourage their more general introduction. Now, a caution may be needed on the other side. We have repeatedly advised our readers to be cautious as to making decided changes and engaging largely in a new branch of business. We have no doubt that many farmers will purchase Cotswolds or Leicesters, and will find themselves disappointed in their expectations of profit.

These sheep cannot be kept profitably in large flocks, and with scanty food and little care. This fact is very well expressed by a correspondent of *The Country Gentleman* in the following paragraph:

"The tendency of our farmers is now full strong enough to run into long-wooled sheep, especially when we consider how little they understand their management. Many of them seem to expect that these sheep will do well, kept as they have kept Merinoes or grades of that breed—that is, on the starvation plan—grubbing mulleins and briars in summer, and running to a straw stack in winter. The consequence is the wood fiber is weak, of irregular growth, and so cotted at the time of shearing that it is unfit for combing, and can only be sold at a low price. Where these sheep are properly managed, they can be made very profitable, but they will do nothing otherwise."—*Western Rural*.



THE GRASSHOPPER.

We learn through the Salt Lake City papers that a war has been instituted and is being warmly and vigorously carried on against the myriads of that pest, the grasshopper. It seems that attacking parties drive them into the water ditches, upon which traps are so contrived as to gather them up by bushels as they float down. This is better than supinely sitting down, and letting the little ravenous fellows have it all their own way, and wiser than giving up one's crop or garden in despair to the rapacity of the intruders.

From a correspondent at Spring Lake, we learn, says *The Rio Virgen Times*, that armies of the little plague have there also attacked the gardens and fields of grain.

Not only in Utah is the grasshopper a burden, but from our exchanges says the before mentioned journal, we learn that they are equally so along the frontiers in Iowa, Nebraska, Kansas, and further south.

SUMMER CARE OF MILCH COWS--- SOILING.

The following is an extract from Mr. P. Stedman's paper on dairy stock and its management, read before the Franklin Club of Massachusetts:

Much has been said and written upon summer feeding or soiling, compared with pasturing. Here, as in many things which relate to agriculture, no definite rule can be given. We must be guided by the condition of the soil, location, and other contingencies. In sections where natural pasture lands are scarce, or where land is valued at a high price, and is easily cultivated, the advantages of soiling can hardly be over-estimated; while for the larger portion of New England it would not be good

economy to adopt this system to any great extent. Yet I think there are few if any dairymen who would not find it to their advantage to cultivate a portion of green fodder to keep up the flow of milk during the usually warm and dry months of August and September. As food for soiling, I would recommend mainly, clover, oats, and corn. A few feeds of early sown rye may be used to advantage from the 10th to the 20th of May. This soon becomes woody and unpalatable, and is recommended only for early feed. Green clover on rich land will be fit to cut about the 20th of May, and will hold good until the middle of June. Oats should be sown early in April, and again about the first of May, at the rate of four bushels to the acre. These will keep good the supply from June 15th till July 13th. By this time, corn planted the first week in May should be fit to cut. The planting should be continued at intervals of two weeks, until the 10th of July. Such a succession as this will afford a regular supply of succulent food until the 1st of October. The clover may be cut three several times, either for summer or winter use, or the soil may be inverted and corn planted upon the same ground. The oat ground, which is cleared previous to the 10th of July, should be used for growing Swedish turnips. These I would sow in drills 30 inches apart, manuring in the drill, either with fresh manure from the cow sheds, with compost, or with special fertilizers. The latter I use, and recommend *only* when the supply of the former fails to be equal to the demand. All the ground cleared after the sowing of Swedes, and previous to the 10th of August, I would plow and sow to the common or English turnip, sowing the seed broadcast. The quantity of land appropriated for soiling will vary according to the extent to which it is desired to pursue the system. One-fourth of an acre to each full grown animal, appropriated in the way indicated, will produce an astonishing amount of the best feed for dairy cows, besides greatly enhancing the amount of valuable manure.

FLORIDA.

A correspondent of *The Southern Cultivator* gives the following concerning the St. Johns River country, Florida :

Other parts of the South may be quite as deserving of attention as this St. Johns River country, and not less favorably situated for agriculture, horticulture, manufacturing, and trade, but as no other section seems to be attracting so many visitors and settlers, or enjoying so large a degree of prosperity at present, a few words about the neighborhood of Jacksonville, the grand commercial and social, though not geographical center of the whole river region, will no doubt find interested readers among the patrons of *The Cultivator*.

Jacksonville, itself, is a busy, thriving, and growing place—one of the very first towns in the South, to which these terms can be properly applied. Everything here denotes activity, energy, and industry. Trade is brisk—that is, comparatively so; the steamers and railway trains come and go loaded with passengers and freight; the hotels are crowded; the carpenters and masons are busy building new houses and stores; and the farmers and gardeners of the vicinity, find a ready market, at good prices, for all the produce they can bring in. If there be another town as lively and as prosperous, south of Mason & Dixon's line, I have not seen it. It is not of the town, however, that I wish to speak, particularly, but of its vicinity, which is getting more than its share of the immigration now flowing into the great and magnificently endowed St. Johns country.

The St. Johns River—as fine a stream as the Hudson, though in a very different way—only a mile wide at Jacksonville, broadens above the town to at least two miles in width, with the aspect of a lake. Its shores, rising here and there into bluffs, are everywhere crowned with the perpetual verdure of the live oak, the magnolia, and the bay. A finer view than it presents, can hardly be found. On both sides, near the city, are some fine residences and large estates, but the latter are fast being cut up into small farms and market gardens. The land is excellent for truck gardening, and the climate so favorable to early crops, that with the facilities the river affords for shipping to northern ports, as well as the excellent home markets we possess, this must soon become a leading interest here. Orange groves are also being planted at several points, as well as vineyards and peach orchards. The prices of lands fronting on the river, are so high, however, that those bordering on the various creeks, tributary to the St. Johns, which afford available water communication with the river and town, are in demand for farming and gardening purposes. These creek lands afford sufficient rich soil (hum-

mock) for the purpose for which they are required, and purchasers can obtain, at very low prices, indefinite areas of "pine openings" capable, also, with a little manuring and proper cultivation, of producing excellent crops of corn, sweet potatoes, or sugar cane, and furnishing in their natural state, rich pastures for stock.

One of my neighbors dug, last season, from such soil, previously cow-penned, at the rate of 400 bushels of sweet potatoes to the acre. This was an uncommon yield, but only what most of these lands might be made to produce.

Land, on the river and within ten miles of town, is held at from \$20 to \$30 per acre, but equally good land, a mile or two back, can be bought for from \$1.25 to \$5. It can generally be had, however, in tracts to suit purchasers.

An effort is being made to establish direct communication by steamer, with New York. This accomplished, all difficulty in the way of shipping produce to that port, will soon be removed, and the business of market gardening become a leading one in all this river country.

ADVANTAGES OF UNDERDRAINING.

WARING, in his "Elements of Agriculture," states that the advantages of underdraining are many and important, and enumerates the following :

1. It entirely prevents drouth.
 2. It furnishes an increased supply of atmospheric fertilizers.
 3. It warms the lower portions of the soil.
 4. It hastens the decomposition of roots and other organic matter.
 5. It accelerates the disintegration of the mineral matters in the soil.
 6. It causes a more even distribution of nutritious matters among those parts of soil traversed by roots.
 7. It improves the mechanical texture of the soil.
 8. It causes the poisonous excrementious matter of plants to be carried out of the reach of their roots.
 9. It prevents grasses from running out.
 10. It enables us to deepen the surface soil.
- By removing excesses of water—
11. It renders the soil earlier in the spring.
 12. It prevents the throwing out of grain in winter.
 13. It allows us to work sooner after rains.
 14. It keeps off the effects of cold weather longer in the fall.
 15. It prevents the formation of acetic and other organic acids which induce the growth of sorrel and similar weeds.

THE OBNOXIOUS RULES.

If anything were needed to convince wool growers of the propriety of commencing an open and determined fight against the ridiculous and unjust rules for buying wool adopted by woolen manufacturers and wool buyers, it is found in the accumulating evidence of a wide-spread combination to enforce them. Here is what the wool buyers of Michigan resolved, at a meeting held at Detroit, June 2d :

1. A deduction of one-half on greasy and gummy unwashed buck fleeces.
2. A deduction of one-third on heavy washed buck fleeces.
3. A deduction of one-third on all other unwashed or partially washed fleeces, and on cotted wool, and on unconditioned fleeces made unmerchandise by stuffing with tags and dead wool, or by an excessive use of twine, and on fleeces that have been divided for the purpose of deceiving the buyer.
4. In purchasing wool thus prepared for market, to pay a price proportionate to its relative worth as to texture, strength and other desirable qualities.

It is useless to suffer longer in silence, or to crawl at the feet of these men, and supplicate for justice and fairness. As conductors of a paper in the interests of the producers, there is no longer any middle ground for us to take. The agricultural paper that wavers in a manly, out-spoken defense of plain and well known rights of its patrons, is recreant to its great duties and unworthy of support. It is time for the agricultural press, individual wool growers, wool growers's associations—national, state, county and township—to combine against this manifest wrong which has already banefully affected the wool-growing interest, and threatens to do so disastrously.

It is gratifying to know that what has already been done in opposition to the obnoxious custom, has influenced one of our largest wool houses to openly avow a determination to conduct its business in a just and equitable manner. We refer to Messrs. Lewis & Brooks, and trust their example will be speedily followed by our other wool houses, both old and new.—*Prairie Farmer.*

DOCKING AND CASTRATION OF LAMBS.—Mr. Baker docks and castrates lambs at six to ten days old; Brown, Rich & Saxton at four weeks; D. Clapp at three weeks; A. H. Clapp and Wright at three or four weeks, but Clapp does not perform both operations at the same time; Althorp docks at one or two weeks, and castrates at eight; Gregory docks at washing, and castrates at shearing; Hammond docks at two weeks, and castrates at four; the Marshalls dock and castrate at from six to fifteen days; Pitts at from one to three weeks, according to the strength and vitality of the animal; Sanford, at two weeks; Wilcox at one or two weeks, but does not perform the operations together.—*Rural New Yorker.*

CARE OF YOUNG TURKEYS.

THE first diet offered to turkey chicks, should consist of eggs, boiled hard, and finely mixed, or cured with bread crumbs and the green part of onions, parsley, &c., chopped very small and mixed together so as to form a loose, crumbly paste; oatmeal with a little water may also be given. They will require water; but this should be put into a very shallow vessel, so as to insure against the danger of the chicks getting wet. Both the turkey hen and her chickens should be housed for a few days; they may then, if the weather be fine, be allowed a few hours' liberty during the day; but should a shower threaten, they must be put immediately under shelter. This system must be persevered in from three to four weeks. By this time they will have acquired considerable strength, and will know how to take care of themselves. As they get older, meal and grain may be given more freely. They now begin to search for insects, and to dust their growing plumage in the sand. At the age of about two months, or perhaps a little more, the males and females begin to develop their distinctive characteristics.

In the young males, the carunculated skin of the neck and throat, and the horn-like contractile comb on the forehead, assumes a marked character. This is a critical period. The system requires a good supply of nutriment, and good housing at night is essential. Some recommend that a few grains of cayenne pepper, or a little bruised hemp seed be mixed with their food. The distinctive sexual marks once fairly established, the young birds lose their names of "chicks," or "chickens," and are termed "turkey poults." The time of danger is over, and they become independent, and every day stronger and more hardy. They now fare as the rest of the flock, on good and sufficient food.

With respect to the diseases of the turkey, with them as with all other poultry, prevention is better than cure. The most important rules are: let the chicks never get wet, and encourage them to eat heartily by giving a good variety of food; yet to beware of injuring the appetite by too much pampering. Taking a pride in them is the great secret of success in the rearing of domestic poultry.—*Ex.*

ROOTS IN SHEEP HUSBANDRY.—To pursue sheep husbandry most successfully, says *The Homestead*, roots must be raised and fed; grain, either raised or bought, will be consumed, and oil meal have to be purchased for food. Their manure, then, is better for the farm than the purchase of superphosphate or guano.

FEED the earth, and she will feed you.

SPIRIT OF THE AGRICULTURAL PRESS.**Varieties of Wheat.**

A correspondent of *The Canada Farmer* writes his experience as follows:

Believing that it would be a general benefit if the numerous readers of your excellent paper were to contribute their experience in testing different varieties of farm produce, I will give you mine with the following varieties of wheat, viz.:—White California, Italian White Mediterranean, Virginia Blue Stem, Norfolk Red, Bald Mediterranean, Boughton White, and Diehl. The first four were winter-killed, and the remaining three varieties have wintered first-rate, and promise well. Of the Diehl wheat I had an average of 44 bushels per acre from nine acres sown last year, and for hardiness, productiveness and quality, I consider it superior to the other varieties named.

A Valuable Hint.

A correspondent of *The Western Rural* says that when he perceives his horses inclined to rub their manes and tails, he feeds them a little oil meal, say from one to two quarts a day for a week or ten days, and at the same time makes a good brine, as warm as he can bear his hand in it, and washes the scaly substances out of the mane and tail, and mixes about a tablespoonful of lard to a tablespoonful of powder, and rubs it in well about the roots of the mane and tail.

The Striped Cucumber Bug.

This is probably the worst insect pest of the garden. He is the great enemy to squash, cucumber, and melon vines, and often blasts every hope of a good crop. According to Dr. Fitch he is the parent of the small white worm, half an inch long or so, which enters the stems of vines just below the surface of the earth, and eats out the pith and destroys them. This worm often kills vines that have begun to bear fruit when it is entirely too late to replant. If this be a fact, (which we believe entomologists have not disputed,) it is within the experience of every vine grower that the bug is scarcely more to be dreaded than when transformed to a worm; in fact, the bug can be most easily thwarted in his depredations.

Perhaps the surest means of keeping the bug, or beetle, both from eating the leaves and laying his eggs, are boxes covered with muslin, set over the hills. They should be large enough to allow of considerable growth inside or them, and the sides ought to be made sloping so as to admit sunshine to the best advantage. Some cultivators get along very well by using paper covers, and very thin cotton batting has also been recommended. Plaster or oyster-shell lime dusted on the plants once a day, when the dew is on, is also claimed to be a preventive, and some have used powdered white hellebore with as good success against the cucumber bug as the currant worm.—*Rural New Yorker*.

We have found the thumb and finger the best remedy for this pest, going over each plant morning and evening, killing all we can find. This spring they are more numerous than ever, having completely destroyed most of our early planted squashes. Soot is strongly recommended, and has proved of great advantage in keeping them off the young plants.

Corn Fodder.

It is now an established fact, says *The Rural World*, that the sowing of corn for fodder during the summer is a benefit. It fails in no cases, unless the corn, like other crops, is badly put in. Sweet corn is the most highly recommended, and may be raised to the amount of seven and eight tons to the acre, enough to "bait" a dozen cows, more or less according to the season—for a moist growing season produces more grass, and a drouth (which is the rule) requires more corn. Sometimes corn becomes the main, and in some cases, which will happen in all localities, the only reliance. Thus there are times when stock of all kinds suffer for the want of grass, but especially milch cows. These suffer not only in the loss of milk, but flesh, thus unfitting them for winter and the following season. There are but a few seasons that we do not see this state of things. Now, corn sown for baiting will as effectually remedy this as though the season had been one of the most favorable, and even more so if thoroughly carried out. Here are from six to ten tons raised to the acre. Grass at best affords but three, and the corn is not inferior to the grass. Thus what crops of excellent fodder may be raised, both for summer use, and for winter feed! We need but go at it and do it; the most is to start. Sow early enough to secure a good growth by the time the drouth occurs. Sow in May, again in June, and later. What remains over will make excellent winter fodder. But, whether it is used for this or not, by all means let not the chance slip by, to lay in for a crop against the drouth, which is the greatest hurt that can befall stock in this climate, not excepting the severity of winter. Once engaged in, it will never be relinquished.

Salting Hay.

A writer in *The Germantown Telegraph* says when hay is mowed away or stacked in an imperfectly cured state, an application of salt will not only preserve but give a fine flavor to it. This is undoubtedly true, and we may add that many of the best stock raisers salt their hay, no matter how well it may be cured. When the hay is well cured about four quarts to the ton are used, but when put away in a green or damp state, the quantity should be about doubled. Some salt more liberally than this in both cases, but this is not absolutely necessary to the preservation of the hay, or to make it more palatable to the stock fed upon it.

Plowing.

An item of importance in plowing is to see before beginning, if there is any defect in the surface of the ground that can be modified or corrected. In the commonly adopted course of plowing round and round, we produce a rise on the outer edge, and a depression in the center, which in many cases lays the foundation of a ruinous "wash," and in pieces of fine level land we see deep depressions created that hold the surface water, making a "mire" that drowns out the seed sown there. Starting in the center and plowing "back furrows," is an ample and simple remedy for this, which from mere thoughtlessness is seldom done. In finishing off the field, leave a strip on the sides equal

to the width of the "turn rows" or "headlands," and plow round the entire field, and it will have a clean, neat, finished appearance. In cases where this course was impossible, we have seen potatoes put in, or clover seed sown, which often came in well for a "green bite" in summer during the hard work.

Cure for Blood Spavin.

A correspondent of *The Western Rural* recommends the following:—Two ounces of spirits of turpentine, two ounces of spirits of camphor, two ounces of aqua ammonia, mix, rub on the spavin well, then put on a woolen cloth and with a hot iron heat it in by laying the iron on the cloth. I have cured a very bad case on my own horse. It will not remove the bunch, but will prevent its increase and stop lameness; will cure in ten or twelve days.

Lime the Hay Mow.

A farmer writes to the *Utica Herald* that he has tried putting lime on the hay mow, and finds it work like a charm. The hay kept green and bright, and though the lime shook out while handling the hay, both horses and cattle eat it with the greatest avidity. It is thought to be a preventive of heaves and stops the cough in horses. A neighboring farmer also limed his hay in the mow with equally beneficial results. It will be but little trouble, at the coming hay harvest, to treat a portion of the hay mow to a dusting of lime as a test of its efficiency.

Cutting Oats Green.

A correspondent of *The New England Farmer* states that at a recent meeting of the Waitsfield, (Vt.) Farmers' and Mechanics' Club, O. E. Wilder stated that last summer he cut an acre of oats soon after they were headed out, and last winter he fed them to ten cows, lasting them for their entire feed, three weeks and four days—nearly equal to thirty-six weeks for one cow. The cows meanwhile increased in their milk, when naturally they would have decreased on ordinary fodder. The land was seeded to grass, and he intends to put what grows on the same piece next year by itself, and feed it to the same number of cows, and note the result. He thinks that he cut the oats a little too early, and that if they had been left till full in the milk they might have been better. He also believes that the fertility of the soil was not exhausted nearly as much as if the oats had ripened.

A Cheap Paint.

A correspondent of *The Western Rural* says he knows the following to be a good kind of cheap paint:—Whiting 5 lbs.; skimmed milk, 2 quarts; fresh slaked lime, 2 ounces. Put the lime into a stoneware vessel; pour upon it a sufficient quantity of the milk to make a mixture resembling cream; the balance of the milk is then added: and lastly, the whiting is crumbled upon the surface of the fluid, in which it gradually sinks. At this period it must be well stirred in, or ground as you would paint, and it is fit for use.

Curing Red Clover.

The Rural American says:

"When properly cut and dried, no hay is more palatable and valuable than red clover. It is of the utmost

importance to cut it at the right time, and that is just after it comes in full blossom. If we wait till the flowers have turned brown, they will break off in harvesting, and the stalks will be quite tough and woody. Cut when just in flower, we save the blossoms and the most volatile and sweetest parts of the plant, and the hay retains its bright green color all winter. Every good housekeeper knows that herbs retain their most valuable properties only when dried in the shade. Apply this to the curing of clover. As soon as it is cut and only slightly wilted, put it into small cocks, say from three to four feet wide at the base, and proportionately high. The heating process will soon begin, but it will not go far enough to hurt the hay. It will pass off in the form of vapor, leaving the cock sweet, and cured in the course of a day or two days, according to the weather. If the weather be dry, open the cocks in the forenoon, and after lying an hour or two, let the hay be got in. No part of the hay-loft will be so popular as this all winter."

Driving Horses.

A correspondent of *The Scientific American* gives this advice to horsemen:—Whenever they notice their horse directing his ears to any point whatever, or indicating the slightest disposition to become afraid, let them, instead of pulling the rein to bring the horse towards the object causing its nervousness, pull it on the other side. This will instantly divert the attention of the horse from the object which is exciting his suspicion, and in ninety-nine cases out of a hundred, the horse will pay no more attention to the object from which he will fly away if forcibly driven to it by pulling the wrong rein.

Soft Water for Horses.

Youatt, in his book, entitled "The Horse," says this animal will never drink hard water if soft is within reach; that he will leave clear, transparent hard water for a pool or stream of soft, even though the latter be discolored with mud. Very cold water from the well, will make the hair rise up, and not unrequently cause an attack of gripes. Give soft water when practicable, especially if the animal be ailing.

Weevils in Barns.

I have had the misfortune to be where weevils infested two barns. You could gather a quart measure of them in cleaning 50 bushels of wheat. They may be exterminated by thoroughly cleansing the barn out, sweeping off the joists and sprinkling good fresh lime plentifully all around.—*Cor. Country Gentleman.*

Tall Barley.

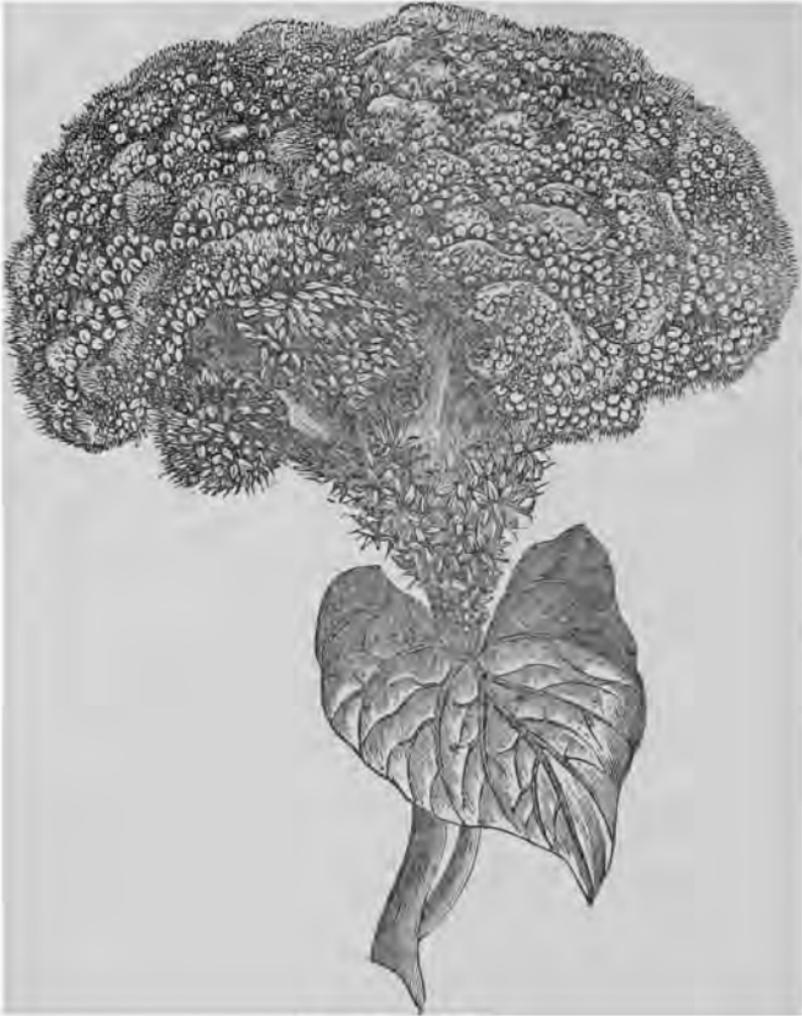
The Dixie Farmer acknowledges the receipt of a stock of barley from the farm of General Ewell, Maury Co., Tenn., which measured seven feet six inches in height.

Jersey Cows.

E. Wood, of Vermont, has three grade Jersey cattle, from the milk of which last year, 860 pounds of butter were made, three calves reared, and a family of five persons supplied with milk and butter.

Butter Factory.

The Rural World strongly advocates the establishment of an extensive butter factory near St. Louis.



COCKSCOMB.

THE Cockscomb, (*Celosia*), is a very singular and attractive annual; when well grown, unsurpassed; succeeds best started in the house or hot-bed, and transplanted into a rich, warm soil. They make fine pot-plants for exhibition, and deserve to be classed among our best annuals. We recommend them to all who will give their plants good care, and such will not blame us for the advice. *C. cristata* is the singular and beautiful Cockscomb.

The varieties and colors are Crimson, dwarf, Rose, dwarf, Yellow, dwarf, Violet, dwarf, Scarlet, Tall Violet, Tall Rose, Tall Sulphur. *Celosia* Pyramidalis, Coccinea, spikes very large, showy, scarlet, 3 feet; *Celosia* Pyramidalis Aurantiaca, spikes scarlet, tipped with orange; 3 feet; *Celosia* Spicata Rosea, a very pretty plant, with spikes of rose-colored flowers that

keep well for winter ornaments, if picked early. Free bloomer all summer.

The above excellent engraving is from the flower illustrations of James Vick, of this city, whose works in floriculture are both tasteful and accurate.



A correspondent of *The Rural New Yorker* says he has found capsicum to be an excellent remedy to destroy and prevent cucumber bugs, &c. When the vines are wet from dew or rain, sprinkle freely on the leaves and earth about the plants. Also for squash vines, cabbage, &c.

A writer in the same journal advises the use of pulverized leaf tobacco scattered abroad upon the grape foliage as a remedy for the grape bug.

Horticultural.

WESTERN NEW YORK HORTICULTURAL SOCIETY.

THE summer meeting of this Society was held in this city on the 24th.

There was a good show of fruit for the season.

An hour or so was spent in examining the things on exhibition, when in the absence of the President, the Vice President called the meeting to order and occupied the chair.

A letter was read from Charles Downing, of Newburg, expressing his regret at not being able to be present, and thanking the Society for their efforts with the Legislature last winter to preserve his grounds from mutilation.

The Business Committee reported the following questions for discussion:

- 1.—What are the best varieties of fruit for canning, and what is the best manner of doing it?
- 2.—What is the best size of can for keeping fruit, and the best material to make cans from?
- 3.—Is there any method of preventing the ravages of the army worm in apple trees?
- 4.—What is the best remedy for the steel colored grape beetle and grape worm?
- 5.—Is there any remedy for the insect that preys upon *Arbor Vitæ*?
- 6.—What new varieties of strawberries promise well?
- 7.—What are the three best varieties of currants?

The first question was taken up.

Mr. Curtis, who had had much experience, was called upon. Stone fruit, especially the lighter colors, he said, found the most ready sale. Among the strawberries the Wilson and Ida were the best. The black cap raspberry was good, but too seedy to be very saleable.

Mr. Langworthy asked if any one knew of any process like an air pump for exhausting the air without heat—he understood experiments were being tried in this city.

Mr. Crane, of Lockport, had put up fruit in open jars with a preserving fluid, and it kept well and was much less trouble than to can. He could not discover that it imparted any taste to the fruit.

Dr. Sylvester said there was no question but what this fluid would preserve the fruit, but he thought from specimens he had examined, the flavor was all gone. The best fruit he had ever canned was the Lawton blackberry, especially among small fruits; the next was the Doolittle blackberry. Among large fruits the peach was always in order, and the best was the small cling stone, without paring or cutting. Among pears, the best was the Vicar and the Bartlett. He usually put in one pound of sugar to from four to six of fruit.

Mr. Doolittle, of Oaks Corners, thought the quince the best fruit for canning, for you was sure of it every time, and it preserved its flavor better than any other. The most acid of any kind of fruit was the best of its

kind for canning. Even among peaches, the most acid were the best.

Mr. Langworthy said the point of acidity was all important. The more sweet the fruit the more insipid when canned. He disapproved all doctoring of fruit with mixtures, fluid, or powder.

Mr. A. G. Hooker said he had eaten fruit well preserved with some kind of preserving fluid.

Mr. Crane said to his taste the best raspberry canned was Brinkle's Orange.

Mr. Moody, of Lockport, said he did not believe in mixing fluids with fruit to preserve it. He thought the Morris White the best peach to can; quinces were excellent canned; he objected to anything going out from this society recommending any chemical preparation to be put into fruit.

Prof. Clark thought we ought to go farther back and inquire why we canned fruit at all. All we wished was to deprive the fruit of an excess of oxygen which induces decay. Heat drives off the oxygen, and some chemicals are poisonous or produce poison. If these things are tested, they ought to be tested scientifically. If carbonic acid gas could be forced into the fruit it would displace or bind up the oxygen and preserve the fruit. He urged the association to beware of these quack medicines for doctoring fruit.

The second question, the best size for cans, and the best material.

Glass cans were recommended by some as the best for family use, and tin the best for market purposes where the cans were to be used but once.

Third—Is there any method to prevent the army worm from injuring the apple tree?

Mr. Langworthy said they clustered once a day on the body of the tree near the ground, when they could be destroyed by crushing them.

The worm described by Dr. Greig in the forenoon as committing depredations in Ogden and Riga was thought to be the canker and not the army worm.

Col. Croft recollected seeing some years ago a company of the army worms about a mile in width moving to the east and destroying all kinds of vegetation.

Mr. Hodges brought in some worms which he had found for the first time on his black currants. They were taking all the foliage from them.

Mr. E. Davis, of Medina, said he sent to Dr. Fitch specimens of the tent caterpillar and what was here called the army worm.

Dr. Fitch said they were twin brothers, and the proper name was the forest caterpillar.

Mr. Babcock said the secret was to take these things in season, destroy first as many of the eggs as possible, next the young worms when they cluster. When older they may be shaken down and prevented from ascending the tree by a ring of tar or otherwise.

Dr. Sylvester said a good method was to shake the tree, when they would spin down to the ground. Before this the trunk of the tree should be surrounded with a strip of tarred paper over which they cannot crawl.

On the question, what is the best remedy for the steel-colored grape beetle and worm, Mr. Langworthy said the only remedy he had found was to look over

the vines every day and catch them. They were always out on sunshiny days.

Mr. Doolittle said they were so thick on his premises that they perfectly covered the vines, fences, and everything else, making them too numerous to treat in this way.

Mr. Coddling said the bug and worm were identical, and the only remedy he knew was to destroy the worm.

Mr. Rowley believed the beetle and worm were not identical.

Mr. Warner said he had had some experience, and had found no remedy. Hellebore would not kill them. Insects come invariably from a worm which in return reproduces the worm. This beetle has six legs, which he uses sometimes like a flea. The worm is never seen till after the beetle; it has six legs like the beetle. He knew no certain remedy, but thought it would do good to jar or shake the vines occasionally.

Mr. Crane said he had watched these worms, and has seen a small, fly-like insect come out of them, resembling a musketo, but smaller—black, with white wings.

Mr. Quinby said he thought we should not enlighten the world much by our ethnological discussion. The subject had better be referred to Dr. Fitch. He thought they were similar to or identical with the rose bug.

Mr. Warner said it was no more like the rose bug than an elephant was like a sheep.

Mr. Harrison said a few days ago he used some copperas water to destroy worms on his raspberry bushes, and having some left applied a little to the grape leaves and it destroyed the worms entirely. It also destroyed the worms on the raspberry bushes. He used four ounces of copperas to six quarts of water.

The Fruit Committee made the following report:

Strawberries—Jacob Moore, Brighton, seven new native seedlings. No. 39 is large, earlier than Wilson, bright color, flavor very good—perfect flowers, well worthy of trial. No. 73 is very highly flavored. No. 66 is large, resembling Triomphe de Gand.

J. Keech, Waterloo—seven new native seedlings, all perfect flowers, very finely grown. Trumpet is large, brisk, pleasant flavor. Phil. Sheridan is highly flavored. Goliath and Gen. Meade large, handsome, and showy; worthy of trial.

Frost & Co., six varieties.

Dr. Nicaise, not sufficiently ripe to be tasted, but very large.

Triomphe de Gand very large and fine.

William Hunt, Waterloo, one variety, a native seedling named Seneca Chief, raised from Russell.

Dr. Sylvester, Lyons, three varieties, comprising some very fine samples of Agriculturist.

Dr. Minor, two varieties, Hooker and Burr's Pine.

Harvey Russell, Seneca Falls—Three new seedlings. Nos. 1 and 2 are perfect flowers; fruit very large and showy. No. 1 very promising, of good flavor and extraordinary size. Recommended for trial.

Ellwanger & Barry, collection of 27 varieties, comprising Agriculturist, Jucunda, Nicanor, &c., all finely grown.

J. W. Gray, Albion, collection of 10 varieties.

Thomas R. Peck, Waterloo, a collection of 35 sorts, of which 33 are seedlings, many of them very large and showy, but not in condition for the committee to judge of their merits.

By Mr. Rowley, Rochester, a plate of Coriell grapes, well preserved in all respects but flavor.

Ellwanger & Barry, collection of 54 different varieties of roses, many of them new and showy. Also a beautiful collection of 18 varieties of peonies, and a branch of *virgilia lutea* in blossom, and flowers of *Magnolia Thompsoniana*, which are very sweet.

H. E. HOOKER,
C. L. HOAG,
D. W. BEADLE.

On the question what new varieties of strawberries promise well,

Mr. Barry from experience recommended Jucunda and Green Prolific. The Jucunda was not quite as prolific as the Wilson, but much larger.

Mr. Babcock, Lockport, said the Jucunda was fruiting well with them, and as prolific as the Wilson, and far superior in flavor. Others were of the same opinion.

Mr. Crane thought a great mistake was made in picking the Wilson before ripe; when ripe he considered it a very rich berry.

Mr. Quinby sustained Mr. Crane in regard to the Wilson, while others seemed to think it of no account.

Mr. Beadle moved that a committee be appointed to report suitable resolutions in regard to the death of Benjamin Hodge, of Buffalo, formerly an active member of the Society.

H. E. Hooker, Dr. Beadle, and Mr. Ellwanger, were appointed such committee, and reported the following resolutions:

Resolved, That this Society has heard with deep regret of the death of Benjamin Hodge, of Buffalo, one of the honored Presidents of this Society.

Resolved, That this Society desires to express its high opinion of the great worth and eminent services of the late Benjamin Hodge, whose zeal in promoting the cultivation of fruits and testing their value, has done much for the advancement of the science of pomology in Western New York.

Resolved, That these resolutions be entered upon the minutes of the Society, and that a copy be forwarded to the family.

The resolutions were adopted and the Society then adjourned.

APPLE TREE SUCKERS.

The Working Farmer says:—"Many otherwise good orchards are allowed to become defaced, as well as seriously injured, by allowing a profusion of suckers to grow at the base of the trunks. Attempts are sometimes made to get rid of them by cutting them off down to the surface of the ground, and leaving considerable portions below in the form of short stumps. These sprout again, and they soon become as bad as ever. A better way is to wait till they are in leaf, at which time they are loosened more readily, and taking each separately in the hands, and placing a thick boot upon it near the tree, they are quickly separated. If done at that time they will not be likely to sprout again."

GATHERING FRUIT.

THE appearance and value of fruit depend very much upon when and how it is gathered. Strawberries, if picked carefully with half or quarter of an inch of the stem attached to each berry, and laid carefully into the basket, will carry better and sell for a greater price than when pulled hap-hazard, some with hulls and stems on, and some with them off. Again, if they are gathered when perfectly dry, they will keep longer and retain a better flavor than if gathered while wet. A little water not only hastens decay, but it rapidly destroys the flavor of many delicate, soft varieties. After being gathered, they should never be allowed to stand out exposed to the sun, as with many varieties it takes but a little while of exposure to hot, clear sun, to destroy their brightness of color.

Currants should also be gathered with their stems; they should also be dry, and all leaves thrown out. Gooseberries, if for shipment, should be gathered dry, and a careful expulsion of all leaves will cause them always to command the best price. Like the strawberries, care should always be taken not to expose them to a hot sun after gathering, for such exposure soon gives them the appearance of being half cooked.

Raspberries and blackberries are too often seen in market and on the table half broken and mashed. None but whole and perfect berries should ever go into the box or basket for market. It pays to assort them carefully before sending to market, for the mingling of a few bruised or mashed berries induces decay and detracts from their value in the judgment of the dealer.

Cherries should never be gathered when otherwise than perfectly dry. We have known them to decay entirely in twenty-four hours when gathered while wet. It pays also with cherries for market to carefully sort them over on a table, picking out any mashed or wormy or imperfect fruit before sending to market. Of course the stems are, or always should be attached, although we have occasionally seen them in market looking more like round cranberries than cherries.

Peaches should be left on the tree until fully ripe, and then gathered carefully with thumb and finger, and at once laid into the basket or box in which they are to be marketed. If the bloom is rubbed off the peach by rough handling, its beauty of appearance is injured, and it will decay much sooner than if untouched. Formerly it was supposed that the peach must be gathered before fully ripe in order to ship it any distance; but practical experience has proven that ripe fruit, not quite soft, will carry just as well as unripe, and command a much better price.

Pears and apples should never be picked from the tree by breaking the stems. Unless the stem will separate freely from the tree, the fruit is not ripe; it will neither eat or cook good, and is only fit for those who want a touch of cholera morbus. Apples as soon as gathered, may be sent direct to market; but nearly every variety of pear is improved in appearance and quality by keeping in close, dark drawers, wrapped in flannel or soft paper, or packed in bran a few days.

For profit, and in order to obtain the highest price, all fruit pays to be assorted into two or more grades. A few scattering large berries, apples, or pears, in a quart or bushel, do not assist in advancing the price; but if carefully packed by themselves will bring the highest price, and often induce the dealer to buy the small fruit in order to get the large.—*Horticulturist*.

KEEP THE SURFACE OF THE GROUND LOOSE.

WE have many years watched the varied results of the cultivator who keeps frequently stirring the surface of his soil, and the one who hoes or cultivates only when the weeds compel him to the work; and as we have watched and recorded our notes, the result has always been in favor of the constant stirring of the surface soil. We do not advocate deep tillage during the growing season, but we would have the ground deeply and thoroughly stirred early in the season, whether it were an old or new plantation. Once, however, that vigorous growth of top and root has commenced, all deep tillage should cease, because by pursuing it, constant and continued checks are given, and a truly healthy growth prevented by repeated breaking and tearing asunder the roots and fibers, the supplying pipes for elongation, expansion, and evaporation of the branches and leaves. By repeated surface stirring of the soil, however, no roots are broken; the sun, air, and moisture are enabled to penetrate and assist in the chemical transmutation of the earth's compounds and fitting them for absorption by the roots.—*Horticulturist*.

PLANTS FOR THE MILLION.

A correspondent of *The Journal of Horticulture* say the Oriental Poppy, with its cousin, the Bracted Poppy, should be called "Plants for the Million." They are perennials, are perfectly hardy, and the only cultivation they need is to be planted in a good garden soil and kept free from weeds. For out-door decoration they stand in merit next to the Hollyhock. They do not need to be taken up and divided more than once in five or six years, and they continue to improve every season during the first four or five years. The flowers sometimes grow six inches in diameter, in the form of a hemispherical cup, and vary in color from a brilliant scarlet to an equally brilliant crimson. If plants cannot be had, they may be raised from seed.

NEW DOUBLE ZONAL GERANIUMS.

THE double varieties of the Zonal Geraniums are rapidly increasing, and they are sure to be great improvements upon the older ones. Not only are the flowers more durable and regularly formed, but they are of different shades of scarlet, light, and dark. Some dozen or more kinds are offered for sale by the English nurserymen, among which the following are prominent:—Triumph, with immense bunches of rosette-like flowers, of a brilliant orange scarlet; Prince of Novelties, flowers an inch and a quarter wide, of a brilliant carmine-tinted crimson, admirably adapted for bouquets.—*Magazine of Horticulture*.

THE FLOWER GARDEN.

A succession of brilliant flowers may be kept up from spring until autumn, by a little care in the selection of roots and seeds, and judgment in the time of sowing or planting. When the early spring bulbs, such as the crocus, snow-drop, squill hyacinth, &c., fade, the beautiful tulip unfolds its variegated petals, and continues in flower for a considerable time.

The small herbaceous perennials succeed the spring bulbs; among these are the Pansy, Polyanthus, Auricula, Anemone, Violet, Pink, &c., and after these the large herbaceous perennials come into flower and make a fine display. Conspicuous among these are the Iris with its numerous varieties, Chinese and Siberian Larkspurs, Columbines, Phloxes, Peonies, &c.

To these succeed the annuals; and by a little judgment in the time and place of sowing, a fine floral display may be kept up until late in the fall. Among the most desirable annuals for this purpose are the China and German Asters, Drummond Phlox, Candytuft, both purple and white, Nasturtium, Petunia, French and Cape Marigolds, Zinnia, Coreopsis or Calliopsis Zinnia, Morning Glory Zinnia, &c. Several sowings should be made of these annuals during May and June, so that a succession of blooms may be obtained.

WALLFLOWERS.

Sow the seeds in April or early in May. Prick off the seedlings in an exposed place, giving them plenty of room—say a distance of 12 to 16 inches apart; pinch out the top when they are 5 or 6 inches high, and by the autumn they will be fine bushy plants, their foliage resting on the soil, and with a top as flat and large as a plate. Such plants will be very different from, and much harder and earlier blooming than those left to grow in a semi-neglected state by being allowed to spindle in seed beds, receiving no stopping except too late in the season. Pot some of them in the autumn, and place them in a light, airy house, bringing them on gradually, and in February and March they will present a rich appearance, have foliage curling over and half covering the pots, and from eight to twelve spikes of bloom, of the uniform height of 8 or 10 inches. Such were my plants last spring, when in a house gay with Camellias, Azaleas and Roses, they were admired by every one. Pot a few plants and try them; but if not prepared they will be poor in comparison with those which have had a little care bestowed on their cultivation. The double varieties are also good for the purpose, the yellow being especially useful; but they do not flower so early as the common single—an important point: neither are they so fragrant.—*Correspondent of the London Journal of Horticulture.*

TOMATOES will bear more abundantly, and occasion the least trouble, if the ends of the shoots, just beyond the fruit, are pinched off. A surface mulch of rotten manure, and if a dry time, frequent watering, will repay in increased size and abundance of fruit.

THE BORER IN PEACH TREES.

A writer in *The Southern Planter* says:—"I once heard of a lady whose husband had planted a peach orchard with a view of making brandy. She feared that he might become a drunkard, and determined to kill his trees. To effect this, she secretly poured scalding water around the roots, and to her great surprise, the trees did not die, but produced an extra crop of peaches. The scalding water killed the worms, but was not sufficient to kill the trees. At first I adopted this practice very cautiously—but now, without fear, I pursue it. Early each spring I scrape around the trees with a large knife on the morning of 'washing day.' When the washing is done, I take buckets full of boiling suds into the orchard, and dash the trees just where the trunks join the ground. In this way thousands of little worms are scalded to death. Lastly, I apply unleached ashes to the trees. After an experience of several years, I confidently recommend this practice."

TREE MIGNONETTE.

A correspondent of the *London Journal of Horticulture* gives the following:—"Sow a pinch of seed in the center of as many 3-inch pots as there are plants required. When the young plants are strong enough thin them by degrees to one plant in a pot, and that must be the strongest. Train that up a stake to the height required, pinch out all side shoots and the heads of bloom, but do not divest the stem of its leaves until the plant has attained its full height. To form a head leave about three shoots at the top, and pinch them in from time to time. I have had tree Mignonette 4 and 5 feet high, with heads 2 feet through, by sowing the seed as above described in August, and growing the plants for twelve months, shifting into larger pots when required. These were handsome objects in the conservatory, and afforded many cut flowers all winter. For ordinary sized trees the seed should be sown during the first week in May to bloom throughout the following winter. Different catalogues announce a giant variety for this purpose, but in growing the two I have found no difference.

REMEDY FOR VINE MILDEW AND RED SPIDER.—A correspondent of the *London Gardener's Chronicle* says that the vine mildew having appeared in one of his grape houses, he tried the following plan of preventing its increase. He shut the house quite close, and got four large flower pots, and half filled them with lumps of quick lime; having sprinkled it with water, he strewed a handful of sulphur on each pot, and let it steam up through the vines till it quite filled the house with steam. On the following morning he opened all the ventilators, and gave the house a good syringing until he quite saturated it. He repeated the application on the following day, and found that the mildew had wholly disappeared. He tried the same remedy for red spider in a peach house with perfect success.

The price of fruit depends much on the gathering.



ABRONIA UMBELLATA.

ABRONIA UMBELLATA.

THE Abronia is a handsome perennial, trailing on the ground like a vine, with several branches, each five or six feet in length, with clusters of sweet-scented flowers resembling the Verbena, borne on erect stems, as shown in the engraving; continue in bloom during the whole season. Fine for baskets, and desirable in the garden. Set the plants about 18 inches apart.

Abronia Umbellata, rosy lilac; white eye should be treated as a half-hardy annual.—*Vick's Guide to the Flower Garden.*

THE PEACH TREE.

HEAR what a lover of peach orchards and peaches writes about planting his favorite fruit—a *la Tom Hood*:

Take it up tenderly,
Plant it with care;
It's but a little tree,
Nothing to spare.
Scant are the limbs on't,
Fibers but few;
Take care, or it won't
Take care of you.

Mangle the bark of it,
Man with a soul!
Oh! but a little tree
Likes a big hole,
Fair is the sight of it,
Lordly and bold;
Fruit on the limbs of it,
Crimson and gold.

Basket on basketful,
Peach upon peach!
June like—beautiful—
Easy and rich!
Choose for the good of you,
Orchardist, each!
Dollar a load of you,
Dollar a peach.

THE BALSAM.

A good way to prune the Balsam is to keep all the side shoots pinched off, leaving only the leading one. This will grow two or three feet in height, and be a perfect wreath of flowers. Treated in this way, they will bear closer planting. The above engravings show the effects of this style of pruning. Extra Dwarf Balsams grow only about six inches in height.



NATURAL GROWTH.

DWARF--PRUNED.



PRUNED TO FIVE BRANCHES.

SINGLE STEM.

Ladies' Department.

SPECIAL PREMIUM FOR THE LADIES.

We have made arrangements to offer the following Dress Goods as Premiums to our lady friends in raising Clubs for THE FARMER. The goods are of the best quality, and will be carefully packed and delivered to Express Companies for delivery according to order. Any color will be sent that our friends may desire. Subscriptions will be at our regular Club rates, 75 cts each. Subscriptions can commence with our next issue for one year, or back numbers will be supplied from January, and continue to December, as preferred.

	Yards.	Value.	No. Sub.
Cocoon Calico.....	12	\$ 1.80	8
Muslin Delaine.....	12	2.64	10
Mohair Travelling.....	12	4.50	12
" " ".....	12	6.00	16
" " ".....	12	9.00	20
Black Alpaca.....	10	7.50	18
" " ".....	10	10.00	24
" " ".....	10	12.50	28
Colored Alpaca.....	10	12.50	28
French Poplin.....	10	13.00	34
" " ".....	10	17.50	38
" " ".....	20	20.00	40
Black Silk.....		25.00	50
" " ".....		30.00	60
" " ".....		40.00	75
" " ".....		50.00	90

We hope all our lady friends will go to work energetically, and secure some of the above prizes. Who will be the first to respond?

HOUSEHOLD CARES--No. 16.

DROPPERS in often make this remark: "Why, your children mind you, don't they!" As if it was quite out of the common way for a child to mind its own mother. One lady friend often says, "What do you do with them?" as if she had the idea that they must receive unmerciful whippings to bring them to such prompt obedience; but the fact is, I seldom or ever find it necessary to inflict corporal punishment. One of my methods is this: when my oldest boy, who is five years old, does not obey me as he should, I call him to me and say something after this fashion: "I am sorry Henry does not mind his mamma. God gave you to me to be a help to me, and a comfort to me, and to be my little boy. Now, you can be of no use to me at all if you do not mind me, as I can not love such a boy, and of course you cannot be a comfort to me, and you must go and sit on that chair in the corner for fifteen minutes by the clock, till you have meditated about whether it is right for a little boy not to mind his mamma," and so he goes there and sits about eight minutes, when perhaps he will say, "Is the time up, mamma, I think I've meditated 'nuff," and then I tell him the time is not up, and that he must not speak again till I tell him the fifteen minutes are over, and that he may get up. Then he thinks a little, plays a good deal with his thumbs, and strings, and buttons in his pockets, turns and wiggles considerably, to all of which I pay no heed, and when the time is really up, tell him so, call him to me, ask if he has

made up his mind to obey his mamma next time, kiss him, and let him go. This is simple enough, but it will have more influence upon him than a box on the ear, or hard blows with the hand or a stick; yet some mothers will say they have no time to do that every time their children disobey. But they have; it takes no time at all; you can tell the child to sit on the chair, and go on peeling potatoes, or washing dishes, or dusting a room, just the same: but it is very hard to give directions to parents in regard to the proper management of children. One thing is certain--every mother must feel her own weakness and incapacity to bring up her children as she ought, and she therefore should seek Divine guidance, particularly in matters of domestic discipline.

I have always supposed that the Black Tartarian cherries would not cook. It is a mistake. If they will not make good pies, they can be bottled, and make very nice sauce for tea. As an experiment, I bottled several quarts last year. They required hardly any sugar, and were excellent; so I intend to put up quite a quantity this season also. I have been bottling strawberries several times during the past week. I put no water to the sirup or fruit, as they are so juicy they do not require any. I also boiled them for about twenty minutes before putting into the bottles, though it is contrary to my usual practice. I did so because I have observed that my strawberry sweetmeats have been too watery, and I thought it would make the preserve quicker if the juice could be reduced, and a little thicker. I am much more partial to red raspberries as a canned fruit, than to strawberries; but they are not, to me, so easily obtained. Black Caps, in my opinion, make the most delicious of all preserves for tarts, &c. Do not forget to put a little black currant jam or jelly, in case of sickness. The best way to extract the juice from currants for making jelly, is to put them over night in a jar in the oven, drain but not squeeze them. Let the sugar for jelly be made hot before adding to the juice. The juice should be boiled two minutes before the hot sugar is added. I boil my juice and sugar together ten minutes. It is a good plan to put the jelly pots to stand in the sun, covering with a thin piece of muslin or tarlatan.

I extemporized a beverage from rather homely material this afternoon. I generally manage to have ginger beer in the house, but have been busy for the last few days, and so we are entirely out. I did not feel like drinking water alone, and so I put a teaspoonful of sugar in a tumbler, and half a teaspoonful of cream of tartar, mixed it up with a little water, then move them half fill the tumbler with fresh spring water added, a quarter of a teaspoonful soda, stir it well till it foams, and drink it. I did not like it as well as good ginger beer, but preferred it to water alone. Do not infer from this that I am not an advocate of cold water; not at all; but I have noticed that too much water has rather a bad effect upon my organs of digestion.

AUNT ROSA.

SOME ADVICE TO OUR GIRLS ON ORDER.

WRITTEN FOR THE AMERICAN FARMER, BY MRS. M. S. BEATTY.

Is it out of order to treat on this subject here, and to the girls? We deem it not. Are all girls orderly, and do they keep things in order? It is said that "order" is the first law of Heaven, and when we reflect on the perfect order and harmony of the spheres, we are ready to exclaim, it should be the first law of earth. What can be done without it? Our girls may say, "Talk to the boys on the subject; for among them are our future conductors of railroads, merchants, captains of great ships, and numerous other vocations where we often see the want of order manifested in the loss of life and of property, creating great distress. It is manifestly of great importance that they should be taught order, and that far-seeing regularity should be enforced." But who is the worse if our room is humpty-dumpty, and our drawers in such a condition that it takes half an hour to find an article. The habit of leaving things in a state of chaos is very bad for body, brains, and time. One of the best English writers said he could not write, if his room was not in order. How often do many persons get to church, lecture, &c., too late, detained by searching drawer after drawer for some article of dress that had a place nowhere!

A story was told me by a friend, the subject of which happened to be a minister. As the Sabbath morning came; he arranged his toilet for the pulpit, but was minus a handkerchief. Appealing to his wife, who was busy, she sent him to the drawer, obtaining as he was directed the desired article. In his discourse he had occasion to use it, opening and shaking out his supposed handkerchief, which to the dismay of his congregation proved to be an infant's shirt. But far greater mistakes than this are often made by not having a place for everything, and everything in it, even in the female department. Who has not heard of poisonous bottles misplaced, bringing suffering and death into families? We have all seen the quietude and beauty of a well regulated, orderly habit. If it is habit, it is of immense importance that girls should be taught early to cultivate it. Some undoubtedly have "the bump," as phrenologists tell us, much more fully developed than others; but by care we can cultivate and improve it until it is perfect. Some girls, and even women, when left to oversee domestic duties, feel it to be drudgery, and hurry it through without care or order. If they are baking, the bread does not rise, or is over-risen. If it is light, the oven is not hot. They meant to have these things right, but forgot. These may seem like small things to call for order. But what is small if the happiness of a family is concerned, especially if the road to a gentleman's heart is through his stomach. "Be sure you are right, then go ahead," is as applicable to women as to men.

The attention should be turned to whatever is our life task, with a determination to do well whatever we do, and never suffer ourselves to feel in a hurry which there will be no need of if we keep order in view; and we shall soon find business no drudge. Beauty, order,

and harmony would be developed from chaos and confusion. You would find more time to write and read, to say nothing of recreation. But be sure never to take time for these things until all is done in the household which needs doing.

The love of order has a tendency to harmonize and improve the mind. Look at your flower garden, carefully, inspect, and see whether it could not be improved by planting in separate beds. Break up the heterogeneous mass of peonies, pansies, and primroses, plant separately, cultivate order, beauty, and intellectual arrangement, and this earth will resemble heaven with its ever-rolling spheres, and in doing this, you will find the mind better adapted to investigate all that is deep, noble, and beautiful.

DOMESTIC RECIPES.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER BY "G. F. S. S.,
EDWARDSBURG, MICH.

Ginger Cookies.—3 cups of flour, 1 of molasses, 2 tablespoonsful of sugar, $\frac{3}{8}$ cup of butter or beef shortening, $\frac{1}{2}$ teaspoonful of alum dissolved in two teaspoonful boiling water, 1 teaspoonful saleratus dissolved in a little water. Ginger, alum, and saleratus the last thing.

Loaf Cake—1 cup of sponge, or 2 cups light dough, 1 cup of sugar, $\frac{1}{2}$ cup butter, 2 eggs, $\frac{1}{2}$ teaspoonful soda, 1 cup raisins, spice to the taste.

Common Cookies—1 cup sugar, 1 cup thick cream, 1 egg, 1 teaspoonful saleratus; flavor with nutmeg or cinnamon.

Economical Cake.—1 cup sugar, the white of one egg, 1 cup sweet milk, 1 teaspoonful soda, $1\frac{1}{2}$ of cream of tartar; season to your taste.

Cranberry Jelly for Tarts.—Stew 1 quart cranberries until quite done, strain through a hair sieve, add $\frac{1}{2}$ a pound white sugar, and set it away to cool for use.

To Color Scarlet.—Dissolve 1 ounce of cream of tartar in warm water, stir well, and after the heat has been raised a little, add 1 ounce of pulverized cochineal, stir well, then add two ounces muriate of tin; stir well; when it boils, add 1 pound of yarn or cloth previously wet; move it about briskly a few times, then stir slowly till it boils 20 minutes, then rinse in water, and dry in the open air.

White Cake.—The whites of 3 eggs, 1 cup of white sugar, butter about the size of an egg, 1 teaspoonful of soda, $1\frac{1}{2}$ of cream of tartar. The soda should be dissolved in a spoonful of sweet milk.

Plain Fried Cake.—2 cups sour milk, 1 cup sugar, $\frac{1}{2}$ cup shortening, 2 eggs, 1 teaspoonful soda; nutmeg or spice to taste.

Plain Cake.—1 cup of sugar, 1 cup of cream, 1 egg, 1 cup English currants, 1 teaspoonful soda; nutmeg; stir to a stiff cough, and bake slowly.

To Pickle Pears.—Steam your pears until quite done; then to 3 pounds of pears, add 1 pound of sugar, and vinegar enough to cover them. Put the vinegar on cold. Macc, cloves and cinnamon to your taste.

Currant Wine.—To 1 gallon of currant juice add 2 gallons of water, and nine pounds of sugar. Dissolve

the sugar in the water before adding the juice. Let the wine stand 9 days in an open vessel. Before bottling up, skim it every day.

Spanish Buns.—1 cup sweet milk, $\frac{1}{2}$ cup good yeast, $\frac{2}{3}$ cups sugar, 4 cups flour, 3 eggs, 1 tablespoonful of cinnamon, 1 cup of butter.

Buffalo Cream Cake.—*Cheap and Excellent.*—Beat thoroughly the yolks of three eggs, one cup of sugar, and three tablespoonsful of cold water. When light, add $\frac{1}{2}$ teaspoonful cream tartar, then gently stir in the well beaten whites of the eggs, add sufficient flour, and $\frac{1}{2}$ a teaspoonful of soda, bake in three cakes on tin plates as for jelly cake. When done, place together with a custard made as follows:— $\frac{1}{2}$ pint of milk set to boil, 1 egg, 1 tablespoonful of corn starch, and a little gelatine, or one more tablespoonful of corn starch, and two tablespoonsful of sugar seasoned with vanilla or lemon.

[Let our other correspondents have patience, and their contributions will appear in good time. We send the books as soon as the recipes are received.]

TO MAKE SUMMER DRINKS.—To make root beer, take a quantity of sarsaparilla roots and sassafras bark, and some hops, and boil till the strength is extracted. To three gallons of the liquor after it is strained, add one quart of molasses and a cup of yeast. After standing in a warm place eight or ten hours, strain again and bottle. It will be fit for use the following day.

For ginger beer, take one pint of molasses and two spoonsful of ginger, put into a pail to be half filled with boiling water: when well stirred together, fill the pail with cold water, leaving room for one pint of yeast, which must not be put in till lukewarm. Place it on the warm hearth for the night, and bottle it in the morning.

For spruce beer, take three pounds of sugar, four gallons of water, one ounce of ginger, a little lemon peel, or essence of lemon, and a little essence of spruce to give it a flavor. Stir all together, warm it a trifle,

add a cupful of good yeast, and when fermented bottle up close.

Mead is made by dissolving one part of honey in three of boiling water, flavoring it with spices, and adding a portion of ground malt, and a piece of toast steeped in yeast, allowing the whole to ferment.—*Ger. mautown Telegraph.*

CONTRIBUTED BY MRS. E. E. KEYSER, PENN.

Lemon Jelly.—Take 2 large lemons, a large cup of sugar, butter the size of an egg, 3 eggs; beat all together, and put in a saucepan. Let simmer for a few moments, then pour into a dish to be eaten as a preserve.

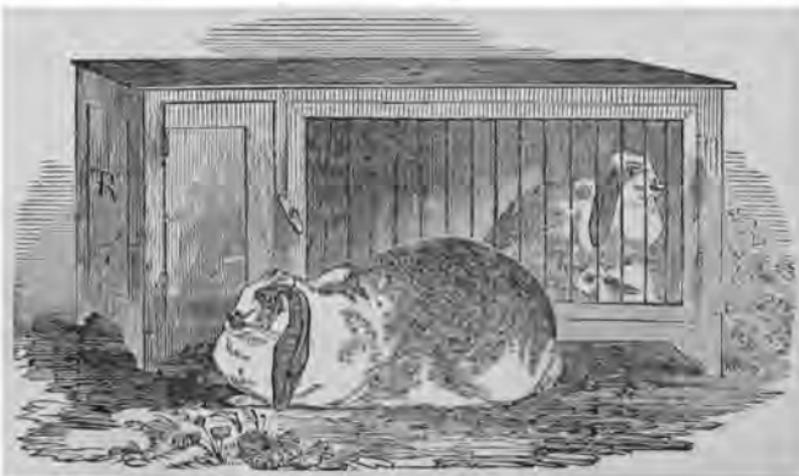
Flax Seed Syrup.—Boil 1 oz. of flax seed in a quart of water for one hour; strain, then add to the liquid the juice of three small lemons, and $\frac{1}{2}$ lb. of rock candy. If the cough is accompanied by weakness and want of appetite, add $\frac{1}{2}$ oz. of gum arabic. Let this simmer slowly for half an hour, stirring occasionally. Take a wineglassful every time the cough is troublesome.

Brighton Buns.— $\frac{1}{2}$ lb. sugar, $\frac{1}{2}$ lb. of butter, work to a cream, work in 5 eggs, 1 nutmeg, 1 gill of brandy, a handful of currants, 6 oz. of flour.

Black Cake.—2 cups of molasses, 1 cup of sugar, 1 cup of butter, 1 tablespoonful of saleratus dissolved in a cup of thick milk, 4 eggs, 5 cups of flour.

Biscuits.—1 lb. sugar, 1 cup of milk, 2 eggs, $\frac{3}{4}$ lb. of butter, 1 teaspoonful of saleratus dissolved in the milk, a little cinnamon and rose water.

Good Hams.—After hams have been smoked, take them down, and thoroughly rub the flesh part with molasses, then immediately apply ground or powdered pepper, by sprinkling on as much as will stick to the molasses, when they must be hung up again to dry. Hams treated in this manner will keep perfectly sweet for two or three years. This must be done before the fly deposits its eggs for after that is done nothing will stop their ravages. No soaking is necessary.—*Ex.*



LOP-EARED RABBITS.

Editor's Table.

CONTENTS OF THIS NUMBER.

AGRICULTURE.	
Work for the Month	201
Visit to New Jersey	201
Notes by "S. W."	208
Notes from Canada	204
Blooded Stock	205
Cruelty to Animals	205
Wool, its Classification and Appraisalment	206
Milking Machines	207
Corn in Drills	207
A Flock of Humming Birds	208
Our Kansas Letter	209
Horse Breaking	210
Remedy for Hard Milking Cows	210
Long Woolled Sheep	210
Summer Care of Milch Cows—Solling	211
Florida	212
Advantages of Underdraining	212
The Obnoxious Rules	214
Care of Young Turkeys	214
SPIRIT OF THE AGRICULTURAL PRESS:	
Varieties of Wheat	214
A Valuable Hint	214
Striped Cucumber Bug	214
Corn Fodder	214
Salting Hay	214
Plowing	214
Cure for Blood Spavin	215
Lime the Hay Mow	215
Cutting Oats Green	215
A Cheap Paint	215
Curing Red Clover	215
Driving Horses	215
Soft Water for Horses	215
Weevil in Barns	215
Tall Barley	215
Jersey Cows	215
HORTICULTURE.	
Cockscomb	216
Western New York Horticultural Society	217
Apple Tree Suckers	218
Gathering Fruit	219
Keep the Surface Loose	219
Plants for the Million	219
The Flower Garden	220
Wallflowers	220
The Borer in Peach Trees	220
Tree Mignonette	220
The Peach Tree	221
Balsam	221
LADIES DEPARTMENT.	
Household Cares	222
Domestic Receipts	228
Some Advice to Girls	228
EDITOR'S TABLE.	
Fairs	226
Large Yield of Bye	226
The Army Worm	226
State Items	227
Crops in Mississippi	227
The Markets	228

WITH this number we commence the Second Half Volume of Vol. III. of THE AMERICAN FARMER, and we would solicit our friends to introduce THE FARMER in their respective neighborhoods, to their friends and acquaintances, and urge them to take the paper on trial for the next six months. The present is a good time to increase its circulation, and it would afford us pleasure to further increase its usefulness by the addition of several thousand names to the subscription list. Reader, will you interest yourself in distributing THE FARMER and canvassing for names in your section?

Organize a club of, ten, or more, and thus benefit your neighbors and yourself, which by reference to our Premium List on another page, you can do. Try and secure some of these valuable premiums. You will find little or no trouble in raising a large club, if you go to work with a determination to succeed.

New Agricultural Papers.

We have received quite a number of new agricultural exchanges, which are gotten up in good style, and contain a variety of useful agricultural and horticultural information. Annexed we give a list of them, our space forbidding a more extended notice. We wish them success:

The Western Ruralist, monthly, Lawrence Young, editor. Raymond Lynch, publisher, Louisville, Ky. Price \$1 per year.

The Ruralist, monthly, J. S. Shepard publisher, Cincinnati, O. \$1 per year.

The Rural Messenger, monthly, Jeriah Bonham editor and publisher, Chicago, Ill.

The Farmer's Friend, monthly, C. B. Bagster, editor; Taylor & Blew publishers, Vineland, N. J.

Texas Farmer, monthly, W. K. Marshall and J. M. Dodson, editors, Henderson, Texas. \$3 a year.

The Farm and Garden, monthly, J. R. Jacobs & Co. publishers, Clinton, S. C. \$1 per year.

The Farmer's Union, monthly, W. A. Nimocks, editor and publisher, Minneapolis, Minn. 50 cents a year.

The Dixie Farmer, weekly, Nicholson & W. Orams, publishers and proprietors, Columbia and Nashville, Tenn. \$3 a year.

The Farmer's Gazette & Industrial Index, a monthly magazine, devoted to agriculture, &c. S. B. French, editor and proprietor, Richmond, Va. \$1.50 per year.

Hop Crop.

ONE of our correspondents writing from Oneida, N. Y., says:—"I have been making a tour among the hop yards of this section of country, and found most of them looking well. Old yards, or such of them as were picked very early last season, are looking bad. Lice are reported in some sections, but it is always by growers who have their old hops on hand. Those who sold last fall do not complain of lice, and say their yards are looking splendidly. I have visited many yards but have not seen a louse, nor do I believe there is any." It is an indisputable fact that the general prospect of a large and good hop crop was never more encouraging than now, both in this country and in Europe. Advices from all parts of the country continue favorable.—*Emmet Wells' Hop Circular.*

CALIFORNIA has over \$20,000,000 invested in the wine interest.

THE weather in this section is dry, hot, and sultry, the thermometer ranging over 90°.

FAIRS FOR 1868.

State.

Illinois	Quincy	Sept. 21-29
Indiana	Indianapolis	Sept. 25-Oct. 8
Kansas	Leavenworth	Sept. 29-Oct. 2
Maine	Portland	Sept. 29-Oct. 2
Minnesota	Minneapolis	Sept. 29-Oct. 2
New Hampshire	Manchester	Sept. 15-17
New York	Rochester	Sept. 29-Oct. 2
Ohio	Toledo	Sept. 21-25
Canada	Hamilton	Sept. 21-25
Wisconsin	Madison	Sept. 29-Oct. 2
Pennsylvania	Harrisburg	Sept. 29-Oct. 1

Correspondence.

FARMERS, write for your own paper. We hope our friends everywhere, will keep us posted on facts that occur under their own observation during the coming season, and not allow their duties to prevent their writing. We shall be pleased to hear frequently in regard to the crops, weather, &c., facts and information for publication in THE FARMER.

WILL *The Industrial and Commercial Gazette*, Louisville, state where that journal obtained the article on "spring work," on the second page of the issue of March 14th? Fair play, gentlemen!

Bound Volumes.

We have a large number of volumes of THE AMERICAN FARMER bound in good substantial binding, now ready for delivery, embracing the issues for 1866 and 1867. They will be sent to any address, by mail, prepaid, for \$1.25 each; or to any one sending us 12 names, at our lowest club price of 75 cents each, we will send either volume to the agent getting up the Club, or for twenty subscribers at the same rate, we will send both the above volumes bound, postage paid.

A LARGE YIELD OF RYE.—Josiah Salter, of Chili, Monroe County, has brought to our office a stool of rye with 128 stalks and 124 ears, which he thinks grew from one kernel on a sandy soil. This is a remarkable yield for rye. We should be glad to hear from any one who has had any definite knowledge to prove that such a number of stalks and ears can be grown from one kernel. A dissection of the root shows that the stalks all proceed from one point. If it had grown from an ear, it certainly would have had a larger root, Mr. S. informs us that when it started, it only threw up one shoot which was noticed at the time. It grew on a field which had been planted to potatoes three years in succession without any manure.

We were recently favored by Messrs. Frost & Co., of this city, with an opportunity of seeing and tasting choice specimens of the new French strawberry, Dr. Nicaise. The berries are very large, many of them weighing an ounce or more. In flavor they are medium, but like all strawberries, improve by high cultivation. They prove to be quite hardy and productive in this vicinity.

Annual Register of Rural Affairs for 1868, for sale at this office. Price 30 cents, by mail, postage paid.

TRANSACTIONS OF THE MICHIGAN STATE BOARD OF AGRICULTURE for 1867.—We are indebted to the Secretary, Sanford Howard, Esq., for a copy of the above work, which comprises a vast amount of instructive matter pertaining to agriculture. It is replete with tables of valuable experiments conducted by the Agricultural College, diseases of animals, returns from agricultural societies, &c., &c., embraced in a volume of nearly 500 pages.

AMERICAN POMOLOGICAL SOCIETY.—The Report of the Eleventh Session of this Society, 1867, is now published in a volume of over 200 pages with an additional catalogue of fruits. It is a valuable and interesting contribution on pomological subjects, and can be obtained by addressing the Secretary, F. R. Elliott, Cleveland, O.

THE CANKER OR ARMY WORM.—What is to become of our orchards? is a question which seriously troubles the farmers in some sections of Western New York. A few days since we traveled in the western portion of Monroe County, and found the orchards completely stripped of their leaves, not a particle left; in fact, they looked as if a fire had swept through them. Have any of our readers had any experience with this terrible pest? We should be glad to publish any facts having a tendency to throw light on the subject. How and where do they originate, and how to destroy them, are questions that must soon receive the most serious attention of all who would save their orchards from destruction. Let us hear from all who can throw any light on the subject.

THE STRAWBERRY CROP.—In this section, this year, has been one of the most prolific on record. The supply has been ample, sales quick, and large consumption. The prices have retailed from 3 cents to 10 cents per quart. The increased attention given to this healthful fruit has produced lower prices and a largely increased consumption in our cities, thus pouring increased wealth into the pockets of producers. The leading varieties in favor here are the Green Prolific, Triomphe de Gaud, and Jucunda. Wilson's Albany is also extensively cultivated, but many prefer the Green Prolific as its superior in flavor, and equal in hardness and productiveness.

New Publications.

TRANSACTIONS OF THE NORTHERN ILLINOIS HORTICULTURAL SOCIETY, embracing the first organization and meeting held at Mt. Carroll, December 18, 1867, with the proceedings and essays at the first annual meeting at Freeport, Feb. 11th to 18th, 1868.

THE GOSPEL IN THE TREES: with pulpit opinions on common things. By Alexander Clark. Philadelphia: J. W. Daughaday & Co., 424 Walnut Street.

THE PATRIARCHS, KINGS AND PROPHETS; or, questions on select portions of the Old Testament. Boston: Henry Hoyt, No. 9 Cornhill.

SOLDIERS AND SAILORS: Tales of the late rebellion. Soldiers' and Sailors' Publishing Co., 150 Fulton St., New York.

THE APPETITE FOR TOBACCO DESTROYED!!!

Leave off Chewing and Smoking the Poisonous Weed, Tobacco.

One Box of Orton's Preparation is warranted to destroy the appetite for Tobacco in any person, no matter how strong the habit may be.

If it Fails in any Case, the Money will be Refunded.

It is almost impossible to break off from the use of tobacco by the mere exercise of the will. Something is needed to assist nature in overcoming a habit so firmly rooted. With the help of the Preparation there is not the least trouble. Hundreds have used it who are willing to bear witness to the fact that **Orton's Preparation** completely destroys the appetite for tobacco, and leaves the person as free from any desire for it as before he commenced its use.

IT IS PERFECTLY SAFE AND HARMLESS IN ALL CASES.

The Preparation acts directly upon the same glands and secretions affected by tobacco, and through these upon the blood—thoroughly cleansing the poison of tobacco from the system, and thus allaying the unnatural cravings for tobacco.

No more hankering for tobacco after using Orton's Preparation. Recollect it is warranted.

RECOMMENDATIONS.

The following are a few selected from the multitude of recommendations in our possession:

[From M. P. Heald, Esq., Bangor, Me.]

BANGOR, April 2, 1868.

I hereby certify that I have used tobacco for thirty years past, and for the last fifteen years I have used two pounds per month. I have made attempts to leave off at different times. I have left off one year at a time, but always contrived to hanker for it until I used Orton's Preparation, which has completely cured me of the appetite for tobacco. I would recommend all who are affected with this terrible habit to try the preparation, which will certainly cure if the directions are followed.

M. P. HEALD.

[From E. W. Adkins, Knoxville, Tenn.]

This is to certify that I have used tobacco to such an extent that my health has become greatly impaired, and my whole system deranged and broken down. In June, 1867, I purchased one box of Orton's Preparation, and after using it I found I was completely cured. I have not had any desire or hankering for tobacco since using the preparation. I believe it to be all it is recommended, and I would advise all who wish to quit the use of tobacco to try one box of Orton's Preparation.

Knoxville, Tenn., Aug. 5, 1867. E. W. ADKINS.

[From John Morrill, Bangor, Me.]

This is to certify that I have used tobacco for eighteen years, have tried many times to leave off, but have suffered so much from dizziness in my head and a gnawing at my stomach, that I soon gave up the trial. A short time since a friend induced me to try Orton's Preparation (sold by you.) I have done so, and am completely cured. I did not in the least hanker for tobacco, either to smoke or chew, after I began to use the Preparation.

March 8, 1868. JOHN MORRILL.

The price of Orton's Preparation is Two Dollars per box. Forwarded to any part of the country, post-paid, on receipt of price. Money sent by mail at our risk.

BEWARE OF COUNTERFEITS.

Address, **C. B. COTTON,** (Proprietor,) Box 178, Portland, Me.

REFERENCES.—We, the undersigned, hereby certify that we have had personal dealings with C. B. Cotton, for several years, and have found him to be a reliable and fair dealing man, and one worthy the confidence and patronage of the public.

S. B. Richardson, Esq., Rev. S. T. Green, Dr. S. B. Gowell, Portland, Me.; Hon. E. F. C. Boyle, Bellast, Me.; Charles H. Morrill, Biddeford, Me.; Alonzo Barnard, Esq., Bangor, Me.; Wm. O. Sweet, West Mansfield, Mass.; M. M. Quinby, St. Johnsville, N. Y. July-18

THE MARKETS.

OFFICE OF AMERICAN FARMER,
ROCHESTER, N. Y., July 1, 1868.

The weather in this section has been very favorable for the growing crops. There has been some complaints of drouth, but wheat at this season needs dry weather, and the prospects of a full average wheat crop in this immediate vicinity are brighter than a month ago. Should it escape the rust and the mildew, many fields will turn out 80 bushels per acre. In other parts of Western New York the prospects are not so favorable. Much of the wheat was injured by the cold spring, and the wet weather in May was unfavorable for land that was not drained.

Much corn was put in late, and farmers find difficulty in getting it hoed.

Hay harvest has begun, and work is pressing on every side. Many farmers say they will not pay \$1.50 per day and board for hoeing corn. They will depend on the cultivator.

Potatoes that were planted in good season are looking well.

Beans are coming on rapidly.

Barley will be ready to cut by the middle of July, and on good land the crop is very fine; but that which was sown late on un-drained land, has been seriously damaged by the rains, and will hardly pay for harvesting.

If we can depend on the newspaper reports, the crops throughout the West are unusually good. But the same thing was said last year, and it is safe to deduct 25 per cent from their estimates.

In regard to prices, farmers hereabouts are expecting \$2.50 for red wheat, and \$3 for white. The millers say \$2 for red wheat will be nearer the mark.

Old barley is scarce, and barley malt has recently advanced in Albany. It is probable that the market will open better than last year, and that there will not be such a great advance during the winter and early spring.

Wool is very dull in this immediate neighborhood. Buyers talk 90 cents, and farmers are so disgusted that they are almost ready to take whatever is offered. There is not much prospect of their getting more than from 85c to 40c, for some time to come.

Beef cattle are more plentiful, and prices have dropped 2 cents per lb. from the extreme rates a month or six weeks ago.

Spring pigs, contrary to general expectation, are very scarce, and command high prices.

Butter is firm at 25c to 28c.

We will send The Farmers' Record and Account Book to any address, postage paid, on receipt of price, 3.50. This work will last four years.

INTRODUCE this number to your neighbors.

A trial of Reapers and Mowers is to be held at Xenia, O., July 6th. It is under the auspices of the Green County Board of Agriculture, as the Premium List informs us, and includes three gold medals valued at \$125 each, respectively, for the best Reaper, the best Mower, and the best Reaper and Mower.

SEE

OUR NEW PREMIUM LIST,
ON PAGE 232.

MISSING NUMBERS.—We hope our readers will inform us of their failure to receive any numbers of **THE FARMER** by reason of the mails. We will furnish such missing numbers on information to that effect by our subscribers.

Special Notices.

TO THE LADIES. FOR ONLY ONE DOLLAR.

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RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in **THE AMERICAN FARMER** for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. **THE FARMER** has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

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DAVISON'S THORNLESS BLACK CAP RASPBERRY.—Every plant warranted to grow, and give perfect satisfaction, or money refunded. Price of plants \$1.00 each; \$7.50 per dozen. For further particulars, send 10 Cents for circular.
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C. G. STARKWEATHER & SON,

jun-6t

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A SAFE PIPE FOR DRINKING WATER.

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GEO. A. DEITZ, the Great Seed Wheat Grower, Chambersburg, Pa., sends free a Descriptive List of the best Seed W heats in the world. *jun-8t*

J. E. CHENEY & CO.,

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ap-8m

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With this Filter the most impure water is made free from all foreign matter, clear as crystal, without taste, color, or smell.
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1868, THE 1868.

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THERE is not a village or town in the United States or Canada, where a club could not be raised for THE FARMER in a short time, with very little trouble. All that is necessary is to show the paper, mention its low price, and no one will be found so poor that he cannot afford to take it. If such there be, and the fact is properly authenticated, we will send free, if the party will take and read it.



VOLUME III.

ROCHESTER, N. Y., AUGUST, 1868.

No. 8.

AUGUST.

Ye blissful sights! ye landscapes ever gay!
 What scenes with yours shall equal charms display?
 O! if my latter days by bounteous Heaven
 Free to my disposal had been given,
 Next to the solace of my peaceful muse
 Delightful culture should my life amuse.
 Is there a sweeter toil, where calm, yet still employed,
 Each modest wish is by the sage enjoyed;
 Around his gardens and his waving grain,
 His bending orchards and his fleecy train;
 Where'er his wandering footsteps he shall guide,
 Still bright-eyed Hope is smiling at his side.
 He marks the vine-shoot clinging around its stay,
 Or for the fruit that ripens on the day,
 Or budding flow'rets, struggling to be born,
 He courts the clouds of eve, or dew of morn
 Or noon-day mists; while, as their treasures ope,
 His doubts and fears give added gum to hope.
 While gifts or promises around him pour,
 He sows or waits, collects or counts his store.

—Della.

WORK FOR THE MONTH.

THE most important work will now be the preparation of land for fall wheat, and it should be done in the most thorough manner. Plow deep and well, harrow freely, and apply plenty of good barnyard manure. We always apply manure just before sowing, harrowing well in, so as to give nourishment to the seed and young roots. Of the new varieties, the Diehl continues to give great satisfaction, while the Wicks and others still have their champions. On rich land, in good order, we find $1\frac{1}{2}$ bushels sufficient, but on poor land two bushels will be required.

CULTIVATING.—The great importance of frequent cultivating corn, potatoes, and other hoed crops, has been clearly demonstrated during the drouth this summer. Where the cultivator has been kept going, stirring up the soil, and opening the ground to receive the night dew, crops look well; while on land adjoining, equally good, with no culture, the corn and potatoes will barely return the seed.

WHEAT AND BARLEY STUBBLE.—We see it strongly recommended to apply immediately after harvesting a free coat of manure to give strength to the land, and shade it from the scorching sun, and

believe this will be found advantageous on many soils.

BARREN SPOTS.—In looking over the land many places will be found on wheat, barley, and oat fields, where the yield was very light—the ground hard and impervious to air or water. These spots should receive attention, and an extra coat of manure, and extra culture before re-seeding for another year.

ROOTS.—Any spare land may now be seeded down to ruta bagas, or turnips, for winter feed, and with good culture and thorough thinning to six, eight, or more inches apart, a good crop will be obtained. The earlier this month they are sown the better.

With deep plowing, deep seeding, frequent stirring of the soil, and plenty of manure, any and all kinds of crops can be raised with profit and satisfaction, but shallow plowing, surface seeding, and leaving the crop to take care of itself, can only end in loss, dissatisfaction, and lack of interest in the noble science of agriculture.

BEEES.—Watch your bees with untiring attention otherwise loss and disappointment will follow. The moth and robbers are now at their foul work. To prevent robbing, contract the entrance in extreme cases, that but one bee can pass at a time. The common box hives should be raised every morning, and the miller worm destroyed, particularly the weak colonies. With Graves' hive drop the auxiliary bottom, pick out the worms, leaving the offal, say one-fourth of an inch thick. Take off all the honey boxes that are capped, put on extra ones, with small pieces of comb stuck in the top—they may fill them in buckwheat time.

LARGE PREMIUMS ON HOGS.—Fourteen St. Louis pork packers have offered \$1,075 in premiums to be awarded at the Fair in St. Louis, beginning Oct. 5, 1868. For the best boar and sow of any age or breed, with five pigs, a premium of \$500 is offered, with \$175 as a second premium. Premiums of \$100 each are offered for best packing boar and sow, and best fattened hog over one year old, and for same under one year old.

SEE special announcement, page 256.

HOPS.

SMITH, WIMPLE & Co., Albany, give the following, under date of July 25 :

Nothing new in prices to report. The same unprecedented dullness still pervades our market, and all grades, from the weakest New York State to fair Wisconsin and prime Bavarians, are only sold in small quantities and at very low prices, when compared with the price obtained for the same class of hops ten months ago. Everybody is or has been disappointed. One year ago nearly every grower, dealer, and brewer in the United States was satisfied or firmly believed that the crops were too light to give even a fair supply to the trade, and ere another crop could be harvested, good hops would command 75c. per pound. But let us see where the mistake was. We will assume that the actual consumption in the United States is 100,000 bales, and that at the commencement of the harvest in 1867, the old hops in brewer's hands did not exceed 15,000 bales. We then required 85,000 bales, and did we grow that number? We say yes, and more, if we include inferior grades. But let us see :

Wisconsin produced no less than.....	85,000 bales.
New York State furnished as many of all grades...	85,000 "
We next place, for illustration, State of Vermont...	7,000 "
and the State of Maine.....	4,000 "
And we then have left (where hops are cultivated to a considerable extent, though not equal to those named), New Hampshire, Massachusetts, Connecticut, Michigan, Iowa, Ohio, Illinois, and even California, we will say for them only.....	10,000 "

We then have in round numbers..... 91,000 bales, which leaves us only 6,000 bales on hand against 15,000 last year; and if this be so, the question arises, why are they a drug in the market now, while last year at this time they were selling at high prices? Every reader has the answer at his tongue's end. We have not taken into account the vast amount of Bavarian and Belgium hops that have been thrown upon our market during the past year, an amount more than, equal to the growth of all the United States except New York and Wisconsin, which gives us an excess over last year of about one-half, or 15,000 bales.

The mistake, then, was not so much of a mistake after all, taking only the American growth into consideration; but the miscalculation was in the foreign crops, and the fatal mistake made by most or very many of our hop-growers, dealers and brewers (not excepting S. W. & Co.) was the starting and holding our own growth so high that we invited a foreign article, much better than a large portion of our own, to supplant and take the place the native commodity should occupy. We now see the error made in the past, and ask the question, "Will we be caught in the same trap this year, even should the crop prove to be a light one?" We hope not.

The stock of hops on hand and unsold, including the Bavarian, is probably 20,000 bales; and we will suppose the brewers hold 15,000, which will foot up 35,000 bales, or one-third of all that will be required for the coming year; and with a present prospect of growing double the amount of last year, we ask again, will our growers hold for a high price, or will they fix the price so low that dealers can ship our surplus out of the country, thereby turning the tables upon our foreign friends by placing our hops in their market to compete with their own growth. We place these facts squarely before the hop-growers of the United States, and ask a careful consideration of them.

PURDY'S SMALL FRUIT FARM.

On the 23d of July we visited the small fruit farm of Messrs. Purdy & Johnston, situated four miles south of Palmyra. It contains 130 acres, nearly fifty of which are now planted out to small fruits, sixteen devoted to raspberries, and twelve to blackberries. Strawberries are largely planted, embracing every variety, which are planted in rows, and the runners allowed to run and form beds three to four feet wide.

At the time of our visit they were in the middle of the raspberry season, and we had the pleasure of testing the different varieties. The one which particularly attracted our attention, is a seedling of the Miami—a most vigorous grower, large leaf, large berry, very productive, juicy, few seeds, and in every respect the most desirable sort to cultivate of the Black Cap family.

We learn from a note, since received, that they have decided to call it the "Mammoth Cluster," and it is well worthy the name. It ripens about a week later than the Miami, comes in after the Doolittle, and continues to bear a long time. The bushes we saw were completely loaded down with delicious fruit, which shows that Messrs. Purdy & Johnston thoroughly understand the culture and care necessary to develop the best plants and fruit. The original plants were obtained in the West some years ago; and after careful culture from that time, Messrs. Purdy & Johnston, as well as other prominent horticulturists who have visited their grounds, are satisfied that the "Mammoth Cluster" is a distinct variety, and much superior to the Miami, Doolittle, and other varieties, which, cultivated side by side, shows unmistakably its vast superiority.

A MR. BUTLER, Franklin Co., (O.) has grown potatoes extensively, and goes in for the single eye system. By adopting this, eight bushels will go as far as forty planted whole, and prove equally productive.

OUR FLORIDA LETTER—No. 6.

WRITTEN FOR THE AMERICAN FARMER, BY J. D. MITCHELL,
NEW SMYRNA, FLORIDA.

EDS. AM. FARMER:—Your favor of May 19th, complimentary, &c., is this day, (July 1st,) received. Unusual delay somewhere. It is gratifying to know that I have not wearied you and the readers of your excellent paper by playing so long upon a harp of one string instead of a thousand; for I had suspicions that your courtesy was permitting me to occupy space that your readers might think could be improved to a better purpose. I have very little time for writing, being at work hard all day with the hoe, scythe, ax, &c., clearing up my land, trimming and budding trees, planting and hoeing cane, and raising something to eat at the same time, so that when night, my only leisure time, comes, I am seldom in condition to write, unless from necessity. My correspondents are numerous, and they ask a great many questions, which sometimes get answered—and then again they do not. It is quite astonishing to see the talent that some people have for asking questions. If you answer them, it only opens the sluice way for twice as many more. These persons write me to get information about the country; but if I simply answer their questions—no matter how fully, they are no nearer the pith of the matter than they were before. I received a letter a short time ago from Western Virginia, containing forty questions. In my answer, I gave the real information needed, ignoring the questions entirely—telling the man that the answers to his questions were not at all what he wanted to enable him to judge whether he wanted to come here. Solon Robinson says that not one man in ten is fit for a pioneer. I will add, not half that number know what questions to ask about a new country in order to get the information they want, especially persons who do not travel much. They seem to be unable to form an idea of a country and climate so different as this from the one they have been accustomed to, and the difficulty that men find in adjusting themselves to the change, is in consequence of being mossed over with local habits and indulgencies, and having run in certain ruts so long that a change is like the "dividing asunder of the joints and the marrow."

As the answers to your questions will be of general interest, I give them here:

Route.—

By Steamer to Savannah. Fare	\$20.00
" Steamboat thence to Jacksonville	12.00
" " " Enterprise	12.00
Board Sunday and night at	5.00
Stage, 85 miles to the coast	5.00
	\$54.00

exclusive of board in New York and Savannah, in

case of detention. There are small coasting schooners and sloops here and at Savannah with which arrangements and connection can be made, by which a number of persons with their goods can come direct at much less expense, and with less time and trouble. I could arrange for the connection with seasonable notice.

House and Barn.—We have plenty of timber, but at present no saw-mill. I live in a house made of palmetto logs, and covered with palmetto leaves, which is good enough for a beginning. Lumber can be brought from Savannah or Jacksonville for about \$20 per M. Materials for concrete are abundant and generally "all in a pile."

Immense deposits of shells, plenty of wood to burn them, and plenty of sand to mix with them. All finishing materials must be brought from Savannah. A small stock of provisions only is kept here.

Land.—Cleared land is not here to be had. Wild land—rich, black, sandy loam—resting on shells, which often come to the surface, can be bought of the State at 50c per acre. It is heavily wooded with palmetto, oak, gum, hickory, and magnolia, with vines enough to tie it all together. This is known as river hommock, and borders the Lagoon in a narrow strip, not usually over a quarter of a mile in width. It is good cane land, and raises all crops of the country well. Back of this strip of rich land is the pine land, totally unfit for cultivation when you can get anything else. This covers most of the country, varied by swamps, which are very rich, but need draining, and savannahs, which also must have draining, and are not permanently fertile. The river hommocks are the land for me—located on navigable water, rich, productive, easily drained where draining is necessary at all, accessible to large deposits of decayed turtle grass from the Lagoon, a valuable fertilizer, and within easy reach of multitudes of fish, with which they can be kept richer than there is any need of, at less expense than you can make and haul out barn-yard manure.

Sheep.—I do not think the grass is suitable for them. It is coarse, long, and wiry, and our climate does not seem natural for any other. I have a small patch of Kentucky blue grass that I sowed in December, 1866. It grew on a dry, shell knoll, and lived until I transplanted it in February last. Since then I have given it a little care to get it rooted, and since the rainy season set in, June 1st, it has grown to the length of a foot, and very heavy. There is a yellow flowered clover that grows well, but I am not sufficiently acquainted with it to speak with any certainty of its value for sheep. The catamounts and wild cats would be dangerous, but independent of this, if I wanted to keep sheep, I would go to the blue grass region of Tennessee.

In Florida, a man can do a good deal better at something else, with less risk and trouble. It is not the summers that dry up the grass, as you suppose, for they are our rainy reason; but most of our grass is annual and dies in December. Bermuda grass is an exception, but this requires cultivated or at least cleared fields, to do anything toward furnishing feed. I have traveled months in Northern, Eastern, and Western Florida, and do not remember ever to have seen a sheep in the State. I should take the odds on goats to venture.

We have what mechanics there is present need of, which is very few.

Towns.—There are not exceeding ten in the whole State. The nearest to us is St. Augustine, 60 miles from our inlet. The rest of the names you see upon the map, represent from one to half a dozen shanties. For instance, Enterprise has one hotel and one dwelling-house. Piccolata has one log house and a rebel stockade. Port Orange has three dwelling-houses and a saw-mill. New Smyrna three dwelling-houses and one shanty, and so on through the chapter. We get a new settler occasionally, but they scatter along the Lagoon, or Halifax River, selecting a location according to their taste, with little regard to the vicinity of neighbors.

Communication direct with the North is by small coasting schooners and sloops, two of which are owned here. Other vessels, revenue cutters, steamboats, and large schooners, come in frequently, but exports and imports of our port are not yet such as to require much shipping. When they are we shall have it. Our bar has from 8 to 10 feet of water. Orange trees and cane are being planted by every one, and the product will soon require a large increase of shipping, which always follows production as fast as it is needed.

Florida is not a State for general farming as practiced at the North, and in spite of all the current advice against making a speciality of one crop—that is the very thing a man ought to do here in order to insure success. Unless one has plenty of means and plenty of help to devote to several things just when they need it, he had better attend to one thing at a time. An orange grove of any size, requires care and attention all the year—from the very start. So with cane the first year; after that it pretty much takes care of itself on rich land. Even in market gardening, unless a large number of hands are employed, the man who devotes his energies to a speciality, is the one who succeeds. The only deviation that I would allow from this rule, is that one should produce his own provisions as far as possible. The only article of food that my family is now consuming that is not the product of my own labor, is pilot bread, known generally as "hard tack."

Our fare is plain and monotonous—but labor and the sea air give appetite and digestion that makes even this more palatable than any fare ever was before. Therefore I say to those who are looking toward Florida, and desire to cultivate the soil for a living, that there are things to be done here that can be done nowhere else so profitably; and nowhere else for the same investment of capital and labor can the same profit be realized. Take an acre of orange trees—say 100. With good management they will begin to bear in three years from budding. It is best not to let them bear until they are five years old. At this age they will not have cost over \$10 per tree, and from this time they begin to pay a profit. At ten years they will be worth \$100 each, and will pay 20 per cent on that valuation, or 1,000 oranges—worth \$20. Lemons and limes are equally productive. Limes ripen and set nearly all the year, and lemons grow to a large size—4 $\frac{1}{2}$ inches in diameter, and of excellent flavor. Bananas bear in three years from the shoot, and from that time renew themselves and bear every year. That is, the same tree (it grows about 12 feet high) bears but once, but a number of shoots come up every year, one of which is left to take the place of the parent tree, and the rest are transplanted. They are planted six feet apart, and the product of an acre is enormous. You have undoubtedly seen clusters of the fruit, two or three feet long, and as thick as they can stick. Pine apples are equally easy of cultivation, and require about the same time as the banana. Sugar cane, beside being very profitable, has this advantage over any fruit crop, that it pays the first year. A man coming here short of means to wait for the fruit of a grove, should begin by planting cane. The cost of seed and planting is from \$60 to \$75 per acre, and the cultivation is similar to corn. On good land it will produce from \$3,000 to \$4,000 of sugar, per acre, year after year, beside molasses enough to pay the cost of manufacture. All these things are perfectly hardy, and the crop is surer than any farm or fruit crop at the North. Frosts have occurred to kill even orange and mangrove trees, so have earthquakes been known in staid and quiet New England, but they are not taken as evidence against her general good character and discreet behavior. Much of the above has appeared in previous letters, but I repeat it here in order that your readers may have in concrete form the leading articles of profitable production in this climate. I tell you, however, in confidence, Mr. Editor, that this is no place for men with feeble knees or weak understandings. A man who has not backbone enough to stand alone and bear the privations and deprivations of frontier life had better stay where he is not compelled to. A man who has not in himself and family,

resources and adaptation to replace the privileges social, political, moral and religious, that he must leave behind him, will probably make but a short stay in Florida. With plenty of means, a man can of course have what he wants, here as well as elsewhere, but I speak of the class who furnish pioneers and privates for the great battle of life—comparatively poor men. A list of what he would consider indispensable articles that such a man must do without for a few years, would frighten him before he got half through it. Then the work here is very hard and constantly urgent. There are no slack seasons when you can take it easy, or let it alone altogether. Vegetation knows no rest, and weeds particularly, live for ever. You must conquer *them*, or they will conquer *you*. You must keep the soil busy, or it will keep you busy. One crop a year will not do. You must have two, or three, or four, and even five—as I have on some of mine this year. There never was a country where so much work *must* be done *to save work*, as here.

Fortunately, you have all the time there is. If vegetation grows all winter, you can work all winter to match it. You need lose very little time for rain—none for snow, none for frost. You are not tempted to spend time at circuses, militia trainings, or fourth of July. The only recreations you are compelled to take are hunting and fishing. Once in a month or two, or three, you may spend a day in going to the store and post office, if you have no chance to send, but if the mind happens to be contrary either way, there is no recreation in this, as my arms and shoulders can testify. Then during the rainy season—say all summer—the mosquitoes are worse than a scolding wife—because she won't bite, and they will. For the thin-skinned there are plenty of fleas and gnats. These are the great, I may say only drawbacks. I speak of course, of the coast, for I would not live in the interior for a warranty deed of the whole State. Give me the old ocean breezes—for with these, no vagaries of the thermometer can disturb your equanimity. Then we have the fish, turtle, oysters, ducks, curlews, and last but not least, turtle eggs, which are deposited in the sand of the beach by thousands, during the whole summer. They are 1½ inches diameter, soft shell, round and delicious.

Now a few "farm items," and I will close this unusually long epistle. Native corn planted January 5th, ripened June 5th. Mammoth sweet corn (from Vick,) planted Feb. 5th, was eaten May 5th. First shell beans April 26. Lima beans and melons June 1st. Winter squashes native, very fine, all the time. Vines bore and fruit ripened all winter. I have vines now bearing that are over a year old. Lima beans do the same. Last year's cane stands higher than I can reach; this year's from 4 feet to 6 feet.

Oranges 2 inches diameter. Last year's crop just finished. Have cut two crops of sorghum from last fall's planting, and another is nearly grown. I feed it to hogs. I plant sunflowers for fowls. First crop ripened 20th May. Am still planting sunflowers, beans, peas, squashes, melons and potato vines. June was very rainy. Showers nearly every day. Cane grows—but so do grass and mosquitoes. I think you have enough of Florida now to last you until sugar time. Shall be glad to see you then. No mosquitoes—plenty of oranges—plenty of molasses.

NOTES FROM CANADA.

WRITTEN FOR THE AMERICAN FARMER, BY "MAC."

THE weather has been unusually dry and sultry for the last month. We have had but one shower since the 15th June, and that on the 23d June. The hay is mostly cut, but is not as heavy as it was expected to be. Corn, potatoes, roots, and garden crops are suffering severely from the drouth, and spring grains are heading out short. Small fruits are ripening prematurely in many places, and the young apples are dropping from the trees by the bushel. The tent caterpillar has entirely denuded the apple trees of both foliage and fruit in some sections. The fall wheat appears to be ripening earlier than usual; so much so that more loss is to be feared from imperfectly filled grain than from any insect enemy. Should a good fall of rain take place in a day or two the spring crops may be saved from failure, but another week of such awfully hot dry weather will put most of the crops beyond redemption. Laborers are very scarce, and do not like the work in such weather. Were it not for the mowing machine and reapers, I do not know what our farmers would do to get their hay and grain cut before it is spoiled by being over ripe. Those who keep the cultivator at work among their potatoes and corn during the hot weather find it helps them greatly to resist the effects of the drouth. Prices of produce have advanced a little, but are still moderate. The farmers' wives have mostly given up butter making during this hot spell, and the prices has gone up considerably in the cities. The truth of the matter is, that it does not pay for the labor to make butter now and sell it for less than 20 cts. per lb. Milk will not keep sweet long enough for the cream to rise, even in a cool cellar it turns thick in twelve hours, and it is next to impossible to get the cream churned into butter in such weather, when the thermometer ranges in the shade from 80c° to 95° for days together.—*Kenoyne Farm, July 13th, 1860.*

TO CATCH FOXES.—Take oil of amber and beaver's oil, each equal parts and rub them over the trap, before setting it. Set in the usual way.

OUR KANSAS LETTER--No. 9.

WRITTEN FOR THE AMERICAN FARMER, BY A. M. BURNS, MANHATTAN, KANSAS.

EDS. AM. FARMER :—I believe I have once before alluded to my ignorance of grape growing when I commenced, in 1856, to test the vine here. In propagating I relied upon the opinion of old growers, and was led astray. Although experience is a costly school, yet it has taught me useful lessons, at least so far as our soil and climate is concerned. The advocates of the production of grape vine roots contend that it makes no difference *how* a root is propagated if the wood is sound. In this I certainly agree with them, but the trouble with me has been to get ripe wooded roots from the green layers or wood of the present season's growth. How can a clean thing come out of an unclean thing? How can we get ripe roots from green or immature wood? I believe that scientific grape growers admit that the ends of the roots of grapes are not matured in the fall when the frosts wither the grape vine leaves, and that the roots ought to be pruned before planting. If all the wood of the roots cannot ripen before winter, when the layered cane is sound wood of the previous season's growth, how much less ripe wood can we expect the roots to have when the layered cane is *green* wood of the present year's growth. Yet in our neighboring State, Missouri, we have practical grape growers who openly advocate the propagation of roots from green wood, and contend that they are superior to roots from old wood. In our rich Western soil I have found that we can produce as large roots from green as from the previous year's wood, but they have never ripened enough of wood on their roots to make even much better plants with me than the bare cuttings would. It is an admitted fact, I believe, that mildew, etc., always attacks the weaker plants first, or that weak plants are more liable to disease than strong ones, notwithstanding the fungus derive their support upon the living as well as the dead vegetable matter upon which they are found growing. I cannot speak intelligently upon the disease that the grape vine is subject to, from the fact that I have not had enough experience; but it being an admitted fact that strong healthy plants are not as liable to mildew as weaker plants—especially if the seasons are favorable to the ripening of the wood—might we not infer that there is a possibility that vines would almost be entirely exempt from mildew here in the West if none but the best possible plants were propagated? Might not the germ of disease be sown in these supposed strong plants, and the apparently living vegetable matter be partially diseased? This subject, however, I leave to those who have had experience, as I am now dis-

cussing the superiority of roots produced from sound layered canes over those from green wood.

The new bark of green wood is more tender than that of a year's growth, and roots emit more easily through the green wood, and may often even be larger than roots from sound wood, but it is contrary to reason to believe that they are superior. If they are larger that is no evidence that the roots are more sound, or as good as old wood layers.

We all know that the greater portion of the roots of layered vines are produced late in the autumn, and are not matured in the terminal shoots; therefore these roots ought to be taken up in the fall as soon as the leaves drop, and pruned enough to sever all the unripe wood from the matured wood; if not, the immature sap in the immature portion of the root must circulate with the matured sap through the sap vessels of the same. Therefore reason would tell us that it would affect the whole vine injuriously; but if the unripe wood is cut off in the fall and the plants healed in during winter, when taken up in the spring they are nicely calloused, and are ready to start out healthy roots immediately in the spring in search of nutriment. But suppose these immature roots are not cut off, and the unripe sap circulates through the cane, may this not sow the seed of weakness in the young vine which for years may not be developed sufficiently to be observed by the unpracticed or naked eye, but which will eventually result in the death of the vine after a lingering illness of years? How often do we find that disease takes hold of the human form and for years lurks in the system unknown to any except the patient or a learned and experienced physician, but in time ends in the consignment of the mortal body to its earth home? If we reason by analogy, then might we not suppose that mildew, rot, etc., are planted with the vine in the incipient stage and there lurk for years before becoming developed. These are mere hints, which I hope may by some person be thoroughly tested where the vine is subject to disease. I have had experience with green and matured wood layers, but as we have been so far almost entirely exempt from disease in fruit, I have had no opportunity of testing in this way such plants, but I have often thought that to the inferior plants sent out by the hundred of thousands yearly, might to a great extent be attributed the mildew and other diseases to which the vine is subject.

There can be no doubt, so far as I have tested the matter, that the best of plants must be propagated for the Western country. The puny, immature plants that I am informed are produced and planted in the East, could not live through our August and September sun unless with a great deal of extra care; but there is such a mania for cheap plants, that they will be produced until the people learn by

experience that it is throwing money away to purchase inferior cheap roots, compared with those of the best quality, at least so far as the West is concerned, and about it only do I write. The soundest of wood ought to be used, and when the roots are taken up, the immature cut off, and let the vine grow more wood than it is usually permitted to produce until it exhausts itself, then we may expect good results in the way of fruit. I know that some wood must be taken from the vine annually, but the indiscriminate slaughter practised by some, especially of many varieties, such as Clinton, Taylor, etc., will not produce fruit in such quantities, or even of such a quality as where the vine is given more freedom to ramble at its own pleasure. And so far as my experience will enable me to form an opinion, I would say the vines would be more free from disease if less pruning was done, as the next year the vine must exhaust itself in the production of wood instead of fruit.

ADVANTAGES OF LARGE HIVES.

WRITTEN FOR THE AMERICAN FARMER, BY JASPER HAZEN.

THE season this year has been less favorable for honey than the last. My experiments thus far convince me that the large hive, with abundant room in the surplus boxes, is better than the small one in ordinary, as well as in very good seasons. My sixteen colonies this season have given me but four new swarms from 3 of the old colonies, leaving thirteen that have yet, July 21st, given no swarm. My hive admits of any desired number of boxes by increasing its size. I have five Italian colonies placed in hives last season by a friend. Four of the five have eighteen boxes each, of the aggregate capacity of nearly 150 lbs. While one of them proved a very weak colony, and has but just commenced work in the boxes, a second one that but half filled the central apartment last season, has filled that and given from 40 to 50 pounds in the boxes. A third one has filled 13 boxes, probably 100 lbs. A fourth one has filled 15 boxes nearly full, commenced in two others, leaving but one unoccupied. One of the five was placed in a hive with 27 surplus boxes of an aggregate capacity of nearly 200 pounds. That has filled 14 boxes, nearly filled seven others, and commenced work in five others, leaving but one unoccupied box, which a few workers are inspecting preparatory to commencing operations. They must have already stored nearly 150 lbs. of white clover honey in the boxes. Had they been in a hive with only box room for 75 lbs., I think they would have swarmed and placed a comparatively small amount in the boxes. I then come to the conclusion that there is most profit made by giving large box room for surplus honey.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

THE WEATHER AND THE CROPS IN SENECA COUNTY, N. Y.

THUS far, this 14th July will, I think, pass for the hottest summer ever witnessed by the "oldest inhabitant." For weeks the mercury has ranged from 80 at night, to 96, and even 100, in the shade by day; for the last seventeen days we have not had even a light thunder shower, but only a cloudy day or two, with some thunder and lightning, but no shower; yet vegetation in highly manured, well-worked gardens, has not yet suffered. Sweet corn is now earing, the leaves of the latest planted curl in the scorching sun, but the night dew expands them again; late planted peas are almost the only sufferers thus far—they need a cool, moist atmosphere. But without a soaking rain potatoes will be a short crop; corn needs only a few light showers tomatoes—the green—are large, and cucumbers with some watering are now in bearing. Strawberries were a full and delicious crop, but the hot sun hastened their exit; raspberries are in full bearing, very sweet; the Antwerps stand the heat pretty well, but the Doolittles, true to their name, dry up. Grapes and plums promise well; apples and pears a short crop; peaches and cherries a failure. We had much snow in the winter, but we have had only one continuous soaking rain in twelve months; yet thus far this may be called a very growing season; the hay crop is very large, and it has been secured in fine order; wheat cutting in Seneca county commences to-morrow, and the yield and quality is above the average. This is the best corn season we have had in many years—backward at first, the late hot weather has brought it forward with great rapidity. In the last forty years I have got a fair crop of sweet corn in my garden every season. If I fail this season it will be the first time.

SOILING FARM STOCK.

If your Vermont subscriber, "J. J." Addison, will write to Adam Anthony, Providence, R. I., he can explain his present mode of soiling his large farm stock. Fifteen years ago I was at his farm, an oasis in the desert, two miles out of Providence. He then kept besides oxen and horses, forty capital milch cows, all of which were fed at the stables the year round and never pastured. He sold his milk at the farm at twenty cents a gallon to the city milk carts. The cows were only let out of the stalls to milk, and for exercise in the yard; the stalls were daily littered with dry muck or peat, which was kept from the weather in sheds at the sides of the stables; this gave him a monstrous quantity of well rotted manure, so necessary to

make his poor sandy soil productive. His principal soiling and hay crop was millet and clover; he sowed winter rye in the fall for soiling the next May, after which he cut grass and clover, sowing corn in drills in May, and again in June for fall soiling. He also grew timothy (*phleum pratense*) and cut it green for a hay crop; but he said millet and clover ripened together, and made much better hay than timothy and clover. He never failed to grow a large patch of either beets or Swedes, to keep up the milk of his cows in winter. It is probable by this time he has to apply bone dust or superphosphate to his meadow, to compensate for the phosphate of lime so continuously taken off in the milk sold. But the very luxuriant crops I saw growing on that farm, which in my boyhood was a blowing sand, indicates there no lack of either mineral or organic manure.

HOW TO BE SURE OF A WHEAT CROP.

A farmer in the shrub oak and pine plains of Long Island writes to the New York Farmers' Club that he has not failed but once in six years to get thirty bushels of best white wheat to the acre every season, by the aid of half a ton of Menhaden fish guano to the acre and a little leached ashes! With wheat at \$3.50 the bushel at the next mill, this must pay well, as the guano costs but \$25 a ton, about one-third the price of Peruvian guano. But this man tells us that he draws seaweed one and a half miles from the bay for manure; if it was the coriaceous sea rock weed and ribbon weed from outlying rocks and ledges, such as comes on shore at the Newport beaches, it would pay well, but the sandy coast of Long Island receives little from the ocean but sea shells, and the eel grass that grows in the bay is nearly all water, and of little manurial account. Although our western farmers have not the fish of the bays and oceans to supply them with the strong and concentrated phosphates and nitrogenous compounds contained in animal matter, yet they have greater advantages for stock growing and the composting of vegetable manures, and they have with them the equivalent of guano in the bones and flesh of slaughtered and dead animals, which they have not yet begun to either save or appropriate. Bone dust or ground bones that have not been burned contain three per cent. of ammonia, and a very large per centage of pure phosphate of lime, while ordinary barn-yard manure contains but half of one per cent. of nitrogen, the great bulk being carbonaceous matter and water.

HOME MADE VS. COMMERCIAL MANURES.

Quite a controversy on this subject is just now kept up by the planter correspondents of the "*Southern Cultivator*"—the majority advocating, as

better economy, stock-growing and the making and saving of farm-yard manure, also green manuring with corn, peas, the clovers, &c., &c.; all agree that more grass and clover, richer land and fewer acres under the plow to produce the same crop, has become a necessity to successful farming in the present condition and cost of labor. One of Georgia's most successful planters says: "Mr. Gift is entirely mistaken in saying that I have overlooked the great profits of home-made manure; one of the reasons why I use guano, dissolved bones, salt and plaster, is that I may be enabled to make and save double the quantity of home-made manure. I make double the crop, have twice the amount of forage to feed out, and twice as much cotton seed for manure." His dissolved bones cost him at the farm \$67 for 2,000 pounds, and the best Peruvian guano, from a selected cargo, \$92 a ton. His last year's guano contained 16½ per cent. ammonia. He says that "the guano paid back the cost in cotton lint, leaving the seed and haulm to be returned to the soil."

THE ASTOUNDING WHEAT CROP OF CALIFORNIA.

One hundred and fourteen cargoes of wheat were shipped from San Francisco to England since July 1st last year, footing up three million cents, or five millions of bushels, valued at \$6,500,000. The progress of agricultural development and enterprise in California is unprecented in the world's history. It is but a few years since California had to be supplied with wheat and flour from Chili and the United States; now the wheat crop of California last year did much to save England from famine, and the United States from famine prices? The climate of California is very favorable, not only to the growth but to the harvesting of the wheat crop, as the plant matures when the season is so dry that neither rust nor after-sprouting can take place, and the wheat may be threshed in the field and left in bags for weeks without shelter. The question now is, how long will the wheat growing pabulum last in the soil by cropping without manuring? Much longer, perhaps, in that volcanic soil where the inorganic (mineral) elements of plant food are in great force, than it will on our alluvial prairie lands at the West, which have already begun to fail under continuous cropping with wheat.

SOWING WHEAT AFTER A CORN CROP.

Corn being a grosser feeder than wheat, if the soil is only well supplied with strongly arotised manure, its strong roots never seem to suffer for the want of soluble plant food. Hence it is that a large wheat crop may be grown after an early removed crop of Indian corn from a soil that has been highly manured; all the elements of nutrition are then in a fine soluble state to meet the wants of

the more delicate wheat plant. The wheat growing pabulum in such a conditioned soil is only less perfect than it is on a virgin oakland soil. By the most judicious manuring with superphosphate and nitrogenous manures, hoeing, weeding, &c., the English farmers grow monstrous wheat crops; but although the quality is good, the kernal contains less farina and more bean than the thin skinned wheat grown among girdled oaks on a soil that the plowshare had never entered.

FARMING.

WRITTEN FOR THE AMERICAN FARMER, BY W. H. W.

ALTHOUGH more pleasing to read about profitable farming, yet very much may be gained by investigating the causes which lead to unprofitable farming. We may prefer to make all our farm operations pay, yet how few grow up from youth to manhood on the farm who, if a strict record were kept of all farm transactions, would not, upon a review, find more or less unsuccessful pecuniary operations. Now these instances of non-success, as well as those other successful instances, form what are termed experience, and are valuable teachers for future plans and hopes. It is just this experience which we can obtain in no other way than by keeping an exact record of all farm operations, and when furnished to others is of great value in warning them of the shoals and quicksands to be avoided, and the successes to be improved upon that are needed.

Beginners in farming, coming from other pursuits, having read of the successes of experienced farmers, have their minds lured by the charms of rural art and life, and thereby are often disappointed, whereas had the non-successes of these same farmers been set down beside their successes, and the influences leading to them, a valuable chart would have been furnished to the inexperienced, enabling him, instead of working in the dark, to avoid unprofitable results.

It is too often the case that experiments in anything new are tried by heavy investments instead of on a small scale, as should be the case, and in a farming community disastrous ventures in any new enterprise go very far against one's reputation for judgment, &c., and are frequently brought against him years after, however generally successful his course, provided he is endeavoring to advance agriculture to its true position among the arts.

It is wise and profitable to experiment carefully in a small way in new schemes or crops, which have the sanction of reason and good judgment, but beyond it can hardly be advised; for any thing which "costs more than it brings" diverts the farm-

er from what may heretofore have been a profitable course.

We usually find those farmers the most successful who steadily adhere to the system of raising such products as the farm is the best adapted to and the markets demand, pushing their efforts to increase the production from a given area, and diminish the cost of the products.

The profits of farming are not so easily defined as the profits of merchandising; in the latter he counts his interest of capital, cost of labor, rent, &c., and easily arrives at his profit, and if he breaks up he discharges his clerks and sells his stock, so there is nothing lost; but with the farmer this result is not so easily arrived at; his business may have been prosperous, but he may have abstracted his profits directly from the intrinsic value of his land, and if such is the case, even if the farm sells for as much as he paid for it, it is still not worth as much to his successor.

Profitable farming, then, would seem to include the proposition that all the land cultivated and the improvements thereon should increase in productive capability while they furnish a fair profit on the labor and capital invested. This proposition true, the following practices would seem to make farming unprofitable: Plowing more land than can be well cultivated and manured; letting the land get foul with weeds, taking the strength therefrom which should go to increase the crops; keeping poor breeds of stock that consume as much food and require more care than good ones, and sell finally for less than half as much money; neglecting to provide suitable stabling and shelter in winter, with good wholesome fodder to keep the stock thriving, instead of using up the fuel of the system already accumulated; neglecting to feed and water regularly, all stock and properly care for; neglect to take proper care of all farming tools, and when not in use to clean and house them; to keep them in perfect repair, and doing it seasonably nor wait till they are wanted for use; buying the poorest because costing the least money; want of a well matured system of rotation by which the farming may be conducted for many years in advance, and better crops produced at less expense to the soil neglect in expending money in judiciously paying improvements, especially in underdraining, where the benefits received will be great; in investing more money in land, or extending the area of the farm when you already have more than you can cultivate to advantage.

Have I enumerated enough? If not, please go on, for you can well extend the list to fill several chapters, but for the present I desist.

KEEP your strawberry beds clean.

NOTES FROM ULSTER COUNTY, N. Y.

WRITTEN FOR THE AMERICAN FARMER, BY S. P. KEATOR.

THE spring of '68 opened on us cold and wet, and continued so until about the 25th of May. Some farmers could not get their oats sowed at all. Very little corn was planted until about the 25th of May, and farmers continued to plant until the 12th of June. The weather by that time commenced to get warm, and corn came up handsomely, and has continued to grow, and at this time, July 17, looks very promising. Since July 8 we have had no rain, and the extreme hot weather of the past few days has thoroughly heated the ground, which causes vegetation to lag a little in growth. Potatoes are looking well; the same with oats and grass—the latter the best crop in five years. Rye is nearly harvested, and is a fair crop. Little wheat is sown in this county. Considerable buckwheat has been sown—some to be plowed under for a crop of winter grains. Ulster county has a variety of soils. Some lands along the beds of the Esopus and Wallkill creeks are as fine and good bottom lands as any in the State. The streams overflow the land on both sides in the spring, leaving a rich deposit on the land. We have considerable sandy soil, and is being brought into a good state of cultivation by applying ashes and seeding with clover and plowing under the clover crop. A large portion of the county is rather broken and rough. The famous Catskills raise their majestic peaks through the whole length of the county. They produce considerable timber and bark, and some of the slopes of the mountains make good grazing land. Ulster county is rich in mineral resources—cement, Hudson river bluestone (commonly called flagging). Three million of dollars are invested in the quarrying and manufacture of those two branches. Lead abounds in the Shawangunk mountains, and large quantities have been taken from the same. The Delaware and Hudson canal passes through the centre of the county, and in the immediate vicinity of the cement and lime quarries. Thriving villages are built along the same, which give us a good home market.

The Rondout and Oswego railroad, now in progress of construction, is the first railroad ever penetrating this county. A second road is being built through the Walkill valley, running through the center of one of the finest agricultural and milk regions in the State, which will bring us within two and a half hours of New York city. The eastern portion of the county, situated along the Hudson river, has long had the advantage of the middle and western part of the county, by having the facilities of sending its produce to the city by the Hudson river boats, and have improved it by en-

gaging extensively in the cultivation of small fruits for the New York markets.

Some skillful cultivators have made fortunes in the business. Grapes, principally Concord and Hartford Prolific, are the kinds cultivated with success. Strawberries, principally Wilson, produce from two to three hundred dollars per acre. The Hudson River Antwerps yield large returns, grown on the shaley and gravelly loam peculiar to those sections which the Hudson river slates and shales underlie. Experiments are being made with most of the new raspberries and strawberries. As yet none have been found to excel the sorts above named for general crops.

The breeding of trotting horses has engaged the attention of the farmers of Ulster county for the last few years, and, I am sorry to say, to the almost total neglect of that breed so much needed for the heavy work consequent on drawing farm produce eight or ten miles to market. The result of such breeding is now apparent. It is true in, some cases farmers have been able to sell young horses for large prices, but as a general thing horses bred from trotting stock are too small and light-limbed to endure much work, and I will venture to say that in a day's travel you cannot find a pair of young horses large enough to make a respectable looking pair of carriage horses, much less able to do the ordinary work on a farm. The introduction of a good breed of horses for service is very much needed in Ulster county.

The breeding of Alderney cattle has interested a few individuals. Capt. A. L. Anderson and Robert L. Bell, living on the banks of the Hudson, have some fine cattle of this popular breed, and I believe they are destined to take the place of all the larger breeds on account of their hardiness, and being better able to subsist on our shorter and dryer pastures. I have obtained two heifers, one from each of the above named gentlemen, and find they are just what has been claimed for that breed. I also obtained a bull from Mr. Bell, the service of which I have given to my neighbors, which I think will be an improvement on the native breed of cattle almost entirely kept in our county.

FROM Seneca Falls, N. Y., we have a statement of swindling operations by lightning rod peddlers. The mode adopted was to get the victim to sign an agreement to pay for the rods at a high price, on the pretence that the paper was only an application for insurance. Under no circumstances should one sign a paper without fully understanding its exact contents.

LEWIS F. ALLEN in his "American Cattle," estimates the number of neat cattle in the United States at 28,145,240, worth \$950,051,778.

HOUSEHOLD MACHINES.

WRITTEN FOR THE AMERICAN FARMER, BY J. E. R., SOUTH AMHERST, MASS.

MUCH has been said and written on the importance of machines to the practical farmer. And this is well, for their value can hardly be over-estimated. Every farmer should provide himself with them. But he should not stop here. When he has provided for himself his work is only half done, and the *wrong* half is done first. It is the *duty* of every farmer who has a wife, to provide her, if he has not already done so, with all necessary, and, if he has the means, with all desirable household machines. I am no believer in "woman's rights" in the popular acceptation of the term, but I *do* believe in the right of every farmer's wife to have those machines which will lighten her labor, preserve her health, and lengthen her life. The housewife has work enough to do when well provided with labor-saving machines. When not thus provided she must either neglect her work, which few true women do, or, denying herself almost all opportunity for mental cultivation, pleasure, or relaxation, wear herself out in ceaseless, treadmill drudgery.

Many a man who meant to be kind to his wife has, through neglect to help her in her work, made her life unhappy and shortened her days. Many a minister has spoken of the "inscrutable ways of Providence" when officiating at funerals, which were caused not so much by Providence, as by the neglect of those who had promised to love and cherish the departed ones.

This is a practical subject to married farmers. Let "a word to the wise" be sufficient.

ROWEN.

WRITTEN FOR THE AMERICAN FARMER, BY J. E. R., SOUTH AMHERST, MASS.

THE value of rowen is generally known and appreciated by practical farmers. By many first-class farmers it is regarded as the very best hay for sheep, and, when fed in sufficient quantities, excellent feed for cows giving milk. But valuable as it is, we believe that this crop is often obtained at too great a cost—that is, in obtaining it many farmers injure their land *more* than the value of the crop which they receive. But this need not and ought not to be the case. By proper management a good supply of rowen may be cut from every grass-producing farm without its being injured thereby. The only possible way to do this, to obtain a good crop of rowen and prevent exhaustion of the soil, is to *manure the land*. The reason of this is obvious, for taking off two crops per year without supplying

extra food, is an unnatural and unwarrantable draft upon the roots of the growing crop, and also upon the land. That farmers do this is true. We know farmers who are in the habit of mowing two crops of hay on part of their land, and then feeding cattle there in the fall, and only spread on manure once in from three to six years. But there is a limit to the profitable transgression of the plain laws of nature, and these farmers will soon find that their system of over-cropping has been slowly but surely ruining their land. We said that two crops could be obtained without injury. The question is, how can it be done? We reply briefly: On land where you wish to cut rowen, spread on manure *each year*; cut the first crop of hay *early*, and cut the rowen before the autumn frosts. Let no cattle on the land after mowing, for the grass which then springs up is needed for the protection of the roots.

This we believe to be the only really profitable method of obtaining this valuable crop.

TAX ON STALLIONS, BULLS, RAMS AND BOARS.

This would be one of the greatest steps ever made towards the improvement of agricultural stock; it would be more than a step—it would be an immense stride—for any man has only to stroll across the country a few miles and see the wretched male animals kept on many farms, to be grieved sorely in mind at the idea of propagating such miserable and valueless trash.

If every horse colt not altered when a year old entailed a tax of \$20 per year upon his owner—if every bull calf of six months old had to pay \$5, and the same per annum afterwards, and every ram lamb and boar pig were taxable at \$3 per year, commencing at three months of age—it would "do away" with most of the worthless brutes, and in five years time the live stock would be worth very many millions more, and in the course of a few generations there would be nothing living but had some good blood in it, for the dullest of farmers would not pay taxes on the hideous objects which now rove around.

If some wealthy man would buy (for the trifle such ugly specimens would sell for) one or two and send them in all their deformity to the nearest agricultural show fair, the exhibition of these monstrosities might do much good, for it would cause great discussion as to others who made use of males no better, and so shame the owners that they might begin to see the folly of raising such unsightly and unprofitable animals.—*Country Gent.*

THE potato bug has been driven off by pouring slaked lime over the vines. So says a correspondent of the *Attica Ledger*.

IMPROVEMENT OF WORN-OUT LANDS WITH GRASS AND CLOVER.

A correspondent of the *New-York Times* writes to that paper as follows:

I will tell my experience on a poor farm in Rhode Island, of 150 acres, and too poor to keep a yoke of oxen, one cow and one horse in good condition. This farm was worth at that time about \$4,000 or \$5,000. But a new man came along who thought he could raise grass where none grew before. He tried, with perfect success every time; so that in a few years he kept about fifty head of cattle, mostly cows, on the place, and sold annually as many tons of hay

The *modus operandi* was this:

1. Plow the land.
2. Harrow.
3. Spread 200 bushels ashes per acre.
4. Harrow.
5. Sow millet and clover.
6. Harrow.
7. Roll.

8. Cut half ton of millet to the acre in six weeks from sowing time, enough to pay expenses first year.

He then had a good stand of clover, which was cut twice the two years. The next year he plowed under the clover, harrowed, applied fifty bushels ashes to the acre, harrowed it in, again sowed millet and clover, harrowed and gave it a good rolling. In six weeks he had a good growth of millet, say two tons per acre, and another good stand of clover. The next year he cut two crops of clover again. The next year he turned under the clover, applied his barn-yard compost of muck and cow manure which he had been four years preparing, and raised eighty bushels shelled corn per acre, on land that, before he commenced, was called barren, and land that the neighbors said, when he was applying the ashes, was not worth, ashes and all, after it was mixed, what the ashes cost.

Now, there are a great many inquiries about how to raise clover. This man never failed; he never thought of it, and never dreamed of it, and never knew any failure. He had a system in his head (for he did not get it from books) which he carried out like, "clock work," and his farm was beautiful to look at. He said the land was not fit for manure, so he took four years to get it ready.

He thought ashes would produce millet and clover, and the millet would protect the young clover from the scorching sun until it would need no protection.

The harrowing and rolling were indispensable.

He commenced in May, and sowed millet and clover every day as fast as the land was ready, for two or three months, and knew no such word as fail.

ACROSS THE SIERRA NEVADA.

FIRST PASSENGER TRAIN FROM SACRAMENTO OVER
THE MOUNTAINS.

A CORRESPONDENT of *The Alta California* says: At 67 miles from Sacramento we look down upon the well-nigh exhausted placers and town of Dutch Flat; flat enough the town appears at this time. Two miles further on we reach Alta, at an elevation of 3,625 feet above the sea, almost the height of the summit of Mount Diablo. Passing Shady Run station, we reach the first tunnel, 500 feet in length, 75 miles from Sacramento, and 4,500 feet above the sea. The mountains are growing more rugged, and the snow-fields come down to a level with the road. Still up, up; the trees grow smaller; cedars, tamaracks and firs take the place of the noble pines, and we no longer see the red earth of the gold belt below. Gray granite rocks are growing plentier, and the small mountain peaks on either side of the road begin to show bald heads. We are in the heart of the Sierra—a barren, dreary, desolate country. At Emigrant Gap, 84 miles above Sacramento, we meet the down train at last, and the road is open before us. Another tunnel, 300 feet in length. We pass Crystal Lake, and are at Cisco, a town of shanties, which was for a long time the terminus of the road. We are 5,900 feet above the sea, and still ascending. The pines have almost entirely disappeared, and we pass through many long cuts blasted through the solid granite spurs of the mountains. We traverse continuous snow-fields and immense drifts, through which the road has been cut with shovels for the passing of the trains. One hundred and two miles from Sacramento we reach Summit Valley, and stand 6,800f. above the level of the sea. Lift Mount Tama bodily from its base, and place it on the summit of Mount Diablo, and we could still look down by hundreds of feet on the double mountain height. The snow banks rise high above the road on either side. Two miles more and the cars reach the entrance of the great tunnel, 1,650 feet in length. We have scaled the great Sierra at last. We are 7,034 feet above the level of the sea. The air feels cold and damp, but not oppressive, and we experience no inconvenience from its rarification at this great elevation. The snow lies piled in immense banks above the tunnel, and rises in solid banks, with sheer precipitous sides, on either side of the track. A swarm of Chinamen are busy about the other end of the tunnel shoveling away the snow which has come down in great slides, bringing with it huge granite rocks upon the track. The water pours down in torrents from numberless crevices and seams in the granite walls and roof of the long, dark, cavernous tunnel, but we struggle

through on foot, and anxiously inquire after the prospect of getting the train across the mountain. Two or three hours will clear the track. We wait with what patience we may, and at last at 4 o'clock the prolonged whistle of the good locomotive Antelope, which has drawn us to the summit of the Sierra, is heard. "All aboard," shouts the conductor, George Wood, who has the honor of taking the first passenger train across the mountains, and the train moves slowly on. A halt for another slide; another halt, and so on, slowly and carefully. The snow banks come down so close to the track that the eaves of the cars rake them on every side. It is the closest fit imaginable. Six more tunnels, ranging from 100 to 865 feet each in length, in many of which we see great masses of solid blue ice, hanging down from the wall like stalactites and stalagmites in the Mammoth Cave of Kentucky, are slowly passed through. We have descended 600 feet already, and, as we emerge from the last tunnel, the conductor exclaims: "By heaven, we are over the mountains." And now the train, with accelerated speed, moves steadily downward toward the Valley of the Truckee. The steam is shut off, the breaks put down, and, as the eagle sets his wing and floats noiselessly down, through the realms of air toward the earth from his eyrie among the clouds, we slide swiftly and smoothly down the acclivities of the mountains into the Great Basin of Nevada. Donner Lake, as lovely a sheet of water as is to be found on earth, lies far below us among the pine-clad hills, its bosom unruffled by a breath of breeze, and as blue and calm as the heavens above it. The road winds around the precipitous mountain sides, almost encircling Donner Lake as it descends, and following around a long canyon, making a circuit of seven miles to gain advance of no more than a quarter of a mile, we reach the outlet of the lake, a swift, rushing stream of blue, cold water. We have traveled nine and a half miles, and descended 783 feet since leaving the summit. Now we descend rapidly, on one of the most beautifully smooth and solid roads on the continent, into the romantic valley of the Truckee, whose mountain torrents come rushing and roaring out of the mountains from the southward, hidden in which lies the loveliest sheet of water on earth, Lake Tahoe. The timber here is immense, and from this source supplies for building the road for hundreds of miles eastward are to be drawn. Sawmills by the dozen, driven by the rushing river, line the banks of the stream for miles and miles, and the hills swarm with laborers of every nationality and hue, Europeans, Americans, Africans, and Asiatics, (the latter immensely preponderating in number,) engaged in cutting down and preparing the timber for the road. The whistle sounds a long shrill scream, and the train arrives at

Truckee station—Coburn's—119 miles from Sacramento, and 5,860 feet above the sea. The portion of the trip between this point and Summit Valley had until this day, June 18, been made by stages. As we pass we see the jaded stage horses looking wonderingly, and, as it seems to us, joyously, at the swift-speeding train: their weary toil through mountain snows and mud is over, and now the stagemen will pull down their stables and pack up their traps, the drivers will "fold their tents like the Arab," and horses and men will "as silently steal away," to be seen no more here forever. Passing through two more tunnels, and crossing and re-crossing the "exulting and abounding river," as it leaps full of fierce, fresh mountain life and energy, down toward the desert plains, we emerge at last into the open, treeless mountain of Nevada, with the snow-clad heights of Washoe Mountains, the wondrous Silver Lake before us. Just as the last faint light of day fades from the summit of the Sierra, the long, shrill, joyous shout of the locomotive announces our arrival at our journey's end, nineteen miles from Virginia, and we find ourselves 154 miles from Sacramento, in Reno, a town of stores, hotels, saloons, gambling-houses, and livery stables, which has sprung up like magic within a month. The whole population, men, women, and children, rush out to welcome us. Thus ends the story of the first passenger train over the Sierra Nevada.

MANURE FOR TURNIPS.—Levi Bartlett writes *The Cultivator* about turnips, and says the best manure for the land on which they are grown is superphosphate. It carries no seeds of grasses and weeds to the soil as does barn-yard manure.

A **DAIRYMANS'** club, in Illinois, recently decided unanimously that milk designed for butter making should be immediately cooled to 68 degrees after being drawn from the cow.

IMPLEMENTS FOR TRIAL.—Notice is given by the Chester County (Penn.) Agricultural Society, in whose charge has been placed the "Model and Experimental Farm," recently established for Eastern Pennsylvania, that any implements which it is desired to have tested, "will be received at the Farm and tried at a publicly advertised trial in the presence of the proper committee, and if not donated or deposited with the Farm, will, at the discretion of the owners, be sold on their account, or returned after trial." A committee has been appointed to take charge of the subject, and Mr. Thos. J. Edge, of West Grove, Chester County, will superintend the necessary preparations, and can be addressed by any one desirous of farther importation.

SPIRIT OF THE AGRICULTURAL PRESS.**Greasing Wagons.**

But few people are aware, says *The Rural American*, that they do wagons and carriages more injury by greasing too plentifully than in any other way. A well-made wheel will endure common wear from ten to twenty-five years, if care is taken to use the right kind and proper amount of grease; but if this matter is not attended to, they will be used up in five or six years. Lard should never be used on a wagon, for it will penetrate the hub and work its way out around the tenons of the spokes, and spoil the wheel. Tallow is the best lubricator for wood axle-trees, and castor oil for iron.

Just grease enough should be applied to the spindle of a wagon to give it a light coating; this is better than more, for the surplus put on will work out at the ends, and be forced by the shoulder bands and nut-washers into the hub around the outside of the boxes.

To oil an iron axle-tree, first wipe the spindle clean with a wet cloth with spirits of turpentine, and then apply a few drops of castor oil near the shoulder and end. One teaspoonful is sufficient for the whole.

Shropshire Down Crosses.

S. M. Moore, Ironton, Mo., writes to *The Rural New Yorker*:

I purchased an imported Shropshire Down ram three years ago, for the purpose of making a cross, for a flock of mutton sheep. The cross more than meets my expectations. Lambs drop in February and March with mottled faces and legs. The ewes encounter no difficulty in weaning, although some of the lambs weighed 12½ pounds when dropped. The ewes fed on meal and bran, with clover hay, until grass, and then are turned into the woods upon wild grass, weeds and vines. At five months old I weighed half a dozen lambs. They varied from 60 lbs. to 85 lbs.—one extra fine one weighing 90 lbs. at four months, live weight. I have no doubt they could be made to weigh 100 lbs. at five months, with proper feed and care.

American Wheat.

That the United States are fast regaining their old power as a great wheat producing quarter of the world, is seen in the steady extension of their wheat exports of late. Thus, in the first four months of 1867, the Great Republic exported 1,639,922 bushels of wheat, while in the second four months of the year the total rose to 2,614, 858 bushels, and the last four months to 8,396,932 bushels, making a total export for the year of 12,651,212 bushels, valued at \$21,869,412.

In the two months ending Feb. 29th, this year, we received 1,427,646 cwt. of wheat from the United States, against 409,301 cwt. in the corresponding period of 1864, and 259,797 cwt. in the corresponding period of 1867. The imports of Russian wheat declined on the other hand to 1,329,785 cwt. in the first two months of this year, against 1,501,22 cwt. in the corresponding period of 1867, and 2,110,657 cwt. in the corresponding period of 1866.—*Mark Lane Express, London, April 6, 1868.*

Time for Cutting Wheat.

After a series of experiments by a number of Pennsylvania farmers, to ascertain the proper time for cut-

ting wheat, all the party instituting the experiments unanimously resolved, "that the proper time to cut wheat is when the grain in the middle of the ear can be crushed between the fingers, and leave nothing but the husk and a thick pulp, without any fluid around its edges."

Don't Kill Him.

Many farmers have noticed in their fields a large black beetle, with most brilliant golden dots placed in rows on his back. Dr. Fitch says: "Its eggs produce the corn grub killer. It is a most inveterate foe of the cut-worm, grasping the worm in its strong jaws, and in spite of its violent writhing and struggling, securely holding it. When it finds these worms in plenty, it gorges and surfeits itself upon them till it is so glutted and distended as to be scarcely able to stir, for it never knows how to let a cut-worm alone when it meets him. It is continually hunting these worms, feeding on nothing else if it can obtain them. Both it and the golden-dotted beetle which produces it, therefore, should never be harmed."

Canker Worms.

About two years ago we published an account of the method by which some farmers in the eastern part of New Hampshire had saved their trees and secured good crops of apples, by destroying the canker worms after they had commenced to feed upon the foliage. After applying a belt of tar to the trunks, they commenced at the top of the tree by jarring the branches with long light poles or fishing rods. As the worms spun down on their gossamer threads, they were brushed off by side strokes with the rods. As soon as they reached the ground they started at once and directly for the trunk, and were soon fast in the tar.

We see by a statement in the *Newton (Mass.) Journal* that Marshall S. Rice, of that town, has been entirely successful with this process on some forty trees, by going over them twice, spending some fifteen minutes to each tree. He advises all who have neglected to prevent the ascent of the grub to try this process without fail, as he thinks the fruit of his forty trees paid well for about two days' work.—*N. E. Farmer.*

Deep Plowing.

The New England Farmer has some very sensible remarks on the subject of deep plowing, coming to the conclusion that "in plowing, as in all other operations on the farm, circumstances and common sense must govern." Indiscriminate and unqualified instructions to plow deep, do harm, for in many circumstances deep plowing would result in injury.

Cows that Hold up Milk,

Mr. Johnson says, can be cured if they will drink sour milk. After drinking, and as soon as they begin to lick the pail, they will give down freely. He has tried it with cows that would give about two-thirds the proper quantity, retaining the other portion. Then he gives them the milk to drink, and waits until they begin to lick the pail, when he has no trouble in obtaining the remainder. He has tried meal, salt, and various things, but found nothing to produce such an effect as sour milk.—*N. Y. Tribune.*

Food Supplies in Great Britain.

Mr. Caird, in his paper on "Our Food Supplies," says: We find that the largest portion of our imports of wheat during twelve years ending with 1866, were derived from the United States, which contributed 35 per cent of the whole; Germany next, contributing 20 per cent; Russia, 17 per cent; France, 12 per cent; Egypt 6 per cent, and other countries 10 per cent.

The extension of railways has served to extend the limits from which our supplies are drawn, more especially in America, and the same means when put in operation in Russia, will assist still further in swelling our importations of grain from that part of the world. Mr. Caird shows that the fact of our sources of supply being so widely scattered is a material point in our favor, inasmuch as when one source fails, wholly or partially, others make up the deficiency. At the same time, he owns that a continued cessation of the supplies from America might seriously affect us, but hopes that the mutual interests of that country and Great Britain will be sufficiently powerful to prevent any interruption of mutual confidence and good will. We can only join in the hope, at the same time it is by no means pleasant to reflect that a war with America will prove the means of *half-starving* the people of Great Britain; and the mere fact that such a contingency is far from being improbable, should stimulate us to make the most of our own resources, so as to be as little dependent as possible on other countries.—*Scottish Farmer.*

Liquid Manure Tanks.

As liquid manure is exceedingly beneficial to all vegetables, plenty of it should always be available, and without a liquid manure tank this cannot be obtained. For large gardens, a tank should be built exactly like a cistern, the bricks being closely cemented at the bottom, sides and roof, to prevent the liquid from percolating through the soil, and also to keep the surface water from entering the tank. The liquid should be conveyed to the tank by tile-drains from the stable, byre, kitchen, &c., and may be taken out by a pump. In small gardens a hogshead or cask of any kind that will hold water may be sunk in the ground, and will answer on a small scale. In this, soot, guano, &c., may be converted into a valuable liquid manure, by dissolving them in a suitable proportion of water. Manure is much more readily taken up by the roots of plants when in solution than when in a solid state. In fact, solid manure has to be dissolved before it can enter the sponge-like mouths of the roots.

Keep the Surface of the Ground Loose.

We have many years watched the varied results of the cultivator, who keeps frequently stirring the surface of his soil, and the one who hoes and cultivates only when the weeds compel him to work; and as we have watched and recorded our notes the result has always been in favor of the constant stirring of the surface soil. We do not advocate deep tillage during the growing season, but we would have the ground thoroughly stirred early in the season, whether it were on old or new plantations. Once, however, that vigorous growth of top and root has commenced, all deep tillage should cease, because, by pursuing it, constant

and continual checks are given, and a truly healthy growth prevented by repeated breaking and tearing asunder the roots and fibres, the supplying pipes for elongation, expansion and evaporation of the branches and leaves. By repeated surface stirring of the soil, however, no roots are broken; the sun, air, and moisture are enabled to penetrate and assist in the chemical transmutation of the earth's compounds and fitting them for absorption by the roots.

Milking Cows before Calving.

"Lactis," in *The New England Farmer*, says:—"I have practiced taking it away for four years, in every case but one, which was a heifer that calved unexpectedly in the pasture. Her bag became considerably inflamed, but none of the others became so. A heifer coming four years old, dropped her second calf March 2. Four days before, the 16th, I took 3 quarts; on the 17th, 3 quarts; the 18th, 6 quarts; 19th, 12 quarts; 20th, 10 quarts, and the milk all right for use now. She had been milked thirteen months, and had been dry thirty-five days previously. She has a fine and very large half Ayrshire calf. In my observation, milk rarely comes into the udder much more than thirty-six hours before calving; but when it does, I think it is better to be taken out, and by so doing have not known any injurious effects ever to follow. What say others?"

Two or More Crops at a Time.

We do not plant as many pumpkins with our corn as the farmers used to, and we miss by it. Vines and corn together are like sheep and cows in the same pasture. Sheep can live on herbs which the cows skip. The roots of the pumpkin and the corn do not feed on the same stuff in the earth, hence there will be just as many ears and just as well filled though the pumpkins are thick enough to let a boy walk on them from one side of the field to the other. Just think what the advantage would be if the manure and the tillage spread over four acres were concentrated on two. Plow deep and often, manure liberally till you can depend on those two acres for a hundred and fifty bushels of corn. They will at the same time yield twenty cart loads of pumpkins; or with the last plowing, about the 15th of July, sow turnip seed, especially if the corn is early. They will keep the ground clean, and the land, which does very little for the corn after the first of September, will be feeding the turnips all through that month and October. When the farmer works the surface of three acres for a hundred bushels of corn, he is making nothing. But when he gets that return from one acre, and two or three hundred bushels of roots besides, he is doing a profitable business and will soon be rich. But heavy manuring and deep plowing should go hand in hand.—*N. Y. World.*

An Improved Harrow.

In the course of some remarks on a late trial of cultivators and harrows, *The Utica Herald* says, the somewhat recent application of thills to cultivators and horse hoes must be regarded as a decided improvement. With thills the machines are kept steadier, while at the end of the row the labor of lifting or throwing the implement into the next row is not half so great as with the old style cultivators, while there is much less danger also of cutting up hills from the sudden starting of the horse.



NAPOLEON III.

We give above, an accurate illustration of one of the latest varieties of foreign strawberries, imported into this country by Messrs. E. J. Evans & Co., of York, Pa. It originated with the celebrated strawberry grower, Ferdinand Glæde, Sablous, France, and has been fruited experimentally in various parts of the United States during the past four years with eminent success. The fruit is large to very large, irregular, flattened, varying from oval to cockseomb-shaped;

color handsome rosy red, shading to darker red in the sun, and waxy blush in the shade; flesh of snowy whiteness, firm, and of sprightly, high flavor, with a delicate aroma. The plant is very vigorous and healthy, with large, dark green foliage, which endures the sun remarkably, and is very productive, in some localities exceeding even Wilson's Albany. Flowers perfect. In season, it is later than the Wilson, succeeding it, and continuing long in bearing.

Horticultural.

AMERICAN POMOLOGICAL SOCIETY.

THE Committee on New Native Fruits reported the following as some of the best varieties brought to their notice since their last meeting

APPLES.

The Martin Apple.—Originated at South Salem, — County, Ohio. It was a seedling planted by James Wilson, and first fruited between 1815 and 1820; after which it was propagated by root suckers. No trees have been grafted from it away from the farm upon which it grows. The original tree is said to be very productive, and has borne crops for nearly twenty-one years in succession—since the present owner has occupied the farm. It is thrifty and healthy, and always full of fruit; foliage large, branches upright.

Duzenbury.—Specimens from Dr. James Fountain, Jefferson Valley, Westchester County, N. Y., who informs me that it originated on the farm of Charles Duzenbury, of Phillipstown, Putnam County, N. Y. Tree a vigorous grower, a good keeper, and retains its flavor well; fruit of medium size, roundish conical; skin greenish yellow, shaded, and rather obscurely splashed with red nearly over the whole surface; flesh whitish yellow, crisp, tender, juicy, mild, sub-acid, excellent; somewhat of the New England Seek-no-farther flavor. Ripe December till April.

Stymus.—A new fruit, introduced by Dr. Fountain, and originated on the farm of Jacob Stymus, Dobb's Ferry, on the Hudson. It came up by the side of an old Spitzenberg apple tree (the whole orchard being Spitzenbergs.) Growth rather more upright, but resembling it; a good bearer; fruit medium or above; oblate, inclining to conic; skin yellowish, shaded, splashed and striped with light and dark crimson nearly over the whole surface, some of the splashes of purplish crimson; flesh of fine texture, whitish, tender, juicy, with a mild, rich, sub-acid flavor, slightly aromatic; quality, best. Ripe October and November.

Mote's Sweet.—A new, beautiful white apple, raised from seed by L. S. Mote, West Milton, O.; to whom we are indebted for specimens, and who says the tree is hardy, of moderate growth, rather spreading, and productive. Fruit large, roundish, oblate, slightly conic, angular; skin pale whitish yellow, with a tinge of red in the sun; flesh yellowish, fine grained, juicy, very tender, with a rich, sweet, honeyed flavor. Ripe September.

Democrat or Varick.—Received from George L. Conover, West Fayette, Seneca County, N. Y., to whom I am indebted for specimens. Origin uncertain, but supposed to have originated in the vicinity of Trumansburg, Tompkins County, N. Y. Tree vigorous, upright, and productive; fruit always fair; size medium, or above, roundish, conical, inclining to oblong; skin pale whitish yellow, rather faintly striped and splashed with light and dark crimson nearly over the whole surface; flesh whitish, fine grained, sometimes slightly stained next the skin, very tender, juicy, mild,

pleasant, sub-acid flavor. A fine dessert-fruit, ripening from December till March.

Creek.—Received of Daniel Engle, Marietta, Penn., who says it is native of Hellam Township, York Co., Pa., where it has been fruited to a considerable extent, and is highly prized on account of its quality and extraordinary productiveness. It derives its name from Creek Creek. Fruit medium, or below, oblate; skin greenish-yellow, thinly shaded, and rather obscurely striped and splashed with light and dark red; flesh white, fine grained, very tender, juicy, mild, sub-acid; quality very good at least. Ripe November.

Hick's Apple, or Buckram.—Introduced by Isaac Hicks of Westbury, North Hempstead, Long Island, N. Y., who found it in a hedge about the year 1853, and says it has proved the most productive and largest very early sweet apple cultivated in that section—earlier than Sweet Bough, and more productive. Fruit large, roundish, or roundish-oblate; skin pale greenish-yellow, considerably striped and splashed with crimson; flesh whitish, tender, moderately juicy, with rich, sweet flavor, slightly aromatic. Ripe August.

Park.—Introduced by William S. Carpenter, of Rye, Westchester County, N. Y., who values it highly as an amateur and market fruit. It originated on the farm of Roger Park, town of Harrison, N. Y. The original tree is still standing, and about seventy-five years old. Tree thrifty, and quite upright in its growth, and bears large crops every other year; fruit medium, roundish, inclining to conic, angular; skin yellowish, shaded, and rather obscurely splashed and striped with light and dark crimson nearly over the whole surface; flesh yellowish, rather firm, moderately juicy, with a rich, mild, sub-acid, slightly aromatic flavor; very good. Ripe January to March.

Family, or McLoud's Family.—An excellent early apple of Southern origin, received from P. J. Berckmans, of Augusta, Ga. Mr. Berckmans says it is a beautiful grower, bears enormously, always regular. Fruit smooth, ripening for six weeks—the most distinct foliage of any of our Southern apples; fruit rather large, oblate, conical; skin yellowish, shaded, striped and splashed with dull red over two-thirds its surface; flesh white, tender, juicy, with a very mild, pleasant, sub-acid flavor; quality very good, or best.

Slight's Lady Apple.—A new seedling, raised by Edgar Slight, Fishkill Plains, Dutchess County, N. Y., from the Lady-Apple, and like it in every respect, except that it is double the size, and the skin a little more yellow and waxen, and comes into eating earlier in the season.

Brill's Seedling.—Raised by Francis Brill, Newark, N. J.; and he values it highly for market and culinary purposes. Fruit large, oblong, conic, angular; skin yellowish, tender, juicy, slightly sub-acid. Ripe, October, November.

Celestia.—Received specimens from L. S. Mote, West Milton, O. One of his new seedlings, which promises to be an acquisition. Fruit rather large, roundish, inclining to conic; skin pale yellow; flesh yellowish, fine grained, crisp, very tender, juicy, with a rich, mild, sub-acid flavor, with considerable aroma; quality best. Ripe September.

Pine Creek Sweet.—Specimens of this fine sweet apple were sent us by John Hamilton of Jersey Shore, Pa.; and he writes us that it originated at Pine Creek, Jersey Shore, Clinton County, Pa., where the original tree is still standing. Fruit large, roundish, conical; skin pale whitish-yellow; flesh white; crisp, very tender, juicy, with a very rich, honeyed flavor; quality very good, if not best. Ripe October to November.

Cocklin's Favorite.—Originated with E. H. Cocklin, of Shepherdstown, Pa., who describes it as a very fine dessert-fruit; keeps well, and continues in use from September till February. Tree a beautiful, upright grower, and very productive. Fruit rather small, roundish, oblate, inclining to conic; skin whitish, with a thin shade of crimson in the sun; flesh white, fine grained, crisp, very tender, juicy, mild, pleasant sub-acid; quality very good.

Flake's Fall.—Received from James A. Nelson and Sons, of Indian Run, Mercer County, Pa.; and they inform me that it originated near that place, and is a very profitable sort for market. Moderate, rather upright grower, great bearer, and a large, valuable variety for that section. Fruit large, oblate, inclining to conic, slightly angular; skin yellowish, shaded, striped and splashed over the whole surface with light and dark crimson, almost purplish in the sun; flesh white, fine grained, crisp, tender, moderately juicy, with a very pleasant, mild, sub-acid flavor, peculiarly aromatic; quality very good, or best. Ripe September to November.

PEARS.

Edmunds.—Originated with Ellphalet Edmunds of Brighton, near Rochester, N. Y.; and promises to be one of the best of its season. Tree a very strong grower; fruit medium to large, somewhat irregular in form, and surface uneven, obtuse, pyriform, angular; skin yellow, with slight nettings of russet; stalk very long, set in a shallow cavity; flesh fine, whitish, juicy, melting, with a sweet, rich, peculiar flavor, somewhat like almond or walnut; quality very good or best. Ripe middle of September to middle of October.

Mary.—Not having seen the fruit of this pear, we give F. R. Elliott's description:—"Raised by Christopher Wiegel of Cleveland, O., from seed of the Seckel. Tree upright, vigorous, an early and abundant bearer; fruit a little below medium in size, form generally globular, obtuse, pyriform, occasionally one-sided; skin rich, pale yellow, mostly overspread and dotted with bright, rich red, becoming deep next the calyx, and a little russet next the stem; flesh white, finely granulated, almost buttery, juicy, sweet; very good; season before the Madeleine, or early to middle of July."

Margaret.—Another of Christopher Wiegel's Seedlings. "Its history the same as the Mary. Fruit medium size, oblong, ovate; color lemon-yellow ground, when fully ripe, mostly overspread with deep, dull red, small russet dots, and patches of russet; flesh white, finely granulated, juicy, vinous, sweet, and free from astringency. Season last of July and early August."

Other new kinds, such as Dr. Turner's, Dr. Shurtleff's New Seedlings, Painter's Seedling, Howard,

Richardson's Seedlings, Clapp's New Seedlings, and Hebe, are spoken of as valuable.

Reeder's Seedling.—Specimens of this new pear were sent us last fall by Dr. Henry Reeder, of Varick, Seneca County, N. Y.; and, judging from the fruit, we should think it of superior quality. Mr. Reeder writes that the tree is about twelve years old, and was raised from the seed of Winter Nelis; which tree grew near a Seckel, and is, no doubt, a cross of the two varieties. Tree healthy and vigorous, rather spreading in form, and an excellent bearer; fruit small to medium size, obovate, truncate; skin yellow, netted and patched with light russet nearly over the whole surface; flesh fine, juicy, melting, somewhat buttery, very sugary, sufficiently vinous, perfumed with musk, and slightly aromatic; quality best. Ripe November.

Rutter.—An excellent late variety, raised from seed of Van Mons Leon le Clerc, by John Rutter of West Chester, Chester County, Pa. Tree a vigorous grower, an early and an abundant bearer; fruit medium size, obovate, obtuse, pyriform, angular; skin rough, greenish-yellow, often considerably sprinkled and netted with russet; flesh white, not very fine in texture, sufficiently juicy and melting, with a rich, sweet, vinous flavor, slightly aromatic; quality very good. Ripe October and first of November.

Ellis.—A new pear, highly prized where known, and was raised by Mrs. Annie Ellis, of New Bedford, Mass., from seed of the Seckel. Tree a thrifty grower, very hardy, and an abundant bearer; fruit medium or rather large, obovate, pyriform, truncate; skin greenish yellow, considerably patched and netted with russet, and sometimes a shade of crimson in the sun; flesh yellowish white, juicy, melting, with a rich, sweet flavor, slightly vinous, and a little aromatic; quality very good, or best. Ripe October.

Bronz.—Specimens received from Prof. Geo. Thurber, of New York, who writes us that it was raised by James R. Swain, of Bronxville, Westchester County, N. Y., about the year 1850. An upright grower, inclined to pyramidal; an early, regular, and abundant bearer. Fruit medium size, obovate, pyriform; skin greenish yellow, partially netted and patched with russet; flesh whitish, juicy, melting, with a sweet, slightly perfumed flavor; quality very good. Ripe from the first to the middle of September.

PLUMS.

Foote's Early Orleans.—Grown from seed of Wilmot's Early Orleans as Asabel Foote, of Williamstown, Mass. Tree hardy, much more vigorous than its parent, symmetrical, bears heavy crops, and almost free from rot; fruit medium size, roundish, inclining to oval; skin deep black, covered with a blue bloom; flesh greenish, moderately juicy, with a sweet, pleasant, vinous flavor; adheres to the pit. Ripe from the first to the middle of August.

RASPBERRIES.

Many new varieties have been on trial; but the Clarke and Belle de Pallnau have given the most general satisfaction. The Clarke is claimed to be hardy; and, if it prove so, it will add to its value. During, Naomi, and Mrs. Wood, are said to be valuable; and

Charles Arnold, of Paris, C. W., has raised some seedlings that are said to be of fine quality and hardy. There are also several new kinds of the Black-cap family that are highly praised, but not fully tested.

BLACKBERRIES.

Kittatiny and Wilson's Early are before the public as superior kinds, and, so far as tested, are worthy of extensive trial; the Kittatiny being hardier and sweeter in flavor than New Rochelle, and equally as vigorous and productive. It is said that Wilson's Early is ten days earlier than New Rochelle, but is deficient of pollen, and should be planted in alternate rows, or two rows of Wilson and one of Rochelle or Kittatiny, which makes it very productive.

CHARLES DOWNING, Chairman.

REPORT OF THE COMMITTEE ON POMOLOGICAL RULES.

1. No new seedling fruit shall be entitled to the recommendation of this Society until its qualities shall be ascertained by at least five year's experience in more than one locality, and which is not at least equal to any similar variety of the first rank already known; or which, if only of second-rate flavor, is superior in vigor, hardiness, productiveness, or other important quality or characteristics.

2. No new fruit shall be considered as named until it has been accurately described by some person or committee known to be conversant with existing varieties, and such description shall have been published in at least one horticultural or agricultural journal, or some pomological work of acknowledged standard character.

3. The originator, or he who first makes known a new variety, shall be entitled to name it; and such name, if suitable, shall be adopted by the writer describing the fruit for the first time. But if the name proposed is inappropriate, or does not come within the rules of nomenclature, the describer shall be at liberty to give a name.

When two persons have named or described a fruit, the name and description first published, if according to the rules, shall have the priority.

4. In giving names to new varieties, all harsh, vulgar, or inelegant names, such as "sheep's nose" and "hog-pen," should be avoided; and no name should consist of more than two words, excepting only when the originator's name is added. Characteristic names, or those in some way descriptive of the qualities, origin, or habit of fruit or tree, shall be preferred. They may either be of intrinsic properties, as Golden Sweeting, Downer's Late; or of local origin, as Newtown Pippin, Hudson Gage; or of the season of ripening, as Early Scarlet, Frost Gage; or of the form and color, as Golden Drop, Blue Pearmain; or which commemorates a particular place or person, as Tippecanoe, La Grange, Baldwin; or any other titles which may be significantly applied.

5. The descriptions of new varieties of fruits shall embrace the following particulars:—

1st, An account of their origin.

2d, The fruit, its size, form, and exterior color, texture, and color of the flesh, flavor, and time of ripening; with the addition, on stone-fruits, of the size of

the stone, adherence or non-adherence of the flesh, form of the suture, and the hollow at the stem; and in kernel-fruits, of the size of the core and seeds, the length, position, and insertion of the stalk and form of the eye.

3d, The tree, its marked characters of growth, young and bearing wood, foliage, and blossoms. In peaches, the form of leaf, glands, and size of blossoms; in strawberries, the character of the blossoms, whether staminate or pistillate; in grapes, the form of bunch or berry.

P. BARRY, Chairman.

IMPORTANCE OF SHELTER.

The following preamble and resolutions were presented by T. T. Lyon of Michigan, who moved to refer them to the Business Committee, to be brought up at such time as the committee deemed best:—

The subject of shelter to gardens, orchards, and farms, is believed to be one of the most important that presents itself to the consideration of those interested either in horticulture or agriculture; and, while it is one in which efficient results can only be reached through concerted action by whole communities and even entire States, on few subjects of such moment are we believed to have so little general information.

As a consequence, entire regions of country of large extent are being recklessly denuded of forests; while, with the least possible regard for this subject, the timber preserves being retained in such form and position as to offer, in most cases, the least possible resistance to prevailing winds.

This is done in ignorance of the fact, that to thus open up a country is at the same time to diminish the amount of its rain-fall, and to hasten the dissipation of heat and moisture by evaporation, thus increasing its liability to both frost and drouth; as a necessary result of which, certain sections of the country, among which may be reckoned that in which I reside, can no longer grow the peach with certainty, while even the apple is becoming less hardy than formerly.

In consideration of the nature of this subject, and of the importance of concerted action, I propose for consideration the following:—

Resolved, That we recommend a general movement by kindred associations, whether horticultural or agricultural, for the dissemination of information on this subject.

Resolved, That inasmuch as many men receive knowledge more readily when communicated through the pocket, we invoke the aid of legislation in the enactment of such highway laws as shall encourage the planting of roadside trees, and secure their preservation when planted; and also in the exemption from taxation of belts of timber, whether natural or artificial, when grown along the west or north sides of buildings, gardens, orchards, or farms, of sufficient breadth and length to suffice as wind breaks.

Resolved, That a committee of this body be appointed to prepare an address upon this subject for general circulation; and also to secure, as far as possible, concerted action on the part of kindred associations,

ASSORTING FRUIT.

Dr. Claggett, of St. Louis, said:—"I wish I could impress upon fruit-growers the importance and profit of assorting fruit. Fruit will not only bring better prices if assorted, but depreciation of prices will be prevented. Too few shippers assort their fruit; such as do, get from one-third to one-half more for it than those who do not do so. Full one-third of the fruit found in packages had better have been given to the pigs. The market is overrun with packages of inferior fruit. We who are dealers have to assort it. If one-third of the fruit sent to this market were left at home, the other two-thirds would bring more money than the whole does now. It is every man's interest to leave imperfect fruit at home: if he does not, the buyer has to throw fully one-third of it away. If a dealer knows a shipper has a reputation for assorting his fruit, he can recommend his packages confidently without examination; but, so far as nine-tenths of the packages received from shippers are concerned, dealers know nothing about them that will warrant them in asserting the excellence of the fruit to a customer until it has been examined. I wish every shipper knew the value to him of a good reputation—of a reputation that will sell fruit packages bearing his brand at the highest market price, without examination. Every fruit-grower should aim to get such a reputation."

TRANSPLANTING IN THE NIGHT.

A gentleman anxious to ascertain the effect of transplanting at night, instead of in the day, made an experiment with the following result:—he transplanted ten cherry trees while in bloom, commencing at 4 o'clock in the afternoon, and transplanting one each hour, until 1 o'clock in the morning. Those transplanted during daylight shed their blossoms, producing little or no fruit; while those planted during the darker portions maintained their condition fully. He did the same with ten dwarf pear trees, after the fruit was one-third grown. Those transplanted during the day shed their fruit; those transplanted during the night perfected their crop, and showed no injury from having been removed. With each of these trees he removed some earth with the roots. The incident is fully vouched for; and, if a few more similar experiments produce the same result, it will be a strong argument to horticulturists, gardeners, and fruit-growers to do such work entirely at night.

PATENTS IN HORTICULTURE.—A. S. Fuller furnishes an article to *The Horticulturist*, advocating protection to horticulturists who originate new fruits and plants. Doubtless there are many cases in which adequate remuneration is not returned for value received by the people, but we think it difficult to devise a system of protection which would obviate this without inflicting greater wrong.

A strawberry grower in Pennsylvania has come to the conclusion that ground is usually made too rich for profitable production of the strawberry.

NOTES FOR THE MONTH.

THE season, thus far, in our immediate vicinity, has been unusually dry, and never do we remember so long continued a drouth. Trees planted in the spring, unless carefully watered and mulched, have had to succumb to the intense heat. This, combined with the dryness of the soil, has had the effect of destroying the foliage, in many instances entirely, and when the heated term had reached its culmination, the leaves of some kinds of newly transplanted trees were scalded as completely as though they had been immersed in boiling water, and the only way we found of saving such as were affected in this way, was to give them plentiful supplies of water, first stirring the soil, and then mulching with partly decayed sods, weeds, or any kind of material that would prevent evaporation. This, of course, did not always save the life of the tree to which it was applied, but it had the effect of saving many that would otherwise have perished.

In those localities where rain has not been withheld for so long a period as with us, strawberry plants will have sent forth their runners from which the young plants will soon be large enough for removal. These should be transplanted into beds, for fruiting next year. In gardens, strawberries should be grown in beds. These can be made of any convenient width—say four feet, as at that distance the center of the beds can be reached, very readily. Plant three rows in a bed, and set the plants about a foot apart in the rows. If the weather should be dry at the time of planting, a moderate quantity of water should be given to each plant, and these shaded from the mid-day sun.

Grape vines at this season should be thinned of any superfluous shoots, and otherwise attended to, as insects and mildew are likely to be troublesome, and if care is not taken, the fruit may become materially injured in consequence. We might suggest many other things that ought to be attended to now, but the best advice we can offer at this season of the year is, for those who have a garden to look carefully through it, and note what plants, if any, are languishing for water, to prune away all shoots that require it, stake such plants as need it, gather any seeds that are ripe, which they may want to save—keep the ground loose by frequent hoeings or stirring with the fork, and above all, allow no weeds to choke the crop.

GARDENING FOR LADIES.—Make up your *beds* early in the morning; *sew* buttons on your husband's shirts; do not *rake up* any grievances; protect the young and tender *branches* of your family; *plant* a smile of good temper in your face, and carefully *root out* all angry feelings—and expect a good *crop* of happiness.

THE heirs of Jethro Wood, the inventor of the cast iron plow, have received an appropriation from the Legislature, of \$2,000, in consideration of the services of their father.

TAN bark is said to protect peach trees from worms, when placed around them as a mulch.

APPLE TREE WORMS.

At a recent meeting of the American Institute Farmers' Club, there was a discussion on "apple tree worms," in which A. E. Raymond, of Niagara county, N. Y., complained bitterly of these pests. He describes the common canker-worm, well known in New England, and asks what can be done to rid farmers of this pest.

Horace Grecley.—I have long held that every enemy of fruit trees that burrows in the ground may be successfully pursued and frequently exterminated by the proper use of salt. Fall plowing is also a good remedy, if the land is left in ridges. Freezing kills the eggs.

Dr. Trimble.—The canker-worm has of late disappeared from New England. Those who have made its habits a study say a parasite comes and lays its egg in the egg or larva of the worm, and thus kills it. Birds are the best friends of the farmer in this respect, especially the cedar-bird.

Mr. Allen.—Some years ago I had a fine shade tree beset with canker-worms. I tied a rough rope or band of common swingling-tow around the trunk. When a brisk wind blew them to the ground, they would make straight to the trunk of the tree, but could not get over this rough band.

Mr. Baldwin.—I had in my yard five choice peach trees that ceased to bear, grew sickly, and had the yellows. I dug around the roots, and poured into the loosened earth a quantity of fish-brine. In a week the leaves had a fine, vigorous appearance, the trees bloomed and fruited admirably.

Mr. Williams.—It is well understood on Long Island that salt kills the wire-worm, and also that it is a special fertilizer for the plum. Some years ago I knew of an orchard near the sea. A tide of great violence flooded it, and every tree was killed by the salt water except the plums. They were benefited.

FRUIT AT THE SOUTH.

The August number of *The Farm and Garden*, published at Clinton, South Carolina, in its "Editorial chat" has the following, which will give our readers some idea of the condition of the fruit crop there, about the first of the month:

"What shall we do with our fruit? This section has been favored with an abundant peach crop this season. Many trees are literally breaking down with large, delicious, juicy fruit. If our city cousins could visit us, they might revel in these delicacies fresh from the trees. It has become a question of some importance to many, what shall we do with the fruit? A great many are answering this question by hauling off wagon loads to the still, though in these times it pays better to throw them to the hogs.

"Still the question remains unanswered, and for this season it is almost too late to answer it at all. We mention, however, uses for superabundant fruit, not forgetting that much of it may be given away.

"1. Fruit in this time, when corn is so scarce, will be found very useful for fattening your hogs.

"2. Hunt up in our last volume an article entitled, 'A Fruit-drying Furnace,' and follow its directions.

"3. And this is our important head. We advise the establishment of many 'fruit canning companies.' This business requires but a small capital to begin with, the principal utensils required being tables, boilers, soldering tools, labels, &c.

"The cans cost about eight cents apiece, and when filled with fruit bring in the winter fifty cents each. They can be sent North and sold at a large profit.

"A company, well organized, might export hundreds of thousands of cans to Northern cities. We fear that all this will be considered visionary, but the future will prove."

GARDENING FOR WOMEN.

THERE is nothing better for wives and daughters, physically, than to have the care of a garden—a flower pot, if nothing more. What is pleasanter than to spend a portion of every passing day in working among plants and watching the growth of shrubs, and trees, and plants, and to observe the opening of flowers from week to week as the season advances? Then how much it adds to the enjoyment to know that your own hands have planted and tilled them, and have pruned and trained them. This is a pleasure that requires neither great riches nor profound knowledge. The humble cottages of the laboring poor, not less than their grounds, may be adorned with pet plants, which in due time become radiant with beauty, thus ministering to the love of the beautiful in nature.

The wife or daughter that loves home, and would seek ever to make it the best place for husband and brother, is willing to forego some gossiping morning calls for the sake of having leisure for the cultivation of plants, shrubs, and flowers, as is the husband at his place of business. They are both utilitarians, the one it may be in the abstract, and the other in the concrete, each as essential to the enjoyment of the other, as are the real and ideal in human life. The lowest utilitarianism would labor only for the meat that perisheth. Those of higher and more noble views, would labor with no less assiduity for the substantial things of life, but would in addition seek also with diligence those things which elevate and refine the mind and exalt the soul.—*Southern Ruralist*.

GRAPES ALONG THE LAKE SHORE.—A correspondent of *The Ohio Farmer* writes that paper that the grape prospects all along the Lake shore region continue very good, though considerable damage was done to the vines around Sandusky by the storms last month. The dry, warm weather for some time past has been favorable to the growth of the vines and fruit. It is added that the prospects for peaches and apples in Lake and Ashtabula Counties are quite fair.

Advertisement.

DEAFNESS CATARRH, SCROFULA.

A LADY who had suffered for years from Deafness, Catarrh and Scrofula, was cured by a simple remedy. Her sympathy and gratitude prompts her to send the receipt free of charge to any one similarly afflicted. Address Mrs. M. C. L., care Maj. Martin Hunt, Hoboken, N. J. aug-17

Ladies' Department.

SPECIAL PREMIUM FOR THE LADIES.

We have made arrangements to offer the following Dress Goods as Premiums to our lady friends in raising Clubs for THE FARMER. The goods are of the best quality, and will be carefully packed and delivered to Express Companies for delivery according to order. Any color will be sent that our friends may desire. Subscriptions will be at our regular Club rates, **75 cts** each. Subscriptions can commence with our next issue for one year, or back numbers will be supplied from January, and continue to December, as preferred.

	Yards.	Value.	No. Sub.
Cocheco Calico.....	12	\$ 1.90	8
Muslin Delaine.....	12	2.64	10
Mohair Travelling.....	12	4.50	12
" ".....	12	6.00	16
" ".....	12	9.00	20
Black Alpaca.....	10	7.50	18
" ".....	10	10.00	24
" ".....	10	12.50	28
Colored Alpaca.....	10	12.50	28
French Poplin.....	10	15.00	34
" ".....	10	17.50	38
" ".....	20	20.00	40
Black Silk.....		25.00	50
" ".....		30.00	60
" ".....		40.00	75
" ".....		50.00	90

We hope all our lady friends will go to work energetically, and secure some of the above prizes. Who will be the first to respond?

HOUSEHOLD CARES--No. 17.

Last evening as grandmama was rinsing out a few of her muslins, (a sacred duty which she will allow no one else to perform for her,) the lamp chimney suddenly cracked, shivered and fell on the table.

"Bless me!" said the old lady, "if there 'aint another of those chimneys gone in an extraordinary way; here it has been lighted good an hour, there is no draught of cold air, and it beats me, if I know a reason. Some folks would take it for a warning, I reckon."

"Oh! no, grandma," I said, coming to the rescue. "You see it is simply this: The light is turned so high, that the chimney is very much heated, and then while shaking out one of your muslins a little moisture may have alighted on the lamp, and the sudden chill caused the glass to contract too quickly and consequently it broke, or you may have flirted a little cold water while wringing."

"Well, child, I shouldn't wonder if you were right, and I am very glad to have it explained, for I do hate to have things happen in such unaccountable ways."

I was thinking afterwards that half or all of the superstitious knocks, and cracks, and beats, which are so often heard might be as easily accounted for as the breaking of grandmama's lamp chimney.

Every second or third morning I put on my sun-bonnet, take the scissors, and a basket, for my pickling expedition. I clip a small tomato here, a bunch

of radish pods there, and all the small cucumbers of proper size, to be found, nasturtium buds, &c., &c. It is my way to put them in salt water for a few days, and then to pickle in vinegar for winter use; but many place in salt brine and freshen as wanted. It takes but a small quantity of vinegar to do up a large quantity of pickles, and to have them ready for use is an object. Many persons do not know that cloves are fatal to the good and fair appearance of green pickles; or knowing it, do not stop to think, and carelessly put them in. Mace, (a small quantity,) adds much to the flavor of pickles; a bunch of green grapes and a few sticks of horse radish will help to make the pickles keep well. Mustard seed, unground, whole ginger, allspice, mace, and red or green peppers are favorite spices for sour and green pickles. Cinnamon, cloves, and all aromatic spices should be reserved for peaches, plums, and sweet pickles of all kinds.

Every housekeeper who can do so, should put up as many plums as possible. The juice of plums is highly prized in some countries as a preventive of fever, and also as an excellent remedial agent in case of actual fever. I am very much inclined to believe that there is a good deal of foundation for the idea; but at any rate, properly made, there is no preserve that is so healthy or so well relished by the generality of tastes.

Did any of your readers try the recipe given by your correspondent last summer for skinning peaches with wood ashes lye? I did, and was charmed with it—no stained up fingers or knives, no large tins full of peels to be thrown away, and besides the appearance of the peaches themselves was much better. The method, as given, was this, but I used my own discretion in regard to the length of boiling and the quantity of ashes used:—"Take two quarts of clean fresh wood ashes to a gallon of water, and bring to a boil; then throw in a dozen or more peaches, and as soon as the water boils up again, which will be in a minute or two, take out and throw into clear water; skin with the thumb and finger, and throw into another pail of water ready for the final doing up. A neighbor of mine says she tried it, and could do nothing with it. Why this was so, I am at a loss to account; but after all, one person will fail where another succeeds in an experiment, generally from inattention to the details of a method. I am always careful in trying any new way, to adhere strictly to the recipe, diverging and altering afterward if desirable.

The doctor said to me the other day, "Why don't you tell the readers of THE FARMER, how to make good bread?" Another said: "Yes, give us good wholesome light bread, sweet fresh butter, with a clean table cloth and crockery, and that is enough for anybody's tea," and so it is, especially if you have a plate of honey or a little chipped beef for a relish.

But this business of bread making is pretty well understood by old and experienced housekeepers, and I would recommend all young beginners and persons who do not succeed in making good bread, to go to

some old housekeeper and see just how she makes her yeast, and how she mixes and bakes her bread, not depending on recipes on the subject, as experience and observation are worth all the rules ever written.

AUNT ROSA.

DOMESTIC RECIPES.

PREPARED EXPRESSLY FOR THE AMERICAN FARMER BY MRS. H. B. B. AURORA, N. Y.

Tapioca Pudding.—Put 1 teacup of tapioca to 1 quart of water, one hour, in a shallow dish. Then sweeten to taste and flavor with lemon. Have ready 6 large sour apples pared and quartered, to be placed over the top of the dish, with the round sides up; sprinkle a little salt over them; bake until the apples are done. Eat with cream when cold.

Sweet Tincture of Rhubarb.—1 oz. rhubarb, 1 oz. unise seeds, $\frac{1}{2}$ stick licorice, 1 oz. loaf sugar, $\frac{1}{2}$ pint rum or gin. Steep two days.

Mock Lemon Pie.—Take 12 tablespoonsful of sifted stewed sour apples, 8 of sugar, 4 of butter, 4 eggs, 1 pint milk; flavor with lemon. This will make two pies. No upper crust.

Suet Pudding.—1 teacup suet, 1 of molasses, 1 of milk, 1 of raisins, 3 of flour, 2 eggs, 1 teaspoonful of soda. Salt and spice to taste. Boil 3 hours.

Good Doughnuts.—3 eggs, 1 cup sugar, 1 cup cream, 1 teaspoonful soda. Salt and nutmeg.

Ginger Bread.—In 1 cnp molasses put 1 teaspoonful soda, and stir until white, add 1 cup cream, 1 egg, $\frac{1}{2}$ nutmeg. Make as stiff as drop cookies.

Mince Pies.—4 lbs. meat, 6 of apples, 1 of suet, 1 of butter, 2 of sugar, 1 quart molasses, $\frac{1}{4}$ lb. mace, $\frac{1}{4}$ lb. cloves, 1 oz. cinnamon, 2 nutmegs, cider.

Molasses Cookies.—1 mug molasses, 8 tablespoonsful warm water, with 3 tablespoonsful soda dissolved in it, 10 tablespoonsful butter and lard, 1 tablespoonful ginger, 1 teaspoonful alum.

Bread Pudding.—1 pint bread crumbs, 1 quart milk, 1 cup sugar, yolks of 4 eggs, butter size of an egg, salt and nutmeg. When done, spread jelly over it, and beat the whites to a froth, and stir in 3 tablespoonsful of sugar, and spread over the jelly. Put it in the oven to brown over.

Pop-overs.—1 egg, piece of butter size of a walnut, a little salt, 1 cup milk, 1 of flour. Bake in small tins. Eat with sauce.

Elderberry Wine.—To 5 quarts water put 2 quarts of berries, put into a stone jar, and cover with a cloth until the berries rise on the top. Then squeeze them through a cloth, put water and sugar together, and add 1 pound sugar to 1 quart juice.

New Year's Cake.—1 $\frac{1}{2}$ lb. sugar, 1 lb. butter, $\frac{1}{2}$ pint milk, 1 tablespoonful soda, caraway seeds, 3 $\frac{1}{2}$ lbs. flour; roll thin.

Cure for Chapped Hands.—2 oz. almond oil, 1 oz. white bees wax, 1 oz. spermacetti, 1 oz. camphor gum. Put them in a tin cup, and let them melt slowly together. Wet the hands before rubbing on the ointment.

Soda Cake.—1 egg, 1 cup sugar, 2 tablespoonsful of butter, 3 cups flour, 1 cup sweet milk, 1 teaspoonful of

soda, 2 do. cream tartar. Put two cups flour in *before* adding the milk. Soda and cream tartar to be put in the milk together.

Indian Cake.—Scald 1 cup Indian meal with 1 pint of milk, 2 egg, 1 tablespoonful of sugar, butter size of a walnut, $\frac{1}{2}$ teaspoonful of soda. Bake half an hour.

CONTRIBUTED TO THE AMERICAN FARMER, BY MRS. D. C. A., PINE ISLAND, MINN.

Snow Cookies.—1 cup of white sugar, whites of 3 eggs, $\frac{1}{2}$ cup of butter; beat the eggs and sugar ten minutes, then add the butter, beat all together 15 minutes, flavor with peppermint, add just enough flour to work well, roll out, and cut with any fancy cake cutter.

French Cream.—1 teacup of sweet cream, 1 pint of new milk, 1 teacup of white sugar, 2 drops extract of lemon, the yolks of 8 eggs; beat the eggs and sugar together, add the cream and milk, place on the fire and stir constantly, till of the consistency of cream.

Floating Island.—Made as the above, with the addition of the whites of 8 eggs, beat till the froth can be cut with a knife, then heap it on the cream.

Sugar Cakes.—1 cup of butter, 1 cup of sugar, 1 egg, flavor with nutmeg, wet soft as you can roll, and bake quick.

Yeast Cakes.—A single handful of hops, 6 medium-sized potatoes, 3 pints of water, boil one-third away, mash the potatoes, add 1 cup of flour, strain the hop water on the flour scalding hot; when cool add $\frac{1}{2}$ cup of good yeast, 1 teaspoonful each, of sugar and ginger; the following day add Indian meal, make into a loaf, cut into slices half an inch thick, dry on plates in a cool place, turning frequently.

Blackberry Sweet Pickles.—9 lbs. of blackberries, 3 lbs. of sugar, 1 quart of good vinegar, 2 oz. of cloves, 1 oz. of allspice; scald all together; the following day pour off the vinegar, scald and pour back; do this three days in succession.

Cream Pie.— $\frac{1}{2}$ of a cup of thin sweet cream, $\frac{1}{4}$ cup of vinegar, $\frac{1}{2}$ of a cup of sugar, 1 egg well beaten, season with a little salt, and 1 teaspoonful of ground allspice; bake with two rich crusts.

Pork Pudding.—1 coffee cup full of finely chopped salt pork, 2 cups of water, add enough flour to mold it, roll thin, cut it so as to make two rolls, steam 1 $\frac{1}{2}$ hours, eat with sauce same as for apple dumplings. If you wish, spread with fruit before rolling up.

English Beef Pudding.—1 lb. of suet chopped fine, 1 lb. and 1 cup of flour, pour a little more than 1 cup of boiling water on the suet, stir in the flour, and roll out, cut beef in pieces one inch square, put a pint bowl heating full in the crust, tie it in a cloth, fill a 12-quart kettle with water, in which place the pudding and boil six hours, place the pudding on a platter, and pour over it the gravy in which it was boiled.

Cheap Sponge Cake.—1 cup of sugar, 1 cup of sweet milk, 1 egg, 2 $\frac{1}{2}$ tumblers of flour, 3 tablespoonsful of butter, $\frac{1}{2}$ teaspoonful of salt, 1 teaspoonful of cream of tartar, $\frac{1}{2}$ teaspoonful of soda.

Tobacco Ointment.—Steep a small paper of fine cut tobacco in half a cupful of pure lard; strain and bottle.

Editor's Table.

TO THE PATRONS OF THE AMERICAN FARMER.

WITH the present number my labors as Proprietor and Publisher of THE AMERICAN FARMER will cease, and I beg to return my sincere thanks to the agents, subscribers, and advertising patrons of the paper, for the liberal manner in which they have contributed to make it one of the best agricultural papers in the country, and for the generous support which they have at all times given me.

It is with pleasure that I introduce to the readers of THE AMERICAN FARMER, Mr. JOHN R. GARRETSEE, whom I have had the pleasure of knowing for some years, and who, having purchased my interest in it, will hereafter have entire control of its pages.

Mr. G. is a native of this State, and for thirty years a resident of this county. He is a practical, working farmer, familiar with the pen as an agricultural writer, having for several years filled the position of agricultural editor on one of our leading daily and weekly papers. I have no hesitation in saying, that under his able management you may look for a very instructive and interesting journal, and I would solicit for him a continuation of the patronage which has so liberally been shown to me in the past.

JOHN TURNER.

TO THE READERS OF THE AMERICAN FARMER.

THE above announcement of Mr. TURNER apprizes you that his connection with THE AMERICAN FARMER ceases with the present number. Hoping that a change in proprietorship will in no way retard its future prosperity, nor injure its usefulness, I earnestly desire that your interest in your favorite paper may never be less than at present; that you will not be slow to form an acquaintance with its new Editor and Publisher, and offer any suggestions you please in regard to its course henceforth.

In the next number I expect to make my Editorial bow, and formally introduce myself as the future "we" of THE FARMER.

JOHN R. GARRETSEE.

TO ADVERTISERS.

FROM Fifteen to Twenty Thousand of the September number of THE AMERICAN FARMER, over and above the regular edition for that month, will be issued for distribution at the New York State Fair, to be held in Rochester, commencing the 28th. These numbers

will be put into the hands of farmers from all sections of the country, and of agents, as samples by which to procure subscribers, and will be seen by at least 100,000 people. This will afford the best advertising medium known for all who have implements, books, nursery stock, seeds, &c., which they wish to bring to the notice of people *who buy such things*. It will also be the cheapest medium in the country, the price charged being *less than one-quarter as much* as some other agricultural journals whose circulation on that occasion will not be nearly as large, and which are crowded with advertisements. Advertisers who wish to avail themselves of this splendid opportunity to make their goods known, should forward their copy at once, as the space for advertisements will be limited.

The State Fair.

WE wish to say to our readers that the coming Fair of the New York State Agricultural Society, from present indications, promises to be one of the best, if not the best Fair ever held in the State.

Those who have visited the extensive and beautiful grounds of the Monroe County Agricultural Society, need no information in regard to their convenience or capacity. The committee who have in charge their preparation for the State Fair of the present year, are not satisfied with the present substantial and commodious buildings, but are erecting more, not of the shanty style, as were seen at Buffalo last year, but good substantial ones. They have already two buildings erected for machinery, 24 by 150 feet, in addition to the large one previously erected. Two hundred new cattle stalls have been put up, and power provided to drive any machinery that may need to be shown in motion. Ample provision has been made for all machinery needing protection from storms, and every thing will be done that the experience and foresight of the contractors may suggest for the convenience and comfort of exhibitors and the public generally. We hope to see our agricultural friends from every section of the State in attendance. We promise them a cordial welcome to Rochester, and good treatment while here, and hope they will not forget to call upon us at the office of THE AMERICAN FARMER, either on the Fair Ground, or at No. 62 Buffalo street.

O. J. WEEKS, of West Webster, has presented us with some fine Kittatiny blackberries, and also samples of the cane with clusters of the berries hanging on. We have often called attention to the excellence of this berry, and are pleased to find that its reputation is still gaining very fast, as the best of all blackberries. Mr. W. says it is more hardy than the other varieties. His Lawtons, on the same ground the past winter, were all killed back, while the Kittatiny was uninjured. For quality, productiveness, and hardiness, it is the best variety, and will soon take the place of all old sorts.

THE MARKETS.

OFFICE OF AMERICAN FARMER,
ROCHESTER, N. Y., Aug. 20, 1868. }

The harvest in this vicinity has been all secured in beautiful order, and the threshing machines are now busily at work getting out the grain. The straw is bright and very heavy, but we hear complaints on all hands that the berry is more or less shrunken, enough to make the yield four or five bushels per acre less than was promised the first of July, and less than was supposed even at harvest time. This is due to the exceeding dry weather which has prevailed for the last two months. Our millers are now paying \$2.50 and \$2.60 for prime white wheat, and \$2.15 to \$2.25 for red. This, of course, is for winter wheat as no spring wheat is grown in this section. As to the prospect for prices, with a few facts at their command our readers can judge as well as we. Although the papers, as usual, were filled with glowing accounts a few weeks since, of immense wheat crops, we hear complaints now from various sections of the country similar to what we have said of the wheat in this vicinity. Our Milwaukee advices as late as the 15th inst., say that the stock of old wheat is so reduced and the arrivals of new yet so meager, that transactions could with difficulty be made, even were there a disposition to engage in trade. As threshing progresses, the fact of a crop somewhat injured by heat, causing a shriveled, shrunken berry is palpable, showing the quality of the present crop to be considerably lower than that of last year, a large proportion being of inferior grades.

Mr. Dodge, of the Agricultural Department at Washington, says:

"I have shown that there is (this year) a larger acreage of wheat than ever before. Who doubts it? Are we retrograding in population? Do we eat less flour *per capita*? Are not the very negroes learning to eat it? Even its consumption by the poor of New York city was not reduced when it cost \$15 to \$20 per barrel—at least the net receipts, after deducting shipments, were not materially lessened. I have reported the damage by rust, by falling, by the midge, and by the shrinking of the grain by heat, and after all there is far less complaint than usual, and yet I say only that we may have many thousands of bushels more than ever before—I do not say *one million* more. We ought to have *forty-five millions* more than ever before, to equal *per capita* the crop of 1859, which was less than six bushels per head, according to the census. It should be remembered that we have not had a full crop, both in acreage and yield, until last year, for eight years."

Barley, which also appeared very fine in the field on account of the drouth, threshes light. The berry, though shrunken, is very bright, as there was not a drop of rain during the barley harvest. Buyers are offering to contract at \$1.50, to be delivered within a week. Our Milwaukee circular says it is very scarce and much wanted at \$1.70 and \$1.75.

Oats are quoted here at 75 and 80 cents.

The prospect for potatoes is brightening. There was a good breadth of land planted, and the weather favored clean tillage, consequently the vines look finely, though the drouth has very much shortened the earlier varieties. A moderate rain a week ago wet down to the roots, and while we write, light showers are falling, which will bring on the later varieties, and give us, we trust, a good crop.

Wool has been very steady at present rates, 35 and 36 cents.

STATE ITEMS.

New York.—*The Massachusetts Ploughman* announces the arrival of two choice herds of Brittany cattle at New York. They number fourteen head; two calves having been dropped on the passage, and are fine specimens of the breed.

The New York State Grape Growers' annual meeting takes place at Canandaigua, October 7, 8.

Goldwin Smith, late Professor at Oxford (England) University, has accepted the position of Professor of English and General Constitutional History; also, James Law, of Belfast, as Professor of Veterinary Medicine and Surgery, at Cornell University.

Pennsylvania.—The city of Philadelphia consumed last year 80,000 beeves, 175,000 hogs, and 368,000 sheep.

The Prairie Farmer gives an interesting account of the farm of C. Sharpless, near Philadelphia. On thirty acres thirty head of horses and cattle are pastured, with an abundance of food for even more than that number.

Illinois.—During the six months ending June 30, there were received at the Union stock yards at Chicago, 158,638 beef cattle and 625,551 hogs. The receipts of cattle were almost exactly the same as in the corresponding time last year, the increase being only 790.

Ohio.—The Ohio State Board of Agriculture offer live stock premiums for 1868, amounting in the aggregate to \$6,503. In 1851 only 1,998 was offered in this department.

Returns from forty-five counties in Ohio give 3,662,399 sheep, an increase of 7,343 over the number of 1867.

The annual meeting of the Grape Growers' Association will be held at Cleveland, August 25, 26.

Tennessee.—New wheat grown in Davidson County was sold in Nashville at \$1.75 to \$1.95 per bushel.

The wheat crop in this State this year will be worth more than the cotton crop of 1867.

Michigan.—*The Lansing (Mich.) Republican* says: About 15,000 pounds of wool have been bought in that market at an average of thirty-five cents. At Iona, Michigan, it is said one purchaser has bought 60,000 pounds.

Wisconsin.—*The Prairie Farmer* states that the hop crop in Wisconsin is highly promising. No apsis has yet appeared.

ALL accounts for advertisements and subscriptions, up to and including this number, are to be paid to the undersigned. JOHN TURNER.

GAS LIME AS MANURE.—A late number of *The American Gas Light Journal* contained a report of a meeting of one of the agricultural societies of England, at which the subject for discussion was the benefits to be derived from the use of gas lime. From the report, as given in that journal, the conclusions appear to be fairly established:

1. A dressing of from three to four tons of gas lime per acre, if applied in the winter, or before the spring rains, proves a powerful stimulant to grass, increasing the crop of hay for that season and the next, and it imparts great vigor to the grass on old pastures, and the cattle show no signs of dislike on account of the gas lime.

2. If gas lime be applied at the rate of eight tons per acre, it will destroy all vegetation for three years.

3. A piece of ground thoroughly infested with weeds that are hard to be extirpated, may, in certain cases where the cost of hauling is not too great, be more economically cleansed by a heavy coating of gas lime than by any other method.

Gas lime may be obtained at the gas factories free, or for the cost of packing if it is to be shipped. It soon loses most of its caustic properties on exposure to the air. By sufficient exposure to the air, and composting, it is undoubtedly useful as a manure, and may be useful sometimes in subduing foul land, as suggested.

FAIRS FOR 1868.

State.

Canada	Hamilton	Sept. 21-25
Colorado	Denver	Sept. 29-02
Illinois	Quincy	Sept. 21-25
Indiana	Indianapolis	Sept. 28-Oct. 3
Iowa	Des Moines	Sept. 22-24
Kansas	Leavenworth	Sept. 29-Oct. 2
Kentucky	Louisville	Sept. 15-20
Maine	Portland	Sept. 22-02
Michigan	Detroit	Sept. 15-18
Minnesota	Minneapolis	Sept. 29-02
New England Fair	New Haven	Sept. 1-4
New Hampshire	Manchester	Sept. 15-17
New Jersey	Waverly	Sept. 29-02
New York	Rochester	Sept. 29-02
Ohio	Toledo	Sept. 21-25
Pennsylvania	Harrisburg	Sept. 29-Oct. 1
Quebec	Montreal	Sept. 14, 18
Tennessee	Clarksville	Sept. 29-02
Wisconsin	Madison	Sept. 29-02
Vermont	Burlington	Sept. 8-11

County.

CONNECTICUT.

Hartford	Hartford	
Middlesex	Middletown	Oct. 6, 9
New London	Norwich	

ILLINOIS.

Bureau	Princeton	Sept. 15-17
Coles	Charleston	Sept. 9-12
Cass	Virginia	Sept. 1-3
Douglass	Tuscola	Oct. 6-9
De Witt	Clinton	Sept. 22-25
DuPage	Wheaton	Sept. 15-17
De Kalb	Mt. Carroll	Sept. 29-Oct. 2
Greene	Carrollton	Sept. 29-Oct. 2
Grundy	Morris	Sept. 15-18
Henry	Cambridge	Sept. 11-4
Henderson	Briggsville	Sept. 30-Oct. 2
Jo. Davies	Galena	Sept. 29-Oct. 2
Kane	Geneva	Sept. 30-Oct. 3
Kankakee	Kankakee	Sept. 29-Oct. 2
Knox	Knoxville	Sept. 29-Oct. 2
La Salle	Ottawa	Sept. 22-25
Logan	Atlanta	Sept. 15-18
Macon	Decatur	Sept. 14-17
Macoupin	Carlinville	Oct. 18-16
Marion	Salem	Oct. 6-9
Mercer	Millersburg	Oct. 6-8
McLean	Bloomington	Sept. 8, 11
Morgan	Jacksonville	Oct. 9-3
Ogle	Oregon	Oct. 7-9
Peoria	Peoria	Oct. 6-9
Rock Island	Rock Island	Sept. 14-19
St. Clair	Belleville	Sept. 8, 11
Stephenson	Freeport	Oct. 6-9
Tazewell		Sept. 29-Oct. 2
Union	Jonesboro.	Sept. 16-18
Washington	Nashville	Sept. 9
Woodford	Versailles	Sept. 15

INDIANA.

Hendricks	Newport	Sept. 1-4
Vermillion	Newport	Sept. 1-4

IOWA.

Bremer	Waverly	Oct. 6-8
Crawford	Dennison	Oct. 8-9
Cedar	Tipton	Sept. 2-5
Des Moines	Burlington	Oct. 6-9
Floyd	Charles City	Sept. 15-17
Henry	Mt. Pleasant	Sept. 23-25
Scott	Davenport	Sept. 7-11
Tama	Tama	Sept. 30-Oct. 2
Wapello	Ottuma	Oct. 13, 14

KENTUCKY.

Bourbon	Paris	Sept. 1-4
Harrison	Cynthiana	Sept. 8-11
Henderson	Henderson	Oct. 6-10
North Kentucky	Florence	Aug. 26-29
Scott	Georgetown	Sept. 15-18
Washington	Springfield	Sept. 29-Oct. 2
Woodford	Versailles	August 18

MASSACHUSETTS.

Barnstable	Barnstable	October 6, 7
Bristol	Taunton	October 6, 7
Bristol Center	Myrick's	Sept. 17, 18
Berkshire	Pittsfield	October 6, 8
Essex	Newburyport	Sept. 29, 30
Franklin	Greenfield	Sept. 24, 25

Housatonic	Great Barrington	Sept. 20, Oct. 2
Hampshire, Franklin and Hampden	Northampton	Oct. 1, 2
Hampshire	Amherst	Sept. 29, 30
Hampden	Springfield	Oct. 6, 7
Hampden East	Palmer	Oct. 18, 14
Highland	Middlefield	Sept. 10, 11
Huoesac Valley	North Adams	Sept. 22, 23
Marshfield	Marshfield	October 1, 2
Middlefield	Middlefield	Sept. 10, 11
Middlesex	Concord	Oct. 1, 3
Middlesex North	Lowell	Sept. 23, 24
Middlesex South	Framingham	Sept. 22, 23
Martha's Vineyard	West Tisbury	Oct. 20, 21
Nantucket	Nantucket	Sept. 30, Oct. 1
Norfolk	Dehnam	Sept. 17, 18
Plymouth	Brgewater	Sept. 24, 26
Union	Blandford	Sept. 16, 17
Worcester	Worcester	Sept. 11, 15
Worcester West	Barre	Sept. 21, 25
Worcester North	Fitchburg	Sept. 29, 30
Worcester South	Sturbridge	Oct. 1
Worcester Southeast	Milford	Sept. 29, 30
Worcester Northwest	Athol	Sept. 15
Worcester Horticultural	Worcester	Sept. 15, 18

MICHIGAN.

Ionis	Ionis	Oct. 7-9
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MISSOURI.

Andrain	Mexico	Oct. 12-16
Boone	Columbia	Oct. 29
Carroll	Carrollton	Sept. 30-08
Clinton		Sept. 8-10
La Fayette	Lexington	Oct. 20-25
Montgomery		Sept. 29-08
Northeast	Paris	Sept. 7-10
Platte	Platte	Sept. 29, 0 3
Randolph	Huntsville	Sept. 15-19
Union	Newark	Sept. 14, 19

NEBRASKA.

Nemaha	Brownville	Sept. 22-25
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NEW HAMPSHIRE.

Connecticut River	Keene	Sept. 17-19
Piscataqua	Portsmouth	Sept. 3, 10
Rockingham	Dover	Sept. 23, 25
Stafford		Sept. 23, 25
Merrimaek	Concord	Sept. 29, Oct. 1
Contoocok Valley	Hillsboro Bridge	
Mech. and Art Association	Concord	Oct. 6, 20

NEW YORK.

Cayuga	Auburn	Sept. 15-17
Chemung	Elmira	October 7-9
Cortland		Sept. 15-17
Columbia	Chatham Four Corners	Sept. 15-18
Duchess	Washington Hollow	Sept. 22-25
Livingston	Geneseo	Sept. 23-24
Oneida	Rome	Sept. 21-25
Otsego	Cooperstown	Sept. 29-02
Queens	Mincola	Sept. 22-24
Saratoga	Saratoga	Sept. 8-11
Washington	Salem	October 7-9
Westchester	White Plains	Sept. 22, 25

OHIO.

Allen	Lima	Sept. 16, 19
Ashland	Ashland	Sept. 30, Oct. 2
Ashtabula	Jefferson	Sept. 15, 17
Belmont	St. Clairville	Sept. 23-25
Belmont (Town.)	Belmont Co.	Sept. 15, 17
Brookfield	Brookfield	Sept. 9, 11
Butler	Urbana	Oct. 6, 9
Champaign	Urbana	Sept. 29, Oct. 2
Clarke	Springfield	Sept. 6-11
Clermont	Boston	Sept. 15-18
Columbiana	New Lisbon	Sept. 22-25
Cuyahoga	Cleveland	Sept. 8-11
Cushtocon	Coshocton	Oct. 7, 9
Delaware	Delaware	Oct. 6, 9
Erie	Sandusky	Sept. 30, Oct. 3
Fayette	Washington	Sept. 1
Franklin	Columbus	Sept. 15-18
Gallia	Gallipolis	Sept. 16-18
Garrettsville	Garrettsville	Sept. 29, Oct. 1
Geauga	Burton	Sept. 16-18
Hancock	Findlay	Oct. 1-3
Harrison	Cadiz	
Haysville	Ashland County	Oct. 6, 9
Huron	Norwalk	Sept. 21-18
Jackson	Jackson	Oct. 1-2
Jamesstown	Greene County	Aug. 25-28
Lake	Fainesville	Sept. 30-Oct. 2
Logan	Bellefontaine	October 6-9
Lorain	Elyria	Sept. 15-18
Madison	Franklin Co.	Sept. 30-Oct. 2

Mahoning.....	Canfield.....	Oct. 6-8
Medina.....	Medina.....	Oct. 6-8
Meigs.....	Rock Springs.....	Oct. 1-9
Mercer.....	Celina.....	Oct. 7-9
Miami.....	Troy.....	Sept. 28-28
Morrow.....	Mt. Gilead.....	Sept. 15-18
Orwell (Town).....	Ashtabula County.....	Sept. 29-Oct. 1
Ottawa.....	Oak Harbor.....	Oct. 7-9
Pickaway.....	Wayne Co.....	Oct. 14-16
Portage.....	Circleville.....	Sept. 9-11
Richfield.....	Ravenna.....	Sept. 15-17
Sandusky.....	Sandusky.....	Sept. 16-18
Seneca.....	Fremont.....	Sept. 17-19
Shelby.....	Tiffin.....	Sept. 29-Oct. 2
Summit.....	Sidney.....	Sept. 1-3
Stark.....	Akron.....	Sept. 29-Oct. 2
Thompson.....	Canton.....	Oct. 7-9
Tuscarawas.....	Geauga County.....	Oct. 1-2
Twinsburg.....	New Philadelphia.....	Sept. 16-18
Union (Greene Co.).....	Summit County.....	Sept. 1-3
Wayne.....	Marysville.....	Sept. 30-Oct. 2
Wellington.....	Lebanon.....	Sept. 15-18
	Wooster.....	Sept. 30-Oct. 2
	Lorain County.....	Oct. 7-9

PENNSYLVANIA.

Alleghany.....	Pittsburg.....	Oct. 6-9
Butler.....	Butler.....	Sept. 28, 29
Bucks.....	Newtown.....	Sept. 22-24
Chester.....	West Chester.....	Sept. 24-26
Columbia.....	Burgettstown.....	Oct. 6-9
Union Agricultural Society.....	York.....	Oct. 2-4
York.....		Oct. 6-9

RHODE ISLAND.

Woonsocket.....	Woonsocket.....	
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TENNESSEE.

Giles.....	Pulaski.....	October 5
Mauzy.....	Columbia.....	Sept. 29
Montgomery.....	Clarksville.....	October 5
Robertson.....	Springfield.....	Oct. 18-18

VERMONT.

Bennington.....	Bennington.....	Sept. 8, 4
Merksire.....	Richford.....	Sept. 9, 10
Franklin.....	Richford.....	Sept. 9, 10
Lamoille.....	Morrisville.....	Sept. 15-17
Orleans.....	Barton.....	Sept. 16, 16

WISCONSIN.

Crawford.....	Denison.....	Oct. 8, 9
Fond du Lac.....	Fond du Lac.....	Oct. 6, 8
Green Lake.....		
La Fayette.....	Darlington.....	Oct. 6, 8
Otagamie.....	Grand Chute.....	
Ripon.....	Ripon.....	Sept. 28-25
Rock.....	Janesville.....	Sept. 15-17
Walworth.....	Elkhorn.....	Oct. 6-8

THE WEATHER AND CROPS.

From Ohio.

Wheat throughout this part of the country looks better and promises a larger yield than for many years. Poor or spotted fields are rarely seen. It stands very even, and the heads are long and well filled. Corn looks rather poor. Most of the corn that was planted upon green sward was badly cut by the worms and had to be twice and thrice re-planted, which makes it look very poor. Oats look well, and will yield abundantly. Rye is but little sown in this part of the country, but what there is looks well. Our orchards are loaded with apples, and never within remembrance have I seen apple trees with such quantities of apples upon them. Peaches are almost a total failure; none at all, except in some sheltered localities where the trees were protected during winter from the north and west winds. Of small fruits, there are plenty of grapes and currants, but scarcely any cherries.—*W. D. D., Spencer, O., July 4, 1868.*

From Pennsylvania.

The hay crop is large, and put away in excellent

order. Wheat is about harvested, and is an average crop, being hurt to a limited extent with the weevil. Oats, which will be ripe in a few days, are a poor crop, as the straw is badly rusted, and the dry weather has caused the grain to be light. The prospect for corn is favorable, if the drouth does not continue too long.—*J. R. H., Chester Co., Pa.*

Inquiries and Answers.

MESSRS. EDs.—I have noticed in agricultural and other papers, a remedy to destroy the Tent Caterpillar by burning with paper or rags saturated with kerosene oil, &c., and this spring I destroyed a large number of nests with burning paper under them; but, a few days after I noticed the branches dying. Can you, or some of your readers give me a better remedy to destroy this pest of the orchard, and oblige,

ONE WHO WANTS TO KNOW.

DWARF MOUNTAIN CHERRY.—This novelty is described as follows by a grower in Brookfield, Mo.: "A miniature cherry tree, growing from eighteen inches to three feet high, with round globular head; as hardy as an oak tree; bearing large crops of very sweet cherries, of a dark brown or brownish purple color. Fruit size of a black-heart cherry, three, six, nine, and twelve in a cluster; ripe from August 10th to Sept. 1st. This cherry is a native of Utah Territory, and after four years' trial here, seems to succeed as well as in its native soil; adapted to dry climate and soils, yet our plants are now loaded with fruit."

AN appropriation of \$2,000 was made at the last session of the Legislature for the benefit of the heirs of Rev. Chauncey Goodrich, the producer of the Goodrich seedling potatoes.

Lake Erie Islands.

E. B. Sibley writes *The Rural New Yorker* as follows: "Grapes on the Islands are quite promising so far this season, especially the Delaware, Norton's Virginia Seedling, and Ives' Seedling. The Delaware stands at the head of the list. Many leading German and other vineyardists, say the Delaware and Norton will be the two leading wine grapes of America. The Catawba vineyards are somewhat spotted this season. Some are showing for a very full crop, and others, especially those on low grounds, are showing the effects of winter freezing, which happened in February, owing to an easterly storm of rain that froze on the vines, followed by severe weather; but this only happened on this (South Bass) Island, so far as I have learned. On the whole, should nothing befall the vineyards for the next six weeks there will be a large yield. We have had a good demand for all the wine made here last fall, at fair, indeed I may say, good prices. We are having a fine growing time. Wheat, grass, and fruit generally look well. We are visited by the seventeen-year locust in a small way. They are not, however, doing much damage; they confine themselves to the woods chiefly."

PRICES OF PRODUCE AT THE PRINCIPAL MARKETS IN THE UNITED STATES AND CANADA.—BY TELEGRAPH, &C.

	NEW YORK, Aug. 17.	ROCHESTER, Aug. 17.	CHICAGO, Aug. 17.	ST. LOUIS, Aug. 17.	TORONTO, Aug. 17.
Flour, white wheat	\$10.50 @ \$13.00	\$14.50 @ \$15.00	\$ 9.75 @ \$12.75	\$10.25 @ \$11.25	\$ 7.25 @ \$ 9.00
" red	2.50	11.00		2.25	
Wheat, white, $\frac{3}{4}$ bu.	2.50	2.50	1.85	2.40	1.50
" red, $\frac{3}{4}$ bu.	0.00	2.15		0.00	
Corn, $\frac{3}{4}$ bu.	1.18	1.20	.98	.91	
Rye, do.	1.82	1.80	1.30	1.12	0.00
Barley, do.	0.00	0.00	1.52	1.41	1.00
Oats, do.	.51 $\frac{1}{2}$	.58	.58 $\frac{1}{2}$	.48	0.00
Beans, do.	0.00	8.00	00.0	0.00	0.00
Peas, do.	0.00	0.00		0.00	.00
Butter, $\frac{3}{4}$ lb.	.30	.42	.29	.30	.00
Cheese, do.	.18	.17	.11	.15	.00
Eggs, do.	00	00	.16	.15	.00
Potatoes, $\frac{3}{4}$ bu.	0.00	0.00	0.00	0.00	.00
Chickens, $\frac{3}{4}$ lb.	.00	.09	0.00	.13 $\frac{1}{2}$	.00
Live hogs, $\frac{3}{4}$ 100 lbs.	.09	.00	0.00	0.00	.00
Wool, $\frac{3}{4}$ lb.	.35	.45	7.00	0.00	.00
Beef, $\frac{3}{4}$ lb.	.14	.20 $\frac{1}{2}$	.27	.22	.45
Hay, $\frac{3}{4}$ ton	00.00	12.00	00.00	00.00	00.00
Hops, $\frac{3}{4}$ lb.	.10	.85	.00		.00
Clover Seed.	.00	0.00	0.00		.00

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THE AMERICAN
AUTOMATIC FARM AND YARD GATE.



THE BEST GATE IN THE WORLD!

1,000 AGENTS wanted immediately to canvass this and other States for the best selling invention ever patented. For Farm Rights or territory, address,

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CONSIGN YOUR GOODS TO H. P. BALLARD & CO., the old established, strictly Produce Commission House, No. 832 Washington St., New York. Receives all kinds of Country Produce, Butter, Cheese, Lard, Tallow, Eggs, Beans, Peas, Flour, Grain, Wool, Hops, Beef, Poultry, Tobacco, and High Wines.

Our long experience in the Commission Business enables us to sell goods without delay for the highest market prices. Cash advanced on Consignments. Sales promptly made. Send for our Daily or Weekly Price Current.

PREMIUM FARM GRIST MILL.



SIMPLE, CHEAP, DURABLE, AND EFFICIENT. Will grind all kinds of grain rapidly. Is adapted to all kinds of horse power. Also, the best Fodder, Hay, and Straw Cutter for Farm use. Send for Descriptive Circular, and address,

WM. L. BOYER & BRO.,
Philadelphia, Pa.

SOAP AND CIVILIZATION GO TOGETHER.

THE most civilized people use the most soap, not because they are the most dirty, but they keep themselves the most clean. It is easy to keep clean with Soap at two cents a pound. One pound of

GEO. F. GANTZ & CO.'S PURE WHITE ROCK POTASH

makes near fifteen pounds of best Hard Soap, at about two cents a pound. Office at 136 & 138 Cedar street, New York. aug-17

PATENT

LEAD ENCASED BLOCK TIN PIPE.



Safe, strong, and durable. Recommended by the Medical Faculty, endorsed by Water Boards, Architects, Engineers and Experts; introduced into all the new public schools, hospitals, dispensaries, and most of the new first-class buildings. It gives perfect satisfaction wherever used, and prevents lead poisoning. Water flows through it as pure as drawn through silver. It combines all the advantages of lead pipe as to strength, pliancy and durability, while as a Sanitary Safeguard it is invaluable. Added to which it is cheaper and stronger than Lead Pipe. For price, give bore of pipe and head or pressure of water.

THE COLWELLS, SHAW & WILLARD MFG CO.,
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Lead Pipe, Sheet Lead, Tin Pipe, Sheet Tin, Solder, &c.
Down-town Office, 105 Beekman St., corner Pearl, New York.

Circulars sent free, aug-17

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WITH DIRECTIONS AND PRICES

FOR THE AUTUMN OF 1868.

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aug-16

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J. E. CHENEY & CO.,

MANUFACTURERS,

OR

WATER FILTERS
for Purifying Lake, Rain, and River Water.



With this Filter the most impure water is made free from all foreign matter; clear as crystal, without taste, color, or smell.

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NAPOLEON III,

THE HIGHEST FLAVORED, MOST PRODUCTIVE,
AND BEST BERRY FOR AMATEUR CULTURE.

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Superior in Size and Quality, to

DR. NICAISE,

As Hardy, more Robust, and almost as Prolific as

WILSON'S ALBANY,

And in High, Delicate Flavor, equal to

Triumph de Gand.

It is superior to all Strawberries we have yet seen in its strong, luxuriant, healthy foliage, which endures the sun without burning or injury, and the vigorous, robust habit of the plant.

"One of the most distinct fruits we know, and one of the best in many respects."—*Thos. Meahan, Ed. Gardener's Monthly.*

"Promises to be an acquisition."—*A. S. Fuller, author of, "Small Fruit Culturist."*

"In size and productiveness it far excels any kind we have. Our largest berry measured $7\frac{1}{2}$ inches in circumference, and we had a number over 6."—*J. M. Ferry, Esq., N. Y. City.*

"Superior to all others in flavor, size, and productiveness. I counted on a single stock, 142 berries that were from medium to large."—*Prof. S. B. Heigle's Sec. Pa. Fruit Growers' Society.*

"Ripened early, and continued longer than any variety we had."—*G. A. Block, N. Y. City.*

Price, (by mail, postage paid,) **\$3 Per Dozen.**

Descriptive Circular, with list of new and choice fruits, and general fruit catalogue, mailed to applicants.

EDW'D. J. EVANS & CO.,

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N. B.—We caution purchasers against spurious and inferior varieties, (prominent among them the "Austin,") which have been sent out as "Napoleon III."

A CARD.

A clergyman, while residing in South America as a missionary, discovered a safe and simple remedy for the Cure of Nervous Weakness, Early Decay, Diseases of the Urinary and Seminal Organs, and the whole train of disorders brought on by baneful and vicious habits. Great numbers have been cured by this noble remedy. Prompted by a desire to benefit the afflicted and unfortunate, I will send the recipe for preparing and using this medicine, in a sealed envelope, to any one who needs it, free of charge. Address, JOSEPH T. IMMAN, Station D, Bible House, New York City.

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TO CONSUMTIVES.

A GRATEFUL FATHER is desirous of sending by mail, free of charge to all who wish it, a copy of the prescription by which his daughter was restored to perfect health from confined consumption, after having been given up by her physicians and despaired of by her father, a well-known physician, who has now discontinued practice. Sent to any person on receipt of stamp to prepay postage. Address,

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KENNEDY'S SCROFULA OINTMENT.

CURES OLD SORES,

CURES ULCERATED SORE LEGS.

CURES SCROFULOUS SORES ON THE NECK.

CURES BLACKHEADS OR PIMPLES ON THE FACE.

CURES SCURVY SORES.

CURES CANCEROUS ULCER.

PRICE ONE DOLLAR PER BOTTLE.

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DAVISON'S THORNLESS RASPBERRY.

DAVISON'S THORNLESS BLACK CAP RASPBERRY.—Every plant warranted to grow, and give perfect satisfaction, or money refunded. Price of plants \$1.00 each; \$7.50 per dozen. For further particulars, send 10 Cents for circular.

Address,

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Gaines, Orleans County, N. Y.

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SEED WHEAT EXPERIMENTAL FARM.

Chambersburg, Pa.

I will now fill orders for the following varieties of Winter Seed

Wheat:—			
Ancona Red, imported from Russia, 1868	\$2.75	per p'k	\$10.00 per bush.
Sandonia White, imported from Poland, 1868	2.75	"	10.00 "
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Salls Red, imported from Saxony, 1868	2.75	"	10.00 "
Saxony White, imported from Saxony, 1868	2.75	"	10.00 "
Bohemian Red, imported from Bohemia, 1868	2.75	"	10.00 "
Bohemian White, imported from Bohemia, 1868	2.75	"	10.00 "
France White Chaff Mediterran, Red	2.00	"	7.50 "
German Amber	2.00	"	7.50 "
Hungarian Red	2.00	"	7.50 "
Italian Red, acclimated one year	2.00	"	7.50 "
" " " " three years	2.00	"	7.50 "
" " " " white	2.00	"	7.50 "
Red Chaff Mediterranean	1.50	"	5.00 "
White	1.50	"	5.00 "
Lancaster Red	1.50	"	5.00 "
Rochester Red	1.50	"	5.00 "
Egyptian Red	1.50	"	5.00 "
Diehl's White	1.50	"	5.00 "
Weak's White	1.75	"	6.00 "
Blue Stem	1.50	"	5.00 "
Bouton White	1.50	"	5.00 "
American White	1.50	"	5.00 "
California White	1.50	"	5.00 "
Six-Rowed Winter Barley	1.00	"	3.50 "
Surprise Oats	1.50	"	5.00 "
Swedish	1.00	"	3.50 "
New Brunswick	1.00	"	3.50 "
Black Norway	1.00	"	3.50 "

I will send, post-paid, four pounds of any of the above varieties for \$1. One head, post-paid, 10 cents, or 20 heads of different varieties, post-paid for \$1.

Send money by Money Orders or Registered Letters, or by Express, to GEO. A. DEITZ, Chambersburg, Pa., and your orders will be promptly filled.

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The Easiest

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Will produce the greatest and most perfect vacuum, without which

FRUIT WILL NOT KEEP WELL.

THIS JAR has been thoroughly tested in the market for the last four years, and has proved to be unsurpassed by anything of the kind in the market. There is no danger of breaking this Jar while applying the self-sealing cover—thus effecting a great saving over all screw and lever covered jars.

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jun-20

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THE



AMERICAN FARMER

VOLUME III.

ROCHESTER, N. Y., SEPTEMBER, 1868.

No. 9.

PUBLISHED BY**JOHN R. BARRETTSEE, 62 BUFFALO ST.****Price One Dollar a Year.****AGRICULTURAL LITERATURE.**

IN these days of newspapers and periodicals of all descriptions, every enterprise of any importance finds or establishes a journal to bring its claims before the public. Politics, religion, education, trade, law, medicine, and the arts, have their organs; and agriculture, the art that feeds, clothes and shelters the whole family of civilized man, has now an established literature in libraries and periodicals, which occupies no unimportant place in the world of letters. The days of boorish criticism upon agricultural literature, when ignorant men claiming to be good farmers sneered at "book farming," has gone by. Tilling the soil is now acknowledged to be one of the noblest, as it is the most important avocation in which a man can engage.

The journals devoted to the advancement of practical and scientific knowledge of rural affairs are among the most numerous, and their correspondents and contributors rank among the most cultivated as well as among the most scientific and practical writers.

To such a literature more than to all other influences combined, must we ascribe the advancement of agricultural knowledge, which has within the last quarter of a century so penetrated the minds of the intelligent with its grandeur and importance, and vivified the mass of the people with its enlightening influences. There is scarcely an issue of any respectable agricultural journal which does not contain something that is worth much more to the subscriber than his year's subscription. Every one of them is a store-house of facts, experiments, hints, suggestions, and records of success and failure, gathered from the farms of the wide world, and garnered for the benefit of individuals who, were it not for this vast accumulation of knowledge subject to their draft, would have nothing to draw upon but the limited experience found in their own narrow neighborhoods.

It is encouraging to know that the demand for this class of reading is constantly increasing, not only among farmers, but among mechanics, tradesmen, professional men, and even gentlemen of leisure. In these journals, theory and practice, science, and its application to the most useful and interesting of all arts are plainly, and of course, attractively presented to the minds of the million.

Although our cities are daily multiplying their attractions and enticing some—not the most enlightened and noble-minded of our farmers by any means—from their farms to a life of comparative idleness and almost utter uselessness within their walls, never was there a time when so many city denizens were sighing for country life and the farmers "broad acres." Merchants and bankers who count their wealth by hundreds of thousands, must have a farm in the country upon which they can squander a few thousands yearly, and charge to the account of "luxuries." The failures of these and other tyros to make farming profitable, causes them to look with respect upon the successful husbandman. The natural consequence is that the farmer is cheered, encouraged, and stimulated to higher aspirations and more vigorous efforts. He turns with interest to his books on farming and to his agricultural papers. He reads the opinions, practice, and experience of hardy tillers of the soil like himself; he thinks he has something equally as good, perhaps better to tell; he takes his pen, and soon sees himself in print; he is encouraged, and feels a glow and enthusiasm in his labors which lighten toil; his mind is improved, his social position elevated, and he and his family at once move in a higher sphere. He is no longer a "mud sill," a hewer of wood and a drawer of water, but one of the *litterati*—a practical agricultural writer, with an unlimited field for improvement and usefulness before him.

THE AMERICAN FARMER, under its present, and former name—*The Genesee Farmer*—is the oldest agricultural paper in the country, having for nearly forty years been the honored medium through which the farmers have had intercourse with each other. It has undoubtedly done more for agricul-

tural improvement than any other journal of the kind ever published; and yet its work, we trust, is just commenced. We feel proud of its record and of its hosts of friends, who have stood so nobly by it. No effort of ours shall be spared to make it still more worthy of their patronage, and we feel cheered and encouraged by the many assurances of continued support. Friends, we are with you.

THE HOP CROP.

WRITTEN FOR THE AMERICAN FARMER, BY F. W. COLLINS.

HAVING taken a lengthy tour of inspection through the hop districts of this State and some of the Western States, I am able to report that the prospect is favorable for a crop medium in quantity and superior in quality. I have spent two months among the hop planters, and find that the hop louse appeared on the vines very generally through the country quite early, even where they had not appeared before in most all parts of Wisconsin. Most of the planters were prepared for them, and gave the vines a sprinkling of plaster, and the vermin disappeared so suddenly that many attributed their destruction to the extreme hot weather. True, we had four weeks of the hottest weather ever experienced, yet we consider heat favorable to the increase of the plant louse; in fact, I saw in Wisconsin corn with the same *aphis* that infests the hop, while the hop field near by, that had been dusted with lime and plaster was free from them.

The extreme heat undoubtedly blighted some yards entirely, and lessened the yield generally. Some yards in low or protected places had the bur dried up before it formed, and others started out later, which makes these yards uneven in ripening. I see some young hops now not half grown, which, if frost holds off till October, will make a crop. Farmers are picking later than for some two or three years past, which they may do safely where there are no lice on them; in fact, I think the application of plaster on the vines, covering the leaves on both sides, tends to make the vine fresh and healthy, and continue its growth later by not suffering it to dry up, as the gypsum absorbs the ammonia and moisture from the atmosphere, and I think it absorbs the louse and makes food for the plant of him, or, perhaps, I should say *her*, as at that season the lice are all females, and all produce their young alive at the rate of fifteen to thirty per day in hot weather. This is one of nature's marvels. Those who lack faith, please ask Dr. Fitch, or consult "Harris on Insects injurious to Vegetation." Manifest are these works, in wisdom are they all made.

Word is coming in from far and near that the crop of hops is of very fine sample, but of light yield.

My numerous correspondents all concur in this, as well as my own observation. All agree in the importance of avoiding the destructive practice of cutting the vines at the time of picking, especially if picked before October; the vines bleed freely until late in September, and it injures the root to cut the vine before the sap has ceased to circulate.

The question of the greatest importance to the hop grower now is *price*, and that is not settled, and it cannot be until we are fully assured what the crop in Europe is, and whether there will be a foreign market for our surplus, if we have any to spare. Last year, our hop market opened so high, that it stimulated importation to a large extent.

Although we raised hops enough to supply all demands, yet speculators and dealers generally commenced offering 60c., 65c., and 70c. per lb. for fine samples, and poor qualities sold to some extent at 50c., which stimulated importations so that there may now be 100,000 to 150,000 bales in the country unsold of last year's crop. If the reported drouth in Europe has cut short their hop crop, we shall have a call for all or more than they sent us last year. We shall soon know.

BEES.

In this month let no bee keeper fail to remove the surplus honey boxes, and examine each hive for the queen. Should there be no eggs or brood discovered, it is certain they have no queen. This mark queenless. It may be united with another weak colony, or Italianized; any time in October will do. It is rather difficult to make this examination in the common box hives, (which all practical apiarians have discovered), but with the movable frame hives it is perfectly feasible. It is rarely necessary to take out more than one frame, if taken from the center of the hive. Should there be a deficiency of honey, (twenty-five or thirty pounds above the weight of the hive,) supply them with boxes to full this weight. Common coffee sugar, reduced to the thickness of honey, is a good substitute. Let it be brought to a boiling heat before feeding. Feeding should not be delayed, as I have before stated. A few shillings' worth of food will save very valuable colonies. Bee feeding is an important feature in bee culture, and should be practiced.

It is estimated that the rain fall in the Northern States is 40 inches, the Southern States 50, Minnesota, Western California and Colorado 30, Nebraska and Utah 20, Kansas and Western Arizona 15 inches. This is a general average for a series of years.

LOCUSTS are ravaging Fremont County, Iowa.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

THE CROPS AND THE WEATHER.

From general report the hay crop throughout the State of New York has been the largest we have had in many years. The wheat crop also is above the average. More acres were planted, and it has been secured in better order than usual. The barley crop is fair, but the extreme hot weather has shortened the oat crop, and the wheat in Western New York was shrunken from the same cause. It is reported that the corn crop of Western New York will be an eighth larger than last year, when the crop was very short. In part of Seneca County corn has suffered as much from drouth since the latter part of June, as it did last year after the middle of July. While timely showers have visited Cayuga County, around Waterloo, we have not had two inches of rain in the last two months (say since 15th June) by the rain gauge, with the mercury ranging week after week in July from 76° to 104° in the shade; yet early planted sweet corn on a rich, well manipulated soil was never sweeter or much better filled; but on the same soil bush beans and early sown onions have been less than half a crop, and late sown garden peas a complete failure. Potatoes have suffered much from drouth; but if we have only one soaking shower before the last days of August, late planted potatoes will be a fair crop. But the misfortune is, that those who plant late are generally slack farmers, who fail to war with the late grown weeds. A philosophical farmer of the *slack* variety said the other day, that the weeds in his potatoes were so rampant, that he had to put the scythe to them instead of the cultivator and hoe.

THE BENEFIT OF DEEP CULTURE AND MANURE IN A DRY SEASON.

A sandy soil may not need to be deeply plowed to make it absorptive or retentive of moisture, but if it is not well mixed with vegetable manure to enable it to retain moisture in dry, hot weather, it cannot stand a drouth. A clayey soil can only be made to stand a drouth by a very thorough manipulation with vegetable matter, until its adhesiveness is completely destroyed. The same strong but half manipulated soil that would bear a large crop of corn in a favorable season, when heat and moisture are well balanced, has almost entirely failed this hot, dry season; while the same soil, with the manure thoroughly mixed into it, neither cracked open nor suffered for moisture, so that a fair crop of corn was grown almost without the rotting of a leaf.

THE WHEAT CROP OF MINNESOTA.

A friend writes from St. Peter that the wheat crop

of the State has been well secured, and the average yield is not less than twenty bushels to the acre. This for spring wheat is a good yield. On the soils of the older States of Wisconsin and Illinois, the average yield last year was said to be only about eleven bushels to the acre. So much for growing wheat after wheat, year after year, without other manure than burning the straw on the field where it was grown. It is to be hoped that young Minnesota will pursue a better farm economy, as it is much easier to keep up the fertility of the soil than to restore it when exhausted below the clover bearing point.

SHOULD COLLEGE EXPERIMENTAL FARMS BE EXPECTED TO PAY.

"E. W. S.," in *The Rural New Yorker*, demurs to the dictum of Joseph Harris in *The American Agriculturist*, that "the farms connected with agricultural colleges cannot, and will not pay." As Joseph Harris was matriculated three years under the tuition of Dr. Gilbert, on the best experimental farm in England, he certainly ought to be allowed to have some experimental knowledge of the subject; and as he is now one of the faculty of the well endowed "Cornell University," and is to have charge of the agricultural department, if he was a time-serving professor he might insist on the pecuniary profit that would accrue to the experimental farm from the gratuitous labor of the students employed on it. But he evidently has more elevated views; he has seen that great benefactor of rural progress in England, J. B. Lawes, of Rothhamstead, expend his large income in making the most carefully conducted experiments in stock feeding, grain and grass growing, in the use of commercial manures, and in composting and applying the manures of the stall and the farm yard. As no expense was spared in consecutive experiments to compass the best results, Mr. Lawes' farming of course, did not pay; but the results of his well-tried experience did pay, when followed by the English farmers, and the effect has been the means of improving the economy of English farming to a very great saving of money and labor.

It is now, doubtless, the laudable ambition of Mr. Harris to make the college farm useful to the student, rather than a pecuniary profit to the college, and also to accelerate rural progress throughout the land by the results of the pains-taking, costly experiments made on the college farm. Success to the new college, and a long life to the magnificent *empresario*, whose name it bears.

IMPROVED AGRICULTURE AT THE SOUTH.

In spite of the poverty and destitution to which the agricultural South was reduced by the rebellion, a renovated industry, greater farm economy, better manuring, and the substitution of improved

labor-saving machinery for slave labor, now begins to compensate for the loss of capital; and if we may believe the planter correspondents of *The Southern Cultivator*, both planters and farmers at the South are now, at least in the young flood-tide of successful experiment under the new regime of free labor.

'Tis true that there are many old foggy planters who nurse their spleen, and will not make the most of the good they have, preferring to grumble at their own helplessness, and to sigh after the leeks and onions of slavery. But although such men can neither work nor thrive, they will soon pass away with the generation, and young men with educated hands and a more indomitable spirit will take their place.

It is refreshing at this time of trying transition from slave to free labor at the South, to see the great interest which thoughtful practical men there now take in agricultural progress. One among the *élite* of the land, Dr. E. M. Pendleton, of Sparta, Ga., has furnished tables to *The Cultivator* of carefully conducted experiments with twenty-eight different kinds of manure applied to the cotton crop. Among these, *concentrated stable manure*, estimated as costing \$20 the ton, gave the largest profit, or 5.31 per cent. on the investment. A ton of stable manure was reduced by drying more than 1,600 lbs., without the loss of anything but water; thus there was a saving in handling and hauling of four-fifths of its weight. Cotton seed as manure fermented to kill its vitality, gave a profit of only 26 per cent., while the pressed cake from such seed gave 117 per cent., proof of the loss of ammonia by fermentation, and an argument in favor of fresh stall manure, instead of the rotted manure of the farm yard. 140 lbs. of Peruvian and soluble Pacific guano gave an increase of cotton in the seed from 553 lbs. to 1,456 lbs. to the acre, at a clear profit of \$26.80 to the acre, and 492 per cent. on the cost of the manure. Home-made superphosphate gave a profit of 3.63 per cent. on its cost, and it was used at the rate of 178 lbs. to the acre of cotton. Dr. Lee, in *The Rural New Yorker*, in noticing these experiments, says from his own knowledge, as he lives at the South, "that the planters of Hancock County, Ga., are to-day in advance of all other American farmers in the profitable use of manure brought to a focus, and that it is time to collect the scattered rays of agricultural science, bring them to a point on the art of feeding all cultivated plants, as well as to all domestic animals."

WHEAT AFTER CORN.

It is a common opinion that to sow wheat directly after corn is bad farming, and so it is if done too late, and the corn had only been half manured; but the best field of white winter wheat I have seen this season, is one of Jos. Wright's, a tenacious calcareous clay loam. It was highly manured with fresh stall manure late in the fall of 1866, and the manure turned deeply under before winter set in.

In the spring it was cross-plowed and well harrowed, and then planted with Illinois dent corn. Notwithstanding the last very bad corn season, the crop was fair. As soon as it ripened it was removed, and the land fitted for wheat, which was sown in September. It now stands very thick, and with long heads. Mr. Wright is willing to bet on forty bushels to the acres.

As wheat is a delicate feeder, there can be no doubt but that a corn crop on a highly manured field, so far from being prejudicial to its wheat-bearing capacity, only reduces the plant food in the soil to that subduced, soluble state, which the wheat plant delights in.

HOWE'S PATENT TWO-HORSE CULTIVATOR.

This cultivator works with four cast-steel teeth, two in front and two behind them. As the driver rides he can, by a lever, lift one or all the teeth, so as to quit the field without leaving his seat. If a tooth strikes a stone or a large root, a wooden pin that holds the tooth is broken instead of the tooth, and it can be immediately replaced by a ready-made spare one. The teeth can be set to cut deep or shallow. This is probably the best cultivator, and capable of doing better and more work than any other yet made; price \$60. The one-horse cultivator by the same inventor is a more common affair, and at \$20 is much dearer, according to its cost, than the other. Manufactured by Fords & Howes, Onconta, Otsego County, N. Y.

FOREST CULTURE A NECESSITY.

WRITTEN FOR THE AMERICAN FARMER, BY D. C. SCHOFIELD,
ILLINOIS.

WHETHER done by producing a second growth of timber from land just divested of its wood, or by planting young trees on ground long since under cultivation, is of but little moment. The production of timber, and the increase of the forest timber belts in the Eastern and Middle, as well as the Western States, has become a question of amazing importance, as affecting the wealth, happiness, convenience, and even the existence of the American people. Let the work of forest and timber destruction go on unrestrained and unchecked the next century, as it has done the last, and in proportion to the prospective increase of the population of the country, the United States will be one wide-spread, desolate, woodless waste, with its promised "hundred millions" dwindling to as many thousands, and they in the extremities of poverty, weakness, and want. We have only to read up the history of other countries and districts of countries on the Eastern continent and the Cape De Verd islands, to behold our own picture in the glass of the future.

Since the improvident inhabitants of the above named islands stripped their country of its timber, more than thirty thousand of them have perished in

consequence, and the entire annihilation of its population is threatened unless some vigorous and immediate effort is made to plant forests, and thus restore the order of nature. Hurricanes, drouths, epidemics, pestilences, famines, and ultimate ruin, must come irresistibly on any people who will heedlessly or wantonly sweep away the most wonderful provision of a kind Father for his dependent children. What want, what privation, what cost is already experienced by a large portion of the older sections of our country on account of the scarcity of timber for building and mechanical purposes, as well as for the more common and no less necessary article of fuel. Hundreds of millions of feet of lumber yearly transported by water and rail thousands of miles to districts of country where once they not only abounded with the luxury, but all efforts seem to be bent on its destruction.

A woodless country is a rainless country. Where forests abound destructive drouths are scarcely known, and they are induced in proportion as the country becomes divested of its forests. Egypt has been known from the earliest periods of history as a rainless country; but since Mahomet Ali has caused extensive forests to be planted, they enjoy periodical rains. But for the overflow of the river Nile, the country must have been a desert. As early as the time of the Pharaohs, terrible famines visited that country, and in the track of famine follow wasting epidemics. The uninhabited and uninhabitable rainless plains that lie this side of the Rocky Mountains, are rendered so for the want of timber.

Let influences be set in motion by private enterprise and Government patronage—let the General Government devote a certain amount of land along the borders of, and on the plains, to the men who would plant a proportionate, stipulated amount of forest, and protect and care for it, and pay also in addition a premium for every acre thus planted and cared for, as Kansas pays its tree planters; and, doubtless, in less than a half century, we should see the "desert bud and blossom as the rose," and a teeming population dwelling there, enjoying the early and the latter rain, and gathering abundant harvests.

The present wants of this country everywhere call loudly for immediate action to inaugurate a system of timber culture in nearly every town in every State of this Union. There is a variety of timber of exceedingly rapid growth, and of easy culture, that will grow nearly as well on poor soils as good, fertilizing the ground on which it is planted, instead of exhausting it, adding annually from one-third to half an inch to the depth of the soil, which knows no decay as a post in water or land. From the size of a bean pole to the largest masts for an ocean ship, it is equally durable. A fence post set

from it will firmly hold its nail as the oak, while it will endure apparently to the end of time, except it wears away as the marble wears, from the action of the element. This is true of it in Europe, and we have abundant evidence that it will prove true in this country. It is adapted to all purposes where strength is required. It is said by intelligent writers to possess the greatest elastic strength of any other timber. It is peculiarly adapted to cabinet purposes, and is said to receive a polish equal to mahogany, and also to all building purposes, and it will cost but little more to plant an acre of it than an acre of hops. An acre of plantation of this timber will produce a crop of fence posts in twelve years worth two thousand five hundred dollars; and, if intelligently cared for, by carefully thinning out once in eight or ten years, will yield crops which in the aggregate, at the end of thirty years, will amount to ten thousand dollars. This timber is the European or Tyrolese larch. It has received the title of the most valuable timber tree of Europe, having been cultivated in plantations more than a century, and is already being introduced as a forest tree in this country.

[Our correspondent encloses a slip of this larch in his letter, which he says has lain on the ground steeping in the grass six years. It is perfectly bright and sound, looking as if it might endure in the same condition sixty years longer.—EDITOR FARMER.]

THE PECK PER ACRE.

J. J. MÈCHI, the celebrated English experimental farmer, has the following in the *Mark Lane Express*: "The peck of wheat per acre sown the second week in November, looked like a fallow all winter, but is now, after hoeing, branching abundantly, and my laborers predict that it will be as good or better than the rest of the field sown thickly with one bushel per acre. Every year I sow half an acre with half a peck of wheat, in the midst of a thicker-sown crop, putting it in the same day and under the same circumstances in the various fields, as they come in rotation. By this means I arrive at safe conclusions, and I would strongly recommend my agricultural friends to follow my example, by thus experimenting on a small and un-injurious scale. It would abolish many prejudices, and they are bound for their own interests to ascertain the most profitable quantity of seed. My four years' trials have resulted in 58, 57, 36, 36 bushels of wheat per acre, the two first good wheat years, the two latter unfavorable. I still continue to drill four pecks of wheat, six pecks of barley, eight pecks of oats, as my general sowing—a trifle more on the light land; but I am getting more and more convinced that with high, clean farming, and the drill,

we may, in Essex, reduce our wheat to two pecks. On light lands we need not fear wire-worm, if we use six bushels of salt per acre about February, or early in March. By having our drill cups and wheels arranged like those of Mr. Hallet, at Brighton, we can put in very small quantities of seed. It does amaze one to read that seven bushels per acre of oats are still sown in Scotland, and that thin sowers pride themselves upon putting in only five and a half bushels! I presume this is done broadcast, and the measure a Scotch acre. I am satisfied, however, that such a system can never result in such crops as we generally grow on this farm—say from eight to thirteen quarters of black oats per English acre."

From the above it would seem that the question of the proper amount of seed to the acre has not yet been settled even in England. It is one that is also causing much discussion among American farmers, and which can only be settled by carefully conducted experiments.

Some contend that from one-half to a bushel is enough; others that two bushels is little enough. Where the grain is sown thick each kernel throws up but one or two stalks; in most cases feeble ones too. When isolated a grain of wheat will average from six to twelve strong stalks, making a vigorous stool which will stand the vicissitudes of weather, and produce a good quantity of sound plump grain.

We saw, a few days since, the result of an experiment in light seeding made by Mr. William Otis, on his farm in Gates, Monroe County, that to our mind proves conclusively that we sow too much seed. He marked off seven square rods of ground last seeding time in rows one foot apart. In these rows he dropped the seed from two to six inches apart, at the rate of *five quarts to the acre*. The wheat was hoed once this spring, beside which the ground received no better cultivation than the adjoining field. The yield was two bushels of beautiful, plump wheat, or at the rate of forty-six bushels to the acre. There were three varieties of wheat on the seven rods, but in separate rows, Soules, Deihl, and a bearded wheat. From this experiment, Mr. Otis thinks a half bushel of good seed sown with a drill on well prepared ground sufficient. On examining the stools we found eight or nine strong stalks to every grain of wheat sown.

SILK IN ARKANSAS.—*The St. Louis Republican* states that a sample of white sewing silk, made from cocoons produced in Phelps County, Arkansas, has been received at that office. It had a brilliant gloss, was soft to the touch, and of a strong fiber. The silk business promises to assume a commanding position in that section of the country.

ITEMS FROM OHIO.

WRITTEN FOR THE AMERICAN FARMER BY "J. O. W.," OHIO.

It is now the 28th of July, and we have had but very little rain during the last four weeks, consequently it is quite dry, and crops, of course, are suffering. But in addition to drouth, we have the plague of grasshoppers and potato bugs, which, in numbers and ravages, exceed what has hitherto been known of these pests in this section. Through the depredations of grasshoppers, grass has deteriorated greatly; and the farmers who have been so unfortunate, either through unnecessary carelessness and neglect, or lack of sufficient help, as to leave their grass uncut until late in the season, have found that it has not only greatly deteriorated in quality, but decreased in quantity nearly one-half—a circumstance not very pleasant for such persons to reflect upon, inasmuch as the quantity was unusually small to begin with. The prospect now is, that hay will command a higher price next winter than it did last, when the price was deemed sufficiently high for all practical purposes. Good hay is now selling for \$17 or \$18 per ton.

Potatoes, through the combined operations of drouth, grasshoppers, and bugs, have been very much damaged, many fields being deprived of nearly all their leaves and smaller branches; and most early potatoes are past all redemption from rains. Quite a collapse has come over the feelings of many potato raisers, who, in the spring, made such ample preparations for the production of an unusually large crop of this so much needed esculent. Oats have also been somewhat damaged by drouth and grasshoppers; the former operating towards an inadequate filling of the berry, and the latter greatly cutting off the heads, so that in many cases the ground is considerably covered with the grain, and many oats have been cut quite green to prevent their being destroyed.

But such are the contingencies of farming; and the experience of the past few years impresses farmers most thoroughly with the fact, that they must be expected more or less each returning season, and therefore should be provided against, so far as the ingenuity and vigilance of man can provide.

The wheat is all secured, and the threshing machines are beginning their work of getting out the grain, and indications are, therefore, that the yield will fall somewhat short of that anticipated. There is a great abundance of straw, but not much grain; nevertheless, there will be a fair yield, enough to evoke the gratitude of the husbandman towards the Bestower of all earth's bounties.

Corn was greatly retarded in the fore part of the season by the cut-worm. In some cases the first planting was almost wholly destroyed by this pest. Second and third plantings were rendered necessary to secure the beginning of a crop, and then drouth following so closely, an unusually small crop can hardly fail of being the result.

Potatoes are selling at \$1 a bushel in Maine.

NOTES FROM CANADA.

WRITTEN FOR THE AMERICAN FARMER, BY "MAC."

WE have had an exceedingly long period of very hot, dry weather, lasting from the 23d of June to the last day of July, which has in a great measure proved disastrous to the spring crops, especially late sown peas and root crops generally. Hay turned out a fair crop in most places. Fall wheat, a heavy crop of good quality. Barley, good in quality, but below an average in yield. Peas a failure. Oats light. Spring wheat very poor, and much destroyed by the midge. Potatoes are a miserably poor crop, except, perhaps, the late varieties, which may grow some now they have rain, but they cannot get much size before frost comes. My early Goodrich potatoes dried up from the heat, with the tubers about the size of walnuts, and had to be dug, as the little tubers were commencing to sprout, and would have given a second crop if left in the ground. These small tubers are very numerous, showing that there would have been an abundant crop if there had been a favorable season. They will, doubtless, do for seed next year, for early planting in the garden. Other root crops may grow sufficiently in autumn to make half a crop, but not more.

There has been an unusual scarcity of laborers to gather in the harvest, which ripened up so quickly and prematurely. But for the use of mowers and reapers, much would have had to remain on the ground till it was overripe, and shelled out. Fall wheat has done so well since the introduction of midge proof varieties, that a large breadth of land will be sown this fall, and the cultivation of spring wheat given up in those sections where the midge has appeared. The Treadwell wheat has given the best yield of any variety I have seen; and even where sown as late as the last of October, has ripened ahead of others. It seems to improve in quality by cultivation, as the samples I see this year are of fine quality, nearly equal to the old blue stem in color and size. Thirty to forty bushels per acre is about the average crop of it here, and plenty of seed can now be had at reasonable prices, say \$1.50 per bushel up to \$2.

OUR KANSAS LETTER--No. 9.

WRITTEN FOR THE AMERICAN FARMER, BY A. M. BURNS, MANHATTAN, KANSAS.

ON the 3d of July I took a trip to the "end of the railroad track," eastern division of the Pacific road, on an excursion train. There were about 800 of us, male and female. The distance is about 200 miles from here. Much of the road is on a ridge, the divide of streams, and therefore very little timber is seen for many miles. These plains are what was

formerly called the "American Desert." The plains are covered with what is called buffalo grass, which grows very short, yet is very nutritious, and relished by the buffalo or bison, elk, &c., of which we saw large numbers. It is on these plains that the wild Indians of the Cheyenne tribe, and others, make their home. While we were "laying over" at a station, waiting for a train to come and pass us, we were visited by half a dozen of the Cheyenne Indians, and three or four squaws. We had a chance to see these Indians in a real wild condition, and wild they really were. They had in their possession some American horses, with shoes on, which was an evidence that they had either traded or stolen them—the latter is the conclusion that those of us who are acquainted with these Indians would arrive at, and perhaps they had murdered the owners; but of this we really knew nothing. They had buffalo robes which they wanted to trade for coffee and "fishkey," or "hot water." The robes were good, and they were paid one or two dollars in coffee for them.

In some places thousands of acres are covered with prairie dog towns, that are the habitations of these dogs, which are more like rabbits without ears than any resemblance that I could see they have to the dog. These towns are round depressions in the ground, and not mounds as I had supposed. One of the party belonging to our excursion shot at one of the prairie dogs, but missed it. It went, however, so near to its head that the ball stunned it, when it fell, and was caught before it recovered. It is not as large as a rabbit, and appeared a very innocent animal.

On the route we saw several graves of those killed by the Indians last year. At one place six persons had been buried. They were attacked by Indians before they were aware of their presence. At the stations a few colored soldiers are stationed as guards; they have their *houses* under ground—or, rather, a large hole is dug and covered with earth.

But my object is to speak of this region in an agricultural point of view. I must differ from the reports given by careless army officers, and non-observers and know-nothing agriculture newspaper reporters, who make a very superficial examination of the country as they pass hurriedly over it. On the high land they have obtained high water at the stations at a distance of fifty to one hundred feet; at one of the stations, they had dug, I think, 200 feet, without finding water. There is no doubt but that plenty of water can be found by digging, all over the plains, and particularly on the lower portions of country, for the purposes of irrigation, when necessary. It is said that the plains are subject to drouth; if so, then the remedy for dry seasons would be to start the wind to pump. Wind pumps

could be kept constantly throwing up immense quantities of water to irrigate the land. Then, in the mean time, the settlers could and ought to plant forest trees. It is true that sufficient water can be obtained at a trifling cost to saturate the soil, if necessary, but the planting of 25 or 30 per cent. of these plains in indigenous forest trees would bring rain, not in torrents, but in genial showers, and change the climate to one of the finest on the face of the earth. The railroad company, instead of planting trees, which in time would be an immense source of wealth to the country, are making "sad havoc" with the forest trees on the distant streams; and, instead of benefiting that region, are doing a great injury to it. If only the right kind of men had the management of this road, it would indeed be a blessing to the treeless plains, but the company are composed of men—residents who worship money instead of making money, and building up that region as an agricultural country.

The soil is excellent, although this region had but little rain this season, which will occur in any country during certain periods. I observed that along the route where the sod had been taken from the surface, and corn had been accidentally left on the bare earth in feeding teams, that it had germinated and taken root, without the soil being stirred, and looked as verdant and healthy as in many of the cultivated fields of Middle Kansas. The weeds, indigenous to Kansas, were as rank in many places along the railroad where the sod was removed to grade the road, as they were in the cultivated fields of Kansas.

I am satisfied that men passing through the country, and seeing nothing but the buffalo grass growing on unstirred soil, have hastily formed the opinion that because this grass never grows high, it was the fault of the land and climate, but the growth of grain and corn in cultivated fields might change the opinion of these men, not even excepting a "philosopher" editor. These plains will some day be cultivated beyond a doubt. It is only a matter of time.

M A R L.

In the southern portions of New Jersey, Delaware, and Maryland, there is used with success a valuable natural fertilizer with the above name. New Jersey in particular is underlaid with it, and in the largest and finest belt there are thousands of tons exhumed from the earth annually, and sent to all parts of the State. The Sganckum enjoys the best reputation, being of a deep green color, and containing a much larger proportion of valuable ingredients. It has been proved by years of experience to be the best and cheapest fertilizer for all kinds of

crops. Immense quantities are taken out at the above place, and delivered along the line of the railroad at small cost. A dressing of one hundred to one hundred and fifty bushels is applied per acre once in three years. Its value is found in the fact that it contains nearly all the substances necessary to make up the ash of our common plants. Prof. Cook, State Geologist of New Jersey, says: "A comparison of the analysis of marl with that of the ash of plants, shows how abundantly it supplies the mineral substances needed for the growth of vegetation. The following is the analysis of Sganckum marl:

Water	19.600
Silica	51.162
Protoxide of Iron.....	18.200
Alumina	6.100
Potash and Soda.....	4.274
Lime.....	3.475
Magnesia.....	2.087
Phosphoric Acid.....	4.467
Sulphuric Acid.....	0.629"

The growth of white clover upon marl heaps has come to be a test of its character. Those marls containing lime soon become covered with a spontaneous and luxurious growth of clover.

Marl can be purchased in any quantity, in New Jersey, as low as \$1.50 per ton, and in Delaware and Maryland at from \$2 to \$2.50 per ton.

The amount of Potash and Soda in a ton of Marl is 85½ lbs., which, at 6 cents per lb., amounts to.....	\$5.18
Phosphoric Acid, 90 8-10 lbs., at 8 cts.....	7.20

Value of a ton of Marl.....\$12.38

Besides these elements there is always a small quantity of ammonia. The sulphuric acid unites with the lime, forming sulphate of lime, also a valuable fertilizer; besides these, there are plaster and iron; but, at least estimates, a ton of marl is worth at least six times the price it costs in the above sections.

HOW MUCH MANURE DO WE USE ON AN ACRE?—

An acre of land contains 43,560 square feet, 4,840 square yards, or 160 square rods. By those who have used guano, it is said 800 pounds is sufficient to manure an acre; 302½ lbs. would give 1½ ounces avoirdupois to the square yard. One cubic yard would give a trifle over one cubic inch to the square foot. A cubic yard of highly concentrated manure, like night soil, would, if evenly and properly spread, manure an acre very well. A cubic yard of long manure weighs about 1,400 lbs.; a cubic foot not far from 50 lbs. A cord contains 128 cubic feet; 1½ cord would give about a cubic foot to the square rod. If liquid manure be used it would take 180 bbls. to give one gill to a square foot upon an acre, which would be equal to about 50 pipes or large hogsheads. It would be quite useful if farmers would be a little more specific as to the manure applied.

NEW PLAN FOR TOP-DRESSING.

A CORRESPONDENT of *The New England Farmer* writing the 10th of June last, says :

"Last fall I tried an experiment with which I am so well pleased that I take my pen in hand to write a short article for your valuable paper. For several years past I have been thinking about the amount of manure lost every year by allowing my sheep to lie in the pasture nights. My pasture has been used for over thirty years, and as the sheep occupy the same resting places nearly every night, these spots have become like a barn yard, and I determined to contrive some plan to distribute these droppings over my mowing lot. Commencing as soon as I got through haying—and I think no man ought to do any haying after July—I made a movable pen by nailing three boards, fourteen feet in length, to three pieces of two-inch scantling, projecting at the bottom for stakes. For one hundred and ten sheep, I found it necessary to use two lengths of these boards for each side of my pen, and one length for each end. I used an iron bar to make the holes for the stakes, and fastened the tops with straps. I think a lighter and more convenient fence might be made ; but as mine is, one man will remove the panels, one at a time, and set them in a new place in twenty minutes. By keeping a small trough or two in the pen, and putting into them a little salt or corn, the sheep will learn in three days to run for the pen as soon as let out of the pasture. Last fall they were yarded on the poorest part of my mowing. The first night they were put on a moss grown knoll. One night in a place is sufficient. The effect, as observed this 10th day of June, is wonderful. I am sure there is threefold more grass wherever the sheep were thus yarded, than where they were not ; it already being knee high and beginning to head out. Even on the old mossy knoll, the grass is a sight to behold, marking by its vigorous growth the exact space on which they were yarded."

The above may be a "new plan" to said correspondent, but not new to many farmers. It has long been a custom in England, we believe, to yard sheep on ground to be sown with turnips, and we have known it successfully practiced in this country. No nicer dressing can be given to a turnip patch than to yard sheep on the ground *after it is plowed* for the crop. The droppings and urine should be mixed with the soil, and covered from the sun by the harrow or cultivator. It would well pay farmers to keep a little, light, portable fence, that needs no staking, for this purpose, and yard their sheep on their summer fallows till after seeding.

We have had a plan in our head for some years, for soiling sheep with the aid of portable pens, which we will air some time for the benefit of our readers.

GAS LIME AND REFUSE OF GAS WORKS.

THE multiplication of gas works—almost every small village having one—produces a vast amount of refuse lime, which should be turned to use, if possible. Some farmers, we understand, have used it without properly understanding its nature, and destroyed their crops. No doubt it may be made useful, but the thing is to know how to do it. Experiments and their results should be given to the agricultural papers for publication. There is no doubt but the gas works, scattered as they are all over the country, will contribute largely to the farmers' manurial resources, when the nature of this refuse is understood. We invite contributions from farmers, gas makers, and scientific men, on this subject. The following is copied from the *Germantown Telegraph* :

In order to understand this question fully, it will be necessary to look into the composition of this gas lime. The gas is forced through the dry-slacked lime to purify it of its sulphuretted hydrogen and other impurities. In its fresh state gas lime contains some ammonia, which is soon dissipated as a carbonate, and it also soon parts with its hydrogen. What change is produced in the lime may be seen by the following analysis of Prof. J. F. W. Johnston :

COMPOSITION OF GAS LIME.

	When nearly fresh.	When a year or two old.
Water and Coal Tar.....	9.59	9.58
Carbonate of Lime.....	58.83	56.41
Hydrate of Lime, (caustic).....	5.92	—
Sulphate of Lime, (land plaster,).....	2.77	29.82
Sulphite and Hyposulphite of Lime.....	15.43	—
Sulphur.....	.92	—
Prussian Blue.....	1.80	1.80
Alumina and Oxide of Iron.....	8.40	8.40
Sand, &c.....	1.29	1.29
	100.00	101.84

A careful scrutiny of this analysis will explain the cause of the different opinions of the value of gas lime. The fifteen per cent. of sulphite or hyposulphite of lime dissolves readily in water, and when used fresh in considerable quantity, is dissolved by water and carried down to the roots or plants so rapidly as to injure or destroy them, and thus comes the statement that it will kill rather than nourish vegetation. Some years ago, when in a hurry, meeting an acquaintance in Buffalo, who had heard of my using gas lime, he asked me if I had found it beneficial. To which I replied, "Yes, a valuable manure," and passed on. The next thing I heard he had put on twenty loads to the acre, and killed every green thing. But I understand the soil has since been much benefited by the application.

It will be seen by the analysis that, after being exposed to the air for a time, this sulphite of lime changes to sulphate of lime or land plaster, and thus becomes very useful to vegetation. The sulphite of lime is not injurious to vegetation when used in the

proper quantity. The fresh gas lime may be used with perfect safety if mixed with five times its quantity of muck or other compost. I have used it with excellent effect, mixed one to three with bone manure. Fifty bushels of the lime mixed in this manner, and sown upon an acre of oats, produced fifty per cent. more than another acre adjoining, without manure; and I thought this difference could not be attributed to the three loads of horse manure. I also used two loads of old gas lime alone upon an acre of wheat, and found a great improvement over an unmanured portion of the same field. It will be seen that fifty-eight per cent. is carbonate of lime uncombined with impurities of the gas. This portion is as valuable as lime slaked in any other way. Then the sulphur is certainly beneficial, when combined with lime in the form of gypsum or land plaster. After using it for years, I have come to consider gas lime, properly managed, a very valuable ingredient for the compost heap, or as an application to be used alone in moderate quantity. If fresh, not more than fifty bushels should be used on an acre, mixed with five times its bulk of muck or scraping of the barn-yard. But if it has been composted for a year, double that amount may be used with profit.

Ammoniacal Liquor.—This refuse of the gas works has not been used to any extent in this country. But it is valuable as a manure, and to those in the vicinity of the gas works it would many times repay the cost of saving and applying it. The gas is forced up through hollow columns filled with water spray, which absorbs the ammonia from the gas and retains it. This ammoniated water has the principal fertilizing agent of urine, and when used with compost causes a rapid decay of vegetable matter, and adds great fertilizing power. It may be used in a liquid form, but, in that case, it must be diluted—one of the liquor to four of water. In this proportion it has been applied with a water cart at the rate of 400 gallons per acre, a few days before putting in the crop. This liquor is rich in nitrogen, which has been reckoned the most valuable portion of Peruvian guano. Immense quantities of this liquor go to waste, which might be used to fertilize thousands of acres of wheat and other grain, and thus add to the sustenance of mankind.

E. W. S.

To GET rid of mosquitoes, take of gum camphor a piece almost one-third of the size of an egg, evaporate it by placing it in a tin vessel and holding it over a lamp or a candle, taking care it does not ignite. The smoke will soon fill the room and expel the mosquitoes. Brown sugar burned in a room is equally effective.

Minnesota has more wild fruit this year than some of the old States have of cultivated.

IMPORTS AND PRICES OF WOOL.

The Economist (New York) states that the imports of foreign wool at New York for the first half of the calendar year, are only about half the quantity and value of those for the same period of last year. "For the first six months of 1867, we imported 13,000,000 lbs., valued at \$2,233,000, against 6,700,000 lbs. this year (1868), valued at \$1,105,000. The decrease has been principally in the arrivals from England, the Argentine Republic and Mexico, while those from Russia have been doubled. The abundance of the home crop, especially in California and Texas, has limited our wants for foreign descriptions." The leading item in the table given for 1868 is the Russian wool imported, amounting to 3,122,013 lbs., of the value, as entered, of \$570,765.

The Economist also adds the following statement of the current value of domestic wools, as compared with that of two years ago—before the passage of the present tariff:

	June 10, 1868.	July 6, 1866.
Am. Sax'y fleeces, per lb.....	60@65c.	60@65c.
Do. full blood Merino.....	52@56	50@57
Do. $\frac{1}{2}$ and $\frac{3}{4}$ Merino.....	46@50	45@50
Extra, pulled.....	48@49	55@60
Superfine, pulled.....	42@48	47@58
No. 1, pulled.....	30@36	35@45
California fine, unwashed ...	28@32	33@38
Do. common, do.	22@25	20@25

PROFITS OF CRANBERRY CULTURE.

MY cranberry tract had a gradual descent to the south, with a small stream dividing it nearly in the center. It was covered with light grass and moss, also with some straggling bushes. My first labor was to dig out the bed of the stream for more perfect drainage. I then cut cross ditches, and put men to clearing off the turf, cutting out roots, and in building a turf wall on two sides of the tract, and on the other side a good cedar fence. The first season I cleared up twelve acres, and set three-fourths of it in wild vines. This cost me, inclusive of all labor, \$65 per acre. The next spring and fall I "grubbed over" some thirty acres more, and set out the vines, but at an increased cost per acre. The balance of the tract, some thirty acres, I concluded to treat in a different manner, and with less expense. Instead of turving it, I cross-ditched it, and carted sand over it, giving some parts a heavy dressing; other, and higher portions, a very light coat of white drift-sand.

Now let me tell you the result. The second year, from the twelve-acre patch, I gathered 192 bushels of cranberries, which I sold for \$3.75 a bushel—netting me, after the expense of picking, \$600. The third year my crop was light, but I sold the berries for \$925. In 1865, being the best season I have had, my vines yielding largely, and the crop through

the country being light, I reaped a generous harvest. My entire crop that year amounted to 1,942 bushels, which I sold to a New York firm at \$4 a bushel—netting me over \$7,000. Last year, with a partial crop, I sold on the vines for \$3,500—the entire crop. Consequently you will see that in six years I have sold twelve thousand dollars worth of cranberries, and have a prospect for at least a thousand to twelve hundred bushels of berries this year. Of course I expect the price of berries will be less than that of last year; but even at \$3 a bushel, I am safe to say that few farms in this State will show a larger profit than my wild cranberry farm.—*Farm Fireside.*

TREES FOR PUBLIC ROADS.

A CORRESPONDENT of *The Ohio Farmer* says: Nothing will go further toward making a neighborhood inviting than will its roads, when once lined with hardy, grateful trees. We would urge upon every one who owns lands upon our public roads, to plant trees as far as his land extends. The beauty and graceful shade will well repay him, and the increased value of his land will be a noble profit. It is a pleasure to anticipate that time when our roads will be marked by handsome lines of trees, protecting us in summer from the burning rays of the sun, and in the winter from nipping winds. These two lines of trees, planted as they would be, the width of the road apart, would go far toward supplying needed belts of trees to protect farms and gardens against inclement winds, so pernicious to exposed vegetation. Many already recognize the importance of such protection, both in summer and winter.

An attempt at contrast should never be made upon the street or road, especially by planting trees of different shades of color or habit alternately. Different trees love different soils. The selection they naturally make should be observed, and each tree, as far as possible, allowed its choice, which with the varied taste of planters, will always give sufficient variety. All trees of conspicuous habit or foliage should be avoided, unless introduced for some particular purpose. A very common mistake made is in planting trees too near each other. When so planted, it is at the loss of both grace and symmetry. From twenty-five to thirty feet apart, owing to the habit of the trees planted, is the proper distance. A marked feature in the beauty of a road, is its liberal width. Its boundaries are established by law, and should always be respected. No property should be considered improved, until the street or road upon which it lies is planted with trees. Plant only such trees as have grown well exposed to sun and air, and be sure that their roots are in proportion to their size. Trees for our purpose must

necessarily be pruned high, which makes boxing essential to success, as well for protection against the rays of the sun as against the attacks of animals. Boxes formed of from eight to ten upright pieces, are best, as they afford both ample ventilation and protection.

WOOLEN EXPOSITION.

THE Woolen Manufacturers' Association of the Northwest opened its first exposition in Chicago on the 4th of August, ult. Manufactured goods from over 80 mills, some machinery, and a good display of wool were exhibited.

Mr. W. G. Coulter, in an address, discussed the subject of wool manufacture, and adduced facts to show that the center of the woolen interest should be west of the Lakes, and that woolen goods can be manufactured 25 per cent. cheaper at the West than at the East.

Mr. G. B. Stebbins, of Detroit, gave some statistics of the growth of the wool manufacture in England and the United States, and spoke as follows of this interest at the West:

"It is well that wool-growers and manufacturers meet here on common ground, for it is a recognition, too long delayed, of the unity of interest between farmer and manufacturer—the one providing the raw material and the food for the workers in the mills, the other adding by skill and labor to the beauty and value of that material, and consuming the products of the farm. These two divisions of the great army of honorable workers, closely linked as they are by ties of mutual help and dependence, may well blazon on their standards the motto, 'United we stand, divided we fall.' They are natural allies, destined to fight out the battle of life on the same line, and to win a common victory over poverty and ignorance.

"With our great breadth of soil and varied climate, fitted for the production of every kind of wool, it is the 'manifest destiny' of our wool-growers to raise all that our manufacturers want, and not compel them to import over seventy million pounds a year, as at present. The wool clip of Great Britain, with her narrow domain and poorer soil, is some 260,000,000 pounds yearly, while ours is less than half as much. Surely we should go far beyond her; and, judging by 'the signs of the times' in this wonderful exposition, that's what you men of the western farms mean to do. And it is a characteristic of the West to accomplish what is well and wisely begun."

Mr. J. L. Hayes, of Boston, would have the Eastern manufacturers make the richer class of goods, while the good and cheap are produced at the West. He said:

"Now, in this country we have not begun to do

the work we ought to do. We are just on the borders of the great field of industry. Why, in England, the manufacture of carding wool constitutes but a small portion; the manufacture of dress goods, or the combing wool industry, is the great work. There are two classes of manufactures—the carding wool and the combing wool. The carding wool for cloths, the combing wool for dress goods. The combing wool industry in England is very much larger than the other. The combing wool industry of France is three times as much as the carding industry. And in this country the combing wool industry is not over a tenth of the carding wool industry. But we have all the West open to us, and see what a field it will give us for the manufacture of carding wool, especially in this State. The wool corporations will be glad to do your work. You must furnish us with the wool—the right kind of wool. Now, at this very time, wool, the best of Ohio wool, such as you raise, is worth 45 cents per pound. Yet the right kind of wool, such as might be raised here on these Western prairies, would be worth 75 cents; while the mutton would also be better, and bring a higher price. See what an inducement there is to open that industry.”

FALL PLOWING.

MANY farmers are in the habit of doing as much of their plowing in the fall as possible, in order to facilitate their operations in spring. This is an excellent plan, but there are some considerations which should be kept in view when this mode is practiced. Where land has been cultivated the previous year, and then plowed in the fall, there is danger that the ground may become pressed down, and be too heavy for cultivation. This fact should be kept in view while preparing to put in the seed in spring. We think the cultivator should be put into requisition more than is usually the case in preparing the ground for seed. It lightens up the soil to a greater depth than the harrow, without disturbing the bottom of the furrow. Where the land has had clean cultivation, it may be cross-plowed with advantage. Land infested with witch grass that has been cultivated the previous year, may often be thus treated to serve to put the roots in check for a time. Of one thing we are certain, that it is rare for a farmer to stir his land too much in spring. Thoroughly mixing the manure with the soil, so that the elements shall come in contact with each other as much as possible, is the true secret of preparing any soil for a good crop.

The soils of New England differ entirely from those of the Western prairies and the soils of the Southern States. These latter have a fine pulverulent soil, while those of the Northern States are

harder, and generally of coarser material. Its defects can in part be remedied by the course we have just advised. We advise our intelligent farmers to notice the effect of careful harrowing on the crops for the year to come, and let us hear their opinions on it through the columns of *The Farmer*. Careful observation and experience are better than a thousand theories on such a subject. Even though one general principle may be correct, yet there are modifying circumstances to be taken into the account, which the watchful farmer will be sure to notice. In nothing pertaining to the farm is there so much importance to be attached, as to the manner in which we make a seed bed for plants, and the plow is the instrument we first employ for that purpose.—*Maine Farmer*.

THE BARBERRY AS A HEDGE PLANT.

P. ALLYN, of Benton Harbor, Mich., writes to the New York Farmers' Club as follows;

“I want to say a few words about the barberry. One fact is worth half a dozen guesses, and I have experimented on barberry for ten years, and cannot see its character as some do. Ten years ago, or about that time, I planted one hundred barberry bushes in Delaware county, Iowa. The following winter, on thirty different days, the mercury sunk down from 10° to 30° below zero, and it did not injure the barberry. This ought to establish its hardiness. Four years ago I planted ten rods of small barberry plant for a hedge on my place. That hedge now appears much like a perfect fence. Man or beast would try more than once before passing through it. Two years more of such growth as it had last year would make it hog-tight, horse-high, and bull-strong. As to its blasting crops, I have raised wheat, corn, sugar cane, and many varieties of fruit right along beside the barberries, and the only thing I ever knew blasted was a few English gooseberries, which always blasted even when far away from the barberries. A Massachusetts man complains of the seedlings springing up. I will pay him \$100 for 20,000 such plants, delivered to me next fall. One writer complains of their sprouting at the root, and becoming a nuisance. I deny that one plant of the barberry ever sprouted from the root. It does, it is true, throw up each year strait sprouts from the collar of the plant. The second year said shoots throw off lateral branches, which lock and interlock with the previous growth. All of these sprouts unite below the collar in one central root, which at the depth of eight or nine inches branches out into proper roots; but I have never seen one bud on the root of any plant of the barberry. Let no one send to me for seeds or plants, for I have none for sale. I do, though, fully believe that the barberry is yet destined to become the great hedge plant of America.”

BUTTER AND CHEESE.

A CORRESPONDENT of *The New England Farmer* thinks that the success attending the extraction of butter from the whey of cheese factories by a process patented by Mr. Page, of Adams, N. Y., ought to induce experiments to determine if much of the particular part in the composition of milk which makes cheese, does not go to waste in the butter-milk of every churning. He thinks some process might be devised by which to save it, seeing one has been devised to save the butter in whey, and alludes to an article published some time ago in *The Scientific American*, about a process of extracting butter by burying milk in a cool place in the earth, as one that may be followed up to a practical result. Instead of enveloping the milk in a series of linen bags, he proposes a box with shelves for the milk; and if this proves successful, then enlarge the box to a milk-room, in such a manner that the whole should be subjected to those influences of the earth which, in case of the milk in the bag, separated the particles of the butter from the milk buried, as described by *The Scientific American*. After the removal of the butter in this way, the milk, on his theory, would produce first quality cheese.

THE PRODUCT OF ONE WEED.

DESIRING to know what might be the influence of a single weed upon the agriculture of a field or garden, I selected a plant of purslane, (pusley or pursley as called by some), and carefully counted its number of pods. It was a large, but not the largest sized plant, from a rich spot of ground. The number of its seed pods was 4,613. I then took fourteen of the pods, seven small ones, four medium, and three of the largest, and counted the seed in them. The result gave me as an *average* ninety seeds to the pod. Thus in this single plant we have the enormous number of 415,170 seeds. If these were spread over a plat of ground and should all germinate, and a man should attempt to cut them with a hoe, and should average six plants at every blow, and make thirty strokes of his hoe per minute, it would take him thirty-eight hours and twenty-three minutes to cut them out. Or, if these seeds were equally disseminated at the rate of four to the square foot, they would cover over two and a third acres of ground. Again, allowing only one-third of these seeds to germinate, and that the product shall only be one-half as rich in seed as this plant, yet they will produce the astonishing number of 28,727,688,150 seeds, enough to cover broad fields with weeds the third year from one seed. Do not these figures show the immense importance of cutting and destroying every weed before it goes to seed? There

is no doubt that many other weeds are as fully or more prolific than this. The purslane is a difficult weed to kill. I have known it in wet weather to grow and mature its seed long after it had been entirely severed from the root.—*Cor. Journal of Agriculture.*

TIN PAILS FOR DAIRY PURPOSES.

A RESOLUTION was passed at the recent Dairymen's Convention in this city condemning the use of wooden pails for the dairy, and the substitution of tin pails in their place. A similar resolution was passed by the Ohio State Dairy Association last year. The wooden pail is a great nuisance, and causes a great deal of trouble with the milk every year. It is very difficult to keep the wooden pails clean, and when entrusted to hired help, as is usually the case, it is not thoroughly cleaned half the time during the dairy season. Many merely rinse the pails with cold water, and hence particles of milk are liable to be left in the corners and about the sides of the pail, which, when exposed to the air, decompose and act as ferments upon the new milk. Of course the flavor of cheese is impaired from this source.

It seems almost impossible to convince dairymen of the importance of absolute cleanliness in regard to the treatment of the milk from the time it leaves the cow till it reaches the factory, and is made into cheese.

We have a letter from Messrs. Anderson & Son, of London, stating that the fact is more and more apparent that the American cheese can not be held for any considerable time without the loss of flavor. This, they say, the London dealers are now finding to their cost. Now, really, there is no necessity for this state of things. We have manufacturing skill enough, and we believe manufacturers generally would do their duty if farmers would only provide good, pure material to work up. The discrimination in quality and flavor of cheese will be greater next season than ever before, and it stands dairymen in hand to begin a reformation of slovenly practices at once. Let the old wooden pail be cast out of the dairy, and tin only used for milking and carrying milk. The tin pails should be made with round corners at the bottom, so as to be readily cleaned. They should be made so as to nicely fit into a wooden pail, which will then serve as a protection to the tin. When arranged in this way the pails will last many years in a dairy, and the time gained in cleansing when compared with the wooden nuisances, will about pay the cost of the pails the first year.

This matter should be seen to at once. Let us have an improvement the coming year that will fully sustain the dairy interests of the country.—*Utica Herald.*

SPRIT OF THE AGRICULTURAL PRESS.**Milk Fever.**

The *North British Agriculturist*, in reply to a correspondent, gives the following directions for the treatment of milk fever in cows:

Milk fever abounds wherever cows, as in Ayrshire, are bountiful milkers; and great care is requisite to prevent serious attacks. Putting the animals on short commons, as usually recommended—or in popular lingo, "taking a stave out of their bicker,"—for a fortnight or three weeks before calving will greatly lessen the number of cases. The reduction must be made alike in the quantity and quality of the food. Dry straw or poor hay is better than rich clover or succulent tares. A dose of physic repeated weekly for three weeks before calving is also a useful precaution; and in all such cases a full dose should further be given immediately after calving, unless, indeed, the animal will drink of its own accord, a bucketful of tepid water, in which a handful of salt has been dissolved. Adherence to a sloopy laxative diet for three days after calving will likewise be essential. The bag should be drawn once or twice daily for at least a fortnight before calving; and for a week after the arrival of the calf great relief will be given by milking four or five times daily. Fully half the cases attacked die—a strong reason for careful attention to preventive measures. Bleeding and a smart dose of physic so soon as the cow goes down is the best that can be done, especially if the patient is fresh. Fomentations along the spine, with the subsequent inrubbing of mustard, are useful. Hot cloths applied over the belly are serviceable in soothing, and also probably in expediting the action of the bowels.

Cotswold Wool.

Mr. George Jackson, Bloomfield Farm, near Wilmington, Del., writes to *The Country Gentleman* that four ewes he imported from Mr. F. W. Stone, Guelph, Canada, last fall, sheared 16 lbs. wool each in May. They are two years old. This is a heavy yield. They have grown very much and are fine animals.

Curing Rennet.

Orrin Johnson writes the *New Hampshire Farmer's Record* about curing rennets. He says they ought never to be dried inside out. He adds:—"When taken from the calf, put a handful of fine salt into it, lay it aside for a week or more—they will not hurt—then stretch them on sticks, not turned inside out. When taken off the stick, see that both ends are tied or closed up tight. Keep a year's stock beforehand. I think one cured in this way worth two dried inside out."

Preparing Muck for Use.

It is seldom advisable to cart muck on to the field direct from the swamp. It should be exposed to the air six months, or even a year, and composted meanwhile with lime or unleached ashes. When so prepared, it is worth as much, says Prof. Dana, as cow manure. After it has become sufficiently drained of surplus water, let it be worked over, and stacked up with alternate dressings of quick lime or fresh ashes.

To every layer three inches thick of muck, put on just lime enough to whiten the muck well. We rather prefer good ashes to lime, because they contain potash as well as lime. A cord of muck (or 103 bushels) will require about 5 bushels of ashes. After the heap has laid a few months, it should be shoveled over and worked together in a mass. In six months it will be ready for use. If the farmer has not ashes enough of his own, he can well afford to pay from 10c to 12c per bushel for them. A compost so made is just the thing for corn, potatoes, and indeed for almost every purpose in farming and gardening.

Time for Mulching.

We believe in mulching as much as we believe in good cultivation, says *The Horticulturist*. It is a part of it; but there is a time for benefit to be derived in the greatest degree from both. Light, heat, air, and moisture, are as essential to the growth of roots below ground, as they are to that of a leaf and twig above; but if the mulch is put upon the ground early in spring the direct action of these elements is lost, growth is retarded until heat has approached from a side connection, and it is then continued often late in the season, resulting in an immature, unripe condition of the plant. We have found our best results to come from stirring the soil frequently until the summer heat, then apply our mulch, removing it again early in October, and again applying it as soon as the ground is well frozen. By this course, we give our roots, in the spring, the benefit of the elements they need to make perfect growth; we keep the powerful rays of the midsummer sun away, and thus give them a longer time to fully mature wood and root; we give them in autumn the action of the atmosphere to enable them to gradually harden the root and branch, and fit it for the extreme cold of winter; and in winter, after having frozen them to sleep, we cover them so they may not be awakened from week to week, but continue their nap until such time as, by the natural order, they should again pursue their appointed course.

Digging Potatoes.

The Farmers' Chronicle says the answer to the question, when to dig potatoes, is, when they are ripe, which will be when the tops are dead and dry. It says the sun should not shine on them after they are dry. It also reports the yield of the Early Goodrich potatoes grown by its editor, at from 125 to 140 bushels per acre, notwithstanding the drouth. Neshannocks, planted the same day and with similar conditions, did not yield more than 30 or 40 bushels per acre.

New Grape Pest.

Dr. Peebles recently left with us a grape vine (Cord) three years old, the main root of which was eaten entirely off about fifteen inches below the surface of the ground. Some of the lateral roots are also severed—all done by a huge, big-headed grub which he secured and exhibited in a vial. On submitting this insect to Mr. Riley, he told us that it was an entirely new grape vine borer, but that it has made its appearance simultaneously this summer in different parts of Southern Illinois, Missouri, and Kentucky. Dr. Spalding has lost at least a dozen large vines by it, and it bids fair to become a grievous pest to the vine-grower,

Mr. R. says that it is the larvæ of a beetle, and has the general appearance of one belonging to the Cerambyx family. A brief account of it will be given in the first number of *The American Entomologist*, where it will be shown that in all probability it is the larvæ of a large brown beetle known as *orthosoma cylindricum*. As its work is not generally observed till the vine is beyond recovery, it is a difficult fellow to manage.—*Journal of Agriculture*.

Grape Vines about Rocks.

It is a well-established fact that grapes ripen very much earlier at the North when the vines are planted near or about rocks. Last year, while grapes were nearly a failure in the open field, there were cases where a fine crop of perfectly ripened bunches was raised from vines whose roots ran about rocks. The rocks absorb the heat by day, and keep the roots of the grapes warm day and night. Rocks in gardens and fields are generally regarded as nuisances; but if they are left, a good use can be made of them by planting vines about them.—*Am. Journal of Horticulture*.

Hardening the Mold-Board of Plows.

A new method has been discovered for the manufacture of the mold-board of plows which gives them all the hardness and temper of steel in combination with the toughness of iron. The mold-board (good iron) is heated and dipped into molten iron. It remains there ten seconds, when the two surfaces become heated to a white heat, while the center is not heated through. It is then immediately dipped into water, the surfaces come out harder than the highest tempered steel, while the interior is still iron and retains all the toughness and strength of the iron. The advantage claimed for this invention is that the plows made by the process will take the finest and hardest polish, while they will be tough enough to endure any reasonable knocking about in stony soils.—*N. Y. Weekly Herald*.

Do Weevil Breed in Clover.

B. D. Walsh, Esq., the eminent entomologist, says no. The red weevil (sometimes called the midge), can only exist in a certain species of the grass family, to-wit: the *Graminez*. It sometimes happens that farmers not well posted in entomology mistake other insects for the midge. Finding a number of small red bugs in their fields, they forthwith conclude that the midge is upon them. The red weevil, or midge, in its perfect state, is a small beetle of a pitchy red color, about one-eighth of an inch long, with a slender snout, slightly bent downwards, a coarsely punctured and very long thorax, constituting almost one-half of the whole body. The wing covers are furrowed, and do not entirely cover the tip of the abdomen.

Cure for Hog Cholera.

A writer in the last Monthly Report of the Department of Agriculture gives a very simple remedy for hog cholera, which he says has never failed as a preventive, and in every instance wherein from neglect the disease made its appearance, he succeeded in curing it in a few days.

Two or more large barrels are procured and placed conveniently to the kitchen. Into these deposit all the

pot liquor, dish-water, and greasy water of any kind, refuse pieces of bacon, and a few bucketful of soap-suds. Let it stand a few days, or until fermentation begins, then add to each barrel one bushel of fine charcoal, a half bushel of corn meal, one handful of salt, and a half pound of coppers. Let it stand a short time so that the coal may become thoroughly saturated with the liquid, then pour into troughs made for the purpose. One barrel thus prepared, he says, if given once or twice a week, will be sufficient for fifty hogs, and prevent cholera and keep them in a healthy condition. This remedy is quite simple, and will commend itself to farmers much more readily than the drenching with drugs sometimes recommended.—*Utica Herald*.

The Apple Tree Borer.

A correspondent of *The Western Rural* writes his method of prevention as follows:

I set out an orchard several years since. The borer attacked the trees. I commenced cutting them out; they kept at work until they girdled some of the trees. I observed that the eggs were laid on the bark, and they soon hatched out and worked under the bark. I washed them once a year with lye. I happened to think that if they were washed often enough, the lye would kill them before they got under the bark. I found by washing them once in two weeks, from the first of May until October, I could keep them entirely out. Washing keeps the bark smooth and healthy, and the trees grow thrifty. I use lye nearly as strong as it can be made. I wash them with a rag tied on the end of a stick, using just enough lye to wet the bark. Thin soft soap is just as good.

I have learned another thing, that the top should be as low as possible to shade the body of the tree. The borers are most always in the south side of the tree. If the tree leans to the north, so the sun shines on the body of the tree, they are most sure to be in. If the tree leans to the south, they will work in but little.

Profit in Bee-Keeping.

As a proof that bee-keeping as a business, pays as well as, or better than any branch of horticulture, I would state that I am now offered for my bees, \$1,500 cash. It is not yet six years since I paid \$20 for the four stands with which I commenced the business. I have never bought a hive since. So this is the increase of my capital in five seasons, saying nothing of the bees, honey, and wax, sold in the meantime, or the pleasure derived from the business.

Now that I have so many hives, I find the profit increasing every year without requiring more time and labor than I bestowed on a few. So far from there being any danger of overstocking, I find that my bees have done better the two past poor seasons than many have done where there were but a few hives kept in one place, and I am convinced that where they were managed rightly, hundreds of colonies will do where one will. To accomplish this, however, it is indispensable to have them strong and vigorous in spring, that they may take advantage of the whole honey harvest.—*Ellen S. Tupper, in Iowa Agricultural Report*.

Lima Beans.

Greasing the seed before planting will prevent rot.



MAMMOTH CLUSTER RASPBERRY.

THE peculiarities of the above raspberry suggests its name. It is of great size, and grows in close, compact clusters. The flavor is superior, very sweet and pleasant, and is not "seedy," like most of the Black Caps. It is very productive, fully equal to the Philadelphia, on grounds where both are cultivated, and very firm. It has been shipped from Western New York to New York City with perfect success. The

first picking was made this season on the same day with the last picking of Doolittle, and notwithstanding our severe and long continued drouth, it kept its size, flavor, and richness, to the very last picking, and was the wonder and admiration of all who saw it. The bush is perfectly hardy, enduring our winters unprotected; the canes stand erect and strong, not easily broken by winds, or borne down by its load of fruit.

Horticultural.

PLANTING TREES FOR TIMBER.

WRITTEN FOR THE AMERICAN FARMER, BY WILLIAM WEBSTER.

NUMBER ONE.

ONE of the most important questions which every farmer, and, in fact, every one connected with the cultivation of the soil to any extent, will soon be brought to consider, is that of planting trees for timber. The excessive drouth which has prevailed over large portions of our country during the present summer, and the disastrous conflagrations which have ensued in consequence, have swept off the finest timber from thousands of acres. To such an extent has this occurred in the dense forests in Canada, that for weeks our atmosphere was darkened with smoke, driven by the prevailing winds across Lake Ontario, enveloping all around with a haze like that of Indian summer, and fears were entertained by some whether the most valuable portion of the forests might not be entirely swept away. In one place alone, we heard the loss was estimated at a million of dollars. Now, as we of Western New York, and even some of the Western States, depend largely upon Canada for supplies of lumber, the question may well seem an important one, What trees shall we plant in part to compensate for the annual losses by fire, and consumption of timber by the builder? There are one or two points, however, which deserve rather more than a passing notice. First, it may be said, if we plant rapid growing trees, will the quality of the timber be such that it can be made useful in the arts? Secondly, if we plant trees which are known to be of slow growth, although their timber can be used to a greater extent in the arts than that from the more rapid growing kinds, might we not have to wait too long for it to become available? These are points which will be urged and argued strongly. In Europe, the different governments have had to contend with this question, notwithstanding that the large landed proprietors have given it their most serious attention, and planted their acres by thousands with trees for timber. Some, however, may argue that we have still the illimitable forests of California, Oregon, and Washington Territory, to draw from—States whose resources are but partially developed, and from whose mines and forests almost boundless wealth will be poured into the cities of the East; and even within a year, by means of the Pacific Railroad, the treasures of California will be transported at a rate that but few at present have any conception of. This kind of reasoning, we admit, is good and sound to a certain extent, but we must consider that there are immense plains entirely destitute of timber, between the Atlantic and Pacific Oceans, that must and soon will be made available for agricultural purposes, and that timber is too bulky to be transported profitably long distances, even by railroad; and yet timber, in some shape, the farmer and mechanic must have. He needs it to construct his dwelling, his barns, and other buildings, and

his fences. For shelter, and where coal is scarce, he must have it for fuel.

The question of planting trees for timber has occupied my attention at times for years. I have studied it at the West among the prairies, and here in Western New York, where in the days of my boyhood a large portion of the country was covered with forests, which have now nearly all disappeared—and have come to the conclusion that if individuals do not take hold and plant largely in those sections where timber is now scarce, that our Government should, on some portions of such lands as are still held in reserve. If instead of spending such large sums on the agricultural department of the patent office for the dissemination of seeds, &c., many of which are utterly worthless, or were in times past, Government were to make an appropriation for the planting of a certain number of acres yearly with young trees for timber, or the seeds of timber trees, in such sections where timber is needed, it would eventuate in great good to the farmer, and become in the course of time a boundless source of wealth to the States.

In former communications I have advocated the planting of the Larch, the Scotch Fir, and the Spruce, on the great prairies of the West, each of which are well adapted to the purpose, but the Larch eminently so; it grows rapidly, and the timber is strong, tough, and durable; good for fencing purposes, and admirably adapted for the frame-work of dwellings. But there are other varieties of trees which also claim our attention. Among them I will mention the Elm, the Oak, the Ash, the Beech, the Maple, the Tulip Tree, the Three-thorned Acacia, the Hickory, and the Black Walnut, the merits of which I will enlarge upon in their regular order.

The Elm.—In the Eastern States the Elm is regarded rather as an ornamental tree than one of use, being inferior to either Beech or Maple for fuel, and of less value in the arts than some other kinds of trees. It has its uses, however, and should not by any means be overlooked even as a timber tree, for it has one property which certainly will recommend it to those who dwell near streams or lakes of water; it will grow and thrive well on land that for a portion of some seasons is inundated. The timber itself is very durable under water, and may be used in situations and for purposes where any other kinds of timber would soon rot away.

The Oak.—Although the different kinds of Oak, when transplanted directly from the forest, are rather difficult to make live, yet when raised from acorns in the open ground, and transplanted when two or three years old, are as easy to grow as many other kinds of trees. The Oak delights in a light, sandy, or loamy soil, but will thrive on almost any soil that is not positively wet. As to its merits as a timber tree, it is too well known to need any description here; and knowing its merits, let us hope that no one who has a spare foot of land will neglect to plant a few acorns, scatter them far and wide over the prairies, plant them on the hill sides and summits, on the desert and the plain. If they do not benefit this generation, they will the next; let not the thought that you are planting for posterity deter you, for the more you plant the more reason will

posterity have to rise up and call you blessed. I have in my mind, and can point to numbers of trees that have been planted less than a score of years, which, if cut down, would yield a good price for use in the arts, but which are so beautiful that it would be vandalism to disturb them; yet were they planted in abundance, we should scarcely observe the loss of some where a judicious mode of thinning was practiced.

I feel that the importance of this question of planting cannot be urged too forcibly upon the community, especially when we consider the immense emigration to this country, and the settlements which are continually springing up in those sections of it where timber is the most valuable. I will venture the assertion that but few better investments of capital could be made than for the owner of one or two hundred acres of vacant land to plow it up, and plant the seeds, nuts, or young trees on it, of such kinds as are considered the most valuable for timber. In ten or fifteen years from the time of planting, the process of thinning might commence, and be continued from year to year with but little cost and a good deal of profit, besides enhancing the value of the land, which would be in ratio to the amount of timber it contained.

SMALL FRUITS IN 1868.

WRITTEN FOR THE AMERICAN FARMER, BY P. C. REYNOLDS, ROCH-
ESTER, N. Y.

THE strawberry crop of 1868, in Western New York, was hardly up to the yield of 1867. The vines did not get so early a start, owing to the exceeding dry weather in April; yet our markets were abundantly supplied with cheap berries, in consequence of the great breadth in cultivation. I think Wilson's hardly averaged over eight cents a quart the season through, and that will not pay unless the yield is 200 bushels or more per acre. On sandy soils, the Wilson still remains at the head of the list for profit, but on strong, heavy loams, I think more money can be made with Jucunda or Triomphe.

Another year's trial with the Jucunda has but strengthened the high estimate previously formed of it. With me, it yielded more large, and more symmetrical berries than the Triomphe. I consider it hardly so firm as the latter, but enough so to bear quite distant shipping. Plant, strong and vigorous. The Green Prolific, in vigor of plant, excels all other varieties that we have tried. It does quite well on light soils, and is next to the Wilson in productiveness. The fruit is quite round, in fact many specimens oblate; of a light red color, less acid than the Wilson, too soft for much handling, but answers for home markets. The Golden Queen is decidedly a fancy berry; large, bright red, oblong, good flavored, always commanding the highest price in our market; will not endure much handling, rather a shy bearer, but on rich, heavy soils, produces quite remunerative crops. It holds out the latest of any berry that I have in cultivation.

The above are about all the varieties that I feel warranted in cultivating for market purposes—Wilson and Green Prolific on light soils; Jucunda, Triomphe,

de Gand, Wilson, Green Prolific, and Golden Queen on heavy soils. Of course there are several other varieties that the amateur will want in his garden for home consumption, such as Downer's, French, Lenning's White, Russell, and perhaps many of the newer varieties—Barnes' Mammoth, Nicaise, Napoleon III, Peak's Emperor, &c., &c.

Of raspberries, I am well pleased with Davidson's Thornless. While its freedom from thorns is a great merit, its earliness is a greater one, ripening as it does nearly a week before the Doolittle. From a limited experience, it appears to equal that standard variety in quality and productiveness. The Doolittle is too well known to require description. It would have produced an immense crop this year had not the severe drouth prevented the berries attaining their full size. The Mammoth Cluster I fruited this year for the first time, on plants set in the spring of 1867. I had the good fortune to obtain several hundred plants of one of the firm that introduced them into this State, and I had about one-fifth of an acre in bearing. I was so well pleased with the strong canes they made last year, and with some specimens of the fruit, that I planted them exclusively last spring, and have now a considerable plantation. They are emphatically the king of Black Caps, and worthy of all the praise so lavishly bestowed upon them by the eminent horticulturists who have seen them in full bearing on the fruit farm of Purdy & Johnston, near Palmyra, N. Y. The fruit is *very large*, grows in clusters, of good quality, and comes a week to ten days later than the Doolittle, thus prolonging the season of Black Caps to about four weeks. I have not grown the Miami, myself, but from what I have seen of it in other grounds, should think it possessed all the merits of the Doolittle with the addition that it continues a few days later.

A NEW BLACKBERRY.

WRITTEN FOR THE AMERICAN FARMER, BY J. H. FOSTER, N. J.

EDITORS AMERICAN FARMER:—Allow me through my old friend, THE AMERICAN FARMER, to give the history, description, and peculiarities of a new blackberry, the "White Cluster." We have closely watched it for two years, during which time it has shown these good qualities: *extreme hardiness*, easily propagated, blooming in peculiar clusters, like a Black Cap raspberry, and developing this season a wonderfully productive character, even one year old plants from cuttings showing an abundance of bloom, growth very vigorous, fully equalling Kittatinny. In the winter of 1866, the entire stock passed into the possession of our friend and neighbor, Mr. Ezra Stokes, who has been since that time industriously testing it as to its adaptability as a market fruit. It is confidently expected that it will assume a place of importance among the standard fruits. More will be gleaned as to its qualities and history from the following from the original discoverer, a gentleman well known in our community:

"EZRA STOKES: *Dear Sir*:—I first discovered the white blackberry in Lycoming County, Penn., (the

same as those obtained by you,) twelve years ago. I lived there seven years, and watched them closely from curiosity, as they were a novelty. They always produced a full crop of large berries; when fully ripe, much the color of good cream. The flavor was all that could be asked for, very sweet, and, I think, firm enough to carry well; ripened earlier than the common black in same situation. It is much colder there than here. I never knew the winter to kill them. I hope you will succeed with it, as I think it a valuable variety for market. Yours truly,

"ABRAHAM WINNER."

LOOK TO THE FRUIT TREES.

THE fruit tree should be washed as regular (but not as often, I admit), as you wash your own face; and, for a similar reason, to remove foreign substances. The old bark, moss, and lichens, that gather on the outside of the tree, whether or not injurious of themselves, are the harbors of thousands of insects which are only waiting the proper season for depredations. These insects sting and burrow in the leaf, the fruit, and the tree; and a war, therefore, of extermination should be made on the whole tribe of them. These little pests, like pests in general, are extremely prolific, and the killing of one of them in spring is often equivalent to the destruction of half a million at midsummer.

In the spring of the year, while the old bark is yet soft from the rains, let the orchardist, equipped with plenty of strong soap-suds and a coarse crash towel, visit every tree in his orchard, giving the trunk and lower branches a thorough washing and rubbing. Certainly it will take some time and labor, so it does to raise corn and wheat, but so long as it *pays*, I see no reason for complaint.

Trees served in this manner, even if old ones, form a smooth bark and assume a youthful and healthful appearance. An orchard treated thus looks as if dressed for Sunday; and, as if grateful for the kind treatment, the leaves take on a deeper green, the trees start into a more vigorous growth, and the fruit produced is larger, fairer, and more agreeable to the taste. In these facts the owner has his *pay*.

If the orchardist would have healthy rather than sickly trees—good, large fruit, rather than that which is insect-bitten and scabby, he must himself create the conditions on which alone such trees and fruit are grown. Certainly a day's labor in washing the trees will give more than the market value of a day's labor in the consequent improvement in quantity and quality of the fruit, and the increased health and vigor of the trees.—*North Western Farmer*.

SEEDS, especially of the stone-fruits, must not be allowed to get too dry. They are best preserved in sand or sandy earth, just perceptibly moist, which should be mixed in sufficient quantity to preclude drying or heating. A box in a cool and dry cellar or shed will answer as well as to follow the European plan of burying or stratifying.

PRUNE young trees to form a proper head.

NOVELTIES TESTED.

WRITTEN FOR THE AMERICAN FARMER, BY J. H. FOSTER, KIRKWOOD, N. J.

RILEY'S EARLY RASPBERRY.

THIS new variety, never brought prominently before the public, originated with a Mr. Riley, of Burlington County, N. J. A few plants passed into the hands of Mr. Jason Heritage, who cultivated it to a limited extent, and a few plants were obtained from him by Mr. Ezra Stokes, of the "Berlin Small Fruit Farm," who has now a considerable plantation of it. It is claimed to be a few days earlier than Doolittle, and certainly the earliest red raspberry known. They were picked this season at the same time as the last picking of the Wilson strawberry. The color is good for a market fruit, and the berries are remarkably firm. It is high flavored, and seems to be very productive, as it bore considerable fruit on plants only one year old from the root cutting. It is perfectly hardy, having stood unprotected without injury, while the Philadelphia was injured, and the Lawton blackberry killed to the ground.

PROSSER RASPBERRY.

Originated by the late Benj. Prosser, of Burlington County, N. J., and disseminated while he had but a small stock, at \$10 each, several persons purchasing a dozen each at \$120, so great was the faith in it of prominent fruit growers of that section. It is of *large size*, fine attractive color, and of excellent flavor, and stood the last unprecedented winter unprotected, and was uninjured, while the Philadelphia (one of our hardiest kinds) was considerably injured.

Last fall it was advertised by one person, but the stock was very limited. This may be called its first advent before the public. It is now generally advertised at \$2 each, which, considering its many good qualities and the probable demand, is very low.

EARLY ROSE POTATO.

We have this day dug our crop. It yielded according to the ground occupied, one-third more than the Buckeye, and one-ninth more than the Early Goodrich, besides which, it produced nearly all large tubers.

It is hardly fair to judge of its productiveness according to space occupied, as it was planted far apart in the row. Judging of the product by the hill, (and taking ninety feet of row as a criterion,) the Rose produced at the rate of 370 bushels per acre, Goodrich 192, and Buckeye 181. The Rose yielded eighty for one planted, the others about thirty.

MOUNT LEBANON GRAPE.

This grape being now ten years on trial, is soon to be introduced to the public. It has borne full crops in its native locality (Mt. Lebanon, Columbia County, N. Y.), during that time, never having shown any signs of a weak constitution, either in fruit, wood, or leaf. It is a much more vigorous grower than the Concord, the leaves being of a very dark color. It is supposed to have originated from a cross of Spanish Amber and Isabella, and was produced by Mr. George Curtis, of the United Society of Shakers.

SCABIOSA, OR MOURNING BRIDE.

AMONG the many flowers that give brilliancy to the flower garden at this season, nothing equals the *Asters*. They are the finest of all our fall flowers, and even the beautiful *Phlox Drummondii*, that has reigned almost without a rival since June, seems to pale before this queen of autumnal annuals. The Cockscomb holds up its regal head, and receives well merited admiration, while the *Gladiolus* knows no rival in its class. We designed, however, simply to call attention to a very modest, yet beautiful flower, the *Scabiosa*, which, like



SCABIOSA.

the *Aster* and *Phlox*, and *Sweet Pea*, should be found in every collection. It is not half so well known as it deserves to be. It is fine in the garden and quite suitable for large bouquets—of all colors, from almost black to white. The tall varieties are about two feet in height, the flowers being supported on long wiry



DOUBLE DWARF SCABIOSA.

stems; the dwarf sorts about one foot in height; a new dwarf variety, double, is very compact in habit, and the flowers exceedingly neat and pretty.

FLOWERS.

Flowers for the humble poor,
Flowers for the weak and lone;
Let them gently, gently fall,
Where the weeds of toil are sown;
Lifting up foul discontent
From the lonely tenement,
As the fainting toilers there
Catch the breath of heaven's air.

Flowers—lay them by the bed,
Where the restless sick are lying;
Let their freshness heal the air.
Wounded by the sufferer's sighing,
Let his eye a moment rest
Where his seeing may be blessed,
Ere they mingle their sweet breath
With the heavy one of death.

Flowers for the rich and proud,
Lay them in the costly room,
Where art's thick luxuriant air
May from nature catch perfume;
And like whispering angels start
Pity in the rich man's heart—
Pity for some humble one,
Who of flowers and fruits hath none.

Flowers for each one of earth.
Under and above the sod,
That the dead may sweeter sleep,
And the living think of God.
When we from our walks of sin
See where his soft steps have been,
Leaving these to bless our eyes,
As a glimpse of Paradise.

EXHIBITION OF GRAPES.

OUR readers are already aware that the New York State Grape Grower's Association is to hold a general exhibition of grapes and native wines at the beautiful village of Canandaigua, October 7th and 8th. A meeting for discussion will be held on the evening of the 7th. A circular just issued says:

"The exhibition will comprehend the grape, its products and the implements which pertain to its culture, gathering, preparation for market, and manufacture into wine or brandy. Grape growers and manufacturers of wines, brandies, and implements from all parts of the Union and the British Provinces, are cordially invited to become exhibitors and competitors. Three premiums, 1st, 2d, and 3d, are offered to each standard or well-known variety of grapes, and to each sort of wine and brandy. No premium will consist of money, as it is deemed wiser to apply the funds of the Association to the collection and publication of matters of interest and use to the grape growers. Facilities will be afforded for the sale of fruit, implements, &c., and it will be an excellent opportunity for visitors to procure ample supplies from the hands of the producers."

FEEDING BEES.—For the benefit of those of our readers who wish to feed their bees in accordance with our recommendation, we would say that Mr. J. H. Graves, of this city, furnishes an admirable arrangement for this purpose. His residence is at No. 6 Chestnut street.

Ladies' Department.

MATRIMONY.

A discussion has been going on among several female writers in the English press as to the causes of the increasing disinclination to matrimony observable in large cities and towns on the part of the masculine gender. Many interesting communications embodying a great diversity of views, have been called out thereby, among which the following from "A Country Girl," is right to the point. Its spirited home-thrusts are just as applicable in our country as across the water, and is a capital daguerreotype of the prevailing tendency of "fashionable" society:

"SIR—I am a country girl, residing in London for a few weeks only, catching sundry passing glimpses of the great metropolis, and its manners and customs before returning to the quiet village which I call my own. One reason against marriage is, the great want of rational topics of conversation. Take a sample of the conversation I have heard among the ladies at an ordinary friendly call, or an evening party, as the case may be; Mrs. E.'s dress, how elegant it looks! Mrs. C.'s ornaments, what are they worth? the cut of a Marie Antoinette, the length of a skirt, the exquisite style of Mr. A.'s moustache, the bad taste young Wilson always shows in his neckties, the last new thing in trimmings, the lovely complexion of Miss D.,—the last remark followed up by the whisper, 'Ah, but do you know she uses rouge and pearl powder?' the size of Miss K.'s chignon, and the false curls Mrs. L. delights to wear. I was a listener to this, for the simple reason that I could not join in the talk. I felt out of my depth—overwhelmed, as it were, beneath flounces and trimmings, muslins and laces. As to the sensible, general conversation between the sexes, there was little or none. The ladies took no interest in the great events of the time—the arts, literature, and politics, were alike without their charms; and they looked upon poor little me with something like disdain, when I was obliged to admit that the color and texture of a butterfly's wing, or the discovery of a new fern in some cool, shaded glen, afforded me more pleasure to talk of than the latest mode of dressing the hair, or Mrs. Johnstone's last new bonnet. As I sat in my quiet corner, listening to the wavelets of small talk which flowed hither and thither, I pictured to myself a sensible young fellow entering that society in search of a wife. He has an income, say £200 a year, is desirous of marrying, and having a comfortable little home of his own, but he wants a helpmate, not a hindrance in life. How he must despair of finding the prize he seeks, and must feel that to him marriage is out of the question."

There was once an independent old lady whose comments on the Bible were very pointed. Speaking of Adam's naming all the animals, she said she didn't think he deserved any credit for naming the hog—anybody would know what to call him.

DOMESTIC RECIPES.

CONTRIBUTED TO THE AMERICAN FARMER, BY MRS. D. C. A., PINE ISLAND, MINN.

Liniment.—1 pint of alcohol, 4 oz. oil of organum, 1 oz. camphor gum, 1 oz. spirits of turpentine. Shake well before using.

Bogus Mince Pie.—2 tablespoonsful of sugar, 4 do. of molasses, 2 do. of vinegar, 2 teaspoonsful of water, 1 egg, and a piece of butter, half as large as a hen's egg. Bake with two rich crusts.

Loaf Cake.—6 pounds flour, 3 pounds shortening, half butter, half lard, $\frac{3}{4}$ of a pound sugar, 3 eggs, beat the shortening and sugar together one hour. Put the eggs in without beating; after it has risen the second time, add 9 nutmegs, half a pint of brandy, 3 pounds raisins, one teaspoonful soda, and milk sufficient for wetting and yeast.—*Correspondent Germantown Tel.*

PREPARED EXPRESSLY FOR THE AMERICAN FARMER BY MRS. A. E. CANASERAGA, N. J.

To Color Brown.—2 lbs. of logwood extract, sixpence worth of copperas, $\frac{3}{4}$ lb. blue vitriol, 1 lb. potash.

Violet.—1 lb. yarn, 2 oz. extract logwood, 2 oz. of sumach bark, 1 pint strong ley, 2 oz. alum.

Orange.—A piece of lime as large as your fist, 2 oz. potash, 2 oz. sugar of lead.

Spice Cake.—1 cup of butter, 1 of sugar, $\frac{1}{2}$ cup of sour cream, 2 eggs, $\frac{1}{2}$ wineglass brandy, $\frac{1}{2}$ teaspoonful cloves, 1 teaspoonful cinnamon, $\frac{1}{2}$ nutmeg, $\frac{1}{2}$ a spoonful saleratus, $\frac{1}{2}$ cup of flour, 2 cups fruit.

Cheap Cake.—1 cup sugar, $\frac{1}{2}$ cup butter, $\frac{1}{2}$ cup sour milk, 2 eggs, $\frac{1}{2}$ teaspoonful saleratus, nutmeg.

Jelly Cake.—4 cups flour, 3 cups sugar, 1 cup butter, 1 cup cream, 5 eggs, 1 teaspoonful saleratus.

Sugar Pie.—Line a plate with light crust, butter the size of walnut, cut in small pieces, put over the top $\frac{1}{2}$ a cup of sugar, teacupful cream, nutmeg.

Mixed Pickles.—1 peck green tomatoes chopped fine, 2 heads of cabbage, chopped fine, 1 pint horse radish grated, 2 tablespoonsful ground cinnamon, 2 cloves. Red peppers chopped fine. Take a handful of salt, spread over the tomatoes, after having chopped let them stand over night; squeeze dry, and then add the other ingredients, with the addition of 1 pint of molasses; cover tight, let stand one month, and they are fit for use.

Soda Crackers.—To 15 cups of flour, add one cup of lard, 4 teaspoonsful cream, and 2 of soda; rub these ingredients well into the flour, add 3 cups of water, one tablespoonful of salt, work thoroughly, and bake quick.

Johnny Cake.—1 cup of meal, 1 cup flour, 1 sweet milk, 1 egg, 3 teaspoonsful sugar, a piece of butter large as a walnut, 1 teaspoonful cream tartar, $\frac{1}{2}$ teacupful soda.

Sponge Cake.—1 cup sugar, 1 flour, 5 eggs.

Excellent Cookies.—3 eggs, 2 cups sugar, 1 cup butter, 1 teaspoonful saleratus, dissolved in $\frac{1}{2}$ cup sweet milk, flour enough to mix soft; add caraway seed according to taste, roll thin, and bake quick.

Young People's Page.

A CURIOUS SHEEP STORY.

ROBERT BACHELDER, of Saalsbury, N. H., has a flock of twenty-eight sheep, which during the winter were housed in a place where their wool became filled with hay seed. They have been out to pasture for several weeks past, and the excessive wet weather has caused the seed to sprout, and they are now bearing about with them a crop of grass two inches in length. It is thought that if the wet weather continues much longer the clover will blossom.—*Monitor.*

This is the most interesting story that ever we have seen, concerning some New Hampshire sheep, who are "wearing of the green." 'Twas related by a person on whose honor we rely; he never hacked cherry trees, and—shouldn't tell a lie. Mr. Robert Bachelder, this was the shepherd's name, and he pastured eight and twenty sheep on Salisbury plain. But when the leaves had fallen, and November winds were chill, why, out upon the world they couldn't get their fill. So Bobby kindly put them in a well protected shed, with hay enough to feed them in the mow up over-head. And the seed it sifted down, and it lodged in their wool, and there it did remain till the April moon was full. And then out went their muttons, all in the rain, you know, and in less than twenty-one days the seed began to grow, and it grew and it grew like the bean in fairy song, and now the grass upon their backs is more'n two inches long. And, it is expected, that later in the year, red, fragrant clover blossoms also will appear! The moral of this sheep tale is clear to every eye, that by judicious management, if a person cared to try, he might, with little trouble, and with aid of rainy weather, have his lambs and green peas growing up together.—*New York Evening Mail.*

WHISTLING GIRLS.

SHOW me a girl who has the hardihood to whistle in these days when everything natural, even to the very hair of your head is at a discount, and I'll show you a girl who can be depended upon, one who will not fail you in time of need, and will give you the true, hearty grasp, the cordial hand shake, the warm, genuine welcome—no tip of the kid glove and a cold "how do you do?" who can brave danger, look toil in the face without shrinking, "laugh with those that laugh, and weep with those that weep, as well as whistle with those that whistle; who can, in short, take the world as she finds it, rough and rugged, and not go through life as though she were walking on eggs and afraid of cracking a shell; who deals in substance, not shadow.—*Ex.*

TO BOYS.—Horace Mann said to boys:—You are made to be kind, generous and magnanimous. If there's a boy in school with ragged clothes, don't talk of rags in his presence. If there's a lame boy in school, assign him some place in the play which does not require much running. If there's a dull one, help him to get his lessons.

A BOY'S COMPOSITION ON CORNS.

CORNS are of two kinds, vegetable and animal. Vegetable corns grows in rows, and animal corns grows on toes. There are several kinds of corn; there is unicorn, capricorn, corn dodgers, field corn and toe corn, which is the corn that you feel most. It is said, I believe, that gophers like corn, but a person having corns does not like to "go fur," if he can help it. Corns have kernels, and many colonels have corns. Vegetable corn grows on the ear, but animal corn grows on the feet, at the other end of the body. Another kind of corn is acorn. These grow on oaks, but there is no hoax about the corn. The acorn is corn with an indefinite article, but the toe corn is a very definite article indeed. Try it and see. Many a man when he has a corn, wishes it was an acorn.

Folks that have corns sometimes send for a doctor, and if the doctor himself is corned, he won't do as well as if he isn't. Doctors say that corns are produced by tight boots, or shoes, which is probably the reason why when a man is tight they say he is corned. If a farmer manages well he can get a good deal of corn on an acre; but I know a farmer that has one corn that makes the biggest acher on his farm. The bigger the crop of vegetable corn a man raises, the better he likes it; but the bigger the crop of animal corn he raises, the better he don't like it.

READING FOR FARMER'S BOYS.

AN intelligent and thrifty farmer says: "But for the co-operation of my boys I should have failed. I worked hard, and so did they. The eldest is near twenty-one, and other boys in the neighborhood, younger, have left their parents; mine have stuck to me when I most needed their services. I attribute this result to the fact, that I have tried to make home pleasant for them. I have furnished them with attractive and useful reading; and when night comes, and the day's labor is ended, instead of running with other boys to the railway station and adjoining towns, they gather around the great lamp, and become absorbed in their books and papers." Such is substantially the testimony of a farmer who has known how hard the struggle for a footing on free soil without capital is, and how valuable and comparatively cheap are the aids which good reading brings to them.

MR. CHARLES DICKENS' speech to the boys on board the school-ship in Boston harbor has been printed on an illuminated card by Messrs. L. Prang & Co. The speech ran as follows: "Boys, do all the good you can, and don't make any fuss about it."

A SCHOOLBOY near Macon, Georgia, hired 21 acres of land, last spring, hired a man to plant it in cotton, and has attended to it two weeks which he took from his school time, and has a crop which will give him a clear profit of \$1,400.

A youngster at Groton Junction made \$100 last year by selling pond lilies on the cars at a cent apiece.

Miscellaneous.

MR. NOBODY.

I know a funny little man,
As quiet as a mouse,
Who does the mischief that is done
In everybody's house.
There's no one ever sees his face,
And yet we all agree,
That every plate we broke was cracked
By Mr. Nobody.

'Tis he who always tears our books—
Who leaves the door ajar;
He pulls the buttons from our shirts,
And scatters pins afar.
That squeaking door will always squeak,
For, prithee, don't you see,
We leave the oiling to be done
By Mr. Nobody.

He put damp wood upon the fire,
That kettles cannot boil;
His are the feet that bring in mud,
And all the carpets soil.
The papers always are mislaid;
Who had them last, but he?
There's no one tosses them about
But Mr. Nobody.

The finger-marks upon the doors
By none of us are made;
We never leave the blinds unclosed,
To let the curtains fade.
The ink we never spill: the boots
That lying round you see,
Are not our boots! They all belong
To Mr. Nobody!

—*Riverside Magazine.*

LITTLE THINGS.

LITTLE martin boxes of homes are generally the most happy and cosy; little villages are nearer to being atoms of a shattered paradise than anything we know of; and little fortunes bring the most content, and little hopes the least disappointments.

Little words are the sweetest to hear; little charities fly farthest, and stay longest on the wing; little lakes are the stillest, little hearts the fullest, and little farms best tilled. Little books are the most read, and little songs the most loved. And when nature would make anything especially rare and beautiful, she makes it little, little pearls, little diamonds, little dews.

Everybody calls that little they love best on earth. We once heard a good sort of man speak of his little wife, and we fancied that she must be a perfect little bijou of a wife. We saw her, and she weighed 210; we were surprised. But then it was no joke; the man meant it. He could put his wife in his heart, and have room for other things besides; and what was she but precious, and what was she but little?

Multum in parvo—much in little—is the great beauty of all we love best—hope for most, and remember the longest.—*B. F. Taylor.*

WHO ATE ROGERS WILLIAMS?

THE truth that matter passes from the animal back to the vegetable, and from the vegetable to the animal kingdom again, received a curious illustration not long since. For the purpose of erecting a suitable monument in memory of Roger Williams, the founder of Rhode Island, his private burying ground was searched for the graves of himself and wife. It was found that everything had passed into oblivion. The shape of the coffins could only be traced by a black line of carbonaceous matter. The rusted hinges and nails, and a round wooden knot, alone remained in one grave; while a single lock of braided hair was found in the other. Near the grave stood an apple tree. This had sent down two main roots into the very presence of the confined dead. The larger root, pushing its way to the precise spot occupied by the skull of Roger Williams, had made a turn as if passing around it, and followed the direction of the backbone to the hips. Here it divided into two branches, sending one along each leg to the heels, when both turned upward to the toes. One of these roots formed a slight crook at the knee, which made the whole bear a striking resemblance to the human form.* There were the graves, but their occupants had disappeared; the bones even had vanished. There stood the thief—the guilty apple-tree—caught in the very act of robbery. The spoliation was complete. The organic matter—the flesh, the bones, of Roger Williams had passed into an apple-tree. The elements had been absorbed by the roots, transmuted into woody fiber, which could now be burned as fuel, or carved into ornaments; had bloomed into fragrant blossoms, which had delighted the eye of the passer-by, and scattered the sweetest perfume of spring; more than that—had been converted into luscious fruit, which, from year to year, had been gathered and eaten. How pertinent, then, is the question, "Who ate Roger Williams?"—*Steele's Fourteen Weeks in Chemistry.*

*The author has in his possession a letter from a gentleman who was present at the opening of this grave, attesting the truth of this singular statement.

CHILDHOOD.—A child is man in a small letter, yet the best copy of Adam before he tasted of Eve or of the apple; and he is happy whose small practice in the world can only write his character. His soul is yet a white paper unscrubbed with observations of the world, wherewith, at length, it becomes a blurred note book. He is purely happy, because he knows no evil, nor hath made means by sin to be acquainted with misery. He arrives not at the mischief of being wise, nor endures evils to come, by foreseeing them. He kisses and loves all, and when the smart of the rod is past, smiles on his beater. The older he grows he is a stair lower from God. He is the Christian's example, and the old man's relapse; the one imitates his pureness, and the other falls into his simplicity. Could he put off his body with his little coat, he had got eternity without a burden, and exchanged but one heaven for another.—*Bishop Erle.*

Editor's Table.

READERS OF THE FARMER.

IN assuming the responsible position of Editor and Publisher of THE AMERICAN FARMER, I do not claim to be a Know-All, neither will I acknowledge myself a Know-Nothing. A working farmer from my childhood up, I have had enough of experience, if not of success. I know much of the toil, care, and disappointment, and have experienced something of the health, pleasure, and independence attending your calling. If sympathy in your trials and vexations is what you want, you may draw on me for any amount. I have a gushing quantity of it. If you ask for advice, I will give you the best I have. If you look for "drops of wisdom," don't hold too large a dish. If your taste is for flowers of rhetoric, sentimental poetry, or flashy literature, patronize those papers that have little else in them; but if you are an honest farmer, and desire plain, common sense, practical ideas, worth more than gold to you, read carefully THE AMERICAN FARMER; its contributors are earnest, practical men and women, and its editors will give you in selections the cream of a hundred agricultural journals.

THE FARMER will not be run in the interests of any set or clique. It has no nostrum or patent right to advertise; will not be a blowing horn for any man or set of men, neither will it occupy half its pages in blowing its own horn, but will be free and independent in all things, and therefore reliable.

Fellow farmer, you are welcome to its subscription books, its columns, and its sanctum. You may as well as cordially welcome me, for I have pulled off my coat, and am going to stay with you.

So much for the big "I." Henceforth I am the small "We" in its columns.

JOHN R. GARRETTSEE.

IMPROVEMENTS.

It is our purpose to make some radical changes in THE FARMER, which we trust will be great improvements with the commencement of the new volume.

What, or how extensive they will be, will depend much on our subscribers. We propose to apply *every cent received on subscription for the next year to improvements*. Our plan is now to enlarge, change the form to a more convenient one, and publish *Semi-Monthly* after the 1st of January, 1869.

The more subscribers our friends send in before the 1st of December, the *larger and better paper they will get for next year*, as we intend to "cut our garment according to our cloth." Every dollar sent within a month will pay for the remainder of this volume and the next, no matter what the price may be, when we enlarge. All new subscribers sent now get three months this year *free*, and a *Semi-Monthly* next year for a *dollar*. Will not every subscriber send at least one new one immediately. Such a response will encourage us to redoubled efforts to make THE FARMER the best and cheapest agricultural paper published. See advertisement on last page for a beautiful premium.

THE STATE FAIR.

WE have just returned from the grounds of the Monroe County Agricultural Society, where the State Fair is to be held. We can assure exhibitors and those who contemplate visiting the Fair, that the committee who are all experienced, live men, are doing everything in their power to make the arrangements perfect. Numerous new buildings and stalls have been erected in addition to the large number of permanent structures before on the ground. The officers of the Society were present to-day, and approved of what has been done thus far.

Our Daily.—As will be seen from a prospectus on the last page of this number, we shall have an office on the grounds, and publish THE FARMER daily during the Fair. We invite all our friends to visit us there, and hope it will not be asking too much to request them to furnish us items for the paper, and bring forward their friends to subscribe.

To Exhibitors.—THE DAILY FARMER will be a valuable medium for you to advertise in, and editorial notices will be given of the articles you have on exhibition by applying at the office.

Agents.—Good agents are wanted to work for THE FARMER on the grounds. Liberal premiums will be given.

October Number.—A large edition of the October number of THE FARMER with a report of the State Fair, will be printed for distribution throughout the country. Those wishing extra copies containing their advertisements, and notices of their implements and stock, should notify us. This will be another valuable number for advertisers.

To Contributors.

WHILE we hope to lose none of the former contributors of THE AMERICAN FARMER, those who have done so much to make its reputation, we expect many more to join the corps of honor. Short, pointed articles, will always be thankfully received. Hardly a thinking farmer but carries ideas with him as he goes about the farm, which if put on paper just as he thought them, would be of great value to his brother farmer. The best things written for our agricultural papers are penned at night after a day's toil, and while every incident of the day is fresh in the writer's mind. We want ideas, no matter in how few words, or how awkwardly expressed, that smell of the soil—that were born in the furrow and cradled in the field. Will not all our readers try their hands at writing?

Will not the ladies use their pens, and give their views of farming, household duties, &c.? We believe in *woman's privileges*. Her rights she's good for without our help. If the boys and girls will write, we will give them a Department. Let all who write, write plainly, and send in their communications by the middle of each month, if possible, for the next month's number.

NO MORE DELAYS.—We are now regulated. THE FARMER may hereafter be looked for the first of each month.

Read the Advertisements.

THEY are from the largest and most reliable dealers in seeds and nursery stock in this country. Such firms and men as Briggs & Brothers, Purdy & Johnston, Ellwanger & Barry, Vick, Webster, Thorburn, J. H. Foster, C. L. Hoag, E. J. Evans & Co., Geo. W. Best, Wm. S. Little, B. Hathaway, and others, can be trusted every time. They are men of character, and honorable dealers.

New York State Fair.

THE 28th Annual Fair of the New York State Agricultural Society will be held in this city, Sept. 29, 30, and Oct. 1 and 2. Stock and articles for the exhibition will be transported free on the following railroads:—New York Central, New York and Erie, Hudson River, Syracuse and Oswego, Syracuse and Binghamton, Albany and Susquehanna, Troy and Whitehall, Troy and Boston, Rome, Watertown and Ogdensburg, Ogdensburg and Lake Champlain, Utica and Black River, Corry and Pittsburg railroads; also, People's Line Steamboat Company and New York and Troy Steamboat Company. In addition to a revised and enlarged list of premiums, the following special premiums are offered:—a prize of \$250 for the best stallion. A special premium is offered by a member of the Society of \$200 (in addition to the offer of \$50 by the Society,) for the best stallion for general purposes, over four years old, and not less than 15 hands 3 inches high.

The following special prizes are offered by Orange Judd, of New York:—For the best two barrels of white winter wheat, \$100; for the best two barrels of red winter wheat, \$100; for the best two barrels of spring wheat, \$100. For conditions and regulations relating thereto, see premium list. The additional premiums offered over former years on Lop-eared or Mad-gasser rabbits are contributed by two members of the Society, who will not exhibit in competition.

The following members of the Board are designated to take charge of the several departments at the Fair:

- CLASS 1—Cattle.—Messrs. Haven and Church.
- CLASS 2—Horses.—Messrs. Burr and Thorne.
- CLASS 3—Sheep, Swine, Poultry.—Mr. Foster.
- CLASS 4—Machinery.—Messrs. Geddes and Thayer.
- CLASS 5—Farm Produce.—Messrs. Ely, Lewis, and Ingalsbe.
- CLASS 6—Fruit and Flowers.—Messrs. Taber and Angel.
- CLASS 7—Miscellaneous.—Messrs. Wing and Cornell.

SUPERINTENDENTS.

- General Superintendent—Col. H. Bowen, Medina, Orleans county, N. Y.
- Superintendent of Cattle—J. S. McDonald, Salem, Washington county, N. Y.
- Superintendent of Horses—John F. Quick, Niagara Falls, N. Y.
- Superintendent of Sheep and Swine—T. V. Maxon, Adams, Jefferson county, N. Y.
- Superintendent of Poultry—E. P. Cheever, New Haven, Oswego county, N. Y.
- Superintendent of Implements and Machinery—Julius W. Smith, Fairmount, Onondaga county, N. Y.
- Superintendent of Grains, Vegetables, Butter, Cheese, &c.—H. H. Ingalsbe, South Hartford, Washington Co., N. Y.
- Superintendent of Domestic Department—C. M. Tyler, Rochester.
- Superintendent of Fruits and Flowers—James Vick, Rochester.

JUDGES.

- CLASS I.—No. 1. SHORT HORNS.
Lewis G. Morris, Fordham, N. Y.; Thomas Bell, Eatontown, N. J.
- CLASS I.—Nos. 2 AND 3. DEVONS AND HEREFORDS.
Samuel Fails, White Plains, N. Y.; B. H. Andrews, Waterbury, Conn.
- CLASS I.—Nos. 4 AND 5. AYRSHIRES AND JERSEYS.
Otis Dillingham, Granville, N. Y.; Benjamin L. Swan, Jr.; Oyster Bay, N. Y.

- CLASS I.—Nos. 6 AND 7. GRADES, &C.
Berry Long, Cambridge, N. Y.; Geo. W. Root, York, N. Y.
- CLASS II.—No. 8. BREEDING AND GROWING STOCK.
Charles W. Bathgate, Fordham, N. Y.; John McGraw, Ithaca, N. Y.
- CLASS II.—Nos. 9 AND 10. HARNESS AND SADDLE HORSES, JACKS AND MULES.
Dr. A. L. Elwyn, Philadelphia, Penn.; Ardell B. Raymond, N. Y.
- CLASS III.—Nos. 11, 12 AND 13. FAT SHEEP, LONG WOOLS AND MIDDLE WOOLS.
Carroll Fitzhugh, Geneseo, N. Y.; J. McD. McIntyre, Albany, N. Y.
- CLASS III.—No. 14. FINE WOOLED SHEEP.
Parsoll H. Peterson, Canoga, N. Y.; O. F. Marshall, Wheeler, N. Y.
- CLASS III.—No. 15. SWINE.
S. S. Whitman, Little Falls, N. Y.; Levi S. Fulton, Rochester, N. Y.
- CLASS III.—No. 16. POULTRY.
Abram Vought, Pittsford, N. Y.; D. S. Heffron, Utica, N. Y.
- CLASS IV.—Nos. 17, 18, 19, 20 AND 21. IMPLEMENTS AND MACHINERY.
Dyer Williams, Syracuse, N. Y.; Avery A. Sweet, Syracuse, N. Y.

THE MARKETS.

OFFICE OF AMERICAN FARMER, ROCHESTER, N. Y., Sept. 9, 1888.

The latest reports from various sections of the country give indications of a satisfactory harvest. In most of the States the wheat and corn crops are unusually large; but the general crops of peaches and apples will be light. The potato crop in this immediate vicinity will be less than anticipated, on account of severe drouth; but our present and past rains will no doubt help late varieties. Butter has also been very scarce, as it has reached last winter's prices, a prime article bringing 45c. on the street. If our present copious fall rains continue, we can but expect a large yield in September and October, as most of our cheese factories in this section have, or shortly will, turn their milk over to butter making and skim-milk cheese.

Eggs have been remarkably low for the season, but there is an active demand, with prospect of a steady advance; there seems to be no disposition to invest largely in wheat and other grains, at present prices, though it is no doubt more on account of ascertaining the general yield through the country, the amount really desired for export.

The wool market seems to meet with no decided change, although good grades demand our outside figures. There is every indication of a good fall trade, even in the face of a Presidential campaign; and we predict good prices to the farmer, and fair trade in return to the merchants.

GRAIN.	
White.....	\$ 2,25 @ 2,65
Best Soules.....	2,00 @ 2,65
Red.....	2,10 @ 2,15
Barley.....	1,50 @
Oats.....	65 @ 68
Rye.....	1,50 @
FLOUR.	
Spring Wheat.....	\$ 9,00 @ 10,00
Red Winter.....	10,25 @ 10,75
White Winter.....	12,00 @ 12,50
PROVISIONS.	
Mess Pork.....	\$80,00 @ \$82,00
Lard.....	20 @ 21c
Smoked Hams.....	21 @ 22c
Shoulders.....	12 1/2 @ 18c
POULTRY.	
Fowls, 3/4 D.....	12 @ 15c
Spring Chickens, each.....	20 @ 25c
Ducks, 3/4 D.....	10 @ ..c
Turkies, 3/4 D.....	19 @ 19
FRUIT.	
Apples, 3/4 bush.....	\$ 0,75 @ 1,00
do dried, 3/4 D.....	85 @ 10c
Dried Peaches.....	20 @ ..c
Dried Plumbs.....	25 @ 30c
Dried Cherries.....	30 @ 35c
DAIRY PRODUCTS.	
Butter, 3/4 D.....	40 @ 45c
Cheese, dairy.....	14 @ 18c
do factory.....	16 @ 17c
VEGETABLES.	
Onions.....	\$ 1,50 @ 2,00
Beans.....	3,00 @ 4,00
New Potatoes.....	38 @ 1,00

Special Notices.

GOLD MEDAL THRESHING MACHINE.—Persons intending to purchase a Threshing Machine, will do well to send for Circulars and Judges' Report of the Machine awarded Two Gold Medals at the Great National Trial, Auburn, N. Y., July, 1866, manufactured by R. & M. HARDEL, Cobleskill, N. Y. See their advertisement in last number of AMERICAN FARMER.

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in THE AMERICAN FARMER for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 18th of the previous month. THE FARMER has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

FRUIT AND ORNAMENTAL TREES,

FOR FALL OF 1868.

WE have the pleasure of announcing that we are prepared for the Fall Trade with an unusually large and well-grown stock, embracing

Standard and Dwarf Fruit Trees,

GRAPE VINES, new and old sorts, strong open ground plants.

CURRENTS, RASPBERRIES, BLACKBERRIES, and all the **Small Fruits.**

Ornamental Trees and Shrubs.

Roses and Flowering Plants of Every Description.

NURSERYMEN, DEALERS, and Others, purchasing largely, will be dealt with liberally, and all orders, however small, will receive prompt and careful attention. Parties interested will do well to consult the following Catalogues, which are just issued, and will be sent pre-paid on the receipt of 10 cents each, for Nos. 1 and 2, and 5c for No. 3.

No. 1, Descriptive and Illustrated Catalogue of Fruits. No. 2, Descriptive and Illustrated Catalogue of Ornamental Trees, &c. No. 3, Descriptive Greenhouse Plants. No. 4, Wholesale Catalogue free.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.

JAPAN LILIES

AND

HYBRID GLADIOLUS

FOR THE MILLION!

PRICES GREATLY REDUCED.

ALSO

LILIUM AURATUM.

Nurserymen and Dealers Supplied much below Cost of Importation. Prices on application to

J. M. THORBURN & CO.,

15 John St., New York.

EARLY ROSE POTATOES.

TO BE GIVEN AWAY, to each person sending cash for Five Dollars worth of plants from our novelty Circular will be sent post-paid by mail, half a pound of this splendid potato. Mention that you desire the potatoes when you send your order. For Circular of the White Cluster Blackberry, and other novelties, address,

J. H. FOSTER,
Kirkwood, P. O., Camden Co., N. Y.

GRAPES.

WE invite the attention of DEALERS AND PLANTERS to our superior and perfectly healthy stock of

GRAPE VINES,

propagated from our own bearing vineyards. Quality and prices cannot fail to suit. Price lists free to applicants.

C. L. HOAG & CO.,

sep-1t (LOOKPORT GRAPE NURSERIES,) Lockport, N. Y.

MAMMOTH CLUSTER RASPBERRY.

PRONOUNCED by Charles Downing, Andrew S. Fuller, and many other experienced horticulturists, who have seen it bearing—

The Largest, Best, and Most Productive Black-Cap Grower.

I have the certificate of Purdy & Johnston that I have

The Genuine Mammoth,

propagated from plants obtained of them. Also Davidson's Thornless, Doolittle, and other desirable raspberries. Juncunda, Triomphe, Peak's Emperor, Green Prolific, Golden Queen strawberries.

Send for Catalogue.

P. C. REYNOLDS,

sep-2t

Rochester, N. Y.

PROSSER & RILEY'S EARLY RASPBERRIES.

THESE two novelties—the latter never before introduced—are now for sale. Send for our Circular concerning them, with prices of stock, &c. If you want a 24 page book, illustrated, to tell you how to grow Grapes and other Small Fruits, send along money and get it. It is certainly worth 10 cents, but if you think not, we will send it for a few stamps to prepay return postage. Address,

J. H. FOSTER,
Kirkwood P. O., Camden Co., N. J.

WEBSTER'S AUTUMN

CATALOGUE OF BULBS AND ROSES,

NOW READY,

Will be Mailed Free to Customers and all Applicants. Address,

WILLIAM WEBSTER,

sep

149 State St., Rochester, N. Y.

MICHIGAN SEEDLING STRAWBERRY.

THE result of fifteen years experimenting. This new strawberry more than sustains its first promise as the best standard market variety to succeed the Wilson—a week to ten days later; keeps better, more even sized berries, and a firmer fruit. Average product 4 quarts to 8 hills! First picking June 24th. Hills bud until July 4th, yielded 8 quarts to 2 hills, sound berries! Read what fruit men say:

"Very good, very vigorous, and very productive. Its color and productiveness will make it a good market sort."—Charles Downing, Newburg, N. Y.

"Stood the winter well without protection; made a vigorous growth, foliage not injured by the sun. Berries firm, flavor very good, and remarkably productive."

William Adair, Nurserymen and Florist, Detroit, Mich.:—"The wonderful productiveness of your new seedlings was to me an unusual sight, especially your Michigan hill, was very remarkable, the more so as there were many hills equally as good, and all fine large berries."—A. J. Hatfield, Niles, Mich.

"We have watched the progress of Mr. Hathaway's experiments with much interest, and believe this new strawberry well worthy the attention of all growers of this fruit. For health giving, productiveness, and long-keeping qualities it is certainly very remarkable."—A. B. Copley, B. G. Buehl, Little Prairie Route, Mich.

If set any time in October will give a fine crop next year. \$5 per dozen; \$25 per 100 in pots. \$8 per dozen by mail. Address,

sep

B. HATHAWAY, Decatur, Mich.

WILLIAM WEBSTER,

LANDSCAPE GARDENER.

Surveys and Plans for Public Parks, Private Grounds, and Cemeteries, made and Furnished on Application.

Address,

WILLIAM WEBSTER,

sep

149 State St., Rochester, N. Y.

MAMMOTH CLUSTER RASPBERRY!



Photographed from a Cluster of the Fruit showing just two-sevenths its full size.

WARRANTED to stand the most severe winters without protection. After nearly twenty years experience in the culture of small fruit, we most emphatically pronounce this superior to any Black Cap Raspberry ever yet introduced. Chas. Downing, after seeing it in fruit on our grounds this season, says of it: "It is very much the largest and most productive of any Black Cap that I have ever seen, and coming in as it does after the other Black Caps are done, it is a valuable addition to that class of raspberries."

Andrew S. Fuller says: "It is the largest Black Raspberry I have ever seen, and I have some twenty-five varieties on my grounds."

D. D. T. Moore says: "It is the largest and best Black Raspberry we ever saw."

Wilcox says: "I never saw anything equal to it."

The *Evral New Yorker*, of August 8th, says: "The canes are of a stockier and more erect growth than those of the Doolittle and Miami, and the color of the leaf a shade darker. The fruit stalks are long, and the fruit is chiefly borne on the ends in magnificent heavy clusters. The berry is larger and therefore more juicy and acceptable to the taste than the Doolittle. These qualities and its prolific habit and late period of ripening, render it a valuable acquisition."

The *Palmyra Courier* says: "It could not have been more appropriately named, for the fruit was of monstrous size, and hung in large clusters all over the bush. We certainly never saw such a mass of fruit on bushes before."

Anderson & Co., Commission Merchants, 268 Washington St., N. Y., write us: "The Mammoth Cluster you have assigned to us are the largest and best flavored—in fact the most perfect raspberry we have ever seen. No such variety is raised in the vicinity of New York. We think they will take the lead as a market berry."

For full sized cut, description, &c., send for our List of New Sorts.

PRICE OF PLANTS, \$3 PER DOZEN, \$15 PER 100.

Golden Cap.—We claim to have the largest and most productive yellow raspberry grown. Charles Downing, Perry, Reynolds, Turner, Wilcox, and others, so pronounce it. \$1 per doz. \$5 per 100.

Seneca Black Cap.—Entirely distinct, flavor unsurpassed. Its rich, sprightly tart, makes it very agreeable to the taste, and one of the best for canning purposes. Extremely late and very prolific. \$2 per doz.; \$10 per 100.

Davidson's Thornless.—Proved with us all that has been claimed for it. The earliest of all, and fully equal to the Doolittle in size and productiveness. \$2 per doz., \$10 per 100.

Lum's Fall Bearing.—Highly recommended by Dr. Warden and the Ohio Horticultural Society, for its fall bearing qualities, 50 cents each, \$5 per doz.

Catawissa.—Another very prolific fall bearer. \$1.50 per doz. **OHIO EVERBEARING, FRANCONIA, KITTLAND, BRINKLE'S ORANGE, PURPLE CANE, DOOLITTLE, and MIAMI,** \$1 per doz., \$4 per 100.

Philadelphia.—\$2 per doz., \$10 per 100.

Ellisdale and Clark, \$2 per doz.

STRAWBERRIES.

Colfax.—First introduced into South Bend, Ind., by the Hon. Schuyler Colfax. We offer it as a reliable family and near market berry, and challenge the world to produce its equal in productiveness, or for size, hardness, and strength of plant. Berry, medium to large, perfectly asymmetrical, color dark crimson, with a peculiar, spicy, sub-acid flavor. Season, medium to late, appearance beautiful, not sufficiently firm for distant markets, but just the berry for family use, near market and canning purposes. See our Circular of new sorts for beautiful and natural cluster of this variety, further description, &c. \$2 per doz., \$10 per 100.

Peak's Emperor.—Originated by E. Peak, of South Bend, Ind. Very large also—single specimens often measuring over 6 1/2 inches in circumference. Plant quite similar to the Agriculturist, but perfectly hardy, and does not sunburn. Fruit equal in flavor to it, but far superior in productiveness. Fruited four years, and is recommended by the most intelligent amateurs and best judges of fruit of our acquaintance as excelling in uniformity, great size, flavor, fertilizing properties, and market qualifications, all other varieties. We offer it both for family use and market. See Circular of new sorts for magnificent and natural cut of this truly superb variety. \$2 per doz., \$15 per 100.

Romeyn's Seedling.—Our plants originally obtained from Joseph Foster, of Kingston, N. Y. A seedling of Triomphe de Gand, but more prolific, and of higher flavor, and extremely hardy, \$2.50 per doz., \$15 per 100.

Napoleon III.—Originally obtained from Edward Evans & Co., \$3 per doz.

Charles Downing.—Originally from Downer, of Kentucky. Highly recommended and praised by all who have seen it in fruit. \$2.50 per doz.; \$15 per 100.

Dr. Nicaise.—Fruit enormously large. \$1.50 per doz., \$10 per 100.

Nicanor.—Wonderfully productive, and keeps in fruiting a long time, \$1 per doz., \$5 per 100.

Perpetual Pine, (Glode),—\$1 per doz., \$5 per 100.

Barnes' Mammoth.—Very large, solid, and productive, surface very firm—sufficiently so to carry to the most distant market without bruising or marring its glossy surface. We notice New York papers quote this variety higher than any other sort. 50 cents per dozen, \$5 per 100.

Following at 30 cents per dozen, \$2 per 100. Jucunda, Durand, Philadelphia, Ripowam, Leuning's White, Golden Queen, and Perry's seedling.

Following at 20 cents per dozen, \$1 per 100. Jenny Lind, French, Early Scarlet, Citron Cone, Fillmore, Shaker, Early Washington, Metcalf, Ida, Downer, New Jersey Scarlet, Russell, Buffalo, Green Prolific, Agriculturist, Triomphe de Gand, and Wilson's Albany.

BLACKBERRIES.

Lawton and Dorchester, \$1 per dozen, \$4 per 100. Kittatany and Crystal White, \$2 per dozen, \$10 per 100. Early Wilson and Missouri Mammoth, \$3 per dozen, \$20 per 100.

HOUGHTON'S SEEDLING GOOSEBERRY.—\$1 per doz.; \$5 per 100.

CURRENTANTS.—Red Dutch, \$1 per dozen; Cherry White Grape and La Versailles, \$2 per doz.

GRAPES.—Clinton, Isabella, Catawba, and Concord, 15 cents each, \$1.50 per doz. Hartford Prolific, Croswell, Diana, Delaware, Iowa, Israella, Adirondack, Ives' seedling, and Norton's Virginia, 30 cents, \$3 per doz.

ASPARAGUS ROOTS, (Giant), \$1 per 100, \$4 per 1,000.

☞ We know our plants to be perfectly pure and genuine, and will challenge any person to go through our beds and find one single spurious plant. All orders will be filled at the proper time and in rotation as received.

☞ Small Fruit Manual gives full instructions for planting, growing, &c., and how to get sure and large crops every year. Price 10 cents. Wholesale List and List of New Sorts sent to all applicants. Also Terms to Agents.

☞ Please preserve this price list, and remember if any party offers any of the above for less in this paper, we will sell for the same.

Address,

PURDY & JOHNSTON,
Palmyra, N. Y.,

PURDY & HANCE,
South Bend, Ind.

N. H.—Plants set in the fall will make double the growth next season, of those set next spring, and consequently double the increase of plant can be obtained.

cep-1t

THE Bryant, Stratton Williams

BUSINESS UNIVERSITY, ROCHESTER, N. Y.

The most practical, successful, and flourishing institution of its kind on the American Continent. Every young man, no matter what course he intends to pursue in life, should pursue a course of business training. A few months' time, and a small amount of money spent in

The Rochester Business University, will more thoroughly equip a man for the business relations of life than the most extended College Course.

Course of Instruction.

The Course of Instruction includes all that the most accomplished business man will require during life, and can be pursued in a few months, and at a trifling cost. Moore's *Rural New Yorker* says: "This is the only institution as yet, which affords complete facilities for a thorough and practical education. We therefore recommend it to every young man who desires to fit himself for a sphere of usefulness, honor, and emolument."

Patronage.

Our patronage is composed largely of the sons of the best business men of the country, who are most competent to judge of

the merits of the Institution, and has more than doubled during the past year.

Lecture by Hon. Horace Greeley.

Hon. Horace Greeley will lecture before the students, alumni and friends of the Institution on the evening of OCTOBER FIRST, on

"Self-Made Men,"

and to enable our patrons to listen to him, and to induce them to enter early in the season, thus obviating the inconvenience caused by the great influx of students that always occurs later in the season, enabling us to do greater justice to all—we have decided to allow

A Discount of Ten Per Cent

on tuition to all who enter on or before October 1st, proximo.

"College Advocate,"

For latest "College Advocate," containing a complete exposé of our University, address,

L. L. WILLIAMS,
ROCHESTER, N. Y.

sep-17

BUY THE BEST.



"HONOR TO WHOM HONOR IS DUE."

**TWO GOLD MEDALS
AWARDED ONE MACHINE.**

HARDER'S PREMIUM RAILWAY HORSE POWER AND COMBINED THRESHER AND CLEANER, AT THE GREAT NATIONAL TRIAL, AUBURN, JULY, 1866. For "slow and easy movement of horses, fifteen rods less than 1½ miles per hour, mechanical construction of the very best kind, deserving of high commendation; thorough and conscientious workmanship, and material in every place; nothing slighted; excellent work, &c." as shown by official report of Judges. Threshers, Separators, Fanning Mills, Wood Saws, Seed Sowers, and Planters, &c., all of the best in market. Circulars with prices, full information, and Judges' Report of Auburn Trial, sent free. Address,

E. & M. HARDER,

Junaug

Coblekill, Schoharie Co., N. Y.

GOOD NEWS FOR HARD TIMES.

BUY no more Soap, but make it yourself. It is as easy as mending a hole in a stocking, and will only cost 2 cents a pound. ONE POUND OF

GEO. F. GANTZ & CO.'S PURE WHITE ROCK POTASH

will make fifteen pounds best Hard Soap. Ask your storekeeper to get it for you at No. 184 & 184 Cedar Street, New York. sep-17

AUTUMN, 1868.

Rochester Commercial Nurseries,

(ESTABLISHED 1830.)

W. S. LITTLE, Proprietor.

(FORMERLY H. E. HOOKER & CO.)

THE NEW CIRCULAR OF PRICES, (by the Dozen, Hundred and Thousand,) for the Fall Trade, is just published, and will be sent free to all applicants. Also a new edition of the DESCRIPTIVE CATALOGUE, FRUIT AND ORNAMENTAL—containing much valuable information—on receipt of 10 Cents.

A Splendid Stock is offered this year of

HARDY TREES AND PLANTS,

INCLUDING

Standard and Dwarf Fruit Trees, of fine thrifty growth;

Trees and Shrubs, for ornament;

Roses, (a beautiful assortment,) on their own roots;

Grape, Vines and Small Fruits, of every description.

Address, early in the season,

W. S. LITTLE,

sep-17

(Commercial Nurseries,) Rochester, N. Y.

PREMIUM FARM GRIST MILL.

SIMPLE, CHEAP, DURABLE, AND EFFICIENT. Will grind all kinds of grain rapidly. Is adapted to all kinds of horse power. Also, the best Polder, Hay, and Straw Cutter for Farm use. Send for Descriptive Circular, and address,

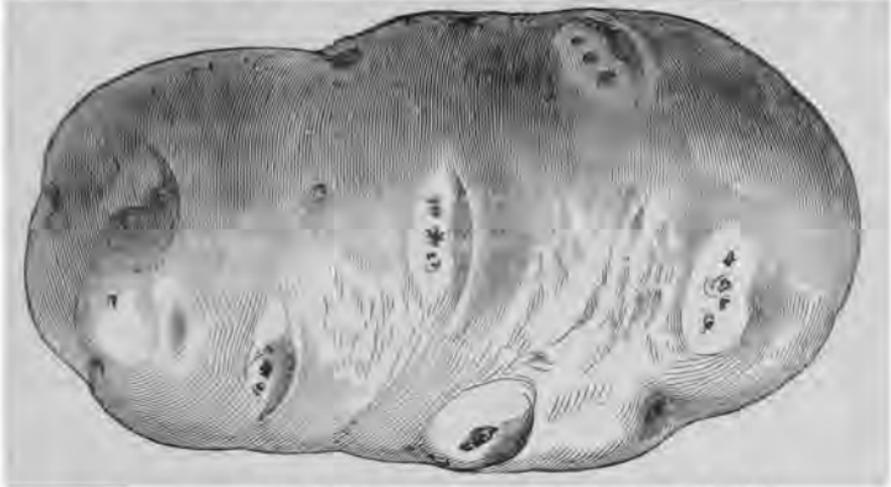
WM. L. BOYER & BRO.,

Philadelphia, Pa.



aug-31

THE "EARLY ROSE" POTATO.



A DECIDED SUCCESS!

THE EARLIEST AND THE BEST!!

IN presenting this valuable Potato to the notice of the Agricultural Public this fall, it gives us great pleasure to be able to say that in every respect it has proved

A DECIDED SUCCESS,

and the many assurances as to its excellent qualities made to our customers during the past spring, were more than merited. It is from

TEN DAYS

TO

TWO WEEKS EARLIER than the **EARLY GOODRICH**,
equally productive, greatly its superior in table quality, and produces fewer small tubers.

The price last spring was \$3 per pound, or \$180 per bushel.

L. W. Briggs, Postmaster at West Macedon, Wayne County, N. Y., says: "The Early Rose Potatoes, the seed of which I obtained of you last spring (6½ lbs.) proved to be earlier than anything else we have had in cultivation, and in productiveness far exceeded anything in the Potato family, averaging 167 lbs. of potatoes from each pound of seed planted, (2 lbs. over a barrel from 1 of seed.)"

William G. Burk, Esq., of Glen Mills, Pa., after saying that he raised 70 lbs. of Early Rose from one pound obtained of us last spring, gives his opinion of it in the following:

Acrostic.

Go search where you will, from the East to the West,

What potato deserves to be rank'd as the best?

By all who have taken the trouble to test

Earliness, mealliness, produce and zest,

Strange unanimity has been express'd

That Bresee's Early Rose is decidedly "Best."

The following prices have been fixed upon for this Fall, and are so low as to bring them within the reach of all:

1 pound, postage prepaid	\$1.00
3 pounds, postage prepaid	2.00
1 peck (15 pounds)	5.00
¼ bushel (30 pounds)	8.00
1 bushel (60 pounds)	15.00
1 barrel (165 pounds)	40.00

☞ The cash invariably to be sent with the order.

☞ Post Office Orders, Currency, or New York Drafts, may be sent.

☞ Orders booked in rotation as received, and Potatoes will be sent as soon after September 1st as the weather will permit.

☞ No charge for packing or delivering at Express Office.

☞ A full Descriptive and Illustrated Circular with testimonials, sent to all applicants.

D. S. HEFFRON'S GOODRICH SEEDLINGS, and Others.

We have been appointed agent for the sale of Mr. Heffron's stock of Choice Seed Potatoes, including

Harrison,

Early Goodrich,

Calico,

Cleason,

Cuzco,

Early Sovereign, and

Shaker's Fancy.

Mr. H. was the first to send out the Goodrich Seedlings, and parties ordering from this stock may depend upon getting the genuine article, and at reasonable prices.

A Circular giving full description and price of these potatoes will be issued later in the season.

Address,

GEO. W. BEST,

sep-11

13 Broad St., Utica, N. Y.

NAPOLEON III,

THE HIGHEST FLAVORED, MOST PRODUCTIVE,
AND BEST BERRY FOR AMATEUR CULTURE.

In Growth, Flavor, and Productiveness, excelling

JUCUNDA.

Superior in Size and Quality, to

DR. NICAISE,

As Hardy, more Robust, and almost as Prolific as

WILSON'S ALBANY,

And in High, Delicate Flavor, equal to

Triomphe de Gand.

It is superior to all Strawberries we have yet seen in its strong, luxuriant, healthy foliage, which endures the sun without burning or injury, and the vigorous, robust habit of the plant.

"One of the most distinct fruits we know, and one of the best in many respects."—*Thos. Meahan, Ed. Gardener's Monthly.*

"Promises to be an acquisition."—*A. S. Fuller, author of, "Small Fruit Culturist."*

"In size and productiveness it far excels any kind we have. Our largest berry measured 7 1/2 inches in circumference, and we had a number over 6."—*J. M. Ferry, Esq., N. Y. City.*

"Superior to all others in flavor, size, and productiveness. I counted on a single stock, 142 berries that were from medium to large."—*Prof. S. B. Heide's Sec. Pa. Fruit Growers' Society.*

"Ripened early, and continued longer than any variety we had."—*G. A. Buelock, N. Y. City.*

Price, (by mail, postage paid,)..... **\$3 Per Dozen.**

Descriptive Circular, with list of new and choice fruits, and general fruit catalogue, mailed to applicants.

EDWD. J. EVANS & CO.,

York, Pa.

N. B.—We caution purchasers against spurious and inferior varieties, (prominent among them the "Austin,") which have been sent out as "Napoleon III." aug & sep

KITTATINNY AND WILSON EARLY BLACKBERRY.

Plants and Root Cuttings.

WITH full directions for propagating. For prices, (very low,) and other information, and our Circular of Novelties, the White Cluster Blackberry, Prusser, Biley's Early, and Davidson's Thornless Raspberries, and Mount Lebanon Grape; also Early Rose potato, address
J. H. FOSTER,
Kirkwood, P. O., Camden Co., N. J.

If you want our 24 page book on the culture of grapes, and other Small Fruits, send stamps, and whatever you think it is worth. sep-11

THE AMERICAN AUTOMATIC FARM AND YARD GATE.



THE BEST FARM GATE IN THE WORLD!

1,000 AGENTS wanted immediately to canvass this and other States for the best selling invention ever patented. For Farm Rights or territory, address,

aug-St **ISAAC A. CLARK,**
Marion, Wayne Co., N. Y.

ORDERS FOR ALL AGRICULTURAL or Horticultural Works

Will Meet with Prompt Attention,
by addressing

THE AMERICAN FARMER,
Rochester, N. Y.

TO FARMERS AND PLANTERS.

THE LODI MANUFACTURING COMPANY, the oldest and largest concern of the kind in the United States, possessing extraordinary facilities for the manufacture of Fertilizers, controlling exclusively the night-soil, offal, bones, and dead animals of New York, Brooklyn, and Jersey cities, as also the great Communalpaw abattoirs, offer for sale, in lots to suit customers,

8,000 TONS

OF

DOUBLE REFINED POUURETTE,

Made from night-soil, blood, bones, and offal, ground to a powder. Its effects have been most astonishing, doubling the crops, and maturing them ten days or two weeks earlier. Equal to the best brands of Superphosphate for Present Crop, although sold only for

\$25 per ton, freight from New York added,

Packed in bbls. of 250 lbs. each.

BONE DUST.

1—COARSE and FINE MIXED. 2—FINE, suitable for Drill-ing. And, 3—FLOURED BONE.

We warrant our Bone to analyse pure. Packed in bbls. of 250 lbs. each. For Winter grain, Double Refined Poudrette, and Fine Bone, mixed in equal proportions and drilled in with the seed, have produced most remarkable effects. Sold as low as any article of same purity and fineness in the market.

NITRO-PHOSPHATE OF LIME.

We offer this Phosphate confidently as being as good, if not superior, to any ever made or sold in this market, containing a larger amount of soluble Phosphate and Ammonia than usual in Superphosphates. For permanent, as well as for immediate powerful effect upon land, it has no equal.

Price in New York, **\$55 per ton** of 2,000 lbs. For Price Lists, Circulars, &c., apply to

THE LODI MANUFACTURING CO.,

66 Cortlandt St., P. O. Box 3,139, N. Y., Or,

C. G. STARKWEATHER & SON,

jan-St

Rochester, N. Y.

Agriculture underlies every other pursuit of life, and the subject of FERTILIZERS underlies Agriculture.

**LISTER BROS.'
FRESH BONE**

SUPERPHOSPHATE OF LIME!

ALWAYS RELIABLE.

It gives Quick Action—It promotes Luxuriant growth throughout the whole season—It creates NO WEEDS—It HASTENS maturity—It INCREASES the product, and it PERMANENTLY IMPROVES the Soil.

LISTER BROTHERS,

159 Front St., New YorkSOLE MANUFACTURERS.
nov-11

WANTED

LANDS AND REAL ESTATE,

In exchange for LIQUORS IN BOND. Address, sept-1 IMPORTER, Box 2,196 P. O., Philadelphia.

BOOKS FOR FARMERS.

For Sale at the Office of the American Farmer.

American Farmer for 1866, bound.....	1.25
Allen's Farm Book.....	\$1.50
Allen's Rural Architecture.....	1.50
Bridgman's Fruit Manual.....	75
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Buist's Kitchen Gardener.....	1.00
Burr's Garden Vegetables.....	2.50
Canary Birds, Manual for Bird Keepers.....	50
Coles' American Fruit Book.....	75
Dadd's Horse Doctor.....	1.50
Dadd's Cattle Doctor.....	1.50
Danas Muck Manual.....	1.00
Downing's Fruits and Fruit Trees of America.....	8.00
Downing's Cottage Architecture.....	8.00
Darlington's American Weeds and Useful Plants.....	1.75
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Horse and his Diseases, by Jennings.....	1.60
Horse Doctor, or Complete Farrier.....	15
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Kilppart's Wheat Plant.....	1.50
Langstroth on the Bee.....	2.00
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Miner's Poultry Book.....	50
Miss Beecher's Domestic Receipt Book.....	1.50
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My Farm of Edgewood.....	2.00
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Our Farm of Four Acres.....	80
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The Garden.....	1.00
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The American Rose Culturist.....	75
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The Mule, by Harvev Riley.....	25
Tobacco Culture.....	1.05
Todd's Young Farmer's Manual.....	80
Tucker's Annual Register.....	10.00
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Woodward's Rural Art.....	2.00
Wax Flowers.....	1.50
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Yonatt on the Hog.....	1.50
Yonatt on the Horse.....	1.50

Any of the above books sent by mail, postage paid.

KENNEDY'S SCROFULA OINTMENT.
 CURES OLD SORES.
 CURES ULCERATED SORE LEGS.
 CURES SCROFULOUS SORES ON THE NECK.
 CURES BLACKHEADS OR PIMPLES ON THE FACE.
 CURES SCURVY SORES.
 CURES CANCEROUS ULCER.
PRICE ONE DOLLAR PER BOTTLE.
 MANUFACTURED BY DONALD KENNEDY, ROXBURY, MA.
 Sold by all Druggists. jun-ly

A CARD.

A clergyman, while residing in South America as a missionary, discovered a safe and simple remedy for the Cure of Nervous Weakness, Early Decay, Diseases of the Urinary and Seminal Organs, and the whole train of disorders brought on by baneful and vicious habits. Great numbers have been cured by this noble remedy. Prompted by a desire to benefit the afflicted and unfortunate, I will send the recipe for preparing and using this medicine, in a sealed envelope, to any one who needs it, Free of Charge. Address, **JOSEPH T. INMAN,** Station D, Bible House, New York City.

JAMES VICK,
 IMPORTER AND GROWER OF
FLOWER AND VEGETABLE SEEDS,
 ROCHESTER, N. Y.

VICK'S ILLUSTRATED CATALOGUE
 OF
SEEDS, AND FLORAL GUIDE FOR 1868,

Is now published and ready to send out. It makes a work of about One Hundred large pages, containing full descriptions of the
Choicest Flowers and Vegetables Grown,
 with plain directions for Sowing Seed, Culture, &c. It is beautifully illustrated, with more than *ONE HUNDRED FINE WOOD ENGRAVINGS* of Flowers and Vegetables, and a
BEAUTIFUL COLORED PLATE OF FLOWERS,
 Well printed, on the finest paper, and one of the most beautiful as well as the most instructive works of the kind published.
 Sent to all who apply, by mail, post-paid, for Ten Cents, which is not half the cost. Address,

JAMES VICK, Rochester, N. Y.

PREMIUM
CHESTER WHITE PIGS
FOR SALE.

SENT BY EXPRESS TO ALL PARTS OF THE UNITED STATES.

FOR CIRCULARS AND PRICES, ADDRESS,

N. P. BOYER & CO., Gum Tree, Chester Co., Penn.

J. E. CHENEY & CO.,



MANUFACTURERS
 OF
WATER FILTERS
 for Purifying Lake, Rain, and River Water.

With this Filter the most impure water is made free from all foreign matter, clear as crystal, without taste, color, or smell.
 68 Exchange St.,
 next door to F. Tully's Stove Store,

PRINCE & COS.
AUTOMATIC ORGANS
AND MELODEONS.
 Forty thousand are now in use
BUFFALO, N.Y. CHICAGO, ILL.

CONSIGN YOUR GOODS TO H. P. BAL-LARD & CO., the old established, strictly Produce Commission House, No. 682 Washington St., New York. Receives all kinds of Country Produce, Butter, Cheese, Lard, Tallow, Eggs, Beans, Peas, Flour, Grain, Wool, Hops, Beef, Poultry, Tobacco, and High Wines.

Our long experience in the Commission Business enables us to sell goods without delay for the highest market prices. Cash advanced on Consignments. Sales promptly made. Send for our Daily or Weekly Price Current. aug-t

FUN! FUN! FUN!!!—Have you seen THE STAR SPAN- GLED BANNER for April, a large eight-paged paper, 82 columns, filled to the brim with rich and racy stories, jokes, &c., &c.? Has no equal; circulation immense; only 60 cents for whole year. Send NOW; dont delay. Specimens 10 Cents. Address, **STAR SPANGLLED BANNER,** Hinsdale, N. H. ap-6t

DAILY AMERICAN FARMER.

We shall have an office on the Fair Ground, and publish THE AMERICAN FARMER DAILY during the State Fair. It will not be a cheap, smutty advertising sheet, which will be spurned by all to whom it is presented, but will be printed on the same new, clear type and extra white paper used for the regular edition. A portion of it will be given to first-class reading matter of general interest, original and selected. It will contain the Rules and Regulations of the Fair Grounds, Daily Announcements of the Officers, a Directory of the Grounds, giving the locations of objects of particular interest, and a Daily Record of what transpires, neatly written up by editors engaged for the purpose.

The time tables of the different railroads will occupy a conspicuous place, giving the time of arrival and departure of all trains during the Fair.

We shall spare no pains to make it an interesting, lively, spicy sheet—one which will be a recommendation to THE AMERICAN FARMER in the hands of every one who receives it.

It will be a MORNING PAPER, made up in the night, and on the grounds early in the morning, where it will be distributed gratuitously and faithfully through the day.

Advertising.

A limited portion of THE DAILY FARMER will be given to FIRST CLASS ADVERTISEMENTS. Merchants, landlords, exhibitors, &c., will find this the best possible medium through which to reach the public.

RATES OF ADVERTISING.

1 square of 10 lines, 1 day.....	\$2.00
1 " " " 4 days.....	6.00
1 column (13 squares) 1 day.....	30.00
1 " " " 4 days.....	60.00

Editorial Notices of Implements, Stock, &c., will be given at reasonable rates.

TERMS—Cash, on first insertion.

Advertisers wishing space will please send in their advertisements immediately.

C. RAOUX,

IMPORTER OF

NURSERY STOCKS,

58 LIBERTY STREET, New York.

Information and Price Lists supplied on application. oct-1y

MOUNT LEBANON GRAPE.

FOR history, &c., see September number of this Journal. For Circular concerning it, and other new kinds of fruit plants, and Early Rose Potatoes, address, J. H. FOSTER, sep-1t Kirkwood P. O., Camden Co., N. J.

WHITE CLUSTER BLACKBERRY. — See history in September number of this paper. For Circular concerning it, and other novelties, address J. H. FOSTER, sep-1t

Kirkwood P. O., Camden County, N. J.
If you want our treatise on the Cultivation of Small Fruits, send for it, with change to pay return postage. It contains 24 pages of closely printed matter on the subject. sep-1t

NEW YORK CENTRAL RAILROAD.

TRAINS LEAVE ROCHESTER AS FOLLOWS:
(Going East by Direct Road.)

Cincinnati and Chicago Express Sleeping Car.....	1:35 A. M.
Through Freight and Accommodation.....	5:00 ..
Buffalo S. H. & N. Y. Express.....	7:40 ..
Steamboat Express.....	11:00 ..
Mail.....	8:00 P. M.
Cincinnati Express, Sleeping Car.....	5:10 ..
Cleveland and Chicago Express (Sleeping Car).....	10:15 ..

EAST BY AUBURN ROAD.

New York Express.....	5:30 A. M.
Steamboat Express.....	9:30 ..
Express and Through Freight.....	12:30 P. M.
Mail.....	6:35 ..

GOING WEST BY BUFFALO LINE.

Night Express.....	8:40 A. M.
Emigrant and Mail.....	7:30 ..
New York Mail.....	9:00 ..
Accommodation.....	12:10 P. M.
Steamboat Express.....	5:30 ..
New York Express.....	9:30 ..

WEST BY NIAGARA FALLS LINE.

Night Express.....	3:40 A. M.
Emigrant.....	5:45 ..
New York Mail.....	9:00 ..
Mail and Accommodation.....	12:10 P. M.
Steamboat Express.....	5:30 ..
New York Express.....	9:30 ..

C. H. KENDRICK,

sep

Gen. Passenger Agent.

BRIGGS & BROTHER,

IMPORTERS, BROWERS,

and Wholesale Dealers in

GARDEN, FIELD, AND FLOWER SEEDS,

91 & 93 STATE ST.,

ROCHESTER, N. Y.

CHARLES W. BRIGGS,
sep-tf

JOHN T. BRIGGS.

THE MICHIGAN STRAWBERRY.

SHOULD be in the garden of every farmer. Being the offspring of our native strawberries, it will give good crops under a system of neglect that would utterly ruin the Wilson, and all foreign or known sorts. See advertisement. sep

THE AMERICAN FARMER.

DEVOTED TO

Agriculture, Horticulture, and Gardening.

Employs the best Scientific and Practical Writers in the Country.

One Dollar a Year, in Advance.

For every FIVE Subscribers sent by one person an extra copy will be given.

Splendid Premium.—For TEN names with TEN DOLLARS, Prang's beautiful large chromo, "The Poultry of the World," worth \$2. The most perfect and elegant picture of the kind ever published, an ornament to any room, and peculiarly appropriate to a farmer's home. It may be seen at THE FARMER'S office, and will be on exhibition at the State Fair.

All Subscribers to the Volume of 1899 will receive the numbers of the present volume remaining at the time their subscription is renewed, FREE.

One Dollar for all—no Club Rates.
Advertising 25 Cents a line; \$25 a column; \$50 a page each month.

Address,

JOHN H. GARRETSEE,
American Farmer,
Rochester, N. Y.



VOLUME III.

ROCHESTER, N. Y., OCTOBER, 1868.

No. 10.

PUBLISHED BY**JOHN R. BARRETTSEE, - - - - 62 BUFFALO ST.****Price One Dollar a Year.****NEW YORK STATE FAIR.**

In most respects the State Fair of the present season is acknowledged by competent judges to be a superior exhibition to the Annual Fair held at Buffalo last season. The entire arrangement of every department shows that there was evidently a determination on the part of the managers, to render the show a satisfactory success, both financially and in other respects. The management throughout far exceeds the arrangements at Buffalo; and the entire grounds, buildings, and sheds for stock seemed far more respectable and convenient than the provisions made for the Fair last season. The ground for the most part is smooth, and covered with a good coat of grass, while the buildings are by no means a disgrace, as they were last season, to the managers of the Society.

In nearly every department there seemed to be a fair representation of products, most of which were eminently creditable to both exhibitors and the Society. There was a lack of the usual interest, however, in the dairy department, as the entries were much less than those of last season; yet the specimens of butter and cheese on exhibition were all of a superior quality, so that what was lacking in quantity has been made up in quality.

We must say, however, that we did not like the place assigned for the exhibition of butter, located as it was near the furnaces and stoves in full blast, flanked by piles of onions, cabbages, beets, &c.

In the fruit department there was a creditable display, although the exhibition did not equal in quantity or quality of fine fruit, some previous shows. Yet, considering the numerous insect enemies that are ever ready to devour all kinds of fruit, and also the unpropitious season for the growth of choice specimens of fruit, the display was satisfactorily creditable to all concerned.

In the stock department the exhibition of horses was satisfactorily large; there being as goodly a number of superior and beautiful horses as has ever been on exhibition at any previous show.

The entries of neat cattle were less numerous than at some preceding exhibitions; yet most of the cattle exhibited were not inferior to the stock shown at former

Fairs of this Society. The Devons, Durhams, the Herefords, the Galloways, and the Alderneys, were all satisfactorily represented by as fine stock as can be found in the Empire State, although there seemed to be a deficiency in numbers of some of the breeds.

In the sheep department the entries were not as full as could be desired; yet the sheep on exhibition consisted of the most complete specimens of the various breeds that can be found in any portion of the State.

The number of swine was quite limited; but the entries, without exception, show that they were highly bred animals. There were a few very fine pigs, and a small number of full grown swine of improved breeds.

In the mechanical department there never has been a more complete and creditable display of every variety of agricultural implements and labor-saving appliances. There were many machines on exhibition that are quite new, and many others that have been greatly improved since last season. The exhibition in the mechanical department shows conclusively that inventors and manufacturers are active, sparing neither energy nor money to develop and bring out more valuable and complete labor-saving machines.

The exhibition of poultry was one of the finest and most attractive features of the Fair. Competent judges, who have been familiar with former Fairs, state that the display of poultry for 1868 excels all former exhibitions. Almost every specimen was as beautiful and perfect of its kind as could be desired. All things considered, the departments alluded to cannot fail to prove a satisfactory success in every respect.

The display of flowers in Floral Hall, a building 70 by 120 feet, and beautifully fitted up under the direction of James Vick was large and very fine. Mr. Vick, Ellwanger & Barry, and Frost & Co., all Rochester men were the largest contributors, and took a good share of the premiums.

Domestic Hall was a literal jam during the Fair. Here probably was to be seen—if the crowd would admit of seeing—the greatest variety of interesting objects of any place on the grounds. It would be impossible in the space we have, and with the opportunities we had for observing, to give the faintest idea of the many useful and beautiful articles exhibited.

We noticed with pleasure the improvements made in canning fruits, both in the cans or jars, and in the method of putting up the fruit. Several fine collections were on exhibition, and one of the most tempting

sights in the hall was a display of canned fruits by A. W. Swopes, Esq., of Philadelphia. They seemed to be perfect, although Mr. Swopes claimed that they have been injured by frequent shipping, as he has exhibited them at several fairs previous to this. He prepared the entire lot himself as a matter of self-gratification, and for family use. He uses none but the Hero jar, and thinks it far superior to any other.

Mr. Swopes has written a treatise on fruit preserving, in which he gives his method, with accurate recipes for preserving all kinds of fruits. He distributed it gratuitously at the Fair, and we presume would mail it to any one sending a stamp to his address.

The Wilcox fruit jar, exhibited by A. S. Wilcox for the Wilcox Jar Company of New Haven, Conn., took the first premium in competition with four of the most popular fruit jars of the United States. The method of fastening the glass covers, and the ease with which the jars are opened when the fruit is wanted for use, is the most convenient of any jar with which we are acquainted.

Potato Diggers.—There was a great variety of potato diggers on the grounds—greater, perhaps, than at any previous fair, which leads us to hope that we may yet get a machine as reliable for digging potatoes as the reaper is for its work. That point, in our opinion, has not yet been reached. The man who can bring forward such a machine will be a public benefactor, besides reaping an independent fortune for himself.

Corn Huskers.—There were three power huskers on the ground, all of which operated much on the same general principle. One was entered by Wheeler, Melick & Co., Albany, one by H. L. Emery & Son, and the largest by S. R. Kenyon & Co., Worcester, Mass. The two first were tested by horse power at husking; and the clean ears of corn lying near the machines assured the visitors that the huskers were capable of doing satisfactory work. The last named machine was tested only by hand, although there was a driving pulley and fly-wheel to adapt it to horse or steam power. This husker stripped the ears beautifully, when turned by a crank. The stalks with the ears attached are fed butts first, into the husker, just as fodder is passed through a fodder cutter. By means of several systems of rollers revolving towards each other—two by two—all the silk and pieces of husks are neatly and quickly stripped off, and the clean ears are deposited in a basket, while the stalks are all dropped in gavels ready for binding.

Mr. Kenyon informed us that the Shakers use these machines for husking the green sweet corn, which they can in such large quantities—one of these establishments saving the labor of 100 girls by the use of three or four machines.

Fords & Howe, of Oneonta, N. Y., exhibit their Excelsior Cultivator, Nos. 1 and 2. Their No. 1 is a two-horse implement for cultivating rowed crops, as well as for hops and vineyards, and summer fallow. The operator rides, controlling the movement of the machine with his feet, so that a crooked row is easily followed. It has the appearance of an effective, durable, and labor-saving implement, and having been before the public for the past two years, the proprietors are enabled to refer to many persons who have used them. We think they are destined to be largely

used. The No. 2 is a one-horse thill cultivator or horse hoe, having a wheel so arranged as to regulate the depth of working, and when desired to be used in moving to and from the field. It has every appearance of an excellent implement.

The Union Grist Mill.—This is a portable farm mill, entered by the "Union Portable Grist Mill Company" of Buffalo, N. Y., for grinding wheat, buckwheat, and all kinds of coarse grain. The mills on exhibition were driven by steam, and they did beautiful work. The grinding surfaces are made of the very hardest steel, and after one set of plates is worn out another set may be supplied, at an expense of only a few dimes. This valuable portable farm mill cannot fail to meet a want long felt by the farming community, especially when grist mills are at a distance. A small water-wheel, a small steam engine, or a two-horse power, will grind grain at the rate of four to eight bushels per hour. The small size is adapted to hand power, with which a man or boy can grind a small grist sooner than he can go to mill, and save all the toll.

Steamer for Cooking Food.—Mr. D. R. Prindle exhibited his ingenious boiler and steamer in operation on the grounds. This steamer is admirably adapted for hundreds of uses in manufacturing, and it seems to us an almost indispensable article for the farmer. The steam can be carried some distance in pipes to tubes and tanks, and used for cooking food in large quantities, boiling water and clothes in tubs or pails, and scalding hogs, or for any thing else where steam or hot water is used.

Benham's Dairy Balance.—A. B. Benham, McClean, N. Y., showed a very useful device for any one who makes good butter, for determining, at a glance, the proper proportion of salt required for every curdling of butter. The quantity of butter cloured at any time is placed on a small platform, while a small salt-dish rests on the opposite end of the scales, which are so neatly adjusted that when a sufficient quantity of salt to mingle with the butter—one ounce per pound—is put into the bowl, the butter and the salt will exactly balance each other. Every dairyman and dairywoman will find such a device an article of great convenience for aiding in determining exactly how much salt should be mingled with every curdling. It is not protected by letters patent. Every dairyman can avail himself of its advantages.

Hay Rakers and Loaders.—Modern inventions have done away with much of the poetry and most of the labor of hay making. Few of the pictures representing hay making ten years ago, will be recognized ten years hence by those that "go forth to the meadows to mow at the dewy morn." The sound of the "mower whetting his scythe" is no longer heard. The lines of rakers with their hand rakes, the small boys ahead and the stronger man following to "close up the windows," have long since been done away with, and even the pitchfork is in danger of becoming a thing of the past. We no longer see sturdy men trudging to the field with scythes on their shoulders, but a single man or boy rides around the field on a mower doing the work of five or six men with little effort. In place of the crooked stick, rakes tail, or forks, the hay-tedder comes in to spread and stir up the grass, the horse-rake gathers it, and nothing is left for muscle to do but to "pitch on the hay."

Attempts have been made to do this by machinery, but we confess we have had little faith in the object being accomplished until we witnessed the operation recently on the Fair Ground. We there saw a light rake and elevator combined hitched to the hind end of a wagon, which took the hay up clean, and dropped it on the wagon in good shape to load as the team moved along. It did its work perfectly, with about the same difference in its favor as that between the hand and horse-rake. It was in our opinion a success. It is called the Hay Raker and Loader combined, and is the invention of Mr. Horace Baker, of Cortland, N. Y. There was another machine on the ground called Squirey's Patent Rake and Elevator, manufactured at Cortland village, by Hutchens & Stanton, which we did not see in operation, but which we judge from a quite careful examination to be even better than the former.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

THE SEASON AND THE CROPS.

It is now known this 17th day of September, in Seneca County, N. Y., that the hay crop is very large, the wheat crop larger than usual, but a little shrunk by the extreme solar heat; a light barley and oat crop, with a short corn and potato crop; but although pasture has been nearly burned up, the late cloudy weather and the few light showers have started the grass into a very rapid growth, and we have the promise of fall pasturage for a month to come—a boon that was denied us last season. Although the crop of clover seed was good both north and east of us, here the drouth not only blighted the crop, but it also prevented the clover and grass seed sown in the spring from making a stand, as the Southrons say. As corn and oats are a short crop, our millers the past week put up the price of Indian meal and mill feed from 15 to 25 per cent. Their excuse is that farmers hold back their grain, and will not sell it at even New York quoted prices. The mercury last night fell to 40 near this Seneca outlet, but in the north part of the village the squash and pumpkin leaves were frosted, and it is said that the ripening corn on the muck formation of the great swamp received its quietus, and much of it will be soft corn.

THE GREAT IMPORTANCE OF VEGETABLE MANURES IN A DROUTH.

After seeing so many crops of corn partially burned up by the hot sun and continued drouth of this season, it was refreshing to go through Jos. Wright's large fields, one of Illinois dent, and the other of long twelve rowed yellow corn, filled to the tip end, and thoroughly ripe on the September 1st. The dent corn was planted in drills three and a half feet apart, and eight to ten inches apart in the drills. I could not find one barren stalk in twenty; there were no nubbins or suckers, every stalk bore one sixteen large rowed ear. As the heavy ears topped over from specific gravity, I felt that even the farmer of the Sciota bottoms might envy such a crop. It was made on a well drained calcareous clay loam, which had forty loads of coarse stall manure applied to the acre, and deeply plowed in last fall; this gave that porosity to the soil that enabled it to hold water in suspension, enough to feed the plants during the most trying season of heat and drouth, and the thorough cultivation during the dry weather mulched the surface soil and retarded evaporation. Mr. Wright's field of wheat, grown after corn this season, was 45½ bushels to the acre.

COUNTRY HOMES AND HOW TO SAVE MONEY TO BUY A HOME,

Is the title of a book just published by S. Edwards

Todd, 41 Park Row, N. Y.; octavo, price \$1.50, delivered free of postage. This is not one of those sensational books destined to be read and then laid on the shelf and forgotten. It contains more truly practical information, and more instructive details in mechanics and domestic economy, than any book that has come from the press in many a day; and not the least interesting part of it is the recital of his own early farm management and crowning success, under great privation and the most appalling difficulties. The book is well illustrated with plates of the finest specimens, as well as the plainest and cheapest of house architecture, with the estimated real cost, as opposed to the cost when left to the demands of sophisticated, *canny* builders, with remarks on "black mailing" among builders, &c. The *New York World* truly says, "to the thousands and tens of thousands who are frightened from the hope of living rent free by builders' estimates, this book has more encouragement than any other we know of." The author is evidently one of the most observant of writers, a man of indomitable persevering industry, with a *savoir faire* to control it.

THE WINTER AT THE SOUTH.

C. W. Howard, a Georgia farmer, writes that the "greatest blessing the Southern farmer has to improve and enjoy, is the Southern winter, and he makes the least use of it." While we at the North have no spring or late fall pasture, at the South the yellow spotted clover lives through the winter, and forms good pasturage the latter part of February. The indigenous grasses do well in summer, and the red and crimson clover only need a good soil to enable them to flourish spring and fall, and with their long tap roots they stand the heat and drouth of the Southern summers. The Southern farmers are fast recuperating their turned out fields by a more mixed husbandry, more grass and clover growing, stock growing, green manuring, &c. This will enable them to grow more corn and cotton on fewer acres.

THE TRUE STIMULUS OF LABOR.

Ex-Gov. Wright, of Indiana, once wrote from Berlin, Prussia, to Secretary B. P. Johnson, thus: "Man must work, he must labor. But he may work willingly, or as a machine; he may work cheerfully, or as a slave. Labor, undirected by knowledge of the great principles which govern the development of the soil, is always slavish. It is the grand design of agricultural schools to lead the tiller of the soil to take an intelligent interest in all the wonderful processes of nature which continually pass before his eyes, in order that with his powers of observation thus quickened, and all the better faculties of his mind thus aroused and exercised, he may make every hour of labor attractive, and add new grace, refinement, and happiness to his home."

THE NORWAY OAT.

This oat is selling at \$1.25 a quart for seed at a New York seed store. A very practical Oneida County farmer writes thus in relation to the claimed productiveness of this cereal: "If a man could control the elements, it would do to pay a dollar a quart for the heavy oats of Scotland; but with our dry, hot seasons they cannot be profitably grown." Our farmers have often tried the heavy English oat, but always returned to our indigenous oat, and even these are seldom free from rust. I have seen no bright oat straw on the Socquaite flats for several years. They grow in our climate in less than four months, while in Scotland it takes six months to grow the crop.

OUR KANSAS LETTER--No. 10.

WRITTEN FOR THE AMERICAN FARMER, BY A. M. BURNS, MANHATTAN, KANSAS.

ON Friday, about 11 o'clock, of the 7th day of August, 1868, the *Acridium (Caloptenus) femur rubrum*, or "red-legged locust," of Harris, (p. 175,) commenced to "drop on" the ground in this region. Soon their numbers increased to countless myriads. I could not better give you an idea of their vast numbers than by saying that in some places if you should put your open hand on the ground it would cover at least twenty of them, perhaps double that number. I think they are the same species that infested California, Oregon, Utah, Washington, and New Mexico, in 1865-6. They have been here before, but not so early. The drouth of the far Western Territories is, I think, the cause of their visiting us so early. They made an immediate attack upon the vegetables, and even upon the forest trees. The "tops" of the potatoes, tomatoes, beets, onions, cabbages, &c., were stripped. The common wild cherry tree of Pennsylvania, of which I have some small seedlings, escaped entirely, as well as the cultivated cherry. They took the leaves of the Kirtland raspberry, 100 of which I procured this spring to test; also from Falstaff, Victoria, and some other varieties, the cultivation of which I have abandoned on account of their being too tender in winter. They did very little damage to the blackberry, although as a precaution I covered the Missouri Mammoth, Wilson, Kittatiny, and other rare varieties, of which I have a few on trial. The Doolittle raspberry escaped almost entirely; but seeing some few on them, I covered them with prairie hay a few hours before their departure. The damson plum and small pear trees were not injured, although the peach trees were some damaged; and my eight year old apple trees were left without any foliage. A few small apple trees at the top of a bluff, where the locusts were not plenty, were not damaged.

Now, if you or any of your readers have had any

experience with apple trees, grape vines, &c., being denuded of their foliage at this season of the year, and afterwards growing, please let us have it. I cannot conceive of anything more useful or interesting than a letter upon this subject. We are very anxious to gain all the knowledge we can about the result of fruit trees losing their foliage near the middle of August.

The grape vine locust did not entirely escape their ravenous appetite, yet the damage done to vines on my ground is not great. In many instances a quarter or one half of a leaf was eaten at the top of the vines, but on the worst damaged vines not one-half of the leaves were injured. In no instance did they eat the fruit of the grape or apple; yet the peach did not entirely escape, but the loss of the fruit is trifling, unless it is where the peach trees were denuded of their foliage.

The *uncultivated* weeds did not by any means escape, as all the leaves of many indigenous weeds were consumed. Among the forest trees that were partly denuded of their verdant foliage, were the cotton wood, walnut, hickory, small elms, and the locust, the seed of which I brought here from Pennsylvania in 1856. I cannot now speak of the damage done in other places, but will inform you as soon as I can.

In some sections there has been very little rain, and the corn will be a meager crop, while in other places the yield will be immense, notwithstanding the locusts have stripped the blades from the stalks. The corn is so far advanced that it will ripen even if cut now, as many are doing. Mr. John Dial, who lives across the river, will this year sell two thousand dollars worth of corn. Although I was (when I wrote to some weekly journals before the locusts left) very "much down in the mouth," I feel in better spirits since their departure. Although my health is such that I cannot work very much, yet I will plant fruit trees with "redoubled" energy, and continue to test every new seedling small fruit. I forgot to say that not a particle of damage was done to the strawberry. Hereafter I will each year be prepared with straw or prairie hay, and cover the vines and small fruit should they again make their appearance, which they may never do. I mention the covering of vines, &c., for the benefit of those who may not have tested this mode of saving small fruits. I *know* it can be done, as I have done so on a limited scale, yet it is practicable to conduct it in an extensive manner.

I have a suggestion to make for the benefit of small fruit-growers, as well as for this immediate region. I have been in the habit for the past ten years of testing small fruits. Some few will not pay, yet others succeed admirably. I have collected about 300 varieties by name of the grape, but not

more than 150 or 200 will prove distinct varieties. I have quite a number of seedling grapes from the originators, upon condition that I am not to permit any wood or roots to be disseminated from my grounds until a certain time, from the vines or plants sent by the originators. I will take good care of them, and report their merits, and advertise them for sale, and when I receive an order will forward it to the originators. Now, there are thousands of new seedlings of grapes and other small fruits, which, if tested here, might prove of immense value. Those having such plants or vines, if they will mail one to me will have it tested on the same terms as above, permitting no wood or roots to leave my place until I can buy the vine and propagate from it. In this way the owner of new plants will be able to sell them in this region if they have merits. Now, do not send your plants until you give me notice, so that I can prepare the ground. I have been put to great inconvenience on account of receiving plants late, and not having a place to plant them. If any person will, this fall, send any new plants to be tested, let them write immediately and notify me of their intention. I cannot buy and pay money for any more new plants for the especial benefit of the country and the originator.

A word or two in regard to sending out new seedlings of any kind of plants. It is, to some extent, the practice of originators to test a seedling in some localities, and then "spread out" with printers' ink, and offer it at an enormous price; too high for those of moderate means to buy and test for the benefit of the originator. I once received a very pleasant letter thanking me for a sale of \$100 that the owner of a seedling made on account of having myself bought and paid \$3 for it, which was growing on my ground when seen by the buyer of \$100 worth, who took a fancy to it. It was shortly afterwards accidentally destroyed; although the originator was informed of the fact, he never replaced it. I paid \$3 then for the sole benefit of the proprietor, and the labor bestowed was lost. Now, I hold that the originator of any seedling should send two or more roots to different parts of every State, binding the person to whom they are given not to dispose of any wood or roots until two, three, or four years after the originator has offered it for sale. Of course the man who has taken the trouble to test it, should have the liberty to buy with others, and then sell the roots he propagates from the vines he purchased. In this way the man who labors to benefit the country can realize (as he ought) a handsome sum for the time spent and labor bestowed in originating new seedlings of merit, which cannot be done (or seldom) without a vast amount of work. While the vines are being tested in different States, the proprietor can have a report from them, and learn

whether it will pay to increase his stock for propagating. He can realize something the first and second years he offers them for sale before other propagators have them for sale. In fact, the suggestion that some person has made of protecting by law the originator of every new variety, is a most excellent one. The time ought to be limited, say to six or eight years, when no man dare offer to sell any except the originator; but the law also ought to guard the public against extortion, by limiting the price, say \$3 for each plant. I hope that no person will suppose that I am personally interested in a new seedling, as I have no prospects of getting one of superior merit over scores that are disseminated. Since 1858, I have been planting grape seeds, but none that have produced fruit have given anything better than the wild indigenous grapes of this region.

The locusts that came on Friday, the 7th, made an attempt to leave on Sunday, the 9th, but an eastern wind prevented them from succeeding. On Monday, the 10th near 12 o'clock, the greater portion of them left in a south or rather a south-west direction, and on the 11th they had all gone. It was evident that they "tried hard" to go directly south, but the wind prevented them. Those east of us may thank a kind Providence that the wind was unfavorable for them to go east. They must go "whichever way the wind blows."

I pity the people of Texas and New Mexico, Arkansas, &c., as they will, I suppose, reach them. Wherever they stop they will devour every green thing. It is fortunate that it was too early for them to leave their eggs here, which will save the grain and tender young vegetables next spring. They commence to eat the grain, &c., in the spring, when not half as large as a "house fly." In departing we saw them a distance, I suppose, of a mile, although not larger than a common grasshopper of the East and North, but it was the reflection of the sun on them that enabled us to see them, as we could not see them any distance in the air unless we looked toward the sun. As to the number leaving at one time, I can give no better idea to you than by comparing them to the flakes of snow in winter when there is a "heavy snow storm;" and in looking towards the sun, it reminded me of a snow storm, the flakes falling upwards instead of downwards.

CORN AT THE SOUTH.—The most remarkable fact in connection with the corn crop of the present year, is the great increase of its acreage in the South, the difference in number of acres between the present and preceding year being more than two millions and a half. A careful estimate of the acreage shows a decrease of 49,609 acres in eight States, and an increase of 3,108,215 acres in the remaining States.

OLD RUSTIC APHORISMS.

BEFORE the days of agricultural journals most instruction on the subject was preserved and conveyed by maxims and old saws mostly in rhyme, quaint and homely, yet often spicy and valuable. The following are a few of a large collection made from old books and papers by Dr. J. C. V. Smith :

When the wind is east and turkeys gobble,
It is no time a horse to hobble;
But let him range to catch the breeze—
Should he be troubled with the heaves.

An ox with broad horns and short glossy hair,
Is good for a team, the market, or fair.

One white foot is bad, and two are too many,
That horse is best that does not have any.

A farmer without hogs,
But any army of dogs,
Will have more puppies than pork;
For the swill will be lost,
To the husbandman's cost,
Dogs good for nothing to work.

The slackest farmer, strange to say,
Is known for being out of hay.

When chickens roost above the mow,
It spoils the hay for horse or cow.

Cobs make no food for kine to eat,
But they are good for smoking meat.

Pork and beans make muscles strong—
Something farmers seek;
It is a dish to make life long,
When cooked but once a week.

A slovenly dress, a shabby pate,
The fences down, a broken plate,
Pigs in the garden, weeds very high,
Children unwash'd—no bacon to fry—
Lots of great dogs and yawling tom cats,
Windows repair'd with a dozen old hats,
An empty barn—not a spear of hay,
Cows in the clover, horse run away,
Things sold by guess without being weighed,
Bills coming in and taxes unpaid—
Pipes and tobacco—whisky—neglect,
Drag in their train as all might expect,
All sorts of trouble to fret away life—
But, worst of the whole, an unhappy wife.

A mackerel sky—
The wind will be high,
Then bring in the grain,
Close by there is rain.

A smoky chimney may be cured,
A scolding woman not endured,
A farmer's wife, like cream or curd—
Is to be seen but seldom heard.

If you would thrive,
Be up by five;
For there is health
And certain wealth,
When at the plow,
Or milking cow.

A farmer at home should be found,
And often looking at his ground—
Inspecting fields, repairing fence—
For dollars come by saving pence.

Clear the soil from moles and slugs,
Prune the trees—keep off the bugs,
Then fruits and melons, rich and fair,
Will recompense for all your care.

Rutabaga, carrots, and beets,
Improve the character of meats;
They make good beef, and quicker too,
Than any other feed will do.

At the farmer's cost
Is an early frost,
Exercise reason—
Harvest in season.

Of all the crops a farmer raises,
Or capital employs,
None bring back such comforts and praises,
As a crop of girls and boys.

NOTES FROM CANADA.

WRITTEN FOR THE AMERICAN FARMER, BY "MAC."

SINCE my last we have had cool variable weather, very favorable to the growth of the late autumn crops, especially winter wheat, of which a large breadth has been sown, most of which is up and looking finely.

Our Twenty-Third Provincial Agricultural Exhibition was held this year at Hamilton, 21st to the 26th of September. The arrangements for the accommodation of all the numerous classes, which number 52, was all that could be desired. The prize list amounted to over \$13,000, and the entries exceeded 7,000. The weather was fine for the first four days, and the attendance very large. Horses made up a better show than usual, but owing to their being kept in closed stalls they could not be seen, except by the judges, and such of the public as had patience enough to wait hour after hour to see them as they were brought out, each class by itself, into the judges' ring.

M. H. Cochrane, of Compton, Quebec, showed some imported Suffolk horses which attracted much attention, while my next neighbor, James White, of Trafalgar, carried off no less than \$80 in prizes for his thoroughbred racing stock.

Of cattle there was a large show. This year, the Prince of Wales prize of \$60, is given for the best herd of thoroughbred cattle of any breed, and was carried off by M. H. Cochrane with a herd of Short-horns, mostly of recent importation, comprising Baron Booth, a yearling bull, cow Rosalie, and Maid of Athol. Heifers, Miss Margaret 31, Wharfdale, Rose, and another not named on the card. He shows ten head of Shorthorns, and gets many prizes. F. W. Stone, of Guelph, shows twenty-two head, and takes first prize and sweepstakes in the bull class with Grand Duke of Moreton. John Miller, of Brougham, gets first prize in three-year old cows with Gola, a recent importation of pure Booth blood. His two-year old heifer Nelly Bly, from Illinois, is a perfect beauty, though small in size, and takes first prize in that class. J. Snell, of Edmonton, and George Robson, of London, show many fine animals, and take some prizes. In Here,

fords, F. W. Stone no longer monopolizes all the prize list, yet the animals which divide honors with him are nearly all bred by him, though they have passed into other hands. Of Devons, Ayrshires, Galloways, Angus, and grade cattle, there were numerous representatives, all of first-rate excellence.

Sheep made a splendid show, and in the Leicester and Cotswold classes the animals were all of such first-rate excellence that the judges had an onerous duty to perform in those classes. M. H. Cochrane, F. W. Stone, John Miller, J. Snell, and C. Walker, of Isleton, near London, all take first prizes. Of the Downs there were quite a number, embracing South Sown, Shropshire and Hampshire Downs, the principal prize taken being F. W. Stone, in South Downs, H. H. Spencer, of Whitby, George Miller, of Markham, and M. H. Cochrane in Shropshires and Hampshires. Spanish and French Merinoes were a neglected class; they do not prove profitable in Canada, where good mutton and blankets are more esteemed than broadcloth or grenadines.

Of pigs, there was a small, but very choice assortment, embracing Yorkshires, Berkshires, Suffolks, Essex, and Cheshire, the latter commonly known as Chester Whites with you. George Roach and Peter Grant, of Hamilton, show several very fine animals in all the classes, of recent importation, from the best English breeders, and deservedly take first prizes for such in its class.

Of the numerous classes contained in the Agricultural Hall, I need not particularize, except to say that the show of well-ripened grapes was something never before seen in Canada, and the show of grain for which such liberal prizes were offered, was unexpectedly small considering the good crops we have just harvested. There were but three samples shown to compete for three prizes of \$100, \$40, and \$20, for 25 bushels winter wheat, and the judges very strangely awarded the first to a sample of Soules, and the second to a sample of Diehl, the latter much the most desirable of the two for sending out as seed, seeing it is a midge-proof variety, and has turned out such heavy crops this year wherever grown. I enclose you a few grains from the prize lot of the latter.

Of agricultural implements there was a great variety; they have a heavier and more substantial look than what I saw at your New York Fair last year, though our makers borrow many of their ideas from across the line. The palace, as usual, contained a multitudinous variety of articles of an indescribable quality, embraced in the classes under the control of the Department of Arts and Manufactures, and notably there was a passenger car of beautiful design and workmanship built by the Great Western Railway, and intended to be used on their line between Suspension Bridge and Detroit.

It is the most comfortable and luxurious yet built on this continent. There was a fine show of poultry, but the birds were not in good feather, and would show to more advantage in spring.

PUSLANE TURNED TO A GOOD USE.

ONE of our friends is venting his wrath in a late number of *The Journal* on puslane, and invites all to stop and help him curse it. I volunteer to defend the weed, and show its good uses. The severe drouth of this summer has dried up my pasture, so that I am obliged to feed all my cows regularly, morning and night, with some succulent food. The corn I dislike to cut so early, for I shall need all its fodder next winter, and intend to cure it well for that purpose. A piece of clover which I had saved for the cows is dried up also. There comes to my relief this very puslane. It is thick in the rows between the currant bushes, the raspberry vines, and in the vineyard. We are weeding all these and stirring the soil; and all the weeds which are pulled out are carefully gathered, put upon the wheelbarrow and fed to the cows.

Let our friend try his cows, and see whether they refuse to eat it, and note the effect it will have on the quantity of milk.

We have also a litter of young pigs, which will persist in creeping through the plank fences into the potato fields, and elsewhere, where they are not wanted. We had to shut them up in a pen; give them all the puslane and other weeds to eat or work up into manure, and find them growing, healthy and sprightly. The puslane has this year paid for all the labor expended in weeding it out.—*Journal of Agriculture*.

STUFF.—During twenty years poultry has been so improved that eggs bring three times more than before the improvements were commenced. So says some poultry man in *The Tribune*.

During twenty years butter has improved in quality so much that it is now worth five times as much, says one interested in improved stock or patent churns. We have within that time sold butter in Rochester for nine cents, which would now bring 45 or 50 cents.

What is worth three times as much now as then. Has "Genesee wheat" improved enough to make this difference in price?

Whisky brings twelve or fifteen times as much now as then.

Reason: Improved quality—eh?

Weeds are God's policemen. They make lazy farmers cultivate the soil, which without them never would be stirred, and consequently never produce a crop. A good farmer hoes often, weeds or no weeds, but a slack fellow never uses the hoe if he can find any excuse to avoid it.

REPORT OF MY APIARY IN 1868.

WRITTEN FOR THE AMERICAN FARMER, BY JASPER HAZEN,
ALBANY, N. Y.

SHOULD apiarians be satisfied with ten or twenty pounds of surplus honey per colony of bees, when they may secure from fifty to one hundred, if not two hundred pounds?

I commenced the season of 1868 with sixteen colonies of bees. I purchased of an apiarian, two miles distant, two new swarms placed in my hives, making the number eighteen. My hives were of different capacity in surplus box room; some 100, some 125, others 150 and 200 lbs. But one Eureka hive had 200 lbs. of box room. Nine of my colonies were Italians, and nine natives. I have taken from the eighteen colonies 947 lbs. of surplus in boxes. The nine Italian colonies gave 563 lbs., an average of 62 5-9 lbs. Nine native colonies gave 384 lbs.—average 42 2-3 lbs.

The season here has been a poor one for honey, as proved by these facts.

1. In 1865 thirteen colonies, all natives, gave an average of 62½. In 1867, twelve colonies, all natives but one, gave an average of 65 lbs.

2. A neighbor's apiary, but ten rods off, had less than 100 lbs. of surplus from nine colonies. Another apiary, not eighty rods distant, had but forty lbs. from sixteen colonies. My two new swarms purchased of the neighbor two miles off, gave 114½ lbs., while over twenty colonies of his in the same apiary in the old box hives gave less than 100 lbs. The amount from forty-five colonies in these apiaries was but 240 lbs., 5 1-3 lbs. on an average.

I know of no reason for the difference of these colonies and the nine colonies of native bees in my apiary, but the difference in the hives, and in the attention given. One average is 5 1-3 lbs., the other 42 2-3 lbs., just eight times as much.

I have noticed that my hives varied in the capacity of their surplus boxes from 100 to 200 lbs.

The hives with boxes for 200 lbs. of surplus gave in surplus 147 lbs. Three hives with 150 lbs. box room, each gave 105 lbs., 79 lbs., and 76 lbs. of surplus.

Three hives with boxes of 125 lbs. capacity, gave 67 1-2, 65 1-2, and 58 1-2 lbs. None of the colonies in hives of less surplus box capacity came up to the average of 52 2-3 lbs.

It is useless to speculate upon what might have been the average had the honey harvest been as good this year as last; but I think it would have been as much better than the last year's average, as the increased product of the Italians over the natives would have rendered it at least.

I think from the results this year I am authorized to draw the inference, that the bees will do better with abundant than with restricted or somewhat limited box room.

The hive with boxes of 200 lbs. capacity gave 60

lbs. more than the average of 150 lbs. capacity, while those of 150 lbs. capacity averaged nearly 20 lbs. over those of 125 lbs. capacity; and those of 125 lbs. capacity in boxes exceeded those with boxes of 100 lbs. nearly in the same ratio. In a good season the largest I have no doubt would have been filled. This has led me to give increased room in the surplus boxes, and to build no less than 150 lb. box room for my own use; and I think I shall generally use hives with thirty-six boxes holding 200 lbs. There will then be little probability of their swarming, or losing time in preparation for swarming.

ADVANTAGES OF STEAM IN HEATING, COOKING, BOILING, &c.

THE various uses for which steam can be adapted seems to be but little understood by the masses. Fear from explosions, scalding, &c., as well as want of knowledge of its great advantages, has thus far prevented its general introduction.

The want of a perfectly safe and easily managed, low pressure apparatus with which to accomplish all the requirements of domestic use, has also been a great drawback. The great advantages of cooking, heating, boiling, &c., by steam, are obvious when it is remembered that it can be done with much less water and fuel, requiring but little care of the operator, and using wooden vessels, (if desired,) of any kind, size, or shape, (a great desideratum.) By its use there is no re-filling of *kettles*, (the ordinary mode,) to get a desired quantity, no constant watching or stirring, or removal of the substance while hot, to prevent burning; no cleaning of kettles for every separate job, which can be done by steam. By the use of this powerful agent, large quantities may be boiled or steamed, or several vessels, (if need be,) treated at the same time; and when desirable, the steam can be conveyed in pipes or logs, to some little distance, using proper care in protecting the same from condensation; thus avoiding, many times, danger from fire, and accommodating itself to all the various purposes of domestic economy, as well as in the manufacturing of many articles or compounds, where danger from burning or explosion is so common. By steam the clothes may be boiled, at any point, in the barrel or tub; the bath tub may be warmed in an adjoining room; the farmer or stock feeder can easily cook in quantities at a time, or scald his hogs, steam his barrels, &c., &c. We believe that when a cheap, simple, and perfectly safe apparatus is once introduced, that the subject, (as it deserves,) will receive much more attention, as by steam *all classes* might as easily be benefited.

Farmers are like fowls, neither can get full crops without industry.

PREMIUM BUTTER IN KANSAS.

THERE was a sharp competition at the Kansas State Fair for the first premium for roll butter. There were three samples by the different exhibitors, all so very good that the judges had difficulty in deciding. The first premium was finally given to Mrs. J. W. Hughes, of Leavenworth. As required by the rules, she gave the following statement with regard to making butter:

"From ten cows I made fifty lbs. of butter a week. I strain four milkings, about twenty-five gallons of milk, into four tin cans; this makes one churning, which I prepare in the following manner, viz: I take (in hot weather) the first milkings, and put over ice to prevent souring too early before the last ones do, and in cool weather I place it where it will sour soon, and mix a small portion of fresh butter-milk in the first can to hasten the process of souring, and this I mix with all the other cans after they have been strained and become cool. I churn the whole of these twenty-five gallons of milk at one churning, using an up and down churn driven by a tread mill-power in the form of an inclined circular platform or wheel, turned by a yearling calf, the same being an arrangement of Jacob H. Cassidy. My plan is always to have my milk a little sour before I churn, but not to let it stand over two days before churning. After the butter is churned, I take it out, wash and salt it, and then put it over ice (not *on* ice, as I am opposed to putting butter *on* ice); in the evening work it over with a butter-worker, by which process the milk is all worked out of it. I then print it in one pound prints, and set it over ice over night, ready for market in the morning. The cows feed on blue grass pasture all summer, and in the fall we give them sweet corn in the fodder."

THE HOP CROP.

WRITTEN FOR THE AMERICAN FARMER, BY F. W. COLLINS.

THE hops throughout the country are secured in good order, and the quality generally is very good, but the yield is much lighter than we expected.

A hop grower writes me from Sauk County, Wisconsin: "One neighbor picks two acres out of seven, some yards utterly abandoned, not a hop picked, being destroyed by lice. The prospect of No. 1 hops is certainly not half the crop of last year." A correspondent writes from Port Hope, Wisconsin, Sept. 20: "We have just finished hop picking in this section. We are short in crop through this State, at from one-fourth to one-third, in consequence of the louse, and had not the louse injured us, we should have barely one-half crop. Many yards are not picked at all, being blighted by the

extreme heat in July."

"Advices from the hop district of Wisconsin are very discouraging; much damage has been done by lice within the past few days; many yards have been utterly ruined thereby. It is now thought that not over 1,500 bales will be shipped from that State."

Many of our planters in New York State have saved their hops from the lice by using plaster and lime on the vines. The quality is fine, but the yield is light. The hot weather blighted them everywhere, but what grew are very rich.

I made an error in the article on hops in the September number. It should read 10,000 to 15,000 bales on hand, instead of 100,000 to 150,000.

FALL PLOWING.

WITHOUT elaborating the many strong points in favor of fall plowing, a few of the more prominent benefits may be briefly stated as follows?

1. August and September are regarded as a good time to turn over bound out sod land, and manure and re-seed it at once to grass, obtaining a crop of hay the following year.

2. October and November are deemed an excellent time to break up sod land for planting the following spring.

3. The weather then is cool and bracing, and the team strong and hearty for the work; while the weather in spring is more relaxing and the team less able; and spring work being always hurrying, it saves time to despatch as much of the plowing as possible during the previous autumn.

4. Sod land broken up late in autumn will be quite free from grass the following spring; the roots of the late overturned sward being so generally killed by the immediately succeeding winter that not much grass will start in the spring.

5. The frosts of winter disintegrate the plowed land, so that it readily crumbles into fine particles in the spring, and a deep, mellow seed-bed is easily made. The chemical changes and modifications resulting from atmospheric action during the winter, develop latent fertility in the upturned furrows, which, together with the mellowing influences, materially increases the crop.

6. Most kinds of insects are either wholly destroyed, or the depredations materially checked, by late fall plowing; especially the common white grub, and the cut worm.

7. Corn stubble land may be plowed late in the fall, and thus be ready for very early sowing in the spring, thereby going far to insure a good catch of grass; the roots of the new seeding getting hold well, or being well established before the drouths of summer come.—*N. E. Farmer.*

EUREKA BUTTER WORKER.

AMONG the many implements for lightening woman's labor shown at the recent State Fair, was a very simple and practical butter worker, with which the largest churning and the hardest butter can be thoroughly worked without touching the hand to it or lifting the bowl. All butter makers know the inconvenience of holding and handling a butter bowl when working butter; also the aches and pains in the hands, arms, back, and stomach, caused by using the hand ladle, and that it is one of the most particular and important operations required in its manufacture, and cannot be properly performed by inexperienced persons; therefore it usually has to be done by the farmer's wife, who we are quite sure will hail this as one of the blessings which the inventive genius of man has bestowed upon her.

The accompanying cut and description will afford our readers an idea of the implement, and the way it operates:



There may be fastened on the bottom of any ordinary round butter bowl, a light circular plate, a little larger than the bottom of the bowl, so the slides K, fastened on each side of the bed piece of the frame D, will hook over it, holding the bowl, allowing it to be slid against the circular rest C, making the bowl stand solid and firm, also easily revolved or slid off the stool when it is to be removed.

The frame D is hung on pins R, through the stool, so it may be tipped forward to drain off the fluids, and back on the stool and fastened to it by the spring latch E in the handle, and the catch J on the stool.

The ladle H is similar to the hand ladle, but much larger. It is fastened to the lever G, which hooks in the swivel eye N, on the swinging fulcrum F, allowing the ladle to be placed on any spot in the bowl, and worked forward and backward, up and down, from one side of the bowl to the other, or any way desirable in working butter, pressing, cut-

ting, and turning it; the same as with the ladle in the hand, but much faster and easier. Messrs. J. P. Corbin & J. P. Adams, Whitney's Point, Broome County, N. Y., are the proprietors.

IMPORTANCE OF FRESH WATER FOR STOCK.

THE following communication for THE FARMER, from D. C. Schofield, of Elgin, Ill., a gentleman widely known in the West as a successful nurseryman, model farmer, and agricultural writer, a thoroughly practical as well as scientific man, for a long time a subscriber and contributor of THE AMERICAN FARMER, gives a very interesting statement in regard to some experiments made by him in watering stock, which our readers, knowing him favorably, will receive with perfect confidence. The pump spoken of by Mr. Schofield, we have seen in operation. It is used by many of our leading farmers, and we believe it to be the best pump ever invented.

For the benefit of our readers we would say, that Mr. Hiram Lawton, of Rochester, is sole proprietor of this pump:

"EDITOR AMERICAN FARMER:—In my yard where my dairy of sixteen cows is kept nights during summer, is a well from which the water is pumped by a windmill into a reservoir, kept full, or nearly so, and holding eight or ten barrels of water, and to which my cows were driven from the pasture, forty rods, three times a day.

"To test the value of the Patrie Stock Pump, for stock purposes, I turned these sixteen cows from this field without water, into a field where they watered themselves at will, fresh from the fountain by this pump. In three days they gained more than a quart of milk each; and without change of feed we shut them from the pump three days, and drove them to water the same distance as before; they fell off in the amount of milk in that time the same they had gained. The water is alike in the wells; they are forty rods apart, and each thirty feet deep.

"My stock, including my horses, when refusing to drink from this reservoir on being turned into the field where they could pump the water fresh from the fountain, would repair immediately to this pump and drink freely.

"The reason is obvious, as water exposed twenty-four hours to a hot sun becomes filled with imperceptible animalculæ, and of course impure, and animals are quite as quick as man to detect this impurity; also as ready to make a choice of water where a choice can be made.

"Many farmers are very careful to provide a sufficient quantity of good food for their stock, but are very negligent in furnishing a supply of good water, which is as essential to keep the stock in a thriving condition as good food. Stock will thrive in proportion to the good or bad quality and sup-

ply of water, and for dairy purposes when the quantity of milk and butter is in proportion to the good or bad supply of water used by the stock, this pump must be considered of the greatest importance, and regarded second only in value to an ever-flowing spring of water."

OUT-DOOR CELLARS.

THE practice of storing large quantities of vegetables in the cellar of a farm house, even if it is of sufficient capacity, is very pernicious. The process of decay which commences very soon after they are put in, generates poisonous gasses, which can but prove detrimental to the denizens of the house.

The necessity of a good root cellar is felt on all farms where roots are raised for the more economical keeping of stock, and nothing on a farm is more useful than such a cellar. A sandy hill side, where it can be found, is the most convenient location, and in such a place a cellar can be constructed very cheap.

We believe that farmers would find such a cellar to pay well, if for no other use than for the temporary storage of potatoes. A man who has such a cellar in a side hill, where the potatoes can be dumped in from the upper side, can bid defiance to the weather, securing his crop as dug, to be afterwards barreled or loaded for market at his leisure. In no way can potatoes be harvested so rapidly as by picking them up as dug, without sorting, loading them into a cart, and hauling them at once to the cellar, to be afterwards sorted in weather unsuitable for out-door work.

If the market is unsatisfactory in the fall, the crop can remain until spring, and then be removed. If the cellar can be made near, or in connection with the barn, so much the better, and we advise all farmers who have not such a cellar already to lose no time in constructing one.

Dig into the side hill, throwing the dirt in a convenient place for banking; build the wall with stone, if handy; if not, plank the sides or put up slabs. Make a strong roof of plank, that will hold earth enough to keep out the frost. Put in your roots, and if they are to be removed before winter, nothing more will need to be done. If they are to remain through winter, cover the roof with a foot of earth and straw, and all is safe.

It is an experiment worth trying, and one which, we think, no one will regret making.

EXPERIMENT.

WE must experiment; that is the way to succeed. There is little done without experiment. All the discoveries are made that way; all the inventions, or nearly all. Life is an experiment; the

world; our progress is the result of it. Farming—ah? here comes in the greatest of experiments. We read what to do, and try it; we try variously. By and by we succeed. We may not at first; we generally do not; we have to repeat very often in the most cases, and change our experiments; but in the end we succeed—*on the whole*—be it remembered, on the whole.

Some things are experimented in vain; this cannot be avoided. But on the whole we are benefited. We try this, that, and the other recommendation; we try not every recommendation—only those which our judgment tells us are best. We try with confidence; we are encouraged; this, that, and the other success stimulates us. We thus make it an interesting thing. And it is this interest which helps us greatly; it enlightens our mind; we see the thing better and clearer; and what we thus gain is an advantage, even if our experiment fails; we have had experience, and we are the wiser; we are more qualified to advise. Our very next experiment will be safer. And so we go on, missing and hitting. Even in the misses we have an advantage—experience, as we have said. And thus the whole thing, by the world, goes forward.—*Journal of Agriculture.*

SCREENINGS.

The apple crop in Westchester county, N. Y., is reported a total failure.

Nine little chameleons have been born at the castle of Lady Cust in England. Naturalists are interesting themselves about these creatures.

Speaking of the newspaper discussion concerning the adulteration of milk, Punch gives his opinion that the best article on milk is—cream.

Oakland County, Michigan, clips a million pounds of wool this year.

Seeds of flowers should be collected as fast as they ripen.

Hungary is about to celebrate its thousandth anniversary as a kingdom.

Castile soap should alone be used to wash oil-cloths with. Soap containing an excess of soda or potash, injures the surface, and destroys the oil-cloth ultimately.

In Harrison County, Iowa, corn 15 $\frac{1}{2}$ feet high, is reported.

The Republican, Wapello, Iowa, reports that an 80-acre field of wheat near that place had been threshed, and yielded 30 bushels to the acre.

Eat below your means, dwell according to your means, but spend on your wife and children above your means.

The *Cork Reporter* notices, under the head of "Strange and Unprecedented Importation," that 150 head of cattle have returned to Cork from Bristol, being altogether unsaleable in the English market, the scarcity of fodder and green crops having depressed the value of store cattle.

DIFFERENCE OF OPINION BETWEEN AMERICAN AND ENGLISH FARMERS.

THE former says "plow and re-seed every few years to renovate the grass land;" the latter on no pretense whatever thinks of plowing an old established grass field. If mowed too many years in succession, and the crop becomes light because manure cannot be conveniently applied, by grazing with cattle and sheep for two or three years together the grass will thicken and rapidly improve in every respect, especially if kept short by putting stock enough upon it to prevent bunches of old grass being left uneaten from the middle of May till the end of August; for there are so many varieties of grasses growing in a permanent pasture that, if allowed to be stocked lightly, the coarser kinds will shade and kill all the finer and more nutritious sorts.

Look at a pasture field in America—where do cattle or sheep like to graze best? It will invariably be seen that they will prefer the places where the grass has been kept short, and those patches in the field often near the gateway will look greenest, and be as thick again in the bottom as elsewhere.

Blue grass is similar to some English grass, and is most excellent to have in pastures and mowings likewise; for the finest and best meadow hay in England is made from a mixture of grasses, the stems of which are all as thin as white clover, and, as the English farmer is not foolish enough to let his grass become nearly ripe for seed before cutting, his meadows continue to have a thick-set sward year after year. Thomas Gibbs & Co., seedsmen to the Royal Agricultural Society of England, sell grass seed having about seventy varieties in it—price one guinea per bushel—which will soon become good for alternate grazing and mowing; but if grazed continually, and if on good deep soil, it will become fattening, and every kind of stock put on it will soon get fat, or if mowed season after season, manure will be needed to keep up the stamina, and it will want repeated rolling and brush harrowing in the spring.

In America, large-boned animals are admired; in England, large frames heavily laden with flesh and fat, but with fine bones. In the former country, meat is supposed to be best when put on the carcass very quickly; but in the latter country the butcher will prefer a beast which has been laying on meat for years instead of months, and all meat from animals which are said to be "firm as a board," when those creatures are in their prime, is worth several cents more per pound than softer fleshed ones. A heifer never having had a calf, is in her prime at four years; an ox in his at six years; a calf for veal at ten weeks, having had as much milk as he could suck.—*Cor. Country Gentleman.*

ECONOMY IN FEEDING HORSES.

EVERY one who keeps a horse, either for profit or pleasure, in addition to keeping him well, should study how to keep him with an outlay of the least money. The farmer who has plenty of food for his horse should be no exception. All that the farmers grow or should grow can be converted into money; there should be no waste because of plenty. If your present stock will not consume all your stock food economically fed, buy more stock to make a profit on the balance. A farmer who understands his business will always know how to do this; but never waste although your farm and granaries may be full to overflowing.

Grass, either green or cured, is the natural food of the horse, and is essential to his good health. Green is the natural state, therefore the best; but we cannot have it green all the year round in this climate, therefore we should do the next best thing with it—*cook it—steam it.* Experience has proven that hay when steamed has all its natural juices and virtues revived, and is equal to grass, and nearly or quite as palatable to stock—that even mouldy hay, when steamed, is just as palatable to stock as that which has been well cured and preserved. For both convenience and economy, hay should be cut before being steamed. Hay and straw cutters have been so improved of late years, and competition has so reduced prices, that there is no excuse for any man who keeps a horse to not have one.

Straw has become too valuable to be used for bedding stock. Look at its price in the market reports—it is almost equal to the best of hay, then why waste it when you can make so much more out of it by steaming and feeding it. It is not thus lost to the manure heap—it may be in bulk, but not in its fertilizing virtues. Stable floors will have to be so constructed as to do without bedding. Farming is being reduced to a *science*, and those who *will* shut their eyes to the light of improvement, and plod on in the old wasteful ways of their fathers in feeding stock, will not be able to compete with their more enlightened neighbors who keep up with the times.

There is great wastefulness in feeding whole grain to horses, or any other stock. It should not only be ground but steamed.

It should be mixed with cut hay or straw, and steamed together. This is not theory alone, it is based on experience carefully tested, and found that there is a gain of at least fifty per cent.

Now, if two tons of hay or straw cut and steamed are equal to three tons not thus treated, and two bushels of corn ground and steamed are equal to three bushels unground and raw, then every third ton and every third bushel is saved by this process, which will enable the farmer to keep one-third more stock. Here is where the extra profit comes in.—*Correspondent American Stock Journal.*

KEEP the trunks and leaves of fruit trees clean.

PRESERVING SKINS OF ANIMALS.

IN the first place, fur-bearing animals should not be killed out of their proper season, which, in this latitude, is from the beginning of November until the last of March. A little earlier than the first, and a little later than the last dates, is allowable; but only in the winter and early spring is the fur in its best condition.

Our readers have doubtless noticed, in examining furs, that, while some were harsh and wiry and thin, others of the same varieties were soft, downy, and very thick near the skin; the former of these had been taken from the animals which were caught in summer or early autumn, after they had "moulted," or shed the down or soft portion of the fur, leaving nothing but the thin or hairy part. The others had been taken in the proper season, and were, in the right sense, furs.

We would remark here to our young lady readers, that, in purchasing furs, a sure test of what dealers call a "prime" fur is the length and density of the down next the skin; this can be readily determined by blowing a brisk current of air from the mouth "against the set of the fur;" if the fibers open readily, exposing the skin to the view, reject the article; but if the down is so dense that the breath cannot penetrate it, or at most shows but a small portion of the skin, the article may be accepted.

If it is important that the animals should be captured in the proper season, it is equally essential that they should be taken in traps, and not shot or otherwise mutilated. Skins that have been taken from animals that have been caught in traps are vastly more valuable for use or for the trade than skins of those killed by shot. Shot-holes in the skin, only of the size of the directly entering shot, injure the skins merely to the extent of the size of the holes; but the proportion of direct entrances by shot to oblique or slanting and glancing ones, is very small. Now, a glancing shot-wound on the skin is apparently a small matter, but it really injures it very considerably; the pellet plows out a passage through the fur as nicely as would a razor or hot iron; and, of course, the skin is disfigured. Dealers will tell you that in all skins so cut with shot, they remove the injured portion and replace with a patch; this additional labor and the irregular appearance of the skin affect its value very much; and in such animals as the ermines and small sables the shot pelt is well nigh valueless. Steel traps set in or about the haunts of the animals are effectual, and should always be used.

After the animal is captured, it is always very important that the skin should be taken from the body carefully and economically, an injudicious cut sometimes wasting a large part of the skin, if not

rendering it valueless. The best and most approved method of skinning fur-bearing animals is to commence by cutting the skin around the hind feet, and then slitting the skin down inside the hind legs to the body, joining the two slits between the hind legs; then remove the skin on the tail by pushing up the thumb-nail, or a thin, flat piece of wood against the bone of the tail, and draw off the skin. Now commence to draw the body of the animal through the slit already made, without enlarging it, drawing the skin over itself, the fur side within; when the fore feet are reached, cut the skin away from them at the wrist, and then skin over the head until the mouth is reached, when the skin should be finally removed at the lips.

A thin board, wide enough at one end to stretch the broadest part of the skin, and tapered at the other end sufficiently to enter the skin of the head, should be prepared beforehand to stretch the skin upon. Many trappers use wide, smooth shingles, cut to the required form; and we have often noticed that the trapper's outfit always bears a conspicuous bundle of these stretchers. The skin should be drawn tightly over the stretcher, the fur side within; the back on one side of the shingle—not the edge—the belly on the other. With a sharp knife every particle of the fat and flesh should now be scraped from the pelt, carefully avoiding cutting it, the stretched and tender skin being easily severed by the knife. After it is thoroughly cleaned, it should be hung up in a room or shed until it is dried; on no account should it be exposed to the sun or fire, but it should gradually dry in the shade. When completely cured, the board may be removed, and the pelt is ready for the market.

For special purposes it is sometimes desirable that the skin be rendered soft and pliable. This is done by bending it in different directions between the fingers, and rubbing it with coarse Indian meal.—*Oliver Optic's Magazine.*

A MAINE ORCHARD.—J. H. Smiley, Vassalborough, Me., gives us the figures of sales from his orchard for the past three years, which will interest our readers. He says: "My orchard contains one and five-eighths acres, including some twenty or more trees just commencing to bear. The crop the past season was 148 barrels, amounting to \$700; this with the crops of 1866 and 1867 amount to 428 barrels, for which I received upwards of \$2,000. And this in the teeth of the westerly winds, with no break this side of the mountains in the far distance."—*Maine Farmer.*

DEATH OF DR. DADD.—Dr. George H. Dadd, the author of several works on the diseases of domestic animals, died a few weeks since.

SPIRIT OF THE AGRICULTURAL PRESS.**Fall Work.**

Fall work being well over, or in such a state of progress that a part of the force of the farm can be diverted to improvement of the land, farmers will do well to keep on a full corps of hands, and put their fields in the best possible condition for successful culture. Wherever underdraining is necessary, let it be done, if possible; let ditches be opened through low grounds, the lands be cleared of stones, the fences and fields of briars and bushes, and preparations made to increase the manure heap, so that the crops may be better manured next year. We are certain that no farmer who takes this course will regret it.—*Working Farmer.*

Liquid Manure Tanks.

As liquid manure is exceedingly beneficial to all vegetables, plenty of it should always be available, and without a liquid manure tank this cannot be obtained. For large gardens, a tank should be built exactly like a cistern; the bricks being closely cemented at the bottom, sides, and roof, to prevent the liquid from percolating through the soil, and also to keep surface water from entering the tank. The liquid should be conveyed to the tank by tile drains from the stable, byre, kitchen, &c., and may be taken out by a pump. In small gardens a hogshead or large cask of any kind that will hold water may be sunk in the ground, and will answer on a small scale. In this soot, guano, &c., may be converted into a valuable manure by dissolving them in a suitable proportion of water. Manure is much more readily taken up by the roots of plants when in solution than when in a solid state. In fact solid manure has to be dissolved before it can enter the sponge-like mouths of the roots.—*Western Rural.*

Stacking Hay in the Field.

A correspondent of *The Country Gentleman* who was raised near the rivers Severn and Avon, gives the following plan for facilitating the business of haymaking adopted by farmers who own from 200 to 300 acres of meadow lying on those streams, and whose homesteads were often a mile or two away, and few of whom had more than one team:

"The mowing was commenced early, and proceeded without any delay, and as fast as the hay became dry it was put in what they call 'wind cocks,' being about a ton or less in each cock, which were well made by a man building them as the others pitched the hay up to him. They were round and so well made that for a few weeks they were perfectly safe. Thus the work went merrily on, and in any damp parts of the fields the team would be in request to carry the crop from there to a sound and safe spot. Then, when all was mowed and made into hay, there were none but the regular constant men retained, probably only a couple of men and a boy, and these would then fetch home the whole of the cocks, and put them in large ricks in the stock-yard, where they would be thatched with straw according to the custom of the country. This is a plan which might be adopted in this country, where there is a great deal to be done and few hands

to be employed, for a very few men would make perfectly safe in this way all that could be cut with two machines running from light till dark; for, with the aid of a tedder and some horse-rakes, the cocking would be nearly all done with those using the forks."

Wheat Bran for Cows.

A correspondent of *The Country Gentleman* is led to ask, does wheat bran diminish the quantity of milk when fed to cows? by the following facts: on the first of September, he commenced feeding two favorite cows on wheat bran, six weeks after their calves, (then five weeks old,) had been taken from them; and although the pasture has daily increased in richness since the removal of the calves, the flow of milk from these cows has greatly decreased in quantity.

Decomposing Soils.

Every farmer, gardener, and fruit grower should gather sods whenever opportunity will permit, and pile them up in some corner or out-of-the-way place to decompose. Sodds are the cream of the soil, and wonderfully supplied with fertilizing properties, making one of the very best invigorators for trees, vines and plants. They may be easily obtained from fence corners of tilled fields, or gathered from the surface after plowing and harrowing sward land. Pile them up grass downward and cover the heap with a coat of ashes to keep grass from growing. A year or two will be required for them to thoroughly decay. Water should be applied at intervals sufficient to keep the pile moist in a dry time to prevent a dry moldy rot.—*Ohio Farmer.*

Large Growth of Squashes.

The editor of *The Prairie Farmer* was lately shown the product of a single squash vine, raised by S. Reed, Esq. of Evanston. They were nine in number, and ranged in weight from 151 to 32 lbs., making in all 893 lbs. Mr. Reed calls these squashes the Mammoth Sugar, and states that the seeds were obtained from the Agricultural Department at Washington. Should the quality of these squashes prove equal to the quantity produced, they will be a great accession.

Two Hints for Horsemen.

An exchange says:

1. To prevent chafing the breasts of horses. The common practice of using pads or sheepskins under the collars is objectionable, especially in warm weather, because it accumulates heat and makes the breast tender. A better way is to take a piece of thick and smooth leather, cut it out just the size of the collar, or a little wider, and let it lie flat on the neck and shoulders of the horse. This will lie smooth on the neck, while the collar itself moves about, and so it will prevent chafing. In addition to this, let the breasts of working horses be washed off every night with clean water.

2. In reference to blanketing horses in winter. It is doubtless true that blanketing keeps a horse's coat smoother in winter. And hence, fine carriage horses and saddle horses will doubtless continue to be blanketed. But where horses are kept more for service than for show, we think they had better dispense with the

blanket. Keeping them constantly covered makes them tender and liable to take cold. Better give them a warm stable, plenty of straw for bedding, and good food. When they are to stand for any length of time out doors in a cold winter's day, they should have blankets. And so when they come in from work steaming hot, they should be allowed to stand a short time until they have partially cooled off; then the blanket should be put on for an hour. Be careful and not delay putting on the blanket until they have become chilled.

Field Rollers.

A correspondent of *The Am. Farmers' Magazine* gives his experience with field rollers as follows :

"In my opinion, based on practical experience, the field roller would, if properly used, convince every observing farmer of its superiority over all other implements for pulverizing the soil. It is indispensable in preparing the soil for grain. I would recommend the use of the roller after, as well as before the sowing of grain. Its use after sowing is beneficial in various ways. It pulverizes all remaining clods. It packs the soil down firmly, and pulverizes it to the depth of five or six inches, thereby giving the roots of the plants an opportunity to take a deep hold. The soil, when put in this condition, retains moisture for a great length of time; and this is a most important consideration, as grain frequently suffers during the drouth of the summer and fall months.

"The roller also leaves the field with a smooth surface, which is so necessary for the successful working of the reaper and the mower.

"In wheat fields and meadows, after the hard freezings of winter, the roller is invaluable. The roots by constant and severe freezing, are raised to the surface. By passing the roller over the field in the spring, the roots are pressed down into the soil, so that they can at once take hold and grow. It is frequently the case that the use of the roller in wheat fields in the spring will apparently double the number and size of the plants, and the owner of the field will be delighted at the prospect of having a full crop from ground which he had probably before decided to plow up for corn.

"I also think the roller is indispensable in the cultivation of corn. I use it after the corn is two, or three inches in height. It packs the soil about the roots, causing it to retain moisture, and leaves it in a good condition for the plow and the cultivator; and it crushes all the clods, which are always the great terror of the plowman."

Preservation of Leather.

A contributor to the *Shoe and Leather Reporter* gives some valuable hints in relation to the preservation of leather. The extreme heat to which most men and women expose boots and shoes during winter deprives leather of its vitality, rendering it liable to break and crack. Patent leather particularly is often destroyed in this manner. When leather becomes so warm as to give off the smell of leather, it is singed. Next to the singeing caused by fire heat, is the heat and dampness caused by the covering of India rubber. India rubber shoes destroy the life of leather. The practice of wash-

ing harness in warm water and with soap is very damaging. If a coat of oil is put on immediately after washing, the damage is repaired. No harness is ever so soiled that a damp sponge will not remove the dirt; but, even when the sponge is applied, it is useful to add a slight coat of oil by the use of another sponge. All varnishes and all blacking containing the properties of varnish should be avoided. Ignorant and indolent hostlers are apt to use such substances on their harness as will give the most immediate effect, and these, as a general thing, are most destructive to the leather. When harness loses its luster and turns brown, which almost any leather will do after long exposure to the air, the harness should be given a new coat of grain black. Before using this grain black, the grain surface should be thoroughly washed with potash water until all the grease is killed, and after the application of the grain black, oil and tallow should be applied to the surface. This will not only "fasten" the color, but make the leather flexible. Harness which is grained can be cleaned with kerosene or spirits of turpentine, and no harm will result if the parts affected are washed and oiled immediately afterward. Shoe leather is generally abused. Persons know nothing or care less about the kind of material used than they do about the polish produced. Vitriol blacking is used until every particle of the oil in the leather is destroyed. To remedy this abuse the leather should be washed once a month with warm water, and when about half dry a coat of oil and tallow should be applied, and the boots set aside for a day or two. This will renew the elasticity and life in the leather, and when thus used upper leather will seldom crack or break. When oil is applied to belting dry, it does not spread uniformly, and does not incorporate itself with the fiber as when partly damped with water. The best way to oil a belt is to take it from the pulleys and immerse it in warm solution of tallow and oil. After allowing it to remain a few moments the belts should be immersed in water heated to 100 degrees, and instantly removed. This will drive the oil and tallow all in, and at the same time properly tan the leather.

A Very Rich Farm.

A narrator says:—"I went over last summer with two friends, and Jones took us up on a four-acre lot he had just prepared for planting. We all went to the center of the lot, and he here made a single hill and showed us a cucumber seed. "Now, boys," said he, "when I put this seed into the ground, you must run for the fence, and get out as soon as you can." No sooner had he dropped the seed than he and the others started off as if a bull dog had been after them. I was so surprised that I forgot the warning until I saw a vine pushing up through the ground and making for me. Then I ran as if for dear life, but before I got to the fence the vine caught me and began to wind around me like a snake. I was very much alarmed and put my hand to my pocket for my jack-knife with which to cut myself loose, but to my horror could not get it on account of a cucumber which hung there, and which was growing like blazes! It took four men with scythes to cut me loose."

Horticultural.

PLANTING TREES FOR TIMBER.

WRITTEN FOR THE AMERICAN FARMER, BY WILLIAM WEBSTER.

NUMBER TWO.

"THE woods near San Rafael, in Marion County, California, are on fire. A track of from five to six miles in extent is burning, and the inhabitants of San Rafael are nearly stifled with smoke. The city and harbor were wrapped in a cloud of dense smoke last evening, supposed to be from the burning woods. A terrible conflagration has been raging in Oregon for several days past. The fire covers an estimated area of 200 square miles, on both sides of the Columbia river, between the mouth of Cowlitz river and the junction of the Willamette river with the Columbia. It is feared that the towns of St. Helen and Astoria will be destroyed. The destruction of timber and other property is immense."

Such is the announcement in *The Rochester Daily Union*, of Sept. 19th. Is it not really appalling, this terrible destruction of timber by fire? The year 1868 is one long to be remembered, as being fearfully pregnant with calamities. From all quarters the cry comes to us of some dreadful disaster—from the east and from the west, from the north and from the south—we hear of devastating conflagrations, of terrible accidents by fire, of floods, of war, and of earthquakes, convulsions more terrible than any of which we have any written record. Truly God has arisen to "shake terribly the earth."

It may be, that those who have escaped these awful visitations, do not really comprehend the magnitude of them. The fire above alluded to covers an estimated area of 200 square miles, on both sides of the Columbia river, and it is feared the towns of St. Helen and Astoria will be destroyed. Such is the cry from Oregon. Two hundred square miles of timber on fire, and of such timber! Our largest forests here are but little more than shrubby patches in comparison; and lest any one should doubt that the timber thus burned was of little value, or inaccessible, let him turn to the map of Oregon, and he will there find that it is right in the track of navigation—on the finest river of the Northwest, and that the towns mentioned are two of the most important in Oregon; and if he will take the trouble also to look into *The Horticulturist* for the year 1853, he will there find at page 126, the following description of the timber which then abounded there, a large portion of which is now destroyed:

"A fir tree standing on the farm of Judge Strong, at Cathlamette, twenty-five miles from Astoria, on the Columbia river, has the following dimensions: Diameter, five feet above the ground, where it is round and sizeable 10 feet; height to the first limb, 113 feet; height of tree, 243 feet. The trunk is perfectly straight, diminishing gradually, and the whole tree is beautiful.

"A spruce tree standing on the bottom lands of Lewis and Clarks river, twelve miles from Astoria, measured accurately with the tape five feet above the ground, is thirty-nine feet in circumference. The place of measuring is above the swell of the roots. The

trunk is round, and with a regular and slight diminution runs up straight and lofty. We did not ascertain its height; nor is it alone in its glory, but in a forest of spruce, cedar and fir, some of the trees of nearly and perhaps equal size.

"Gen. John Adair, of Astoria, informs me that about three years ago he bought a hundred thousand shingles, all made from one cedar tree, for which he gave fifteen hundred dollars in gold.

"The forest trees of Oregon are remarkable for their straightness, loftiness, and very gradual diminution in size. They are destitute of large branches, and have comparatively little foliage. Two hundred feet in length of saw logs have been cut from a tree—the smallest end being sixteen inches in diameter. Lewis and Clark measured a fallen tree of that species (fir), and found that, including the stump of about six feet, it was three hundred and eighteen feet in length, though its diameter was only three feet."

I could go on and recount the size of trees larger and even grander than those mentioned in the above communication; but enough for the present. My object now is to call attention to the importance of planting trees for timber. Without timber we can scarcely have railroads, and railroads we must have—they have become a necessity, and the time is fast approaching when the great west will be intersected with a system of railroads like net work; Ties, the contractors must have, and timber for their bridges, and those who are wise now, and plant their waste lands with suitable trees, will be all in good time to supply the demand. Congress should be importuned, and without delay, to set apart certain sections of land where timber is scarce, and to make an appropriation for planting them from time to time with trees, or seeds of forest trees for timber. Such sections could be held in reserve by the Government until such time as the requirements of civilization demanded their removal; and if planted in alternate sections the danger from fire would be much less than if planted in large bodies. All past experience with European Governments has proved that where waste lands have been planted with trees for timber, it has always been ultimately a great source of revenue to them. Suppose our Government had, (when it was first appealed to for aid to construct the Illinois Central Railroad,) planted the greater part of the alternate sections of land on the line of that road with trees for timber, what would be the value of those sections to-day? Why, so great we could scarcely estimate it.

Timber to be really valuable must be accessible, and where would it be more so than on the line of a railroad? Could not the experiment be tried on the adjacent lands of the Union and Pacific Railroad, for where is timber more needed at the present than on a large portion of the line of that most important of highways?

Use of Geranium Leaves.—It is said that the leaves of a geranium are an excellent application for cuts, where the skin is rubbed off, and other wounds of that kind. One or two leaves must be bruised and applied to the part, and the wound will be cicatrized in a short time.

LAST COLUMN OF LAST PAGE OF THIS NUMBER.

SOAP FOR FLOWERS.

A CORRESPONDENT of the *Rochester Democrat*, commenting on an article which appeared in that journal on the "Value of Soap for Flowers," writes as follows:

"The past summer has been exceedingly dry; and for the first time I have used soaps-suds, with great success, upon my turnips, radish, celery, and squash, and cucumber plants. I found a lot of old whale oil soap; and, as an experiment, made a weak solution and applied it to my summer and winter squash plants. I am delighted and surprised at the result. My gardener warned me that it would kill the plants.

"The bugs were making sad havoc, eating the leaves and tormenting the plants. The whale oil soap was a *quietus* to the bugs, destroying all upon the leaves; and new comers turned away in apparent disgust. The plants, on the other hand, relished the mixture, and grew rapidly.

"I sowed, on the 17th of July with turnip and radish seeds; watered the ground with soap suds from the kitchen. The plants came up quickly. Discovering that the little black bugs, the tormentors of all such plants, were at work, I applied the whale oil soap— *presto*—away went the bugs. I gave the plants repeated watering with soap suds. Mark the result.

"On the 15th of Aug. I pulled large, brittle radishes; and about the 20th of August I pulled one sound, sweet, brittle radish that measured five and a half inches in length!

"I applied the whale oil soap and soap suds to the turnip plants, with like result.

"The soil of my garden was formerly all clay—such clay as would have rejoiced the hearts of the Israelites in Egypt in their days of brick-making. I could not grow good radishes until I watered them plentifully with soap suds. I have now growing the finest celery plants I have ever raised. They, too, have had a generous supply of soap-suds. Let all gardeners read and understand, then, that soap suds is one of the most excellent materials that can be employed in the cultivation of all plants, and that it will pay satisfactorily to save all the suds on washing days, and have the liquid applied to the garden."

A NEW WONDER.

At Lexington, a few days since, we were invited to the garden of Captain Moore, to examine what our friend, Colonel Werth, would call an "*impossibility*," in the form of an apple growing on a grape vine, not grafted, nor budded, nor any such thing, but simply an apple growing on the stem of the vine. The apple, which is perfect in form, emanates from the vine at the foot of a leaf stalk, where there would have been a bunch of grapes had not the apple taken its place. A close examination revealed a remnant of the bloom of the grape, at the point of union of the fruit with the vine, and the theory we formed was that the grape was fertilized by the pollen from an apple tree, which overshadows the vine; but the strange part is, that apple pollen should be received by grape stigmas.

The Professors of Natural Sciences at Washington College are watching the development of the stranger, and whenever it falls, either upon or before maturity, they will dissect it, and ascertain what its internal structure is.—*Southern Planter and Farmer.*

PROTECTION OF THE RIGHTS OF HORTICULTURISTS.

WRITTEN FOR THE AMERICAN FARMER, BY WILLIAM WEBSTER.

NUMBER ONE.

IN the September number of *The Horticulturist* is a very sensible article, written by the author of "Ten Acres Enough," entitled, "Novelties in Field and Garden." It strikes me very forcibly that the article in question is 'deserving of something more than a brief notice, for it covers the ground of subjects which are of vital importance to every horticulturist in the country, and to aid in giving more prominence to it, I desire to call the reader's attention to the latter portion, where the writer says:

"It is universally admitted that the laborer is worthy of his hire—the inventor, of his reward. I have been thinking over the proposal of my friend Fuller, that the originator of a new plant should be protected in his discovery by patent. The propriety of such protection strikes me as being eminently just. A man will devote years of patient watchfulness and skill in the production of a new and valuable variety of fruit or flower, and his reward is limited by the sale of such stock as he may choose to accumulate before offering his discovery to the public. When once in possession of the latter, it is multiplied in winter and summer, every conceivable forcing process being instantly invoked to manufacture a world-wide supply. The originator receives but an indifferent reward; and though he may seek for a fair one by demanding high prices, yet this strictly honorable effort is unsparingly denounced as an extortion. Instances have been known of a new fruit having been stolen from the grounds of the originator, and secretly multiplied until he brought it into market, when the dishonest competition robbed him of a large share of what he had laboriously earned.

"The Government protects the inventor of a clothes-pin or a goose yoke by a patent running seventeen years. These implements are merely new developments of old processes. The materials composing them are well known, and are common property, the production of nature, whether of wood or metal. It is from these that the inventor fashions and combines his new device, which, because of its being new and useful, is secured to him by patent. He may fill warehouses with his improved goose yokes, refuse to sell them to an impatient public, and no one dare manufacture them, except at his peril. When he does sell, no one but himself can produce them, unless by license. His monopoly of the market for goose yokes is absolute, and cannot be broken up except by some more ingenious mind inventing a different and better one. The most trifling mechanical contrivances have thus become stepping-stones to fortune. How little ingenuity is required to invent the goose yoke or clothes-pin; yet the Government protected that little, and the protection secured rich rewards. Not so with the originators of new and better fruits and flowers. They labor in this vocation year after year, concentrating upon their efforts the experience and skill of a lifetime, and not

succeeding oftener than once in five hundred trials. Even when signally successful, their reward is too often far below their merits. Take the Albany Seeding Strawberry as an illustration. Here is a fruit of untold value to the nation, the unquestioned offspring of a single individual. That berry must have enriched hundreds of fruit-growers, and is destined to enrich thousands. But who can say that its originator received the reward to which he was entitled, or give the world a history of the time, and labor, and patient waiting which he went through before he succeeded in his great discovery?

"There may be difficulties in the way of carrying Mr. Fuller's programme into practice, but they may be overcome. As the law now stands, no one can manufacture a patented article without a license from the patentee. Let the inventor of a new plant receive his patent for it. When he sells the plants, let him also require payment for the right to manufacture and sell other plants in a specified territory. If it be valuable, the purchaser of the right to that territory may dispose of rights to others, and thus refund himself for what he paid the patentee. Should the plant be offered for sale beyond the limits of the territory sold, the patentee will become aware of it, and can prosecute for infringement, precisely as in the case of a machine or process. There ought to be no difficulty in having Mr. Fuller's excellent suggestion adopted. At first sight it will strike many as an absurd and impracticable novelty. But let its fairness and justice be once admitted, and then make it law. It is protection alone that has given to American ingenuity its present mighty progress in the arts. Extend that protection to the arts of horticulture and floriculture, and an inconceivable impulse will be given to the highest development of both."

The idea of Government protecting the arts of horticulture and floriculture by suitable laws, has often presented itself to my mind, and the last number of THE FARMER advocated Government fostering arboriculture on those portions of the public domain where timber is needed. I have often wished that some writer of acknowledged ability would take this subject in hand, who would do it more justice than myself; and now that the ball is fairly set a-going, let us hope that others may be induced to take hold and keep it in motion, until the object sought is fairly obtained; so that if the horticultural proclivities of A, B, or C, incline them to devote a certain portion of their time, talents, and energies, to the production of something new or rare, in the way of fruits, flowers, or vegetables, (such as may really be of value and of benefit to the public,) that they may reap the reward of their labors by legal enactment. In order, however, to adequately protect the interests of A, B, and C, we need and should have some competent tribunal to examine into and pass judgment upon the merits of such fruits, flowers, or vegetables as A, B, or C might present. Such a tribunal already exists, we are well aware, but its powers are too limited, (I refer to the American Pomological Society,) whose members are for the most part, men of superior intelligence and endowments, and quite as

capable of judging of the merits of one horticultural product as another—yet whose duties as members of the society only require them to investigate and judge of the merits of the various kinds of fruits which may be brought to their notice; and although they may give A, B, or C credit for any new or valuable fruit which they may produce, they can afford the originator no further protection than their influence extends. But suppose this matter of protection be vested in the patent office as suggested, will *that* accomplish the object? I hardly think it would, especially if the Board of Examiners were to be appointed from the ranks of politicians, instead of those whose claims would be based solely upon their qualifications for the peculiar duties which would devolve upon them as eminent horticulturists, irrespective of party or politics. The latter we need scarcely look for, as it would be an anomaly to appoint such. Now, in view of the difficulties which surround the case, would it not be advisable to change the name of the American Pomological Society into that of the National Horticultural Society, whose members should be the sole arbiters of all questions which might arise relative to horticulture, for there is no body of men more competent to decide such questions? But few, perhaps, are fully aware of the magnitude and importance of horticulture as a branch of industry, ranking as it does scarcely second to any other, and standing quite as much in need of protection.

To sustain and render permanent this society, it must have aid from the Government, be incorporated with delegated powers, have grounds allotted for experimental gardens, and money appropriations to keep them in order (*not the members, but the gardens*). The experimental gardens should have a curator and subordinates; but the society should have the supreme control of the gardens, and appoint their own curator. Suppose such to be the case. Whenever A, B, or C originate anything new or useful in horticulture, it is sent (if they desire to protect themselves), to the experimental gardens to be tested, and if it really proves valuable, then the society would issue their patent or certificate, endorsing its merits, which certificate would be final, and as much respected by the courts as any document issuing from the patent office. For each patent a certain fee could be charged, which would go towards making a fund for contingent expenses. The society should meet at least once a year, and the place of meeting should be wherever the experimental gardens might be permanently located. We all know that agriculture is fostered by our Government, and so is horticulture to a certain extent, but nothing like what the interests of this great and growing country demand. I would gladly see the experimental gardens at Washington enlarged to ten, aye, twenty times the size they now are, so that the present able superintendent might have a much wider scope for the exercise of his talents. It may, perhaps, appear to some that what I have written is scarcely the kind of advice that is needed; but whether it is or not, let us hope that numbers may be found who will take up the question and agitate it in some form until we arrive at something definite in the way of protection to horticulturists.

GRAPE CROWERS MAXIMS.

THE following maxims by A. S. Fuller, author of a valuable work on Grape Culture, although not all applicable or safe to follow in all localities, contain much of value to the grape grower:

1. Prepare the ground in the fall, plant in the spring.
2. Give the vine plenty of manure, old and well decomposed; for fresh manure excites growth, but it does not mature it.
3. Luxuriant growth does not always ensure fruit.
4. Dig deep and plant shallow.
5. Young vines produce beautiful fruit, but old vines produce the richest.
6. Prune in autumn to ensure growth, but in the spring to promote fruitfulness.
7. Plant your vines before you put up trellises.
8. Vines, like soldiers, should have good arms.
9. Prune spurs to one well developed bud, for the nearer the old wood the higher flavored the fruit.
10. Those who prune long must soon climb.
11. Vine leaves love the sun, the fruit the shade.
12. Every leaf has a bud at its base, and either a bunch of fruit or a tendril opposite to it.
13. A tendril is an abortive fruit bunch; a bunch of fruit a productive tendril.
14. A bunch of grapes without a healthy leaf opposite, is like a ship at sea without a rudder—it can't come to port.
15. Laterals are like politicians—if not checked they are the worst of thieves.
16. Good grapes are like gold—no one has enough.
17. The earliest grape will keep the longest, for that which is fully matured is easily preserved.
18. Grape eaters are long livers.
19. Hybrids are not always high bred.
20. He who buys the new and untried varieties should remember that the seller's maxim is, "let the buyer look out for himself."

FRUIT TREES.

1. When fruit trees occupy the ground nothing else should—except very short grass.
2. Fruitfulness and growth of the tree cannot be expected the same year.
3. There is no plum that the curculio will not take, though any kind may sometimes escape for one year in one place.
4. Peach borers will not do much damage when stiff clay is heaped up around the tree a foot high.
5. Pear blight still puzzles the greatest men. The best remedy known is to plant two for every one that dies.
6. If you don't know how to prune, don't hire a man from the other side of the sea that knows less than you do.
7. Don't cut off a big lower limb unless you are a renter, and don't care what becomes of the tree when your time is out.
8. A tree with limbs coming out near the ground is worth two trees trimmed up five feet, and worth four trees trimmed up ten feet, and so on till they are not worth anything.
9. Trim down, not up.

10. Shorten in, not lengthen up.

11. If you had your arm cut off, you would feel it to your heart—a tree will not feel, but rot to the heart.

12. When anybody tells you of a gardener that understands all about horticulture and agriculture, and that he can be hired, don't believe a word of it, for there are no such to be hired. Such a man can make more than you can afford to give him, and if he has sense enough to understand the business, he will also have enough to know this.

PINUS PATULA.

ONE of the Mexican pines, and a most graceful and distinct species. Its wood is of a peculiar lead color. The foliage is from eight to nine inches in length, and grows in threes, very delicate, and most graceful, of a fine silver-gray color, hanging perpendicularly or pendulous or either, or on both sides of its delicate branches, like the hair neatly parted on a young lady's head. The tree is handsome at all seasons; but it lights up in a most glorious manner with a gleam of sun, and waft of wind. There is a fine tree of this species growing here, which has borne cones for years past.—*James Barnes in Florist and Pomologist.*

THE TULIP.

BUT few flowers have been more celebrated or highly prized than the Tulip, and deservedly so, for no other flowers are more to be relied upon for spring decoration; and, moreover, being so easily cultivated, but few need deny themselves the pleasure of their presence in the spring. We can scarcely point to a more beautiful or gratifying sight in the spring flower garden than a fine bed of Tulips. The only care necessary for their cultivation in the open air, is to see that the soil in the beds has been thoroughly dug and enriched with rotten manure, and the beds well drained. The bulbs should be planted from three to four inches in depth, and about six inches apart. The season of a bed of Tulips may be greatly prolonged by protecting them from the mid-day sun and rains, by a light canvass covering. The earliest kinds of Tulips are "Duc Van Thol." They force well in-doors, and are very effective for edging beds in the garden.

TRAINING PEACH TREES LOW.—More than a year ago it was stated that the lateral branches of peach trees should be trained horizontally and low, so that they could be covered with earth during the cold weather in winter. George Warne, Independence, Iowa, tried the experiment, and it was so satisfactory that he wrote thus to the Club: "Having tried unsuccessfully to raise peaches in this latitude, 42 degs. 25 min., and being a constant reader of the Club reports, I saw a new way to grow peaches by training them low and running the branches off horizontally and covering them in winter. I tried it, and as my reward have a tree loaded with peaches, which shows that this kind of fruit can be grown in Northern Iowa with the same care that is bestowed on a grape vine. So your Club reports have done me so much good."

HYACINTHS FOR THE PARLOR.

THE Hyacinth has long been a universal favorite, and deservedly so, for there is scarcely a flower which so gratefully repays the care and attention bestowed upon it as this. The habits of this delightful little plant are very accommodating, and it is, moreover, of such easy culture, that it will thrive in almost any soil, and grow as well in the house in damp moss, or glasses filled with water, as out of doors; so that persons possessing no better accommodations for growing plants than a room window, may succeed in growing it by paying some degree of attention to its wants. One of the principal things to be observed in growing the Hyacinth well, is not to expose the roots to too strong a light, for these, like the roots of most plants, turn instinctively from a strong light; hence, when grown in glasses in windows, those of a dark color should be selected as affording the best protection to the roots. In filling the glasses rain water should be used, and brought up to within half an inch of the bulb. The time for doing this can be regulated according to the time for bringing the plants into bloom—say any time between the 1st of October and the 1st of February. After filling the glasses they should be set away in a cellar, or some other dark and cool situation. In the course of three or four weeks they will become moderately filled with roots, and when this is observed to be the case, they may be removed to where they can receive a moderate light. As soon as the leaves of the plants assume a healthy, green color, they may be placed in the window. The water should be changed at least once a week, and the fresh water should be of the same temperature as that of the old. For giving vigor to the plants, and color to the flowers, a solution made of an ounce of guano and a quarter of an ounce of chloride of lime, in a quart of rain water, may be applied at the rate of two teaspoonfuls to each bottle twice a week, after the flowers begin to appear. This mixture is also very beneficial when applied to Hyacinths grown in pots.

BURYING PLANTS DURING WINTER.

A writer in the London *Florist and Pomologist* gives an account of his experience in wintering geraniums by burying them in a trench under ground, below the reach of frost. The result was quite successful, only two plants out of fifty having decayed when dug out the last of April. The trench should be made in a location where no water can remain at a depth of two feet below the level—that being the depth at which the trench ought to be dug—the plants laid in by the heel in a row, then covered with straight straw, set so as to carry off water, and then covered with earth, according to the climate, to a depth sufficient to keep out frost; finishing off in a ridge or roof shape to carry off water. Covering the plants over the straw first with boards set in a ridge form and then heaping on earth, we think, would render pressure less liable, and tend to keep a more open circulation in the trench, and thus lessen the liability to damp or decay; but with a little care in this way, we see no reason why any half hardy plant may not easily be kept over winter in this manner.

REMARKS ON THE CULTURE AND TREATMENT OF BULBS.

NEARLY all kinds of bulbs can be grown moderately well in any good, thoroughly drained garden soil; but to grow them in perfection they should have a soil specially prepared for them, the principal constituents of which is loam, rotten manure and sand. If the soil where the bulbs are to be planted is clay, it should be enriched with rotten manure, and have a quantity of sand incorporated with it to keep it loose; if the soil is loam, it should be fertilized with cow manure, and at the time of planting a small quantity of sand placed around each bulb will be sufficient; but if the beds are composed wholly of sand, cow manure alone should be applied. Previous to planting, the ground should be dug deep and well stirred, and the manure thoroughly incorporated. The usual time for planting bulbs is from October until the ground freezes. After planting, and on the approach of severe weather, the beds should be covered with leaves to the depth of three or four inches, and on these a few branches of trees may be thrown to keep them from blowing away. In this condition they must remain until spring approaches, when the beds may be uncovered, care being taken at the time not to disturb the crowns of the bulbs, as they will, in all probability, by that time have grown through the ground, and consequently will be very tender at that critical period.

ENGLISH TREES.

ALL English trees are more or less finer than the same varieties in other countries. The foliage is usually larger and much deeper and darker in color. The whole effect of a park tree, if standing alone, is much denser and more umbrageous than our single trees, and the consequence is a much finer effect of light and shade.

There are also certain trees which have a world-wide reputation, such as the Druid oaks at Oakley Park, supposed to be over 3,000 years old. The Burnham beeches, near Windsor, some oaks at Welbeck Abbey, the Duke of Portland's, and in Sherwood Forest. Many of the yews are most wonderful in their appearance of age and antiquity—knarled, mossy, twisted grey—no living thing can look more venerable. There are yews still flourishing in a green old age in England, which are supposed to be over 1,000 years old.

In Hatfield Park, the Marquis of Salisbury's, I remember some very fine oaks; and in Windsor Great Park there yet remain many wonderful specimens. The King's oak is said to have been a favorite of William the Conqueror. The interior will accommodate twenty to thirty persons standing; and ten can sit down to dinner. There is still some dispute as to the celebrated Hernes oak. By many it is supposed it was felled by command of George III; but some of the oldest inhabitants of Windsor insist that it is still standing in the little Park.

Perhaps Sherwood Forest contains the finest oaks as to size and age in the world. Birkland and Bithage

Forests together cover about five miles of the grandest piece of sylvan scenery imaginable. Bithage is a complete forest of oaks, with the most impressive aspect of age to be seen in the kingdom. As Miss Howitt beautifully describes it: A thousand years, ten thousand tempests, lightnings, winds and wintry violence have flung their utmost force on these trees; and there they stand, trunk after trunk, scathed, hollow, gnarled, stretching out their bare, sturdy arms on their mingled foliage and ruin—a life in death. All is grey and old—beneath, the trees are grey with clinging lichens—the very heather and fern that spring below have a character of the past.

On all sides you see standing in their solemn steadfastness, huge, wierd, and mossy oaks—some riven and laid bare from summit to root by the thunderbolts of past tempests.

An immense tree called the "Shamble Oak," is so called as the place where Robin Hood hung his slaughtered deer; and to this day there still remains the hooks in its vast hollows. At Welbeck (the Duke of Portland's) near Sherwood, in fact a part of the forest, are several wonderful oaks, the Porter oaks—one being one hundred feet high, by forty feet in circumference—the other ninety by thirty-six. The Seven Sisters, eighty-eight feet high by eighty in circumference. The Greendale oak, in 1724, had an opening sufficiently large to drive a carriage and four through. The circumference above the arch is thirty-five feet three inches, and the height of the arch ten feet. This tree is supposed to be 800 or 1,000 years old.

Next to the oak, the beech is in England the most impressive of trees, if we except a few of the grand old cedars of Lebanon. Among the celebrated beeches are the Burnham beeches, which Gray, author of the beautiful elegy in a country churchyard mentions as, "The nodding beech that wreaths its old fantastic roots so high," near Windsor, of which a sketch is annexed, quite as wonderful in their way as the oaks in Sherwood Forest. The great beech in Windsor Forest is supposed to have existed before the conquest. The trunk at six feet from the ground measures thirty six feet in circumference. The Knole beech is eighty-eight feet high, diameter of the trunk eight feet four inches, and of the head 352 feet. At Knole, too, there is a magnificent avenue of beeches, called the Duchess walk. At Taymouth Castle, the Marquis of Breadalbane's, I measured last year a beech forty-three feet in circumference (the stem) four feet from ground; and a larch at Blair Athol, one hundred years old—the first larch planted in Scotland, sixteen and a half feet in circumference six feet from the ground, having a tall columnar stem, nearly one hundred and twenty feet, and a head like an oak or cedar of Lebanon. The larch plantations at Blair Athol cover 11,000 acres, and 27,000,000 of trees have been set out.—*H. W. Sargent, in Gardener's Monthly.*

The Canton, Mo., *Press*, is responsible for the statement that 583 $\frac{1}{2}$ bushels of wheat were this year harvested from a ten-acre field near Platte, Mo.

The oldest business in the world—the nursery business.

I F.

WRITTEN FOR THE AMERICAN FARMER, BY J. W. BARKER.

If the careless tongue would ponder,
Ere it peddles mischief so,
Carry less of wicked scandal,
Less of bitterness and woe;
If 'twould cease its constant breathings—
Words that mix our cup of bliss,
Bitter words which taint the sweetness
Of our earthly happiness;
I am certain it would be,
Better far for you and me.

If we watched for gleams of sunshine,
Breaking through the darkest cloud,
If we fled the damps and shadows
Which around the heavens crowd;
If we looked for stars of morning
In the darkness of the night—
If we saw above the landscape,
Ever present gleams of light;
Brighter, clearer life would be,
Sweeter far, for you and me.

If we spoke a little kinder
Of the faults of other men,
If we knew each man as brother,
Not as saint or angel born,
But as human, often erring,
Very often led astray;
If we knew the sore temptations
That beset our brother's way—
I am certain there would be
More of sunshine on life's sea.

If we'd learn to wait and labor
In the earnest work of life,
If stout faith were ever present
To sustain us in the strife;
If we'd plant the flowers thicker,
By our dwellings here below,
If we'd cultivate the roses,
I am certain they would grow;
God would send the rain and sunshine,
On our earnest work of love,
We should feel the inspiration
Of our Father's smiles above;
O'er these damp and dismal lowlands
There would float a sweet perfume;
There would stray amid this winter,
Gentle, rosy-fingered June;
Blessed work of doing good,
All might learn it, if they would.

THE following is a good rule for finding the contrast of any color: "Cut out a circular piece of the petal of any flower and put it on white paper, look at it fixedly for a few seconds with one eye, then look off the color on to a piece of white paper, and you will see a bright ring of another color; that ring or circle is the right complimentary color or contrast to the color in the petal."

A side issue—woman at the creation.

A clergyman of Springfield, Mass., who has a bad habit of adding "ah" to many of his words, told last Sunday, of "those who have been brought up on the Lord's side-ah!" Another alluding to his advanced age, said he had one foot in the grave-ah, and the other all but-ah."

Aquatic sports—milkmen racing their horses through the streets.

Ladies' Department.

DOMESTIC RECIPES.

Wine Making.

For the benefit of those who desire to make a few gallons or a barrel of grape wine in October, for their own use, and who have few or none of the facilities of professed wine makers, we re-publish by request, the following directions in *The Genesee Farmer*, from a practical and experienced wine maker:

"Place the grapes in a clean, tight cask, and mash them with a clothes pounder, or any similar instrument, till the pulp and seeds are wholly separated from the must. From a half bushel to three pecks of grapes may be mashed at one process; then turn out the mash into another barrel or tub, and proceed as before till all your grapes are mashed. A bag is now to be provided, made of strong strainer cloth, into which place the mash in small quantities, and press out the must over a clean tub, by first placing a board across the tub, on which the bag of mash is placed, then make a lever of a strip of plank, about eight feet long, one end of which is to be placed in a firm position just above the board across the tub, while you take hold of the other end to apply the pressure, which will be enough to rend any bag but a very strong one. By placing the tub on a barn floor, against a stud, a strip of wood may be nailed to the stud to sustain the lower end of the lever. The quantity of sugar used is from two to three pounds to the gallon of must, the latter quantity making the best wine. It should be a good article, the granulated, or the white coffee sugar. Nothing is saved by purchasing an inferior kind. To ferment the wine, put it in casks, however small the quantity; but it is not advisable ever to make less than five gallons, which should be put into a keg holding that quantity. Fill the cask full, place in the bung tight, and bore a gimlet hole at the side of it, into which place a spile so loosely that the gas may escape around it, or it may be left out altogether for fifteen days, when it may be put in. If a small syphon of glass or tin can easily be procured, it is better to use one; but your wine will not be injured much, if any, without one. The spile should be removed two or three times a week, for a few weeks, to allow any gas generated within to escape. The wine will be greatly improved by keeping a year.

ANOTHER—Five Gallons.—Express the juice from twenty pounds grapes and rinse the pulp and skins in as much water as will cover them, mash them and strain through a coarse cloth, add this to the juice, and put in two pounds of brown sugar to each gallon; when the sugar is dissolved, pour the whole into a keg, having the bung open, and let it stand where the temperature will be about 70 degrees until fermentation ceases; then bung tight, and let it rest for a month to settle, when it should be drawn off quietly, the keg well washed, and the wine returned to it, adding one pound good raisins—and if the wine does not seem

sweet enough, two pounds sugar may be added to the whole. The necessity of doing this depends upon the kind and quality of the grapes. The wine should remain until the keg is wanted the next season, when it may be bottled for use.—*Germanatown Tel.*

PREPARED EXPRESSLY FOR THE AMERICAN FARMER BY A. H. C. PATERSON, N. J.

Corn Meal Pudding.—Take 5 eggs, beat well separately, 3 tablespoonfuls of sifted meal, 3 tablespoonfuls of sugar; beat all well together, putting in the whites last. Bake threequarters of an hour.

Waffles.—Milk 1 quart, eggs five, flour $1\frac{1}{2}$ lbs., butter, $\frac{1}{2}$ lb., yeast, one spoonful. When baked, sift sugar and powdered cassia on them.

Soft Gingerbread.—4 teacups of flour, 2 cups of molasses, $\frac{1}{2}$ cup of butter, 2 cups of thick cream, 3 eggs, a tablespoonful of ginger, and the same of salcratus. Mix them all together, with the exception of the buttermilk, in which the salcratus must be dissolved, and then added to the rest. It must not stand long before being sent to bake.

Ice Cream.—Any preserved fruit, 5 lbs., cream 1 gallon, juice of 6 lemons, sugar to sweeten. Pass the whole through a sieve, then put it into the freezing-pot, and work it until frozen.

Keeping Beef Fresh.—In preserving beef, the ribs will keep longest, or five or six days in summer; the middle of the loin next, the rump next, then the round, and the shortest of all, the brisket, which will not keep longer than three days in hot weather.

Buckwheat Cakes.—Mix a quart of buckwheat flour with a pint of lukewarm milk, (water will do, but it is not as good,) and a teacup of yeast; set it in a warm place to raise. When light add a teaspoonful of salt—if sour, the same quantity of salcratus dissolved in a little milk and strained. If they are too thick, thin them with cold milk or water. Fry them with fat enough to prevent them from sticking to the frying-pan.

Crisp Cake.—4 cups flour, 2 sugar, 1 butter, 1 cream, $\frac{1}{2}$ teaspoonful soda, 1 cream tartar; flavor with almond.

Hard Ginger Cake.—3 lbs. flour, $\frac{3}{4}$ lb. sugar, $\frac{1}{2}$ lb. butter, 1 tablespoonful of ginger, do. cloves; mix with molasses into a stiff dough; knead well, roll, and cut into cakes.

Sponge Cake.—7 eggs, $\frac{3}{4}$ lb. sugar, $\frac{1}{2}$ lb. flour; put a little water on the sugar, and let it come to a boil; beat the eggs separately, then mix together, and pour the boiling sugar over them, stir until cool, then put in the flour, flavor with lemon.

Rusk.—Beat together 2 cups of sugar, 2 eggs; heat a pint of new milk with a small piece each of butter and lard, pour it boiling hot over the eggs and sugar, $\frac{1}{2}$ a nutmeg; add flour enough to stiffen it; raise with yeast or bread sponge; bake as other rusk.

Cure for the Croup.—Roast an onion, slice it, and press out the juice; mix this with honey or brown sugar, forming a syrup; give a teaspoonful every fifteen minutes till the child is relieved.

Cure for the Diarrhœa.—Parch half a pint of rice until it is brown, then boil it as rice is usually done. Eat slowly, and it will stop the most alarming cases of diarrhœa.

Bread and Butter Pudding.—A layer of quartered sour apples; a little nutmeg and sugar; a layer of dry bread, buttered, (no matter how dry;) another layer of apples, with sugar and nutmeg as before; and so continue until you have filled your pan, the first and last layers being apples; add one cup of water, or sufficient to wet the bread. Bake one hour in a moderate oven; eat without sauce.—*Selected.*

Mustard Plasters.—By using sirup or molasses for mustard plasters, they will keep soft and flexible, and not dry up and become hard, as when mixed up with water. A thin paper or fine cloth should come between the plaster and the skin. The strength of the plaster is varied by the addition of more or less flour.—*Ibid.*

Fried Apples.—Who does not like fried apples? We all like apples in a raw state, or when they are baked or stewed; and it cannot be denied that they furnish one of the most wholesome and agreeable kinds of diet. Although apples raw, stewed, or baked, may be pronounced excellent and delicious, still there are many kinds when fried which are super-excellent; and they who seldom meet with a dish of fried apples often wonder why they are not always fried instead of baked. When apples are baked, they often burst open, and much of the best part of them flows out as juice, and is lost. But when they are fried the whole is saved, and "it is a dainty dish." In those regions where potatoes are few and poor, on account of the rot, fried apples are an excellent substitute. A dish of fried apples is quickly prepared for the table, which is often a consideration of no small importance. Wash them—cut them in two—take out the stem, core, and halve, and unpeeled, put them into a tin pan with butter, or the gravy of baked pork, with some water, in proportion to the quantity to be fried—cover them with a lid—set them on the stove—stir them occasionally, until they become soft, and be careful not to burn them. Romanites, which are often almost worthless, baked or raw, "disappear with good gusto when fried." We may truthfully pronounce despicable Pennocks, when fried good; but the Porters, Bellflowers, Tallman Sweets, and a long list which we might name, when fried are really a luxury. Sour apples do not fry well—they fry to pieces too much.—*Dixie Farmer.*

To Keep Dust from Cream—Hoops Useful for Once.—Take rattans and make hoops a little larger than the pans—stretch thin muslin across, thin enough to admit some air, but not flies and mites. Cover the milk with these as soon as it is cool, and they will prove of great value.

A convenient method of cleansing a jar, bucket, tub or barrel, is to place a small quantity of lime on the bottom, and then slacking it with hot water in which as much salt has been dissolved as it will take up. It will purify it like a charm. The vessel should be covered to keep the steam in.

HINTS FOR THE MANAGEMENT OF GOLD FISH.—Gold fish may be kept ten or twelve years in vessels, (their average period of existence,) by the following precautions:—1. Allow not more than one fish to a quart of water. 2. Use the same kind of water, whether spring or river water, and change it daily in summer: every other day in winter. 3. Use deep rather than shallow vessels with small pebbles at the bottom, (to be kept clean), and keep them in the shade, and in a cool part of the room. 4. Use a small net rather than the hand while changing the water. 5. Feed them with cracker, yolk of egg, lettuce, flies, &c., rather than with bread, and then only every third or fourth day, and but little at a time. 6. Do not feed them at all from November to the end of February, and but little during the three following months.

SAVE THE WOMEN.

THE following is an extract from an address delivered before the last State Fair of the Minnesota Agricultural Society by Col. D. A. Robertson:

"Husbandmen of Minnesota! Whilst you are constantly on the alert to relieve yourselves from drudgery by the use of improved implements and labor-saving machines, whereby you are enabled to enjoy much leisure time, forget not your duty to the wives and daughters of husbandry, who during the live-long year care for you, and affectionately toil for your comfort.

"Be mindful ever of their great need of labor-saving implements, and all available conveniences of the household; and of more rest and recreation. Be glad to indulge them in the requirements of womanly taste and refinement; in their love for the beautiful and the good in nature and art; and in their delights of neat, well appointed homesteads, surrounded with grassy lawns, fruits and flowers.

"Thus will you preserve their health, cheerfulness and comely attractions, and promote the happiness of the family and your own.

"Far better is to expend money for such enjoyments, than without them in the purchase of lands not needed for cultivation, the price of which, in part at least, is wrung from the life-blood of the patient, drudging housewife.

"Surely our good housewives deserve a better fate. I quote on this subject the following verses, quaint and true, of a fine old English poet:

"Take weapon away, of what force is a man?
Take huswife from husband, what is he than?

As lovers desireth together to dwell,
So husbandry loveth good huswifery well.
Though husbandry seemeth to bring in the gains,
Yet huswifery labors seem equal in pains.

Some respite to husbands the weather may send,
But huswives' affairs have never an end.

As true as thy faith,
Thus huswifery saith:
I serve for a day, for a week, for a year,
For life-time, forever, while man dwelleth here.
For richer, for poorer, from north to the south,
For honest, for hard-head, for dainty of mouth.
For wed and unwedded, in sickness and health,
For all that well liveth, in good common-wealth.
For city, for country, for court and for cart,
'To quiet the head and to comfort the heart."

Young People's Page.

THE LITTLE BUTTER MAKER.

OUR readers will notice in the award at the New York State Fair recently held in Rochester, a special premium to Miss Clara B. Clark, of Parma, Monroe County, for the best crock of butter exhibited, together with special commendations from the committee, and a kiss from the chairman. Clara is a bright little Miss, in her thirteenth year, daughter of Prof. S. W. Clark, former Principal of Cortland Academy, and author of Clark's Grammar.

The Professor's family show a happy blending of accomplishments and practical business education, such as should be the glory of every true American lady. Mrs. Clark and two of the daughters are accomplished teachers, having in turn acceptably filled the position of Principal of an academy, and professors of household economy and domestic affairs at home. Of course the young man who shall be so fortunate as to win Clara's hand, will be noted for conjugal fidelity, for he'll never want any *butter*.

The following simple, business-like statement was written for THE FARMER by Clara, and we commend it to the attention of older butter makers :

"A STATEMENT FOR THE AMERICAN FARMER.

"The little jar of butter I made for the Fair was made from four fine cows—one graded Alderney, Aurora, and Dolly, a fine graded Devon, and two native cows. I tried several times before I succeeded. The butter I made in August was not satisfactory, though I was very careful to keep the cellar neat, and everything in butter-making order. But when the weather became cool, and the fine showers brought the pastures up, it was easy.

"I asked the boys to give the cows an extra cut of the *sowed corn*, (this will make nice firm butter), and to salt them twice a week.

"After rinsing the sour milk from the pans with cold water, I washed them in a weak solution (very weak) of sal soda. At first I did it to be economical, but it worked so nicely I continue to do so; then rinse them again, then scald with boiling water, then dry them and put them down cellar.

"When I skim the milk, I stir it together, sometimes adding a little salt. I churned three times a week, taking up the butter. I salt it at once. I work it three times—the last time using a linen cloth wrung out of cold water, to take up the milky brine that remains.

"I have no rule for salting, but was very careful not to have the butter exhibited at the Fair too salt. It was not so salt as we like it for the table.

"CLARA B. CLARK."

Of course there were those who said "she never made the butter," or "her mother helped her," &c.; but the fun of the thing is, her mother had a com-

peting crock on exhibition, and failed to get the premium.

EXTRAORDINARY GROWTH OF TREES.

WRITTEN FOR THE AMERICAN FARMER, BY D. H. PRINDLE, JR., EAST BETHANY, N. Y.

As I see much attention is being given to the subject of growing forest and timber trees in our agricultural journals, I conceived the idea that it might perhaps be interesting to some of your readers to know what prospects of success attend tree planting. I fancy many get discouraged from an attempt to plant, thinking that they may not live to see the advantages of such an effort. To those desponding, I will, by way of encouragement, just name the size, age, and growth of some trees in our yard.

I will begin with my grandmother's riding whip, sycamore or button-wood, which was used, I am told by her, and by her planted about four rods from the house forty years since, and is now over ten feet in circumference at two feet from the ground. My grandfather's pear tree, about forty years old, on an apple stock, is five feet eight inches round at one foot from the ground. My father's black walnut tree about thirty years old, of which we have many of his own planting, are, the largest of them, from five feet to six feet ten inches in circumference at one foot from the ground; our locust trees for shade and timber of father's planting, and about twenty years old are four to five feet in girth. One balsam of fir before the door is about 35 years old, and is four feet seven inches round. An English Mazzard cherry six feet five inches, a swamp elm against the window accidentally set with a small cedar when six inches high, is now at two feet from the ground, six feet in circumference. This tree is about thirty-five years old, as my father informs me, and was set by him. Our chestnuts, oak, &c., are in proportion.

I would here say that my father has about half an acre in locust for fence posts, &c., from which he has cut already over 250 posts, besides many stakes. This grove has never had any cultivation except for one or two years after planting. It was once thought to be destroyed—once by the borer, but it has recovered, and is now doing good service in fencing the farm, &c. It is highly valued by my father for its durable timber. Another circumstance I might mention as directly connected with this subject, is the seeming spontaneous growth of elm, locust, black walnut, &c., in our garden, where they are annually destroyed with the weeds. The seeds, nuts, &c., being furnished from the trees near by.

It may be proper to say that the soil where these trees grow is a deep sandy loam. I should think that timber planted on a shallow soil or hard pan, could not do much, judging from black walnut trees that my father set, same age as above, which are now only six to ten inches in diameter. I believe that all nuts, as well as most other trees, do best in a deep soil.

Now, brother boys, one word to you. If you have a proper soil and can plant trees, and take good care and not allow them to be destroyed by cattle, by all means do so. Don't be afraid you won't live to enjoy your own

works. I will guarantee you timber to use in a few years, and plenty of nuts to sell and crack, as I have from my father's planting. I have now planted my butternuts; they are two years old, and four to six feet high, and I intend to plant a chestnut orchard this fall, as the old trees show some signs of decay.

Editor's Table.

NEW YORK STATE GRAPE GROWERS ASSOCIATION.

THIS association, which held its first annual fair at Canandaigua, Oct. 7 and 8, was organized last winter. E. B. Pottle, of Naples, is President. The Vice Presidents are C. D. Champlin, of Hammondsport; A. J. Caywood, of Poughkeepsie; C. L. Hoag, Lockport; E. W. Sylvester, Lyons; H. H. Farley, Union Springs. Corresponding Secretary, Dr. E. Vankeuren, of Hammondsport. Recording Secretary, J. T. Wilcox, Fairport. Treasurer, M. D. Munger, Canandaigua.

There were about 800 plates of grapes exhibited by members of the association at Canandaigua. President Wilder, of Massachusetts—and no man is better qualified to judge than he—pronounced it the best display of native grapes ever seen in the country. All the new and celebrated varieties were there in their perfection, with earnest advocates to present their claims.

The large number of new and valuable varieties for the first time brought to public notice, or at the most known but a few years, show that the propagators have worked earnestly and successfully. Mr. T. L. Harris, of Brocton, was there with samples of the Salem, a very valuable variety of which he has the control, and which was admired by all who saw it. The clusters and berries are very large and of delicious flavor; the vine is hardy and a great bearer. As a table or wine grape it has, in our opinion, but few equals.

Jacob Moore, of Rochester, exhibited his new hybrid, the Diana Hamburg, a cross of the Diana and Black Hamburg, possessing in a large degree the good properties of both these valuable varieties. Mr. Moore is giving a great deal of attention to hybridizing, and has been remarkably successful. This one variety, if he originates no other valuable one, ought to make his fortune. It should be in every collection.

Ferris & Caywood, of Poughkeepsie, made a sensation with their Walter grape, which is now having a great run, and is deservedly popular with intelligent grape growers.

The collections from different growers of Rogers' celebrated hybrids was greater than ever before known. These productions of the skill and energy of Mr. Rogers are in favor with all.

The following is a list of the premiums awarded:

CLASS 1—Catawba.—1st premium, Hezekiah Green, Vine Valley, N. Y.; 2d, Pleasant Valley Wine Co., Hammondsport; 3d, R. F. Stewart, Pultney.

Clinton.—1st premium, Rykeman, Day & Co., Brocton; 2d, S. M. Kimber, Naples, N. Y.; 3d, J. Ringueberg, Lockport.

CLASS 2—Isabella.—1st premium, Harlon Hinckley, Naples; 2d, J. A. Larroux, Hammondsport; 3d, Ayers & Cobb, Vine Valley.

Creveling.—1st premium, Pleasant Valley Wine Co., Hammondsport; 2d, G. Zimmerman, Buffalo; 3d, C. L. Hoag & Co., Lockport.

CLASS 3—Delaware.—1st premium, H. H. Farley, Union Springs; 2d, D. W. Birge, Peach Orchard, N. Y.; 3d, A. Rose, Penn Yan.

Diana.—1st, H. H. Farley, Union Springs; 2d, Pleasant Valley Wine Co., Hammondsport; 3d, C. L. Hoag & Co., Lockport.

CLASS 4—Iona.—1st premium, D. S. Wagener, Pultney; 2d, H. H. Farley, Union Springs; 3d, A. C. Younglove, Vine Valley, Yates County.

Israella.—1st premium, H. H. Farley, Union Springs; 2d, D. S. Wagener, Pultney; 3d, Frederick Ingersol, Phelps, N. Y.

Adirondac.—1st premium, J. S. Gillet, Penn Yan; 2d, H. H. Farley, Union Springs; 3d, C. L. Hoag, Lockport.

CLASS 5—Concord.—1st premium, J. J. Mead, Benton, Yates County; 2d, J. W. Clark, Naples; 3d, Rykeman, Day & Co., Brocton.

Hartford Prolific.—1st premium, J. W. Clark, Naples; 2d, C. L. Hoag, Lockport.

CLASS 6—Hybrids.—1st premium, "Special," Walter; Ferris & Caywood, Poughkeepsie, N. Y.; 1st premium, Rogers No. 4, C. L. Hoag & Co., Lockport; 2d, Salem, T. L. Harris, "Salem-on-Erie," Brocton; 3d, Rogers No. 28, J. W. Clark, Naples.

CLASS 7—New Seedlings.—1st premium, Stephen Underhill, Croton Point, N. Y.; 3d, Stephen Underhill.

CLASS 8—Grapes Grown under Glass.—1st premium, E. G. Lapham, Canandaigua; 2d, Edward Huntington, Rome, N. Y.

CLASS 9—Grape Boxes.—1st premium, Fairchild & Bros., Hammondsport; 2d, Rochester Grape and Berry Box Company, Rochester.

Grape Mill.—1st premium, Mitchell & Co., Springfield, Ohio.

Unenumerated Grapes.—1st premium, Alvah, R. B. Shaw, Canandaigua; 2d, Rebecca, H. H. Farley, Union Springs; 3d, Montgomery, C. L. Hoag, Lockport.

A glance at the above list shows conclusively that grape growing need not be confined, as has been supposed, to a few favored localities. Almost every section of the State is represented in the list. The truth is, with the new and early varieties, and proper cultivation, there are few towns in the State where grapes may not be grown successfully, and few landholders but may sit under and enjoy the fruit of their own vines. This is destined to be a great grape-growing country, when people wake up to the subject, and see what has been done within a few years by intelligent, earnest men. We saw recently the first vine ever planted in Chautauqua County, still a healthy, vigorous one, and a profuse bearer. To-day there are thousands of acres in that county covered with luxuriant vines loaded with luscious fruit. We rode through other counties with precisely the same kind of soil, as indicated in the cuts made for the railroad, without seeing a grape

vine. Too cold a climate cannot be the reason why they are not raised, for a copy of *The St. Paul Dispatch*, now before us, has an account of a vineyard of six acres belonging to Truman Smith, Esq., on the bluffs adjoining that city, which shows that even in the forty-fifth degree of latitude the vine can be successfully cultivated. Mr. Smith sold ripe grapes in the St. Paul market as early as the 17th of August. Of his vineyard the editor says:

"It is hid away out of sight in a valley between two hills, and has a southern slope, where the warm sun shines all day. We were scarcely prepared to see such a display, not even imagining that there were as many vines in the State as we found here. The hill was all carefully trellised, and the frames were covered with thrifty vines—all, or nearly all, bearing richly—the full luscious clusters of grapes, hanging thick from every vine, a tempting sight, with their rich purple or red fruit gleaming in the yellow autumn sun, which was fast ripening them to full perfection.

"We found here thirty-seven varieties of grapes, nearly every one of which, Mr. S. thinks, will stand our climate, though some he thinks specially fitted to it. Among the best flavored and hardiest varieties we note the Concord, the Oporto, the Delaware, the Iona, Northern Muscadine, &c. Some of these were truly delicious, being fully ripe. It was hard to choose between such luscious varieties—but after eating a few dozen bunches of each, the gentlemen present decided the Delaware to take the palm for flavor."

But we have wandered from our report of the Grape Growers Convention. An address from the venerable Dr. Grant was read in the evening, containing a vast deal that was interesting in grape growing and wine making, although the after discussion showed that all present did not agree with him in all points. He said that at the early settlement of the country grapes were found growing wild in the South and in the North, but the fruit was hard, and left a bitter taste in the mouth, and while growing gave an offensive odor. The Scuppernong, chief of Southern wild grapes, had been claimed to be good, but it had really no generous properties. The Isabella came next on the stage, and was an improvement on the Scuppernong, but it had no good flavor beyond the first taste, and was wholly lacking in strength. The Catawba came with the Isabella, and was a better grape, but even that left an acid taste in the mouth, and was far from perfect. The Delaware marked the third stage in American grape culture, and was a great stride in advance, combining most of the good qualities of foreign grapes, which were all wine-bearing. Another grape followed close upon the Delaware, bearing a still more revolutionary character—the Iona. This fruit ripens perfectly at the center, and its vinous and aromatic properties prevent that cloying which often follows after eating the Delaware. The grape, he said, was a poem—wine was that poem set to music. The characteristics of good wine grapes could be found only by tasting, and neither saccharometer nor acidometer could determine their fitness for wine. The Catawba was so poor at the center that it could not be masticated together like foreign grapes, but had to be sucked out of the skin and bolted. Catawba wine had the same acidulous qualities of the grape, the tannic acid in both being very strong.

The State Fair Management.

THAT the New York State Fair for 1868, held in this city, was a great success, we have chronicled in another place. We have also said that the arrangements of the grounds and buildings were good—much better than on the previous year—that everything possible was done by the management to make it a success—yet there is much complaint, much that is unreasonable, as there always is on such occasions, and probably much with just cause. The truth is, a State Fair is a big thing to manage, and not to be "run" by a town constable nor by a corporal of militia. It is not to be expected that where twenty or thirty thousand people are assembled—mostly for holiday recreation—that each one can have all his wants attended to, nor that committees who have to pass upon two or three hundred different articles can patiently listen to the long and adulatory yarns of every inventor over his pet machine or implement. Neither can all have premiums as they would if each man had the privilege of passing upon his own production; committees don't see through the same eyes, and where they aim to do right will sometimes blunder. Then in trying to go by strict rules, made no doubt for good purposes, they sometimes get entangled in red tape. The decision of a committee at a State Fair does not say truly which is the best article. The fault may sometimes be the exhibitors in not complying with some rule, and sometimes the committee's in laying things too much to the line and plummet. The first award for white wheat was given to a sample which good judges who have seen it say is no white wheat at all, and which will not fetch at our mills to-day so much into 20 cents a bushel as the sample which competed with it, but which lost the prize simply, we are told, because none of the *straw* was shown with the roots on.

The Rochester press is severe on the management, claiming that the Society is run by a "ring" in the eastern part of the State, which manages to keep the power and enrich itself on the spoils: that they are little better than thieves; that the officers are elected, not on account of their fitness, but because they are rich, or can be controlled by said ring; that the President knows little about farming, and has less sympathy with farmers, and that he is a fault-finding old granny, or bachelor, which is no better.

Now we are not prepared to endorse all this. We are not prepared to call men thieves until we see what disposition they make of the money they have obtained. The election of officers all in one part of the State, and from men who are not leading agriculturists, is wrong. Mr. Faile, the President, we have had little acquaintance with. We hear he is a rich old bachelor. The men who fitted up the grounds say it was impossible to please him; that he was whimsical, notional, and fault-finding. According to their stories he was a *failure*. We confess it is as hard for us to understand how an old *bachelor* should know anything about *husbandry*, as it is to see how a city education and foppish manners qualifies a man to edit an agricultural paper.

PREMIUMS.

EARLY ROSE POTATOES!!!

POULTRY OF THE WORLD!

CASH!

EVERYBODY wants to plant some of the famous Early Rose Potatoes next spring. We will send a pound of the genuine seed, prepaid by mail, for every FOUR subscribers to THE FARMER.

Jacob Moore, of Brighton, near Rochester, raised over 12 bushels of beautiful potatoes of this variety the present season from five pounds of seed.

H. D. Mills, of Ridgeville, O., raised 200 lbs. from one of seed, or over 16 bushels from five pounds!

We will tell our readers before next planting time, how these wonderful crops were produced.

Poultry of the World.

We will send, post-paid, for TEN Subscribers, Prang's new and beautiful chromo containing exact colored portraits of all the known valuable breeds of fowls in the world, worth \$2. A beautiful picture.

Cash !!

To agents who want neither potatoes nor pictures, we will pay the same per centage in CASH, or its equivalent in anything ordered at New York prices.

Let everybody work. We pay for one or for fifty. Commence now, and get the balance of the year free.

To our Friends.

OUR announcement in the last number of what we purposed doing with THE FARMER, has met with a prompt and cordial response from many of its old friends, as well as from some of our personal friends. We are glad to have pleased such men and women, and to get from them the acknowledgment that we are giving them full their dollars' worth. But won't it be a big thing when you get more than twice as much, and get it twice as often, for the same dollar? When we propose to do three times as much for you as was ever done before for the same money, ought not every reader of THE FARMER go to work at once and voluntarily, to bring it to the notice of his neighbors? Such a proposition ought to double our subscription list in a month.

Now is the time to work, before others take the field. More subscribers can be obtained for a semi-monthly agricultural paper in a day at a dollar than can be obtained in two days for a monthly at the same price, or for a weekly at \$2.50 or \$3.

Agents can make more money procuring subscribers for THE FARMER with the inducements we offer, than for any other paper. Remember—the balance of the year free, and twenty-four numbers next year, all for a dollar.

100 FARMERS,

OR Farmers' sons, can secure employment, paying from \$100 to \$150 per month, from now until next spring. Address, ZEIGLER, McCurdy & CO., Philadelphia, Pa.

To our Readers.

WE dislike to be behindhand, and equally dislike to be making apologies. It was simply impossible for us to come out with this number earlier in the month. It is our second number. THE FARMER came into our hands nearly a month behind. We gained two weeks on our first number, when the State Fair came on, and we attempted what, as far as our knowledge extends, was never attempted before—to publish a daily agricultural paper. Of course we succeeded, but it involved a great deal of extra labor, and there was such an amount of printing business to be done in Rochester during the Fair, that it was impossible to procure any extra help—consequently we are behind again. We hope our readers will have a little patience with us. We have procured extra help, and will probably come nearly or quite to time with our next number. Rest assured that the best we can do shall be done.

THE MARKETS.

OFFICE OF AMERICAN FARMER, ROCHESTER, N. Y., Oct. 20, 1868.

Rochester millers are now purchasing considerable wheat, though no large stocks ahead, thinking prices are too high. The purchases made, however, have used considerable money, and the call from millers and others is greater than the banks can supply. We may therefore expect a close market for some time. Money is fairly easy in New York. The tendency of gold is downward. Sales were made on the 20th at 137½.

The eastern produce market is rather dull, particularly for wheat and flour, which has been declining. Barley has been active and is high, in consequence of an anticipated scarcity. Large lots are now held by speculators.

WOOL.—There is nothing doing in this market. Sales have been very large at the east in the last two or three weeks at full rates. Manufacturers have been purchasing large stocks. Pulled wool is especially in demand. Woolen goods are doing better, which encourages manufacturers.

Pork is steady. The Western hog crop will be late in market. WHEAT.—The receipts of wheat at the West though large, are somewhat falling off, and shipments east have not been large for the last ten days. The amount in store is large.

GRAIN.

White wheat.....	\$ 2.80@ 2.45
Red do.....	2.60@ 2.65
Red. do.....	1.75@ 2.00
Barley.....	2.00@ 2.06
Oats.....	.68@ .65
Rye.....	1.40@ 1.00
Corn.....	1.25

FLOUR.

Spring Wheat.....	\$ 9.00@10.00
Red Winter.....	10.50@11.00
White Winter.....	12.00@12.25
Extra State.....	11.00@11.50

PROVISIONS.

Mess Pork.....	\$80.00@82.00
Lard.....	20@ 21c
Smoked Hams.....	21@ 22c
Shoulders.....	12½@ 18c

POULTRY.

Fowls, # D.....	14@ 16c
Spring Chickens, each.....	20@ 25c
Ducks, # D.....	10@ .c
Turkies, # D.....	19@ 20

FRUIT.

Apples, # bbl.....	\$ 3.00@ 3.75
do do, bush.....	.75@ 1.00
do do, dried, # D.....	7@ 8c
Dried Peaches.....	25@ .c
Dried Plums.....	20@ 30c
Dried Cherries.....	30@ 35c

DAIRY PRODUCTS.

Butter, # D.....	88@ 42c
Cheese, dairy.....	18@ 15c
do factory.....	16@ 18c

VEGETABLES.

Onions.....	\$ 1.25@ 1.50
Beans.....	2.00@ 3.10
New Potatoes.....	.70@ .75

Literary Notices, &c.**"STERILITY IS LAID."**

An address before the Bedford, N. H., Farmers' Club, February 28, 1868, by John A. Riddle. Price 25 cents. Address Solomon Manning, Secretary of Club, Bedford, N. H.

TODD'S COUNTRY HOMES, AND HOW TO SAVE MONEY.

By S. E. Todd, of the New York Times, author of "Todd's Young Farmer's Manual," and "Todd's American Wheat Cultivist." Published by the author.

This is a 12mo. book of 600 pages, with a large number of illustrations of cottages, villas, &c., with practical directions and suggestions about building, laying out grounds, making wells and cisterns, painting, &c. A valuable work for any one contemplating building or improving their grounds. Sent post-paid for \$1.50.

THE PERCHERON HORSE. Translated from the French of Charles du Huys, author of the "Dictionary of the Pure Race;" "Trotters;" "The Book of the Races;" "The Merlieraul;" "The Horse-Breeder's Guide;" &c. New York: Orange Judd & Company.

This neatly printed and illustrated little volume contains a history of the Percherons or celebrated French draft horses, several of which have been introduced into this country, and bold and interesting discussions of the principles applicable to the improvement of draft breeds. Price \$1.00.

MAKE OR BREAK; or the Rich Man's Daughter; and FREAKS OF FORTUNE, or Half Way Round the World, by Oliver Optic, author of "Young America Abroad," "The Army and Navy Stories," "The Woodville Stories," "The Boat Club Stories," "The Riverside Stories," &c. Boston: Lee & Shepard.

These are the titles of two new books for youth from the able and versatile pen of Oliver Optic, which is guarantee enough for their value, as is the name of Lee & Shepard for their mechanical execution. They are beautiful books, and we wish all our young friends might read them.

PLYMOUTH PULPIT; a weekly publication of Sermons preached by Henry Ward Beecher. New York; J. B. Ford & Co., 164 Nassau St., New York.

We are quite sure that the Christian world, and intelligent people generally, will rejoice to hear that the regular weekly publication of Mr. Beecher's sermons has been commenced, in a neat pamphlet form on clear type and paper, for the low price of six cents a number, or \$2.50 a year.

In a prefacing note to the publisher, Mr. Beecher says:

"Mr. T. J. Ellinwood has been the reporter of my sermons for some ten years; and he is the only authorized reporter of them. The sermons which you propose to print, week by week, from his hand, will be published by you alone, and after Jan. 1st, 1869, will be the only ones which go before the public with my consent."

The sermon before us is entitled, "The God of comfort," from 2 Cor. i. 3, 4, and is alone worth a year's subscription. Address as above.

DOTTY DIMPLE OUT WEST. By Sophie May, author of "Little Prudy Stories." Illustrated. Boston: Lee & Shepard.

THE LITTLE SPANIARD; or Old Josee's Grandson. By May Manning. Boston: Lee & Shepard.

This is the fourth volume of the "Helping Hand Series," two more of which are to come. The whole will form a choice little library for children, interesting and improving. We commend both the above books to our youthful readers.

ACKNOWLEDGEMENT.—We are indebted to James J. H. Gregory, Esq., for a package of Early Rose potatoes by mail, very nice. The accounts we receive from correspondents of the good qualities and almost fabulous yield of this remarkable potato, are numerous, and enough to convince the most skeptical. See Mr. Gregory's advertisement in another column.

STEEL-TOOTH SULKEY RAKE.—There was a long array of horse-rakes, at our State Fair. But we noticed no important improvement, except Hollingsworth's Rake, exhibited by Alden & Co., of Auburn, which received the gold medal. This is a steel-toothed rake, and in every respect a superior implement. Any boy that can manage a horse can work it with comparative ease while riding in the seat. Each tooth is entirely independent of the other. Besides this, the rake was provided with a track-board at each end, to prevent the hay from getting tangled in the wheels. No other horse-rake possessed this valuable fixture.

H. N. Tracy, of Essex Junction, Vt., exhibited the only specimen of Warner's revolving sulkey rake that was on exhibition. Since last season some valuable improvements have been added to this revolver.

LITERARY PRODUCTION.—A young lady in Titusville, Pennsylvania, whose "par" has "struck lie," and is now numbered among the sudden rich, indicted the following "bully dux" to one of her acquaintances:

dearsAr myntialllic hezeczumhom iTKusst iethwn
And dolersinu yauki Wontutucum an ciet Sice nieEtn
bely sTevins dukeum. saffrony.

After careful analysis we have decided that this remarkable effort was intended to convey the following important intelligence and request:

DEAR SARAH!—My new shawl has come home. It cost a thousand dollars in New York. I want you to come and see it. It's twice nicer than Bella Stevens'! Do come. **BELLA STEVENS!**
SEPHRONIA.

Special Notices.

WHAT NEXT?—STEAM NOW SAFE FOR DOMESTIC PURPOSES.—Mr. Prindle, a farmer of Western New York, claims to have invented a self-acting pressure and vacuum valve at a cost of only \$1/2y cents, which makes all danger in the use of his new Farmers' Steamer and Chaldron quite impossible. From the numerous testimonials, opinions of the press, and drawings before us, we believe Mr. P.'s new boiler to be just the thing so long needed, and as admirably adapted to cooking in quantities for stock as well as for the many various uses for which steam or an open boiler is required. See Mr. P.'s advertisement in another column.

When the Plantation Bitters were first made known to the American people some seven years ago, it was supposed they were an entirely new thing, and had never before been used. So far as their general use in the United States is concerned, this may be true. It is also true that the same Bitters were made and sold in the Island of St. Thomas, over forty years ago, as any old planter, merchant, or sea captain doing business with the West Indies will tell you. It is distinctly within my recollection that on the return of my father (who was a sea captain, and doing an extensive trade in the tropics,) he would invariably have the Bitters among the ship's stores, and our family sickboard was never without them. For any sickness, it matters not how severe or trifling, the decanter of these Bitters, by a different name, was always resorted to as a sovereign remedy.

HOLIDAY JOURNAL --- NEW NO. --- FREE.

FOR the Holidays of 1868-9, containing a Christmas Story, Parlor Plays, Magic Sports, Odd Tricks, Queer Experiments, Problems, Puzzles, &c. 16 large pages, illustrated, **FREE.** Address **ADAMS & CO., Publishers, 25 Bromfield St., Boston, Mass.** oct-1t

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in THE AMERICAN FARMER for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. THE FARMER has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

LEAD-ENCASED BLOCK-TIN PIPE IS SAFE, STRONG, and DURABLE.



It is recommended by the Medical faculty, endorsed by Water Boards, Agriculturists, Engineers, and Experts; introduced into all the new PUBLIC SCHOOLS, HOSPITALS, DISPENSARIES, and most of the new first-class buildings. It gives perfect satisfaction wherever used, and added to its sanitary advantages, it is cheaper by the foot and stronger than lead pipe.

All danger of lead poisoning prevented. This is the only pipe in the market which combines all the requisites of a perfect Water Pipe. Sanitary, Mechanical, and Economical Water flows through it as pure as if drawn through silver. To furnish cost per foot, give us head or pressure of water and bore of pipe. Also, manufacturers of Sheet Tin, Solder, &c. Circulars sent free.

COLWELLS, SHAW & WILLARD MFG CO.,

Foot of West 27th street, N. E., New York. Down-town office, No. 105 Beekman street, corner of Pearl.

FROM THE AMERICAN AGRICULTURIST.

—NEW YORK, November, 1867.

“SAFE PIPE FOR DRINKING WATER.—Lead poisoning from water brought in lead pipe, is the often unsuspected cause of disease and death. Galvanized iron pipe, wood and cement pipes, are expensive and inconvenient substances, so that people will risk their lives and use lead. The Lead-encased Block-tin Pipe is even cheaper than lead, and we believe perfectly safe. Our faith in it has led us recently to lay some eighty feet of it through which all our drinking water is drawn.” oct-11

NON-EXPLOSIVE, FARMERS' STEAM BOILER

THE SUBSCRIBER takes pleasure in announcing to the public that after a test of several years, his new Farmer's Boiler has proved itself no longer an experiment, over 800 having been manufactured and sold, and are now used for nearly **One Hundred Different Purposes.**

(See Circular.) This new combined apparatus has received the highest awards at every State Fair where exhibited, the last being a gold medal at Louisiana State Fair held at New Orleans in 1867. By the use of this Boiler several vessels can be heated at a time, or cooking done at some little distance by extending pipes. It is particularly adapted to cooking in quantities for stock, as well as many other purposes where a low pressure of steam or an open boiler, small still, retort, &c., are required. It is safe, cheap, simple, and the only combined apparatus in market.

Send stamp to pay postage on my new Illustrated Eight Page Circular, giving details, prices, testimonials, advantages of steam, &c., &c.

N. B.—A liberal discount to dealers.

D. B. FRINDLE,
PATENTEE AND PROPRIETOR,
East Bethany, N. Y.

TRACY FEMALE INSTITUTE,

ALEXANDER STREET, ROCHESTER, N. Y.

THE next Quarter will commence on Wednesday, the 11th November. Increased facilities will be offered in the Department of Horticulture and Decorative Gardening. The Teacher of French, Spanish, and Italian resides in the Institution and speaks with his pupils the languages which they pursue.

Board is \$50 per Quarter, and Tuition in the studies of the prescribed course is from \$6 to \$15. Inquiries may be made personally at the Institute, or by letter addressed to

LUCILIA TRACY, Principal.

Rochester, Oct. 14, 1868.

STRAWBERRIES,

Per 100—Charles Downing, \$3; Romeyn Seedling, \$3; Durand, \$2; Jucunda, \$1.50. Much less by the 1,000. All the common sorts cheap.

RASPBERRIES,

Per 100—Philadelphia, \$8; Thornless, \$6; Mammoth Cluster \$12; Seneca, \$6; Doolittle \$6. All much less by the 1,000.

BLACKBERRIES,

Per 100—Kittatiny, \$6; Wilson Early, \$20; Missouri Mammoth, \$25; Lawton, \$2. Much less by the 1,000. Agents wanted to sell plants. Send for price lists.

Address, C. L. VAN DUSEN,
Macedon, N. Y.

“WILLARD” AND “EARLY ROSE.”

MR. C. W. GLEASON, of Massachusetts, one of three gentlemen to whom the late Mr. Goodrich was accustomed to send out his seedling potatoes for testing before introducing them to the public, and in honor of whom he named his Gleason potato, has for years probably been more largely engaged in raising new seedling potatoes than any man in New England. Last spring I purchased of him the entire stock of his “Willard” seedling (a seedling from the Early Goodrich) which he considers the best of all the hundreds of seedlings he has thus far raised. The “Willard” proves to be enormously productive, and is a potato of great promise. I now offer to send one potato of this new seedling gratis, with every peck of Early Rose—five with each bushel, and sixteen with each barrel.

My stock of Early Rose was procured directly from the original growers at \$75.00 per bushel, and is warranted true. My rates this fall are:

One pound, post-paid	1.00
Three pounds, post-paid	2.00
One peck, 15 lbs.	5.00
One bushel, 60 lbs.	15.00
One barrel, 168 lbs	40.00

Early Goodrich, per bbl. \$5.00 | Harrison, per bbl. \$7.00
Early Sebec, .. 5.00 | Gleasons, .. 5.00

JAMES J. H. GREGORY,

Marblehead, Mass.

oct-21

FARMS FOR SALE.

THE SUBSCRIBER has for sale a large number of Farms located in Monroe, Orleans, Genesee, and Wayne counties, which will be sold cheap and upon liberal terms. These farms are very desirable for location, fruit, grass, grain, and for the buildings and other improvements and the price. Also, for sale a large number of houses and lots in Rochester. Persons wishing to purchase will do well to call on him before buying elsewhere.

S. W. WHEELER,
Real Estate Broker,
No. 14 Arcade, Rochester.

oct-11

CRANBERRY PLANTS BY MAIL.

Enclose 50 cents per 100, and send for Circular, of Culture, Price, &c.

Oil Paper, 6 cents per sheet by mail, \$4.50, per 100 sheets, 24 by 36.

Grafting Wax for Nurserymen and others highly recommended and cheaper to purchase than to make.

F. TROWBRIDGE, Milford, Ct.

Also for sale by D. M. Dewey, Arcade, Rochester, N. Y. oct-11

THE EXCELSIOR,

A Splendid Periodical

FOR OUR SONS AND DAUGHTERS!

DEVOTED TO

MORALITY, CHOICE LITERATURE, FASHIONS, &c., &c.

THE MOST

MAGNIFICENT PREMIUMS SENT!

SUCH AS

GOLD WATCHES, SEWING MACHINES, FURS, MUSICAL INSTRUMENTS,

UPON UNUSUALLY LIBERAL TERMS.

Remit 10 cents for specimen copy. Address, Excelsior office, box 2,272, Buffalo, N. Y.

Subscription, \$1.00 per annum.

oct-11

FRUIT AND ORNAMENTAL TREES.
FOR FALL OF 1868.

WE have the pleasure of announcing that we are prepared for the Fall Trade with an unusually large and well-grown stock, embracing

Standard and Dwarf Fruit Trees,

GRAPE VINES, new and old sorts, strong open ground plants.

CURRENTS, RASPBERRIES, BLACKBERRIES, and all the Small Fruits.

Ornamental Trees and Shrubs.

Roses and Flowering Plants of Every Description.

NURSERYMEN, DEALERS, and Others, purchasing largely, will be dealt with liberally, and all orders, however small, will receive prompt and careful attention. Parties interested will do well to consult the following Catalogues, which are just issued, and will be sent pre-paid on the receipt of 10 cents each, for Nos. 1 and 2, and 5c for No. 8.

No. 1, Descriptive and Illustrated Catalogue of Fruits. No. 2, Descriptive and Illustrated Catalogue of Ornamental Trees, &c. No. 3, Descriptive Greenhouse Plants. No. 4, Wholesale Catalogue free.

ELLWANGER & BARRY,
 Mount Hope Nurseries, Rochester, N. Y.

JAMES VICK,
 IMPORTER AND GROWER OF

FLOWER AND VEGETABLE SEEDS,
ROCHESTER, N. Y.

VICK'S ILLUSTRATED CATALOGUE
 OF
SEEDS, AND FLORAL GUIDE FOR 1868,

Is now published and ready to send out. It makes a work of about One Hundred large pages, containing full descriptions of the

Choicest Flowers and Vegetables Grown,

with plain directions for Sowing Seed, Culture, &c. It is beautifully illustrated, with more than ONE HUNDRED FINE WOOD ENGRAVINGS of Flowers and Vegetables, and a

BEAUTIFUL COLORED PLATE OF FLOWERS,

Well printed, on the finest paper, and one of the most beautiful as well as the most instructive works of the kind published.

Sent to all who apply, by mail, post-paid, for Ten Cents, which is not half the cost. Address,

JAMES VICK, Rochester, N. Y.

J. E. CHENEY & CO.,

MANUFACTURERS

OF
WATER FILTERS
 for Purifying Lake, Rain, and River Water.



With this Filter the most impure water is made free from all foreign matter, clear as crystal, without taste, color, or smell.

63 Exchange St.,
 next door to F. Tully's Stove Store,

PRINCE & COS.
AUTOMATIC ORGANS
AND MELODEONS.
 Forty thousand are now in use
BUFFALO, N.Y. CHICAGO, ILL.

sep-1f

15,000

FIRST CLASS PEACH TREES,

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OPINIONS OF THE PRESS.

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THE AMERICAN FARMER is handsomely illustrated, and is every way worthy of extensive patronage, emanating from the great center of the fruit growing region, it contains very valuable information on those subjects.—*Rural Journal, N. C.*

Cheapest journal of the kind in America.—*Phrenological Journal, New York*.

Our opinion is, that no matter how many, or what other newspapers and agricultural journals a farmer may take, if he does not add THE AMERICAN FARMER to the list, he is shutting one eye to his own interests at the rate of about \$40 a year.—*Saturday Evening Post, Philadelphia*.

Every number contains information which is worth more to the farmer and fruit grower than the price of a year's subscription.—*Advertiser, Oswego, N. Y.*

THE AMERICAN FARMER contains advice which, if our farmers would follow, they would rarely have to complain of poor crops or empty purses.—*New Era, Clinton, C. W.*

Any one engaged in agriculture could not invest one dollar to better advantage than in taking THE AMERICAN FARMER for one year. It is the best and most convenient journal of the kind published in the United States.—*Free Press, Kittanning, Pa.*

It bears examination, and is printed on good paper and clear new type.—*Pennsylvanian, York, Pa.*

We are always glad to see agricultural papers, and Rochester is a great field for agricultural improvements, and that city is one of the best in the country for general information, which no doubt will be gathered for the readers of THE AMERICAN FARMER.—*Sentinel, Waltham, Mass.*

It is very neat and tidy in appearance, and we commend it to our agricultural friends.—*Democrat, Lockport*.

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VOLUME III.

ROCHESTER, N. Y., NOVEMBER, 1868.

No. 11.

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AUTUMNAL HYMN.

Now we rest from our toils, Lord, our labors are done,
Our meadows are bared to the kiss of the sun;
We have winnowed the wheat—well our toil it repays,
And our oxen have eaten the husks of the maize.

We gathered our harvests; with strength in each limb
Tolled the mower; the ripe grass bowed prostrate to him;
And the reaper, as nimbly he filled the proud grain,
Was blither than those who wear scepters and reign.

And the wheat-blade was tall, and the full, golden ear
Proclaimed that the months of rejoicing were near;
The grape in rich clusters, hung, promising mirth,
And the boughs of the apple-tree slept on the earth.

Did we thank thee, then, God of the seasons? O, no!
We were prompt in accepting thy favors, but slow
Were our lips to give thanks for the rich gifts, thy hand
Showered thick on the maise-littered vales of our land.

Thou hast rained on us manna, Lord—yet we are mute;
Though summer's all smiles, of thy love are the fruit;
Springs and autumns, as fair as the Orient boasts,
Dawn on us—yet faint are our tongues, Lord of Hosts!

Now we raise our glad voices—in gratitude raise,
And we wait on the beams of the morning our praise;
We thank thee for golden grain gathered in sheek,
And the milk of the kine, and the fleece of the flock.

And we thank thee for limbs moving light to the task,
For hearts beating high, though unwarmed of the flask;
Fill us, Lord, with just sense of thy bounty, and give
Health to us, and to all in the land where we live.

Heap high the farmer's wintry board!
Heap high the Golden Corn!
No richer gift has Autumn poured
From out her lavish horn.

Let other lands, exulting, glean
The apple from the pine,
The orange from its glossy green.
The cluster from the vine:—

We better love the hardy gift
Our rugged vales bestow,
To cheer us when the storm shall drift
Our harvest fields with snow.

Let vagabond idlers loiter in slink
Around their costly board,—
Give us the bowl of samp and milk
By homespun beauty poured.

NOVEMBER.

'Tis the year's eventide,
The wind—like one that sighs in pain
O'er joys that ne'er will bloom again—
Mourns on the far hill-side.

November has aptly been termed the Saturday afternoon of the week, the finishing month of the year. The farmer can do nothing more for this year to increase his store. His main business now is saving what he has made, and maturing new plans for doing more next year, when nature awakes from the sleep which she is now enjoying. The fall here has been unfavorable for securing crops, and much corn and many potatoes are yet out. Indian summer has not deigned to spread over us its soft and mellow light. In addition to a month or more of "catching weather," we are now soaking with rain, which has already been falling three days and three nights, without any signs of abating.

No hour of daylight possible to use should be lost until the potatoes and corn are secured. Save every particle of the fodder, and unless you have abundance, cut your hay, stalks, and straw. The experience of the best farmers is that it pays. Steam your cut feed, if possible; at least wet it and sprinkle on a ground feed; a little goes a great way.

Turnips should stand in the ground as long as possible. They grow sweeter and larger till the ground freezes solid!

Look well to your stock. Do not let them roam the fields, and shift for themselves. Give them shelter; feed them regularly; keep them clean, and give them good bedding.

Save all the leaves that can be gathered conveniently. They make excellent bedding, and the best quality of manure. Large gunny sacks are very convenient to gather them in. A sack full will bed a span of horses a week.

Look well to the fattening hogs. It is easier making two pounds of pork now than one in cold winter weather. Cooked food is much the cheaper.

Provide warm winter quarters for your poultry,

and keep the roosts clean. Give an occasional feed of refuse meat, boiled potatoes, and raw cabbage.

Keep the cellars well ventilated. The best ventilator for a house cellar is a chimney open at the bottom with one or more stove pipes entering it above. The heat rarifies the air causing it to rise, thus creating a draft from the cellar. Keep the windows open as long as it will answer.

Draining is always in season when the ground is not frozen or wet; swales, swamps, or low grounds, can be made the most productive portions of the farm by draining.

Permit none of the winter grain to be eaten off at this season, as it will make the crop short next year. The late growth is needed to protect the roots. See that no water stands on the field.

Save all the manure. See that the compost heap grows every day. Muck, night soil, hog manure, old chips, weeds, ashes, plaster, urine, soap suds, &c., should all contribute to this end. Have a barrel of plaster standing handy, with which to sprinkle the stable floors and compost heap occasionally.

Prune the grape vines if you have any. If you have not you have not learned how to live.

Cover the pie plant and asparagus beds with manure; put it among the strawberries, around the shrubbery, rose bushes, &c. It will tell next season.

See that you have a good district school, and that the children commence with the first day well equipped with books, slates, &c. Provide good books and papers for the long winter evenings; renew your subscription to THE AMERICAN FARMER, and get your neighbors to subscribe for it, and you will be ready for a quiet, peaceful, happy winter.

POTATO CULTURE—TWO CROPS AT ONCE.

In this section of the country the potato crop is now pretty generally gathered. Though the yield is not as great as in some years, we will have enough for all our wants, and perhaps some to spare. The early plantings have for several years yielded much more largely than the late plantings. It seems to me that this is an advantage to the farmer. By having his ground properly manured and plowed in the fall, or at any time when it can be done through the winter, he can have his potato crop planted before the throng and hurry of the other work on the farm begins. I know a farmer who plowed about two acres for potatoes the 26th and 27th days of last December. His ground was in fine order for planting in the spring, and he was not hurried with his work like some of his neighbors.

There is another advantage in early planting. After the potatoes are worked sufficiently, corn, beets, or something of that kind may be planted

between the rows. This will keep the ground clean, and there will be no necessity of mowing weeds, grass, &c., when the time comes for digging. If corn is planted it could not be expected to fully mature, but it could be cut up to feed to hogs, or set up for fodder.

I planted some potatoes last spring, about the middle of April. About the middle of June I planted corn between the rows. It grew very fast, and if the frost had kept off as late as last year, would have come to maturity. As it was, I cut it up and fed it to my hogs. My last planting was May 30th, and July 14th I planted corn between the rows in part of the patch. It was in roasting ears when the frost killed it. I cut it up and fed it to the hogs, and they appeared to thrive on it very well. In the part of the patch where no corn was planted, the grass and weeds grew luxuriantly, and it cost me more time and trouble to mow them off than to cut the corn off the other part of the patch.

It may be objected that the growing of two crops on the same ground, as it were, would soon wear out the soil; but I am of opinion that the weeds would be a still harder crop than the corn. And if properly manured, there would be no difficulty about the quality of the soil.—*J. D., in Western Rural.*

EXPERIMENT IN POTATO PLANTING.

I last winter obtained one pound of the Early Rose potato of Mr. Best, and being desirous to make it go as far as possible, I tried an experiment, which proved so satisfactory, I thought it too good to keep. I had heard an old man advise, instead of avoiding, cutting through the eyes, to cut through every eye you can. The pound I received contained three potatoes, two of them being of about the same size. In order to make a fair experiment I cut these two potatoes through the middle, taking one-half of each for the experiment. On counting I found I had sixteen eyes for each potato, I then cut through the eyes of one potato making thirty-two pieces, and put one half an eye, or one piece in a hill, and the other sixteen eyes, one eye in a hill. The result was, that from the thirty-two pieces cut from the sixteen eyes, I had forty-five and three-quarter pounds; and from the sixteen planted single eyes, nineteen and one-quarter pounds; from the small potato planted with a single eye in each place, seventeen and three-quarter pounds, making in all from one pound of potatoes eighty-two and three quarter pounds.—*J. N. Stearns, in Western Rural.*

S. J. Woodman, of Chicago, Ill., writes to the New York Farmers Club, that a barrel or a cask of new sweet cider, buried so as to be well covered with fresh earth, will turn to sharp, clear, delicious vinegar in three or four weeks, as good as ever sought affinity with cabbage, pickles or table sauce.

NOTES FROM STEUBEN COUNTY.

WRITTEN FOR THE AMERICAN FARMER BY "A. W."

THE season just past has been a peculiar one in many respects. The spring started off fair. Crops were put in in good condition to warrant a fruitful season; but the severe continued dry weather has disappointed expectations in many crops. Winter wheat is a light crop, being small and shrunken in berry, and cannot be counted over half the usual yield, making flour of an inferior quality. Spring wheat is also light, though in some localities where sowed early will be fully up to the average in quality, but not in quantity; about two-thirds of a crop.

Corn is the best crop in many years, having fully matured. Oats almost a failure, not half a crop; in many cases hardly the seed was returned; the whole not more than will be wanted for home consumption.

Barley has been running out for three years past; not much raised. The quality is good, and prices higher.

Potatoes are light, but generally of good quality; not an average yield.

Apples good; but many farmers lost most of their crop by the sudden freezing weather, much otherwise fine fruit being only fit for cider.

Grapes, in which an extensive business is done in and around Hammondsport, were sadly hurt by frost. Great loss was sustained by growers; much of the crop was not fit for wine. Taking it as a whole, farmers have had rather up-hill work so far, wool being the only real good crop, except butter and cheese, of which I propose to tell you something more in another article. Farmers have to take the good with the bad, one season's fruitfulness making up the loss of others. Economy and perseverance will insure success to the agriculturist.

AGRICULTURAL ITEMS.

—In Chatsworth, Livingston Co., Ill., is a beet sugar factory in full operation working up about forty tons of beets daily. They expect soon to work up fifty tons. The per centage of sugar is quite satisfactory, and the sugar of good quality. The *Reporter* says the beets are daily growing better. Beets continue to improve by ripening till they have been kept about four months.

—A process has recently been patented in England by which the bran of flour, after being separated, is ground into an impalpable powder, and then again mixed with the flour. In this way all the nutritious ingredients are preserved, while the fineness of the flour is not affected.

—Fine Black Hamburg grapes have been selling in San Francisco at 75 cents per 100.

—A company in Iowa has purchased 5,000 acres of land for the cultivation of sugar beets.

—At a late mechanics fair at San Francisco there was exhibited a stick of timber 4½ feet square, 50 feet long, and wholly free from knots.

—English farm laborers consume 16 ounces of meat per man weekly, Scotch about the same amount, and Welch laborers but 2½ ounces per adult weekly.

—It is estimated that there are 7,000,000 head of cattle in Texas. This is nearly 10 to each man, woman and child in that State.

—A new kind of cotton is being raised in Mecklenburg, N. C. It is called "wool cotton," and is nearly the color of wool. It is said to be a superior article.

—Five dollars per head in currency is the selling price of cattle in the neighborhood of San Antonio Texas.

—It is said that 150 cars could not supply the demands of the Burlington and Missouri road for the conveyance of wheat. There never was such a trade in wheat. It is rushing in like a mighty torrent.

—It is estimated that the present crop of cotton will yield about 800,000 tons of seed, of which 500,000 tons may be sent to market. A ton of seed yields 30 gallons of crude oil, worth 70 to 75 cents per gallon; and 750 pounds of oil cake, worth \$40 per ton in New York.

—The season just passed has been the most favorable to the farmers of California of any they have ever experienced. The wheat crop has been immense; oats and barley very abundant, and grain of every kind commands a fair price.

—Lyons, Michigan, has 100 acres of peppermint under cultivation, and has made this year 1,000 lbs. of pure oil worth \$8 a pound.

—The yield of wheat in Britain is this year reckoned at 15,000,000 quarters, or 120,000,000 of bushels, being 48,000,000 bushels in excess of last year. The price is steadily declining as the excellence of the harvest yield is becoming more fully ascertained. The price of flour had declined during September very nearly a dollar a bag.

—Advices from the Western States indicate that there will be a large increase in the pork crop the coming season. Stock hogs are plenty, and in excellent condition, owing to the abundant pasturage during the summer, and as the corn crop is an unusually large one, and the general belief with farmers that pork will be high, there can be little doubt that hogs will be fed largely and liberally throughout the West. So says the Cincinnati *Price Current*.

Whew! Mr. Seth Boyden, of Newark, N. J., says that with twenty years cultivation he can raise strawberries as large as pine apples, which will retain all the delicacy of the fruit now grown.

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

THE COOL DRY AUTUMN.

When I wrote my last notes on the 17th September, the burned up pastures had begun to put on a lively green under the influence of a few very light showers; but very cool, dry weather set in again, and now, on the 27th October, fall pasturage has been nearly as short as it was last season, and milch cows have to be well fed night and morning. A retired farmer in this village laughs at the idea of pasturing a village cow; he took his own from pasture on the 15th August. Owing to a second season of extreme drouth, the springs were never known to be so low, many farmers have to go to the lake or its outlet for water to take home for their stock; and most of the village mills have already failed. Garden vegetables, with the exception of corn, beets, and tomatoes, are a very short crop; wurzel beets instead of growing out of the ground as usual, have this season run so deeply into the earth, that when dug they leave the long tap-root broken off in the ground, and the harvesting is now a tedious process. It is a common saying that winter cannot set in until the rain fall has filled the swamps, yet we had no rain last fall, and but for the heavy snow of December 10th, followed by other snow storms, the country would have been dependent on the Lakes for water. Yet, dry as it has been in this part of Seneca County, only ten miles north they have had timely showers throughout the season, good crops of clover seed, and a good stand of clover on their wheat fields, with more fall pastureage than they have cattle to consume.

PASTURING COWS.

At the New York Farmers Club, A. J. Caywood, who says he has always been a farmer, speaks to the life of my little experience when he says:—"A cow to be profitable either to fatten or for milk, should fill herself with grass in pasture in less than two hours; the muscular exertion of walking over a pasture of short grass all day to get her fill, cuts short the flow of milk materially." I have had such proofs of this fact the past two seasons, that I shall never send another cow to pasture any longer than the grass is flush. I took my cow from pasture last season on the 10th of August, and although she had been slopped morning and evening, she immediately gained in milk under the soiling process; undoubtedly the relief from flies, and from muscular exertion very much aided the increase of milk.

THE GREEN SAND MARL OF NEW JERSEY.

The New York *Weekly World* gives a capital synopsis of the green sand marl formations in New Jersey; but when it sets down the amount of pot-

ash as four pounds in a single bushel, and the phosphoric acid at four pounds, it is putting it on rather thicker than any other pen and ink analysis I have yet seen; with four pounds of potash in a bushel, the marl would be a great desideratum to soap boilers throughout the world. It is possible that there may be four pounds of crude phosphate of lime in a bushel, but not of soluble phosphoric acid; there must be much more carbonate than phosphate of lime in all marls. I asked a friend who is a fruit grower in Vineland, N. J., what he thought of green sand marl, he replied that it was a "weak manure, by no means as fertilizing as the swamp muck even of that sandy region." All calcareous earths as well as common clay, must materially benefit loose sandy soils both chemically and mechanically; and the trace of potash they contain is a valuable inorganic element; but nitrogenous manures must be the great desideratum for all such soils. Muck not only contains nitrogen, but it also collects ammonia from the atmosphere and holds it as food, for the purpose of food for growing plants.

THE NEW YORK FARMERS CLUB.

The debates of this Club are sometimes a little farcical, but generally much practical as well as scientific information is to be learned from the published reports in the *Weekly World*, *Times*, &c. Notwithstanding the demurrer of certain M. D. members of the Club, with Solon Robinson to help them, against chaffing hay and straw for animals, it was settled by overwhelming authority, that chaffing added much to its nutriment, and that chaffing and steaming alone dissolved all the starch into an assimilable condition in the animal's stomach, at a saving of one-third its nutriment. When chemistry set down hay and straw "as fat formers," it was with the proviso that their starch should be made as soluble as it is in green grass.

A practical farmer and gardener who felt that he had been cheated with adulterated commercial fertilizers, said "farmers would be better off to pitch the sham fertilizers into the North River;" when Mr. Whitney, who has a good knowledge of chemistry, came to the rescue and very properly rebuked such a sweeping condemnation. He said: "When we cultivate for stalk, we need one kind of manure; when we seek returns for seed or grain, we should use another kind of fertilizer. The best top dressing for grass is not the most suitable application for wheat. For grain we should use substances that contain phosphate of lime," &c. Yet practical* experiment has proved the reverse of this plausible theory, as nitrogen and not phosphorus is the specific manure for wheat, and phosphate of lime is the specific manure for turnips, although turnips con-

* Vide J. B. Lawes' published experiments in Rothamsted Experimental Farm.

tain but a trace of phosphoric acid, and wheat is rich in that substance.

Mr. Williams, of *The New York Independent*, says, that after many experiments he can best bring up his land to fertility for any crop with fish guano, ground bones, and swamp muck; and no wonder, for here is all the fertilizing elements, mineral and organic, in much more concentrated force than it is in the best farm yard manure, with the acid of the muck in addition to keep the nascent ammonia from wasting. It should always be recollected that ordinary farm yard manure contains more than three-fourths of its actual weight in water.

GRAPES.

Alonzo Morgan, of Aurora, Cayuga Lake, is giving away the Isabella grapes from his several acre vineyard; they have not ripened very well even in that warm locality, owing to the unusually cold season, although they remain yet uninjured by an October frost. He says the price in the New York market is so low, and the express consolidated ring so dear, that it does not pay to box and send them to market. The Concord grape seems to be growing more and more in favor as a profitable marketing grape. It ripened here this season in August, before the cool, cloudy weather commenced. A *vigneron* here says he had rather grow Concord grapes at 10c. a lb., than Delaware at 20c.

CULTURE OF FLOWERS.

David Thomas, although a very plain Quaker, had yet an enthusiastic love of the beauties of the floral creation. It once did me good to hear him dilate on the matchless beauty of the great pond lily, only to be found in full perfection when grown up from vegetable remains in stagnant water. He looked upon it as one of nature's fairest and purest floral perfections, that no artificial culture could hope to attain. He used to say that it pained him to look upon house plants struggling for dear life against the blunders of their would-be friends. How often have we seen house plants languishing in pots, stuck out in front of an ambitious mansion as a *raree* show, when they look worse to the true lover of Flora than did the starling flower that struggled so hard to live in Piccoli's prison yard. We have a gorgeous bed of verbenas in variegated bloom, when everything around is sere and yellow in this long protracted drouth. Leaf mould, such as we get from the great deciduous leaf deposit in our Northern swamp, is indispensable to the perfect bloom of flowers. Our calcareous clay is rich in coloring matter, particularly iron in the peroxide state; but I take it that no flower in a pot can put on the fine fresh tints that it acquires in a well composted border. An agapanthus makes a fine show in full bloom in a large pot at a distance; but it will

not bear close examination—and no wonder, as the sides of the pot will be found matted on the inside with the fine roots of the plants struggling for more mother earth.

KEEPING CABBAGE THROUGH THE WINTER.

The Massachusetts *Farmer* gives the following method of keeping cabbages through the winter, for which its editor vouches, having tried it successfully for several years:

"Cut off the stump close to the head, and pull off loose leaves. Cut clean straw or hay and cover the bottom of a barrel or box with it, and sprinkle the straw with clean water until it is quite wet. Add a layer of heads, then cover with more wet straw, and go on. Put the whole in a cold place, and they will keep until May in excellent condition. No matter if they freeze a little. This is a clean and easy method. The barrel need not be headed."

A correspondent writes as follows:

"I have tried hanging cabbages in the cellar, but they wilt and lose all their flavor. My way is this: I let them stand in the fall as long as possible; dig a trench about a foot deep, cut off the stumps close to the head, strip off the loose leaves and cover them with the earth taken from the trench. They must freeze and thaw with the ground, which makes them brittle and tender, and very much improved in flavor. They must be taken out of the ground as soon as the frost leaves, otherwise they rot. I have practiced in this way for forty years and never had a head rot. By way of experiment I have thrown in a few apples with the cabbages; they all came out sound in the spring. Try it."

The *Prairie Farmer* gives the following, as the method practiced by the gardeners of Chicago: "Select a dry knoll where the water will not settle, dig a pit say five feet wide, twelve feet long and two feet deep, throwing the dirt a little back from the edge of the pit. Set strong posts eight feet long, two feet in the ground in the middle of each end, and lay on these a good stiff ridge pole and pin it fast. Make a roof of stakes or planks long enough to reach from ridge pole to edge of pit, and cover them with a little straw and six or eight inches of dirt, digging a trench around the pit; beat down the dirt hard and smooth, so that it will shed water, or, what is better, sod it over in the spring. Make a door in each end of pit to ventilate in mild weather. Store the cabbages head down, two layers deep. A pit of the dimensions mentioned will hold nearly 200 heads of cabbage. In very severe winter weather bundles of straw may be set against the doors. A very cold winter may require a thicker covering than here recommended. But generally we think this will do."

A FARMER'S LIFE.

HORACE GREELEY has recently brought out a new book, entitled "Recollections of a Busy Life," which is nothing more nor less than an autobiography of the distinguished writer. We extract the following to show his idea of a farmer's life:

"MY FARM.

"I *should* have been a farmer. All my riper tastes incline to that blessed calling, whereby the human family and its humbler auxiliaries are fed. Its quiet, its segregation from strife, and brawls, and heated rivalries, attract and delight me. I hate to earn my bread in any calling which complicates my prosperity in some sort with others' adversity—my success with others' defeat.

"The farmers' floors may groan with the weight of his crops, yet no one else deems himself the poorer therefor. He may grow 100 bushels of corn or forty of wheat to every arable acre, without arousing jealousy or inciting to detraction.

"I am content with my lot, and grateful for the generosity wherewith my labors have been rewarded; and yet I say that, were I now to begin my life anew, I would choose to earn my bread by cultivating the soil. Blessed is he whose day's exertion ends with the evening twilight, and who can sleep unbrokenly and without anxiety until the dawn awakes him, with energies renewed and senses brightened, by fresh activity and that fullness of health and vigor which are vouchsafed to those only who spend most of their waking hours in the free, pure air, and renovating sunshine of the open country.

"I *would* have been a farmer had any science of farming been known to those among whom my earlier boyhood was passed. We New-Englanders supposed ourselves, even then, an educated, intelligent people, and, relatively considered, were so; there was no person among us, over twelve years old, who had not enjoyed the privileges of common schools, and learned therein to read, write and cipher; we all read books and newspapers, and I read nearly all of both that were to be found in our neighborhood; yet I cannot remember that I had ever seen a periodical devoted to farming up to the day wherein, in my sixteenth year, I abandoned the farm for the printery. A book which treated of agriculture, or seeking to set forth the *rationale* of its processes, the natural laws on which they are based, I certainly had not seen. Nay, more; during the ten or twelve years in which I attended school, more or less, I never saw a treatise on chemistry, geology, or botany, in a school-room. I hardly saw one anywhere. That true agriculture is a grand, ennobling science, based on other sciences, and its pursuit a liberal, elevating profession, was not even hinted, much less inculcated in any essay, speech, or sermon, book, pamphlet, or periodical, so far as I then knew. Farming as understood and practiced by those

among whom I grew up, was a work for oxen; and for me the life of an ox had no charms. Most of those I knew seemed to till the earth mainly because they could not help it; and I felt that *I could* help it—so I shook from my brogans the dust of the potato patch, and stepped out in quest of employment better suited to an intelligent, moral being.

"It was a quarter of a century after this before I felt able to buy or make the farm whereon to abide the coming of decay and death. I had been some twenty years a resident of the city, and fifteen the head of a household. Six children had been born to me, and four of them had died—as I am confident some of them would not so prematurely have done, had they been born and reared in the country.

"I had earned and bought a small but satisfactory house in the very heart of the city; but who, if he has any choice, prefers to grow old and die at No. 239, unknown to and uncared for by the denizens of Nos. 237 and 241? For my family's sake, if not for my own, a country home was required, so I looked about and found one.

"The choice was substantially directed by my wife, who said she insisted on but three requisites: 1. A peerless spring of pure, soft, living water; 2. A cascade or brawling brook; 3. Woods largely composed of evergreens. Those may seem light matters, yet I was some time in finding them grouped on the same small plat, within reasonable distance from the city.

"I *did* find them, however; and those who object to my taste in choosing for my home a rocky, wooded, hillside, sloping to the north of west, with a bog at its foot, cannot judge me fairly unless they consider the above requirements.

"My land was previously the rugged, mainly wooded, outskirts of two adjacent farms, whereof my babbling brook formed the boundary."

This farm—which we imagine few of our readers in search of a home would have selected—is thirty-five miles N. N. E. of the City Hall, at Chappaqua, a little village and station of twenty or thirty houses.

"My woods," he says, "are the pride of the farm, which, without them, would never have been my farm. They cover about twenty-five of the seventy-five acres which compose it; and I say to them, with Oriental courtesy, and more than Oriental sincerity, 'May your shadow never be less.' For the ground they cover is in good part an irregular, side-sling granite ledge, or portions of a ledge, thinly covered by a granitic, gravelly soil, which could not be made to grow anything but wood to the profit of the grower—whereas, it grows wood better than a rich Illinois or Kansas prairie often condescends to do. Its trees are mainly hemlock, red cedar, (my evergreens,) white and red oak, whitewood, chestnut, white and blue beech, dogwood, white ash, sugar and soft maple, elm, hickory, butternut, black, yellow, and white birch. There were just

two trees that I could not name, after twenty years' absorption in the city; one of them is known as pepperidge, the other as yellow poplar. There were a good many wild black cherries; but these I have nearly exterminated, as they breed caterpillars to infest my apple trees. Of shrubs there are many that I cannot name. Witch hazel, bunch willow, choke cherry, hazel, sassafras, and sumac, are among those that I readily recognize. Swamp alder infested the springy, rocky, boggy ground at the foot of one of my hills, till I extirpated it, and the dogwood is marked for speedy destruction. It beautifies—nay, glorifies—the woods while in blossom for a week or so early in May; but it is of no account as timber, while it sows its seed everywhere, and tends to monopolize a good deal more ground than it will ever pay for.'

Mr. Greeley is enthusiastic on the subject of growing timber, and spends many of his Saturdays among his trees, with ax in hand, cutting down decaying trees and worthless underbrush, and climbing and trimming the tall hemlocks.

His ideas about barns and sheltering stock may be gathered from the following description of his own:

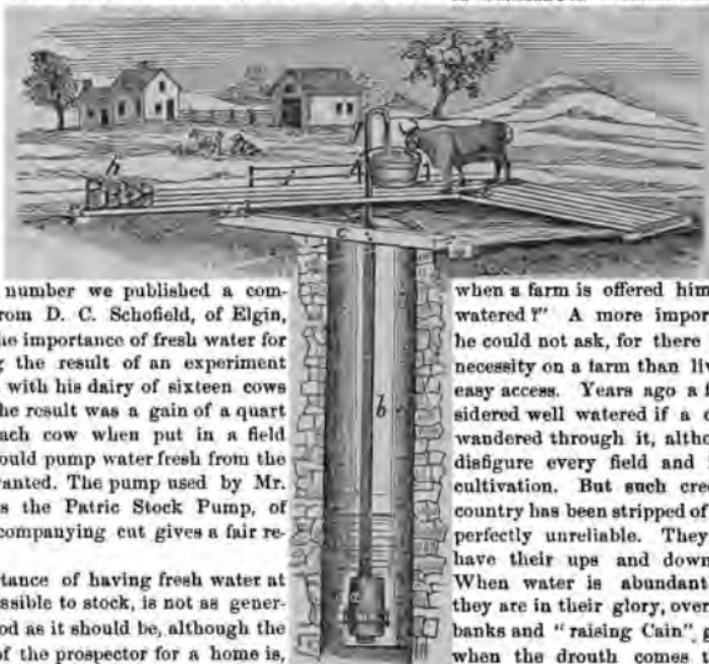
"My barn is a fair success. I placed it on the shelf of my hill, nearest to the upper (east) side of my place, because a barn-yard is a manufactory of fertilizers from materials of lesser weight; and it is easier to draw these down hill than up. I built its walls wholly of stones gathered or blasted from the adjacent slope, to the extent of four or five thousand tons, and laid in a box with a thin mortar of (little) lime and (much) sand, filling all the interstices and binding the whole in a solid mass, till my walls are nearly one solid rock, while the roof is of Vermont slate. I drive into three stories—a basement for manures, a stable for animals, and a story above this for hay, while the grain is pitched into the loft or 'scaffold' above, from whose floor the roof rises steep to a height of sixteen to eighteen feet. There should have been more windows for light and air; but my barn is convenient, impervious to frost, and I am confident that cattle are wintered in it at a fourth less cost than when they shiver in board shanties, with cracks between the boards that will admit your hand. No part of our rural economy is more wasteful than the habitual exposure of our animals to petting, chilling storms, and to intense cold. Building with concrete is still a novelty, and was far more so ten years ago, when I built my barn. I could now build better and cheaper, but I am glad that I need not. I calculate that this barn will be abidingly useful long after I shall have been utterly forgotten; and that, had I chosen to have my name lettered on its front, it would have remained there to honor me as a builder long after it had ceased to have any other significance."

Farm Produce.

The following table will show the prices of leading agricultural products in New York at this date for the last nine years:

	1859.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.
White Wheat	\$1.35 @ \$1.45	\$1.50 @ \$1.60	\$1.35 @ \$1.45	\$1.45 @ \$1.55	— @ \$1.75	\$2.20 @ \$2.45	\$2.40 @ \$2.75	\$2.26 @ \$2.37	\$2.20 @ \$2.35	\$2.25 @ \$2.60
Red Wheat	1.10 @ 1.15	1.35 @ 1.42	1.28 @ 1.40	1.30 @ 1.45	— @ 1.40	1.90 @ 2.20	1.72 @ 2.35	1.98 @ 3.00	2.10 @ 2.75	2.00 @ 2.60
Corn	1.00 @ 1.08	72 @ 86	60 @ 70	62 @ 69	99 @ 1.01	1.39 @ 1.55	74 @ 88	1.04 @ 1.09	1.36 @ 1.44	1.19 @ 1.25
Pea	88 @ 90	80 @ 81	80 @ 85	70 @ 82	— @ —	1.40 @ 1.45	1.12 @ 1.22	1.65 @ 1.70	1.56 @ 1.65	— @ —
Barley	73 @ 83	75 @ 82	70 @ 75	1.10 @ 1.25	1.42 @ 1.55	1.75 @ 2.00	1.10 @ 1.28	1.05 @ 1.35	1.31 @ 1.38	2.10 @ 2.45
Oats	38 @ 44	38 @ 40	42 @ 48	56 @ 60	77 @ 82	94 @ 97	50 @ 58	59 @ 65	81 @ 82	75 @ 80
Beans	80 @ 90	90 @ 1.15	1.85 @ 2.10	1.50 @ 2.60	2.10 @ 2.30	1.50 @ 2.55	1.50 @ 2.35	2.40 @ 2.60	3.90 @ 4.00	3.90 @ 4.00
Peas	75 @ 80	— @ —	80 @ 90	— @ —	1.08 @ 1.10	1.50 @ 2.00	1.25 @ 1.30	1.50 @ 1.80	1.45 @ 1.50	1.44 @ 1.45
Butter	12 @ 25	12 1/2 @ 21	11 @ 21	12 @ 24	25 @ 30	38 @ 50	30 @ 65	20 @ 65	24 @ 50	38 @ 48
Cheese	8 @ 11	9 @ 11 1/2	6 @ 7 1/2	8 @ 11	13 @ 16 1/2	12 @ 22	15 @ 19	14 @ 18	15 1/2 @ 17	18 @ 17
Potatoes	1.12 1/2 @ 1.75	— @ —	1.88 @ 2.00	1.40 @ 2.00	1.57 1/2 @ 2.50	2.25 @ 3.50	1.75 @ 3.00	1.38 @ 2.25	2.00 @ 2.75	3.00 @ 3.75
Live Hogs	5 @ 6	— @ —	3 3/4 @ 4 1/2	4 1/2 @ 5 1/2	5 @ 5 1/2	11 @ 13	12 @ 14	10 @ 10 1/2	6 @ 7 1/2	5 1/2 @ 7 1/2
Wool	40 @ 1/2	40 @ 60	42 @ 50	60 @ 65	60 @ 65	80 @ 95	55 @ 75	45 @ 65	39 @ 48	45 @ 57
Beef Cattle	6 1/2 @ 10	— @ —	5 @ 8 1/2	6 @ 8 1/2	5 @ 10	7 @ 18	9 @ 18	14 @ 18	14 @ 18	7 @ 7 1/2

THE PATRIC STOCK PUMP—A PREMIUM WORTH HAVING!!!



In our last number we published a communication from D. C. Schofield, of Elgin, Illinois, on the importance of fresh water for stock, giving the result of an experiment made by him with his dairy of sixteen cows to test it. The result was a gain of a quart of milk to each cow when put in a field where they could pump water fresh from the fountain as wanted. The pump used by Mr. Schofield was the Patric Stock Pump, of which the accompanying cut gives a fair representation.

The importance of having fresh water at all times accessible to stock, is not as generally understood as it should be, although the first inquiry of the prospector for a home is around. They are like the Irishman's moon which never shone in a dark night. Living springs and wells are preferable. But springs are not often found in the right place. Wells can be dug where needed, but the water must be raised to the surface. This involves much expense and a great deal of labor by the ordinary process, especially if much stock is to be watered. Then the stock will go dry sometimes, and at others be forced to drink water that has stood a long time, and which it has been demonstrated is not so good for them.

This difficulty has been done away with wherever the Patric pump has been introduced. With it, the stock water themselves. The animal as he approaches the tub, steps on a plank platform which sinks under his weight almost imperceptibly. The instant the platform commences sinking the water begins to flow in a steady stream, continuing until the supply in the pump is exhausted, which may be a pailful or a barrel according to size. When the animal leaves the platform the piston rises, and the pump is instantly charged, ready to supply the next thirsty visitor, each one getting his supply fresh from the bottom of the well. It works admirably; is not so liable to get out of order as a common pump, and never freezes.

The following communication to the Rochester Democrat from a man well and favorably known in this section, only speaks the minds of all who have used the pump so far as we know:

when a farm is offered him, "Is it well watered?" A more important question he could not ask, for there is no greater necessity on a farm than living water of easy access. Years ago a farm was considered well watered if a crooked creek wandered through it, although it might disfigure every field and interfere with cultivation. But such creeks since the country has been stripped of its forests are perfectly unreliable. They are too fitty, have their ups and downs too much. When water is abundant everywhere they are in their glory, overflowing their banks and "raising Cain" generally, but when the drouth comes they are not

EDITOR ROCHESTER DEMOCRAT:—In the fall of 1867, I had a Patric Pump put in my well on trial. It has thus far completely fulfilled all that was promised or claimed for it. A man standing constantly at a pump, however faithful he might be, could not supply my stock with water more completely than they supply themselves with this pump. It has entirely relieved me of the constantly recurring care and labor of supplying them with water. In these days of labor-saving inventions this pump should find a place on every farm where water is pumped for stock. I have no greater labor-saving implement on my farm. To comprehend the time which may be saved by stock pumping water for themselves, multiply the time used in one day by the number of days in a year, should that be one hour each day, the time saved in a year would be 36 $\frac{1}{4}$ days. The labor saved is not the only consideration. By a pressure of work, forgetfulness or unfaithfulness of those entrusted with the care of stock, they often suffer for water, consequently cows give less milk, and the stock generally are less thriving. I am sure wherever this pump has a fair trial, it will give entire satisfaction. I certainly would not give it this unqualified approval, if it had not fully justified it.

"LEONARD BUCKLAND.

"Brighton, Monroe County, N. Y., Oct. 23, 1868."

AN OFFER WORTH TAKING!!!

In order to give some of our friends who are willing to make a little effort for us, a chance to own one of these pumps, we will give one worth \$50 to the person sending us the first club of one hundred

subscribers to THE FARMER for 1869, with the money at a dollar each.

Another to the SECOND CLUB, to consist of 125 subscribers.

And still another to the THIRD, to consist of 140 subscribers,

And one to EACH CLUB of 150.

These are more liberal offers than are made by any other paper. A few days labor now will procure either of the numbers required, as almost any one will subscribe for a dollar semi-monthly journal as THE FARMER is to be for 1869. Names may be sent at once, and from any office. The numbers remaining for 1868 when a subscription is received, will be sent free.

If any one making the attempt fails to get the requisite number, he can pay the balance in cash, take other premiums, or receive cash for his work.

He who starts first and works liveliest will have the least to do.

INQUIRY.!

ED. AMERICAN FARMER:—Large red ants of very strong disagreeable smell, are very numerous in this part of the country, and are the greatest enemy to apple trees. They descend upon every root, large and small, cutting the bark and sucking the sap. They have caused some of my finest trees, six and eight years old, to suddenly wither and die while loaded with half grown apples. They work upon trees of every age, causing the roots to grow knotty and rotten. I think farmers generally are not aware of the damage done by these ants, and hope you will publish this statement, and answer the question, what shall we do to exterminate them?—*J. B., Red Mound, Tenn.*

RED ANTS: QUERY.

WRITTEN FOR THE AMERICAN FARMER, BY G. E. BRACKETT.

ED. AMERICAN FARMER:—Your letter containing the query of your Red Mound, Tenn., correspondent, is received. He says he would like some information in regard to a "red ant, of a very strong disagreeable smell, which is numerous and destructive to the apple trees, cutting the bark on the roots and sucking the sap." He further states that he has "lost several trees which were six or eight years planted."

So far as I am aware we are not troubled with this variety of ants in this section of the country. The only red ant we have is a quite small kind, and in such limited numbers, that they are not in any way troublesome. Is your correspondent sure it is the ant that has injured his apple trees? My limited experience with this insect would lead me to

think he may be mistaken. I have never known any of the members of the ant family here to prove destructive to vegetation, that is in a direct manner. I have frequently known them to make their habitation or hill around, underneath, or in close proximity to plants, thus injuring or destroying them. They are to a great extent animal feeders and prey upon the larger or smaller bits of animal which may come in their way. They are not averse to an occasional bite of vegetable, as witness their operations on fruit, especially the apple, of which they are quite fond. They are also especially fond of the sweet things of life, and are always on the search for honey dew. But they do not suck, as your correspondent intimates. They are not furnished with suckers as in the case of the moth, but with strong jaws like forceps, with which to seize and tear their prey, as well as to construct their wooden habitations. The formation of the mouth clearly intimates that they are animal feeders.

Without knowing further in regard to the condition of your correspondent's trees, I can hardly know what to recommend or say further upon the subject. I would suggest, however, whether the ants on his trees may not rather be a result—a secondary matter, and that the primary one is the presence of tree lice or root lice upon the bark, and which attract the ants. Wherever tree lice or *aphides* are found, there we are pretty sure to find ants of some variety, for the lice furnish them with food in the form of the so-called honey dew. The process and particulars of this I have not time or space now to explain; it is well understood by naturalists. I say, perhaps, his trees may be affected by lice, and the ants are only an attendant consequence. If so, the remedy suggests itself; remove the lice, and the ants will leave.

Perhaps again, the ants are so plenty in the neighborhood, that their hills are around or in contact with the trees, and the injury is thus caused. A good dose of hot water poured upon or rather into ant hills will rout the colony.

Let your correspondent look into the matter thoroughly, and perhaps after all the ants may be blameless.

From a table of the attendance at each of the annual fairs of the New York State Agricultural Society for the past twenty-four years, it appears that the average attendance for each of the first twelve years was 51,000, and for each of the last twelve years 53,500. The latter term includes, of course, the several years of the late war, during which many societies held no exhibition. The attendance this year was 68,400. And yet never has a horse trotted against another, or against time on the Society's grounds.

PRESERVING FENCE POSTS HOP POLES, GRAPE TRELIS, &c.

WRITTEN FOR THE AMERICAN FARMER, BY D. K. PRINDLE.

MESSRS. EDITORS:—I see many enquiries of late, in different journals, on the above subject; and to serve the public will give my plan and views, hoping that if anything more practical presents itself, that I may hear from others, stating their experience, &c. This question may well agitate the public mind—it is one of great and momentous importance, owing to the usual rapid decay of timber.

Already an almost unlimited demand for all those durable and most valuable kinds of timber which are required for fence posts, grape trellis, hope poles, &c., has arisen; but that question has already been discussed at length; its importance is obvious, therefore my experiments in the growing as well as the preservation of such timber as is required for the above uses.

Many plans have already been tried; but so far nothing has proved successful and practical. The metallic compounds, employed by several European inventors, have all substantially failed. The process of Mr. Bethell, of England, patented about 1838, was employed with greater success, he using oleaginous compounds, obtained, I believe, from coal tar. His process and apparatus was far too expensive, and only partially successful. Neither Ryan, Burnett, Payne, Boucherie, Bethell, or Forman, have succeeded in their experiments in producing a cheap and practical plan as adapted to the wants of the masses; all have about had their day.

Now comes the Robbins' process of preserving timber, and a company of \$1,000,000, (said to be on paper,) formed in the city of New York and New England States, and of the merits of which the public are yet to judge. It may be as well here to describe it, that it may, perhaps, serve the purpose of your enquirers. Louis S. Robbins' process claims the "removing of the surface moisture from the wood, and then charging and saturating the same with hot, oleaginous vapors and compounds, produced from coal tar, by putting it into an iron retort or still, and constructing a suitable iron, (or other sufficient enclosure,) to receive the timber; then heat is applied under the retort, and the vapors, smoke, or compounds, are conveyed by a pipe to the chamber in which the timber is placed." The process simply being to remove the surface moisture, vaporize, or smoke the timber, at a high temperature, with coal tar.

Now, I claim that unless something further is done than what has yet come to my notice, that no process is yet complete, as the action of moisture, the earth, air, &c., will extract all substances from timber so treated, unless a further, second process

of japanning or coating is adopted, which serves to close the pores, exclude the moisture, air, &c., and consequently will cause any and all ingredients of a preserving nature to remain in the timber so long as the outward coating remains intact.

In accordance with the above, I have treated yellow locust posts, (grown by me,) for 100 rods of fence, in the manner described, by first boiling, twenty at a time, in a \$10 boiler, for one or two hours, in coal tar, common tar, or any equivalent of a *preserving nature*. This tries up the sap in the timber, or coagulates the same, and before setting, I use the same boiler with the residuum made into the proper consistency for the last coating, by the addition of *other substances of suitable hardening nature*, (of which I may speak again.)

Thus, in short, I *season, charge, and coat* in combination. The last process, if properly done, I consider the finale or saving clause, and that no substance will remain in timber for any length of time where it comes in contact with the earth, unless so coated. My fence so treated I find costs me only about five cents a post, and the apparatus as above, \$10. I leave my plan for the consideration of an enlightened community, and hoping to hear of any other new experiment from your readers, I submit the above.

MOLES.

A CORRESPONDENT at Gloucester wishes to know through the *Plowman*, the best method of ridding his farm of moles.

What he wishes to exterminate the moles on his place for, we cannot understand. These little animals are entirely insectivorous, and the amount of benefit they do is very great. Probably our Gloucester correspondent has confounded with the moles those little animals called Shrew mice, or field mice. They somewhat resemble in form the short tailed, thick-bodied moles, but are herbivorous in their food, and do great damage to the grain crops through the country. The moles may be distinguished by their very smooth, glossy fur, their long pointed heads, (one species, the star nosed mole, having a fringe at the snout,) and their diminutive, almost invisible eyes.

A good trap for catching all small vermin of the farm is made as follows: Dig in the earth, in the orchards, and gardens, at the beginning of cold weather, short trenches four feet wide at the bottom, and three feet wide at the top, and about four feet deep; the ends inclined at the same angle as the sides. The earth walls of these trenches after becoming frozen, are impassible to mice that have fallen in. We have heard of great numbers being taken in these traps, and altogether they are the most effectual we know.—*Mass. Plowman*.

LOSS BY INSECT DEPREDACTIONS.

The *American Entomologist*, a monthly publication just commenced at St. Louis, asserts that one year with another the United States suffer a loss from the depredations of the insect tribe to the amount of \$300,000,000 annually. This seems an enormous amount; but when we consider the number of enemies which vegetation has in the bug or insect family, and the rapidity with which each saps the life of a plant or the fruit which it produces, the sum, large as it is, will not be deemed an extravagant one. Alluding to these insect depredators, *The Entomologist* says: "Turn them which way they will, the agriculturists and horticulturists of the Northern States are met by plant lice, bark lice, May bugs, rose bugs, weevils, cut worms, caterpillars, palmer worms, canker worms, slug worms, and leaf rollers; and at periodic intervals the army worm march over their fields like a destroying pestilence, while in Kansas, Nebraska, and Minnesota, and the more westerly parts of Missouri and Iowa, the hateful grasshopper, in particular seasons, swoops down with the western breeze in devouring swarms from the Rocky Mountains, and, like its close ally, the locust of Scripture and of modern Europe, devours every green thing from off the face of the earth."

The Southern States though exempt from the ravages of many insects peculiar to the Eastern, Central and Western States, are subjected to great losses from the cotton worm—a scourge which often sweeps off one-third or more of the entire crop.

CARE OF STORE HOGS IN WINTER.

WRITTEN FOR THE AMERICAN FARMER, BY W. H. W., CONN.

THE profit in keeping any young or growing stock is in keeping it growing, and in a thriving condition. And in no kind of stock is it more essential to profit than in store hogs and shotes. The hog is poorly endowed to resist any very severe exposure to the storms and cold of winter, without extreme suffering, as his coat of hair, his outward protection, is poorly calculated to exclude the cold winds, and shed rains and snows.

Other cattle of the farm are protected by a thickly set coat of hair, and at the approach of cold weather their coats thicken, enabling them to resist the severity of the winter's weather more effectually; but still they need care that they cannot receive if left to shift for themselves, and seek their own shelter.

All store hogs, and especially shotes, should have warm, dry, comfortable apartments during winter. They should be light and airy, without being too light and cool, so constructed that the shotes or

hogs can have access to the rays of the sun a portion of the day, and defended in their beds from cold winds and driving storms, and snow. It is better economy to give the swine warm pens, well ventilated, and thus keep up the warmth of the body, than to be obliged to give extra feed to keep up the animal heat, as will be necessary when unprotected by warm quarters. Kept warm, with generous feed, they will keep in a thriving condition, and by spring will be worth double they would be, left to shift for themselves, or in rail pens.

A good plan is to have the pen so constructed that they can have a run on the horse manure during the winter; you thus kill more than one bird at a shot, help keep the swine warm, and increase the value of the manure. Their sleeping apartment should be well protected, to exclude the wind and driving storms of cold, and at all times well supplied with straw or litter for them to bed in. This should be cleaned out occasionally, before becoming filthy, and new litter added. Warmth, cleanliness, and good, wholesome food, are essential to the thriving of hogs and pigs; and their feed, without being hot, should be a little warm, not frozen, as is sometimes the case in winter feeding. Cooked feed is more economical to feed to either store or fattening hogs; the saving in expense of grain and food in cooking, and the extra gain the swine will make, will more than pay the cost of cooking and giving them good warm quarters.

Swine left to run at large, or kept in loose rail pens, subject to cold winds and storms, will present a sorry, rough, staring coat, and appearance; but where kept in comfortable, warm pens, and fed with warm cooked food, will have a smooth, clean coat, a thriving appearance, and be kept growing. It costs much less per pound to make pork from hogs so kept, than it does where kept over in cold pens, exposed to storms, and fed on cold and uncooked food. Potatoes and pumpkins, instead of being fed raw, if boiled, mixed, and a little bran added, will cause shotes to grow fat, and present a thriving look. All grain fed, is much more profitable when cooked, whether ground or unground, than fed raw. Those inexperienced in feeding cooked feed to store or other hogs, will be surprised to find the marked difference there will be in the quantity of feed consumed, and the difference with which the animals will gain in condition.

THE Essex (Mass.) *Banner* asserts that small quantities of sunflower seed mixed with the food of a horse will impart a fine gloss to his hair, while it is also a certain cure for founder, if given immediately after the ailment is discovered. In the latter case, about a pint of seed should be mingled with the oats or chopped feed, when a cure will be effected.

HIGH FARMING.

As a natural consequence of the more extended use of machinery in all branches of agriculture, will follow that more thorough and careful cultivation which I have often urged as the only profitable farming known among us. Whatever farming in New England is to be done at all, must be done well. A ton of hay to the acre, and thirty bushels of corn, and twenty bushels of rye, and fifteen bushels of wheat, and two or three hundred bushels of roots, are not the crops that can be called remunerative here. It cannot be profitable to feed a worthless animal six months in every year out of the store of hay secured at the cost prevailing among us. These facts are not to be lost sight of. And I am confident that I state what is true, when I assert that in these points a constant and steady improvement is going on. The number of well cultivated acres is increasing. In the cultivation of garden vegetables for market, in the production of grass and small fruits, and root crops, we are making constant progress. Farmers who ten years ago thought it impossible to raise a mangel or a Swede, now follow successfully these roots. Where there was one herd of well-bred cattle, there are now many. And I have witnessed with pride and satisfaction the devotion of practical farmers to the improvement of stock, and to the purchase of animals which, a few years ago, were looked upon as the special property of those who turned to farming more as an extensive pleasure than as a profitable occupation.—*Dr. Geo. B. Loring.*

WHEAT.

A CORRESPONDENT of *The Southern Cultivator* gives the following result of an experiment in his wheat sowing:

"I desire to give the readers of *The Cultivator* the benefit of an experiment made by a neighbor of mine with his last wheat crop. He sowed down with the wheat eighty pounds of salt per acre, and gathered a good crop of wheat, clear of rust, while all around him made almost a failure. If salt will prevent rust, every farmer should know and use it. Again, Mr. George Cunningham, an enterprising farmer in this county, in March last, sowed on, as a top dressing, equal portions of salt and plaster, on a portion of a lot in wheat, as an experiment; the effect was perceptible to all. The wheat thus managed was good, while that adjacent to it was very poor. These experiments are satisfactory to my mind, that salt is a preventive of rust. As the cost of salt is trifling, compared to the losses sustained by rust, all should test it for themselves."

PATIENCE is a key which unlocks the human heart.

THE HOG.

THE following *jeu d'esprit* is an extract from a humorously poetical report on swine, delivered by J. C. Milne, Esq., editor of the *Falls River News*, at a cattle show in that vicinity:

We sing the Hog!—not those in common styes,
But that which roamed unpened in Paradise,
And furnished—next to that "best gift," dear Madame,
An extra SPARK XIN for old Father Adam,
But if you doubt, when Eden's garden fair
Bloom'd fresh and lovely, that the Pig was there,
You'll certainly allow (please don't forget),
He went with Noah IN, out of the wet.
Yet there are some who this plain fact dispute,
And out of that old ark would crowd the brute!

Said my friend Dean to me, the other day,
(My friend, the treasurer,) in his TAUNTIM' way,
How can you prove, sir, that in Noah's boat
The hog was gathered with the sheep and goat?
Of that, quoth I, one cannot be mistaken,
For wasn't it TIEN that Noah SAVED HIS BACON?
And did he not, though on the surging brine,
Have his HAM there whene'er he chose to dine?
Dean ceased to BRISTLE—"Howed 'twas even so,
The "critter" figured at that Cattle Show!

Oh, much abused and much despised beast!
Men slight thee most who know thy merits least;
Who would make LEARN of thee, should TRY thee first,
Then with thy praise they'll inter-LARD their verse.
Without thy presence at the festive board,
Tickling the palate of creation's lord,
In bake or fry, or even in a stew,
Pray what could we, or our good housewives do?
Sore grief would seize on many a bosom stout,
If by perchance the hog should once "step out!"
And life become, 'mid all its varying scenes,
Like Sunday morning without PORK AND BEANS!

On beef and mutton Englishmen expand,
But pork's the crowning glory of our land—
Pigs are true patriots—in the Buckeye State
They die to make her Cincinnati great.
Pork to the Jew is every way unclean,
Howe'er prepared, with or without his bean.
Though Paul felt free from Moses here to swerve,
The Jew still deems it binding to observe,
WE go with Paul—as every one supposes—
As for the Jew—why he may go to Moses!

A USEFUL TABLE.

To aid farmers in arriving at accuracy in estimating the amount of land in different fields under cultivation, the following table is given by an agricultural cotemporary:

5 yards wide by 968 yards long	contains 1 acre.
10 yards wide by 484 yards long	contains 1 acre.
20 yards wide by 242 yards long	contains 1 acre.
40 yards wide by 121 yards long	contains 1 acre.
60 yards wide by 80½ yards long	contains 1 acre.
70 yards wide by 69 ½ yards long	contains 1 acre.
220 feet wide by 198 feet long	contains 1 acre.
440 feet wide by 99 feet long	contains 1 acre.
110 feet wide by 899 feet long	contains 1 acre.
60 feet wide by 726 feet long	contains 1 acre.
120 feet wide by 868 feet long	contains 1 acre.
240 feet wide by 181½ feet long	contains 1 acre.

"How is the market, neighbor?" "Very quiet."
"Anything doing in cheese?" "Not a mite."

IRISH MOSS.

Chondrus Crispus--Carrageen Moss.

No doubt many of our readers are using this article with little idea of where or how it is obtained. For their information we copy the following from *The Massachusetts Farmer* :

Quite a business has sprung up within a few years past, in the collection of this article on the eastern coast of Massachusetts, especially at Scituate, in Plymouth County, in the neighborhood of Minot's Ledge. Some 6,000 barrels, it is said, are annually gathered. It was formerly brought to this country from the coast of Ireland; hence its name, Irish moss.

It is collected, during the summer months, from May to September. A rake with flat iron teeth, some half hogshead tubs, baskets, a common hay rake, a suitable boat, and some pieces of canvas, constitute the outfit of a mosser.

He commences operation at low tide, when the moss is left bare on the rocks. At spring tide, when the rocks are uncovered to a greater distance from the shore than at neap or common tide, he finds the best article. This he pulls by hand. It is more free from admixture with tape grass, and other marine plants, and he bleaches this with special care. This is bought by the druggists, and is used for blanchmange.

At common tides he gathers it with his rake. As the tide rises he runs his boat on to the beach. The moss is then transported on hand-barrows to bleaching beds on the higher part of the beach, where it is turned with a hay rake until it is dry. Then it is washed in salt water, and again spread and dried, and this process is repeated several times until it is sufficiently bleached, when it is packed in barrels and headed up, and is ready for market.

The mossers watch the heavens as carefully as do the hay-makers; and when a rain threatens they put it into cocks and cover it with canvass hay caps. The prime article covers but a small part of the crop. This, as we have said, is chiefly taken by the apothecaries.

Its most important use is in the manufacture of cloth, paper, felt hats and straw hats, in which it is used for sizing. The poorer qualities are bought for size. The second quality is sold to the brewers, by whom it is used for "fining" beer. A quantity of the moss is boiled with the beer, and its gelatine unites with the impurities, and produces the required clarification. It is also used, instead of isinglass, fish skin, and white of eggs, for fining coffee.

To be free from desire is *money*; to be free from the rage of perpetually buying something new is a certain revenue; to be content with what we possess constitutes the greatest and most certain of riches.

FORESTS A PROTECTION AGAINST DROUTH.

In an address before the Livingston County (Mich.) Agricultural College, Prof. R. C. Kedzie, of the Michigan Agricultural College, discussed the advantages of forests, a subject now attracting much attention. His remarks as to the influence of forests on drouth are as follows: Some may ask why forests are necessary. Is not any portion left in forest so much unproductive capital? And does not a wise economy demand that these unproductive forests should be cleared up as soon as the owners can command the means, and the whole country made productive? These are important questions, and should receive answers. If trees are of no service in the economy of nature, except to furnish fuel and timber, then any surplus beyond these wants is a useless drawback on the productiveness of any country. "Cut it down; why cumbereth it the ground?"

But there are other reasons why forests should be spared, and one is, their control over extreme fluctuations in the rain fall of any region. The researches in modern science, accurate and careful observation, as well as the history of the past, show that a country abounding in forests is more moist, has a more copious and equable rain fall, abounds more in springs and streams, and as a consequence of all these, is more exempt from great and sudden fluctuations in temperature, from late frosts in spring and early frosts in the fall.

Thus Egypt, from the earliest periods of history, has been spoken of as a rainless region; but since Mahomet Ali has made his immense plantations of trees, showers have become frequent. The controlling influence of forests over rain fall is also shown by the fact, that countries once supplied with forests, and having abundant rains and immunity from frost, their forests having been destroyed, have been scourged by drouth and frost till the forests were restored, when they once more became fruitful; or, if the inhabitants would not restore their protecting forests, the stern hand of famine threatened to wipe out a race that would not reverence the order of nature.

Thus the Cape de Verde Islands, so named from their greenness, have been stripped of their forests by their improvident inhabitants, since which time they suffer terribly from periodical drouths, sometimes no rain falling for three years at a time, and 30,000 inhabitants, or one-third of the population, have perished. Thus famine cuts down the inhabitants as pitilessly as they cut down the protecting trees. It has been proposed to replant the forests, yet little has been done towards restoration, and it is probable that the entire race may be cut off, to be replaced by those who have learned that "tree of the field is man's life."

SPIRIT OF THE AGRICULTURAL PRESS.**City Sewage.**

The London *Lancet*, in a late number, gives an interesting account of the very satisfactory experiments made in the neighborhood of London, on the Lodge farm, to test the fertilizing power of the sewage of the city. A company was formed some time ago to reclaim some of the poor, waste land in the county of Essex by means of the sewage of the metropolis, and it is from the last yearly report of this company that *The Lancet* derives its information. One-fourth of the acreage under cultivation raised rye-grass, for which there is a greater demand than can be met. As a proof of the fattening power of sewage grown grass, it is stated that two young steers fed exclusively on it had from the 18th of May to the 7th of August, gained weight to the following extent:—one, 1 3/4 cwt., and the other 2 cwt. Land of the poorest and most sterile description, with no other manure than sewage, is found to yield prolific crops—not only of grass, but of wheat, rye, mangold, cabbage, turnips, potatoes, &c. By this means six or seven crops of grass are raised in a season, each very heavy. With two dressings or floodings of sewage, a crop of mangold of 50 or 60 tons per acre has been produced where not more than 20 or 25 could be had where farm-yard dung was used for manure. In the same way, without this manure, the crop of wheat was about 28 bushels per acre; with it, something like 44. Could we not also utilize the waste of our cities?

Experiment in Feeding Cows.

In the correspondence of *The Ohio Farmer* occurs the following:—"I have had 25 cows to milk, and found timothy and wild grass the best. To feed in winter, use shorts, ground oats, shorts and corn meal; shorts make more milk than clear meal; oats ground do better than either; but corn meal with shorts makes richer milk, but no more of it. I have fed potatoes largely; they do tolerably well, but milk a day or two old gets strong. Ruta-baga turnips and carrots would not do for me to make butter from the milk; but of all the roots I ever tried, sugar beet is the best. I heard pumpkins were good to make milk and tried them. I had twelve milkers; I divided them; fed six with pumpkins three weeks, and all run on grass alike. Those that had pumpkins gave not a gill more milk than the others, but I believe it was a little richer.

Cabbage for Horses—Castor Oil for Harness.

My two horses were suffering and wasting away until I began to feed them on the waste from early cabbage. I have been sending to the Lynchburg market for two months past. I did not know why it was they were cured until Dr. G., a friend of mine, told me that he had known of the cure for a long time. Why will not all men, doctors not excepted, help their fellow men. Just suppose every farmer who has had an experience of from twenty to thirty years, would give in to *The Planter and Farmer* their experience and general knowledge, (I mean in broken doses.) How it would help all young farmers, who are not too lazy or stingy to take papers. What young farmer knows that castor oil is the best application he can make to his harness,

boots, and shoes, and that it will keep them soft longer than anything yet used, and that rats, calves, nor mules, will never after the application touch his harness, nor will mice eat his boots and shoes. Is it not worth \$1.50 or \$2, to know this one fact at the commencement of life.—*Farmer's Gazette*.

The Saints in Trouble—A Big Story.

Utah is not only plagued with locusts, but with an insect called the "Elephant Beetle." A credible person, who returned from the neighborhood of the Salt Lake recently, saw myriads of them covering the earth with their shining brownish black bodies, and destroying everything which they met in their path. Even small animals, he was informed by the ill-fated residents, did not escape the voracity of these hordes. Their bodies were crowded upon, and worried, and wounded cruelly by the powerful antennæ (???) until they fell down exhausted by their struggles and loss of blood, when they were fastened upon by thousands and devoured. The entire carcass of a sheep was eaten, and the bones picked clean, in 2 1/4 minutes, and it is said that a dead ox would be gobbled up by them in a quarter of an hour. So ferocious are these giant beetles, that mothers are afraid to let their little children go out of the house unattended by a grown person. In their frequent bloody contests, the wounded are devoured on the instant.—*New York Tribune*, Oct. 6, 1868.

Scratches on Horses.

A correspondent of *The Country Gentleman* sends that journal the following recipe, which he pronounces "the best medicine that can be made" for the ailment above-named:

4 oz. ointment of rosin; 1/2 oz. finely ground verdigris; 2 oz. turpentine; 1/2 oz. oil of origanum; 1/2 oz. tincture of iodine; 1 1/2 lb. mutton tallow. Mix all well.

Wash the foot clean with castile soap and soft water, and apply the ointment after the foot becomes dry. Once a day will be sufficient to apply the ointment.

Rats, Mice, and Grain.

A correspondent of *The Germantown Telegraph* says a few sprigs of gum or elder, fresh from the bush, if deposited in and about grain boxes will be an effective protection from rats and mice; also that the stalks and leaves of the common mullein will drive rats from their haunts.

Farming in its New Aspects.

A correspondent of *The Massachusetts Plowman* says: "There is no business the change in which promises so much as that in agriculture. I allude to the change taking place both in theory and practice. Every year finds the successful farmer using more brain and less manual labor. Heretofore this has been simply an occupation. It is to be a profession. The benefits of agricultural colleges will be not only direct but largely indirect. They will show that 'education is power,' as well here as in other ways of life. The old idea is, that any simpleton can be a farmer, but only men of talent can succeed in what is generally called the professions. With this idea boys leave the farm as soon as they are old enough for seemingly better business.

These colleges will show the error of this, and that scientific knowledge is the true element of the farmer's success. His calling is a noble one, and we will soon show that it is one for ability and talent.

Winter Wheat.

A correspondent of *The Country Gentleman* writes to that journal as follows, in regard to the fall sowing of winter wheat in Champlain County, Ill.:—The area sown in winter wheat is largely increased this fall, and, though the season has not been favorable therefor, an unusual amount of stubble plowing has been done. For a wonder, I have seen several fields of winter wheat which have been drilled in. With us the first seeding, on the virgin prairie sod, yields the best crop of wheat. After that the land seems to be too rich, and makes too much straw for the four or five succeeding years of cultivation. Then, when the soil has been discharged of a part of its fertility, we succeed in growing wheat again. If I wished to insure myself a crop of winter wheat, I would choose, first, if I could get it, a piece of high, rolling, raw prairie, inclining to the northwest; my next choice would be timothy sod, with the same exposure; and my third, and last, would be a well worn piece of corn land, so and in the same way exposed and situated. The Germans, forty and fifty miles south of us, are buying up the century old farms along the Okaw and the Embarras Rivers, and are growing wheat on the old corn lands in a way that is as truly gratifying as it is surprising.

Wheat Crop of 1868.

It is estimated that the wheat crop of the present season will afford five bushels for each man, woman, and child in the United States, and forty million bushels for exportation to foreign countries, besides all that will be needed for seed.

Were proper methods of cultivation adopted, the crop might be doubled; and then, while no more would be needed for home consumption or for seed, the amount for export would be worth more than \$200,000,000—more than enough to pay all the current expenses of the government in time of peace.—*Ex.*

Cranberries on Upland.

A correspondent of *The Rural American* says: "My own experience, and that of many others, is proof conclusive that they can be grown successfully and profitably on dry uplands. A clay or loamy soil, that is naturally moist, is the best. Upon such there is no doubt of successful culture. The land should be prepared by plowing and harrowing thoroughly; rake level, and plant in rows $1\frac{1}{2}$ feet apart, and one foot in the rows. Hoe the plants as long as convenient without disturbing them, after which, weeding is all the cultivation necessary. The plants are set in spring until the 15th of May; in the fall, from the 1st of October until the ground freezes. On the pine barren lands of Long Island, they grow to perfection without the usual course of flooding, which so many consider necessary."

Manure for Potatoes.

An exchange says the following receipt for raising potatoes is worth the price of any paper for one year to

any farmer that is short of manure. It is as good as the best superphosphate of lime, and it will not cost half so much. It has been tried two years, and is good on dry land. Take one cask of lime and slack it with water, and then stir in one bushel of fine salt, and then mix in loam or ashes enough, so that it will not become mortar; it will make about five barrels. Put half a pint in a hill at planting. All manures containing potash are particularly suitable for the potato. Ashes contain more than any other natural fertilizer, and should be freely used and carefully saved.

Valuable Table.

An exchange gives the following table:

A box 24 inches by 16 inches square, and 28 inches deep, will contain a barrel.

A box 26 by $15\frac{1}{2}$ inches square, and 8 inches deep, will contain a bushel.

A box 12 inches by $11\frac{1}{4}$ inches square, and 9 inches deep, will contain a half bushel.

A box 8 by 8 inches square, and 8 inches deep, will contain a peck.

A box 8 by 8 inches square, and $4\frac{1}{2}$ inches deep, will contain one gallon.

A box 7 by 8 inches square, and $4\frac{1}{2}$ inches deep, will contain a half gallon.

A box 4 by four inches square, and $4\frac{1}{2}$ inches deep, will contain a quart.

Selecting Cows.

"A Vermonter" gives the following as his rules for selecting a cow:

"First, I get a broadside view of the animal, at the distance of about two rods, as I have noticed for years, that there was a great similarity in the general proportions of all first class milkers, being very small in girth just back of their forward legs, as compared with the girth just forward of their hips. I never knew a first rate milker, of any breed not thus proportioned; so that if this form is wanting in an animal recommended to me, I do not care to look at her more, unless I want a breeder for some other purpose than the dairy. For breeding oxen, I should want a cow of reverse proportions, i. e., larger girth forward.

I next feel the size of the milk veins, and trace them to their entrance into the chest, which, in superior cows are large, admitting the ball of the larger finger; if divided, or subdivided, as is sometimes the case, I judge of the size of each orifice, as I care less of the vein itself, than the orifice. Next, I examine, by sight and touch, the udder or bag, which must be capacious in order to hold much milk, with teats wide apart and free from large seed warts, or sores of any kind; I then inquire how long she goes dry before calving, as I don't want a family cow to give milk less than forty-six weeks out of every fifty-two; also as to the quantity of milk; and to close, I milk her with my own hands."

Potatoes.

A California paper says that potatoes weighing four pounds each, raised in 15 weeks from the day of planting, without irrigation, were offered in the San Diego, California, market.

Horticultural.

PLANTING TREES FOR TIMBER.

WRITTEN FOR THE AMERICAN FARMER, BY WILLIAM WEBSTER.

NUMBER THREE.

In the economy of the world, trees bear a conspicuous part. They are the beauty and delight of nature, and the individual who loves not trees can take no real pleasure in life. If they were fitted for no other purpose than to adorn a landscape, we could not do without them; they are in fact as necessary for beautifying the face of nature, as the flowing beard is to man, or the silken locks to woman. In spring we have all the delicate shades of green and purple in foliage, and in flower every beautiful tint that can be imagined, and as summer progresses, the light shades of green turn to a darker hue, to be again succeeded with the gorgeous colors of autumn, when every hill side and summit becomes ablaze with the crimson and purple foliage of oaks and maples, and the ever-changing tints of numberless other kinds of trees; all the colors of the rainbow are there to gladden our sight and quicken our sense of the beautiful as the soft autumn winds sweep gently o'er the forest kissing lightly the tree tops passing and repassing like, the dissolving views of some great panorama, the light and shade alternating, sometimes appearing as a sea of gold, and then again glowing like the coals of a huge fiery furnace in the great laboratory of nature. Talk of doing without trees, the thing is impossible! Why, man has been planting trees for over 6,000 years, and must continue to do so till the end of the world. It is his mission. He must do it, and God will reward his labors. Solomon planted for pleasure, so did some of the Persian kings—and the philosophers of Greece were not slow to urge the people to plant trees. Are we, then, of the new world to be behind the ancients in this important work? Is it because God has so favored us with a fertile soil and genial climate—where the finest timber, and that of huge proportions once abounded, and in some parts still abounds—that we should sit down quietly and allow it rapidly to disappear without a word of remonstrance—nay, let us be up and doing, and sound the note of warning through the length and breadth of the land.

How long will it be until all the available timber on the line of the great Pacific Railroad becomes exhausted, at the rate the contractors are now using it, think you? I predict that the time is short; it cannot be otherwise. Everywhere as far as civilization extends, the forests are fast disappearing, and to supply this waste new ones must be formed; it is a case of supply and demand, and to keep up the supply trees must be planted. They are a staple that we cannot do without, consequently we must not allow the demand to outrun the supply. There are men, and plenty of them too, in this country who can plan a line of steamships, girt the world with a cable, or link the two great oceans

together with bands of iron. Such are the men to grasp a question like this. Our great prairies must be belted and massed with plantations of trees to keep pace with the march and wants of civilization.

Wherever timber once abounded, but is now destroyed, it is a noticeable fact that the springs have failed, the climate become more rigorous, and the crops diminished. It is not many years since that the Indian summer could be relied upon with some degree of certainty, but now when it does come, it is more the exception than the rule. Restore the trees again to such localities as once knew them, and a change or modification of the climate will soon become perceptible; nor is this all, springs that have now become dry will soon commence to flow again, and continue, with perhaps some slight intermissions, as long as the timber remains.

THE GOLDEN CHAMPION GRAPE.

A visit to Dalkeith, purposely to see this grape, has confirmed a previous impression that it is in every respect first-class. I saw berries of it two years since, and was struck with its wonderful size. I saw it again last year, and looked forward to a proof of its character this season; and the result now to be seen at Dalkeith fully justifies the assertion that it is everybody's grape. It can be grown anywhere, either in a cool vinery or in the early house; is as free and hardy as the Black Hamburg, fully equal to it in flavor, and produces an abundance of superb bunches, the berries being unusually large, and the bunches close and well formed. Compared with Buckland Sweetwater and Golden Hamburg under the same treatment, the Golden Champion is the best; and I venture to predict that very soon the two first named, and others of our common white grapes, must give way before it. Of course, it is not to be compared in point of flavor with our varieties of Muscat of Alexandria and Frontignans; but these require a considerable amount of heat, and cannot well be done without; while the Golden Champion is a hardy, easily done grape, which can be grown readily in any common vinery, and, in my opinion, will be a first-class pot variety also. I am afraid to say all I think about it, lest I should be regarded as an enthusiast; at the same time, I cannot refrain from expressing my firm conviction that this and the Black Hamburg will be the two acknowledged favorite white and black grapes for general use throughout the land. Fine as it is just now at Dalkeith, it will be seen much finer another year. I say this because I believe in this grape just as much as I believed in the Duchess of Buccleuch, another of Mr. Thomson's seedlings, from the beginning; and examples of this, as seen now at Dalkeith and other places I could name, show plainly how hard propagation and other causes should make us cautious of condemning a new grape, until ample time has been allowed for fairly testing it.—*William Dean, in Gardener's Chronicle.*

If a man that tends sheep is a shepherd, is one that tends cows a coward?

LAKE SHORE GRAPE GROWER'S EXHIBITION.

THE Annual Exhibition of the Lake Shore Grape Grower's Association was held at Painesville, O., the last week in October. The attendance was good and the show of grapes large. The entries of grapes were 120, and the number of plates on the tables 400, about half as many as were shown at Canandaigua, at the fair of the New York Grape Grower's Association. A pretty good share of the premiums was awarded to exhibitors from this State.

Ferris & Caywood, of Poughkeepsie, took a first premium on the Walter, and the Vine Valley Association of Ithaca, the first for best six bunches of Isabella, while the fair fame and our oft-expressed opinion of Brocton as a grape-growing region was sustained by Rykman, Day & Co., and others, they taking the first premium for the best six bunches of Delaware, Clinton, Isabella, and best single cane of Isabella; the second on several varieties, and the first premium for the best six varieties of native dry wines; the best two bottles of Catawba two or more years old; best two bottles of Delaware; the best two of Isabella; the best two of Clinton; and the best two of Diana. These wines were from the Lake Shore Wine Company located at Brocton where they have a splendid wine cellar well stocked with the choicest wines ready for market, as we have had occasion to know from personal observation with more than one of our senses.

No premiums were offered for Sparkling or Champagne wines; but samples were presented from the Urbana and Pleasant Valley Wine Companies, of Hammondsport, N. Y., which were very highly praised by a numerous committee of tasters.

The subject of giving names to the Rogers Hybrid grapes in place of the numbers by which they are now designated, was discussed at length, and a committee consisting of E. F. Underhill, A. J. Caywood, E. S. Bartholomew, and John Spalding, was appointed to report.

The following report was submitted:

The patient and persevering experiments of Mr. Rogers in his efforts to obtain new and choice varieties of grapes by hybridizing the native with choice foreign varieties, have been and are regarded by this Association with marked favor; and that success has attended his efforts, (as shown by a number of new varieties which have grown upon and not been forced upon public favor) must be as gratifying to Mr. Rogers as it is to grape growers and consumers.

These varieties have recognized value, and each year of cultivation has shown more and more that confidence in them is not misplaced. The designation of these different varieties by numbers, so long as their merits were undetermined, was expedient; but now that many of them are being extensively cultivated, your committee are of the opinion that each of the varieties possessing known value should have distinctive appellations, and for reasons as follows:

1. In the use of numbers there is always a liability of their becoming interchanged in the memories of persons having a small number of plants, and propagation from these extends the error into vineyards, and hence confusion has resulted and still results in reference to the identity of varieties.

2. Varieties of proven value have a right to names more attractive than their appellations, when being tested in nursery rows or experimental vineyards.

3. By a distinct name, the individuality of a plant becomes fixed in the memory, and there is less liability to confusion.

In view of these reasons, your committee offer for the consideration of the Association the following resolutions:

Resolved, That the Lake Shore Grape Growers' Association join in a request to Mr. E. S. Rogers to designate such of his hybrids which have been disseminated for cultivation, a name to supersede the present numbers by which they are known.

Resolved, That a committee of three be appointed by the President to communicate with Mr. Rogers on the subject of the preceding resolutions, and to report the results of their interviews or correspondence to this Association, with such recommendations as they, in their judgment may deem most expedient.

Resolved, That other horticultural societies be requested to take similar action to that recommended by this committee, and that they be requested to report the results of their action to this Association on or before the day of its annual meeting, the third Wednesday of February next.

The foregoing report and resolutions were adopted, and the President appointed E. F. Underhill, J. P. Kirtland, and M. B. Bateham, as a committee to confer with Mr. Rogers.

PROPAGATING GRAPE CUTTINGS.

I make cuttings in the fall of perfectly ripened wood. Bury them six inches deep in any dry ground. In the spring after the frost is out, spade a trench, or trenches two feet wide, and six inches deep; cover the bottom with any cheap or refuse boards. Set up at each side a six inch board, and spread on the bottom some old hay or straw, half or two-thirds rotten, about one inch thick when packed, and make it very wet.

Fill the box with rich earth. Now with the hand, open across one end a V shaped trench down to the old straw. Press the cuttings against the side of this trench, about two inches apart, with the upper bud at the surface of the ground. With the hand take the dirt from the front side of this little trench and press it against the cuttings, leaving a similar trench which fill with cuttings and continue until the bed is filled. Then mulch with loose hay or straw two or three inches deep, and with a spout or rose sprinkler make the bed pretty moist.

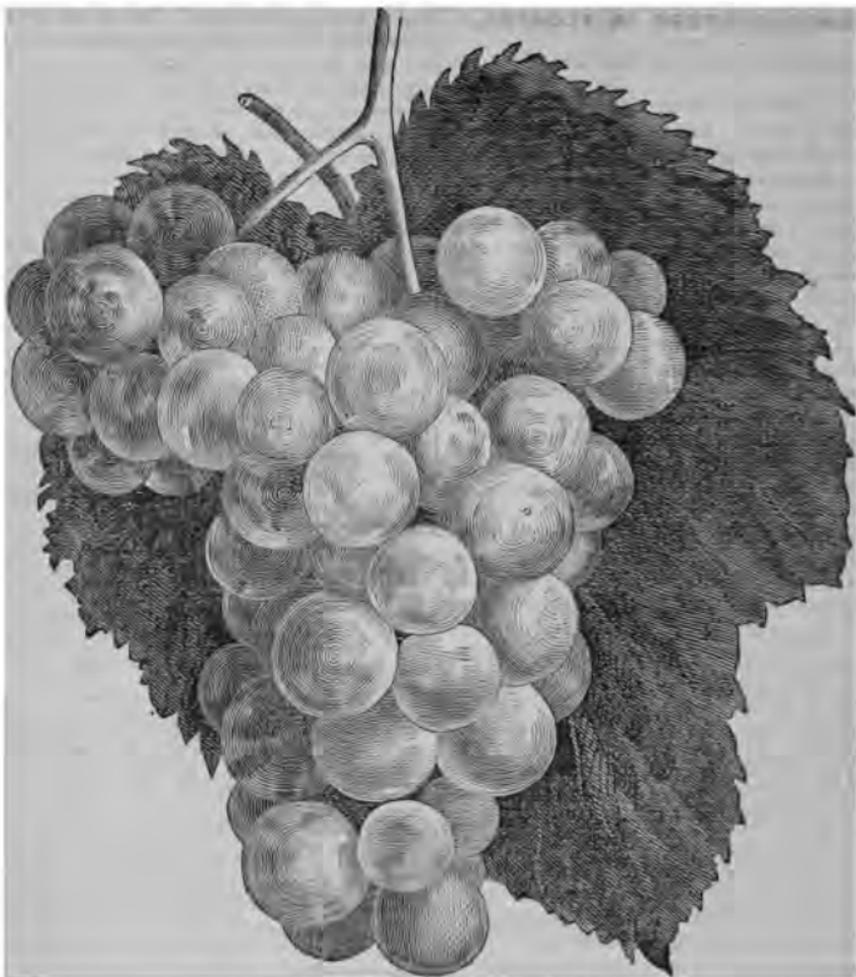
Now the theory is this: the rotten straw in the bottom retains moisture. The boards prevent the surrounding earth from absorbing that moisture; the mulching prevents the moisture from evaporating, and therefore the cuttings remain moist.

My experience is this—95 per cent of all my grape cuttings treated as above have grown.

There is another item or two in this process worthy of notice; when the plants are to be lifted for the vinery or for sale, first lift out the side boards, then with a shovel or fork, the plants are taken out with roots entire and uninjured, and also that they may be easily watered, and to some purpose in the dry time.—

Exchange.

SEEDS, especially of the stone-fruits, must not be allowed to get too dry. They are best preserved in sand or sandy earth, just perceptibly moist, which should be mixed in sufficient quantity to preclude drying or heating. A box in a cool and dry cellar or shed will answer as well as to follow the European plan of burying or stratifying.



THE MARTHA GRAPE.

This new white gaspe is probably destined to have great popularity on account of its hardiness and health of vine; its vigor of growth and productiveness, as well as of the beauty and fine quality of its fruit. It is a seedling from the Concord, and seems in various localities where it has been tested for the past eight or ten years, to be fully as hardy and healthy as its parent, and to have given great satisfaction to all who have grown and fruited it. The above illustration gives a fair representation of a cluster grown upon a vine in its second year of bearing, but as the vines acquire age and strength, the size of bunch and berry constantly improves, and will doubtless be much larger. The fruit, though decidedly of the Concord type and character, is much more delicate. In bunch, medium, compact, usually shouldered. Color, pale greenish yellow, with amber tint next the sun. Berry, medium to large, from half to three-fourths of an inch in diameter; skin thin, but tenacious; pulp, slight and tender; seeds few and very small; flavor very sweet, with a little

sprightly vinous acid; delicate, and suggestive of the Concord, but with no coarseness next the skin or seeds. Ripens a week or ten days earlier than Concord. It has shown no indication of rot or mildew; and does not crack in rainy weather. Probably the most thoroughly reliable white or light colored variety yet introduced for general cultivation.

KELLY'S ISLAND.—A communication in a late number of the Sandusky *Register* states that the crop on Kelly's Island is much short of what was expected during the growing season. Some of the vineyards will barely pay the expense of picking, leaving no remuneration for the land and cost of cultivation. The killing frost of the 17th of October is mainly chargeable with the diminished yield.

THE experiment has been tried in the West of heating hill-sides by the use of tile flues laid in the soil, as for draining, and heated with fire heat.

ORANGE CULTURE IN FLORIDA.

BY D. H. JACQUES, GLEN EVERGREEN, NEAR JACKSONVILLE, FLA.

THE WILD ORANGE GROVES.

Millions of acres of the best land in Florida are covered with groves of the wild orange. How these groves originated is a mooted question. Some suppose that the tree is indigenous on the peninsula; but as no mention is made of it by the narrators of the early Spanish exploring expeditions, and as it is a matter of history that the orange was introduced by the first colonists nearly 300 years ago, it seems probable that it is of foreign origin, especially as the fruit is known to deteriorate very rapidly and to return readily to its natural wildness, seedlings of the best varieties generally proving worthless. Be their origin what it may, the present existence of these groves has an important bearing upon the prosperity of the State, as we shall see.

The wild orange of Florida is of two kinds—the sour and the bitter sweet. Neither of them is palatable. The tree is very beautiful—far more beautiful than the cultivated varieties—and exceedingly productive. A grove loaded with its golden fruit is a sight one may afford to travel hundreds of miles to see.

ORANGE CULTURE AT ST. AUGUSTINE.

The sweet orange has been cultivated in Florida almost from the first settlement of the country by the Spaniards, in the Sixteenth Century, but has not till lately become a prominent interest. The earliest groves were at St. Augustine—our "Ancient City"—and constituted for a long time almost the only source of income possessed by the inhabitants. In February, 1835, the "great frost," as it is called, killed every tree to the roots; and not only every orange-tree but every fruit tree of all kinds in East Florida north of the twenty-ninth parallel of latitude.

Groves subsequently planted at St. Augustine and elsewhere were attacked by the scale insect (*Coccus Hesperidum*), and most of them rendered worthless.

REVIVAL OF ORANGE CULTURE.

Within the last ten years there has been a revival of the interest in orange culture. The scale insect seemed to have ceased its ravages. The groves planted since 1858 have, where any tolerable degree of attention in the way of cultivation has been given them, flourished finely. In fact, some of them are now bearing heavily under almost total neglect.

It is not true, as some have asserted, that the scale insect has disappeared. It is still present in many if not in all groves, but it seems no longer to be capable of its former destructiveness. At any rate, trees planted in suitable soil and properly cultivated do not now suffer in any appreciable degree from its presence, and some of the old groves formerly ravaged by it and rendered unproductive, are now again in bearing.

SOME BEARING GROVES.

Groves of any considerable extent, old enough to be in full bearing, are far from numerous. Three or four on the Gulf coast, and as many in East Florida, are all

that I have any account of. That of Mr. Dummet, about thirty miles south of New Smyrna, is said to be the most flourishing and valuable one in the State. The largest one on the Gulf coast is at Fort Myers, and consists of between four and five hundred orange, lemon, and lime trees. It might be made very valuable, but is now in a neglected condition. At Sarasota Bay, a Dr. Snell has a grove consisting of three hundred orange and upward of a hundred fine lemon trees. A gentleman who visited it last winter says that the lemon trees were bent to the ground with their immense loads of fruit, and that the orange trees, though not so productive, had a good crop. *These trees have had no care for the last five years*, and my informant pronounces the grove "a standing monument of the occupant's laziness and stupidity." Dr. Snell does not reside on the place.

NEWLY PLANTED GROVES.

The young groves, planted since the war, are numerous, and some of them extensive. They are generally receiving some cultivation, and where they were properly planted, are flourishing finely. In many cases, however, the planters have manifested the most utter ignorance of the first principles of horticulture, and if they succeed in producing good crops, the result will not be due to any skill in the cultivators, but to the astonishing vitality and recuperative energy of the noble tree they are so shamefully abusing.

PROPAGATION AND CULTURE.

The cultivation of the orange is as simple and easy a thing as the cultivation of the peach, and both thrive in Florida with very slight attention, but would richly repay more care than they are now receiving.

The orange will succeed on any soil in Florida, but on the poorest some manure is required. Good high hammock land, however, is best for it. Such land requires no preparation previous to planting, except clearing and digging the holes. The plowing may be done afterward, and any low-growing crop planted between the rows.

Several methods of establishing orange groves or orchards have been practiced. Some have procured young trees of the variety desired from a nursery. This is a very satisfactory way where but few trees are wanted, and the planter can afford to pay a very high price for them; but orange nurseries are scarce, and the trees far too high priced for extensive planting. Others have commenced by sowing the seeds of the wild fruit and budding the stocks thus procured with the sweet orange, becoming in this way their own nurserymen. This is a judicious course, as the nursing and budding of the wild stocks are very simple and easy operations; I am told that in some cases the seeds of the sweet orange have been sowed, and the trees thus procured transplanted without budding. Such trees will no doubt one of these days astonish as well as disappoint their owners by producing a crop of worthless fruit. The course now most commonly pursued in establishing an orange grove is to procure from some neighboring hammock, where they abound, a sufficient number of wild orange trees of suitable

size and transplant them into the ground prepared for the new orchard. These wild stocks may be from two to three inches in diameter. They should be carefully dug up (preserving as many roots uninjured as possible), cut off to within two or three feet of the collar, and then planted in large but shallow holes previously prepared. Twenty feet apart each way, giving 108 trees to the acre, is about the right distance, though some are planting much closer. The wild stocks thus planted will soon put out shoots in abundance, all but two or three of which should be kept carefully rubbed off. Those left may be budded as soon as of sufficient size (which will be within three months) with the variety chosen for cultivation. Some of these budded trees will bear in eighteen months from the time of budding, and all, if properly cared for in the mean time, will be in bearing the third year. The transplanting of the wild stocks may be performed at any time, but the winter is generally chosen for the operation. Some, however, prefer August to any other month, and a gentleman who has had considerable experience informs me that he has transplanted orange trees in that month when loaded with fruit, and that they have matured their crop in their new location and produced another the next year, as if nothing had happened to them.

But the plan by means of which a bearing grove of the sweet orange can be secured in the shortest possible time, is to purchase land with a good wild grove upon it, and selecting suitable trees at the right distance apart, dig up and remove all the others and graft those left where they stand. These trees will commence bearing the next year, and will soon be capable of producing a heavy crop of fruit.

VARIETIES.

The variety most extensively planted in Florida, I think, is the China, believed to have been introduced into Europe and thence into Florida from the country from which it takes its name. It has a thin smooth rind, and is very juicy. The St. Michael is a sub-variety of the China.

The Portugal or Lisbon orange is nearly round, and has a thick rind.

The Maltese or Blood orange is remarkable for the red color of its pulp. I have seen but few of this variety in Florida.

The Tangarine is a small flat fruit about half the size of the common orange, with a pleasant odor and a very fine flavor.

The Mandarin orange, recently introduced from China, has a fruit much broader than long, a thick rind loosely attached to the flesh, and much smaller leaves than the other sorts. It is classed by some as a distinct species (*Citrus nobilis*). It is one of the best kinds.

FACTS AND FIGURES.

The cost of planting an orange orchard must vary greatly in different localities, depending partly upon the original condition of the land, and partly upon the expense of getting the trees from the wild grove. Formerly the wild trees were considered as free to everybody, and people wishing a few to plant dug

wherever they pleased; but now they are beginning to have a market value. It is not in all cases convenient or possible for a person to buy land with wild groves on it. A certain sum, then, must be allowed for stocks.

One gentleman with whom I am acquainted, and who has already planted several acres, estimates the cost in his case as only \$25 per acre. He does not, however, include the cost of clearing the land. I estimate as follows for ten acres of fresh hammock land with its natural forest growth upon it:

Cost of ten acres at \$10 per acre.....	\$100
Clearing and preparing.....	250
Inclosing with rail fence.....	200
1,000 trees at 25 cents each.....	250
Planting and budding.....	100
Incidental.....	100
	\$1,000

The use of the ground for other crops will fully pay for all the cultivation the grove will require for the first three years, after which there will be an income from the grove itself.

With regard to the productiveness of the orange tree, it is impossible at present to arrive at any very satisfactory conclusion. This is partly because there has been no systematic mode of culture pursued, and the real production has varied greatly in different groves; but mainly because people in Florida never weigh, measure, or count anything, and really have no idea how many oranges one of their trees produces. Some of the old trees at St. Augustine are said to have produced annually at least 8,000 oranges each. Mr. C. F. Reed, of Mandarin, on the St. Johns River, gathered 12,000 from three trees last year, one tree bearing 3,200, another 3,300, and the third 5,500. I have been told that thrifty trees sometimes bear as many as 1,000 oranges the third year from the bud, but such productiveness I think must be rare. The conclusion I have arrived at from personal observation, is that a well-planted and properly cultivated grove at ten years of age will average 2,000 oranges per tree. Taking one-half of this, however, as a basis of calculation, ten acres will produce 1,000,000, which, at \$25 per thousand, the lowest price of the last season in Jacksonville, amounts to \$25,000. The crop of the present season has in some cases been bargained for in advance for \$25 per thousand at the grove.

Florida oranges are the best in the world, and will always command the highest price in all markets. Some of the best were sold in Jacksonville during the last winter as high as \$50 per thousand.

It should be observed here, that north of the 28th parallel of latitude, crops are occasionally cut off by frost; but a total failure from this or any other cause is rare.—*Horticulturist*.

THE ORIGINAL SCUPPERNONG.—J. Van Buren writes to *The Southern Cultivator* that "the original vine of the Scuppernong grape is growing on Roanoke Island, and was first discovered by the colony landing with Sir Walter Raleigh in 1654 or 1655, and is probably the oldest vine known at the present day."

The Ives as a wine grape, is becoming quite popular in the Lake Erie grape-growing districts.

HYBRIDIZING FRUITS.

WRITTEN FOR THE AMERICAN FARMER BY JACOB MOORE.

How are fruits hybridized? By substituting the pollen of one variety for that of another. If the reader does not know the meaning of the word pollen, it will be well to ascertain by examining some botanical work. This can be done during some leisure hour, and will inform one on a subject not generally understood. In order to learn how to hybridize, it is necessary to become acquainted with the different parts and structure of flowers; but it is a very simple operation when once understood. If the reader has an inclination to hybridize fruits, let it be understood before engaging in the work, that it is simply performing the office of a *charitable institution*. It is now proved to be a very unremunerative task, owing to the want of protection by the Government. As one has well said: "the inventor of a new pop-gun or humming-top" is protected by the Government, and consequently has an opportunity for remuneration; but not so with the originator of an improved fruit, which may have cost half a life-time of patient effort to produce, and may be of the greatest benefit to the country.

But let us hope that a better day is coming. The question of protection is being discussed, and if originators of fruits and horticulturists generally will join in making an appeal to Congress for protection, it is probable that it will be granted. The production of improved fruits by hybridizing the best species and varieties, is the highest branch of horticulture, and should receive the best instead of the worst pay. It also partakes of the character of many inventions which receive patents, (being a kind of creation, like them,) and is therefore entitled to protection.

HORTICULTURE—EDUCATION.

WATCHING, as we do eagerly, every project for advancing horticulture in all its departments, we look especially to an improved *education for young gardeners* as one of the most powerful means of furthering the cause. Our profession is not a series of dead rules or authoritative laws, to be once mastered, and then known or forgotten for evermore. Neither is it, or ought it to be, an erratic series of progressions and restings, alternating with each other—now marching onward under the banner of a Knight, a Loudon, or a Lindley, and anon standing still because no such leader appears. No; such is not the road to the highest perfection. Every individual worker in the wide field of horticulture should feel that his path must be one of progress from good to better, from better to best. Because others have labored, can be no excuse for us resting upon their labors, but is a legitimate reason why we should enter into their labors, and carry them forward to a higher level. The highest attainments of all who have gone before us should be our starting-point on the highway of endless progression. Each worker as he delegates his work to others should give the parting admonition—"Not as though I had already attained, or were already perfect," but you follow after,

if it be that you apprehend that perfection in art and practice that I have failed to reach. To forget, so far as to rest in them, the things which are behind, and to reach forward to those that are before, must be our watchword. Always learning and never coming to the full knowledge of the truth, must express the state of our intellect and the purpose of our lives, if the garland of success is to enwreath our brows, and the grace of humility to adorn our characters.

Between the fathomless mysteries of plant-life on the one hand, the immeasurable capacities of intellectual life on the other, and the difficulties inseparable to the control of human life in its relation to both, there is work enough to tax the strongest intellect and to try the soundest heart. But it is only by rising to the dignity and grandeur of our work that it can be properly done. While, therefore, fostering and developing to the utmost the marvelous capabilities of vegetable life, let us also carefully cultivate the intellectual life within and around us. Only thus can the progress of gardening become real, constant, cumulative. Now, it is by far too much a thing of fits and starts. One great man acquires eminence, and it is years before the rank and file reach his high standard. They first oppose, then ridicule, then examine, then adopt, and finally rest at his point of progress. How all this happens, and how even eminence itself becomes a drag on the chariot wheels of progress, is most eloquently pointed out by a modern author in the following pregnant words:

"It is true that an original man is persecuted in his lifetime and idolized after his death; but it is a less familiar truth that the posthumous idolaters are the legitimate successors and representatives of the cotemporary persecutors. The glory of the original man is this, that he does not take his virtues and his views of things at second-hand, but draws wisdom fresh from Nature, and from the inspiration within him. To the majority in every age—that is, to the superficial and the feeble—such originality is alarming, perplexing, and fatiguing. They unite to crush the innovator; but it may be that by his own energy, and by the assistance of his followers, he is too strong for them. Gradually, about the close of his career, or, it may be, after it, they are compelled to withdraw their opposition, and to imitate the man whom they had denounced. They are compelled to do that which is most frightful to them—to abandon their routine. And then there occurs to them a thought which brings inexpressible relief. Out of the example of the original man they can make a new routine; they may imitate him in everything except his originality, for one routine is as easy to pace as another. What they dread is the necessity of originating, the fatigue of being really alive, and thus the second half of the original man's destiny is really worse than the first, and his failure is written more legibly in the blind veneration of succeeding ages than in the blind hostility of his own. He broke the chains by which men were bound; he threw open to them the doors leading into the boundless freedom of Nature and of truth. But in the next generation he is idolized, and Nature and truth as

much forgotten as ever. If he could return to earth he would find that the crowbars and files with which he had made his way out of the prison house have been forged into the bolts and chains of a new prison, called by his own name. And who are those who idolize his memory? Who are found building his sepulcher? Precisely the same party who resisted his reform; those who are born for routine, and can accommodate themselves to everything but freedom; those who in clinging to the wisdom of the past suppose they love wisdom, but in fact love only the past; and love the past only because they hate the living present; those, in a word, and slightly to change the language of the eloquent author, who set up the inertia of the dead past in opposition to the life and power of the actual present."

It would seem impertinent to attempt to add to the forcibleness of these words. They are applicable to men in all ranks of life, but especially so to gardeners, who have too often attempted to bind the vigorous freedom of vegetable and intellectual life by the narrow ties of red tape, and the green withes of a sunless routine.—*Gardener's Chronicle.*

NEW DWARF ARBOR VITÆ.

Mr. A. G. Burgess, of East New York, recently favored us with the sight of a specimen of his new Dwarf Arbor Vitæ, which he has named Commodore Nutt. It is very dwarf, growing only four to six inches, and is very bushy, branching out close to and even below the ground, rooting at the base of the stems like box. It is perfectly hardy, and so dwarf and compact, that it will undoubtedly become one of the most valuable plants for edging, taking the place of box, which is always more or less injured in our climate. We have no doubt it will prove to be a plant greatly wanted. It has only the long linear leaves of the Dwarf Arbor Vitæ, more like the *Retinospora*, which gives it the appearance of some species of heath.—*Hovey's Mag. of Hort.*

METHOD OF TIMBER-CULTURE.

BY D. C. SCOFFIELD.

EVERY man knows, or ought to know, how to plant trees; yet not every one has learned the science of forest culture. Too little is written on this subject in this country, and less is known. It is a wise saying, that necessity is the mother of invention. We have now come to that extremity. Our forests are decimated. Our country is brought already to look want squarely in the face. Already it is the playground of the hurricane and long-scorching drouths. Already we transport lumber for building and mechanical purposes, hundreds of miles, and often more than a thousand, when, with a prudent foresight and active economy, we might possess an abundant supply in our home-towns and on our own farms. On every farm of a hundred acres, at least ten acres should be devoted to a forest plantation. This ground should be in good condition for a crop of corn. Better plant when the

decaying sod which has not been exhausted by any crop will fertilize and favor the growth of the newly transplanted trees.

Size of Trees.—They should be at least two to four feet in height, grown in nursery before planting in forest form.

First, transplanted seedlings which have grown one or two years in a seed-bed, and then set about a foot apart in nursery, with good culture, in two years will be in good order for a successful forest plantation. These can be obtained in some American nurseries at fair prices. Better for him who intends planting a forest to procure his plants one or two years old, and set them in his own ground, as above, where it will be convenient to remove them without exposure to the ground to be planted. This should be reduced to a fine tilth with deep culture, and marked with a plow three feet apart each way, the last furrow cut quite deep. The furrows should cross each other as nearly as possible at right angles. In the spring, April or May, when the soil is dry, and in good condition to work, proceed to remove the young trees with care, securing the roots from the rays of the sun or drying winds to preserve the moisture on the surface; and carefully set with the roots in a natural position, packing the earth firmly with the hand around them. The first season, and till the roots have become firmly fixed, great care must be taken that the young tree be not disturbed by the cultivator, either by a whiffletree crowding the tops, or the teeth loosening the ground around the roots, either of which would endanger the life of the tree. Two or three years of good culture will be all that is needed; and then the plantation will take care of itself. The close planting will promote the upward growth of the young trees, which, in six or eight years, should be thinned by removing every alternate row; the second thinning to be performed about the eleventh to the thirteenth year, when the trees will be left six feet apart; again about the twentieth year, and then the thirtieth, when the trees will stand twelve feet apart, or three hundred trees per acre.

If a pine forest be planted, they should be set twelve feet apart in rows, at right angles, and two rows of the larch or other trees planted between each two rows, and the plantation stand three feet apart as in the former case. The pine tree is valueless for timber until it has arrived to a considerable age; while other timber, particularly the European larch, is valuable at all stages of its growth; as it is almost imperishable. Whatever the kind of timber be that is set between the pines, it should be removed from time to time as the well-being of the pine seems to demand.

The facilities for the production of forest-tree plants in European nurseries, especially the larch and evergreen, enable them to furnish us with the seedlings of the latter at far less cost than they have hitherto been produced in this country. The European larch may be planted and successfully grown on our rocky hills and poorest soils. Very many waste lands of New England and other parts of our country might yield millions of dollars' worth of timber, and at the same time be rendered beautiful by being covered with trees.—*Am. Journal of Horticulture.*

A NEW POTATO.

WRITTEN FOR THE AMERICAN FARMER, BY JAS. G. HUNT, UTICA, N. Y.

EDITORS AMERICAN FARMER:—Allow me to publish through THE AMERICAN FARMER, and give the description and peculiarities of a model potato raised in this county, Oneida.

This being my first attempt with this seed, I named it the "Grecian Bend," and it has proved to be a success. I think I have a potato that cannot be excelled as to flavor, size, and yield.

As to the soil, it does not make much if any difference, if the soil is not too dry nor too wet. I planted rather late, about the 10th of June, and found equally as good success. The eyes in this potato are small, and do not go in deep, so that in paring it is not necessary to waste a great portion of the potato in order to remove the eye for cooking.

The average yield is 175 bushels to the acre; and the beauty of all is, that not one rotten potato can be found among this number, and this year is a great one for rot in this section, as you are, no doubt, well aware.

I adopted the mode of Mr. Jacoby Brown, of Novgorod, Russia, who has been experimenting for the last ten years on this one point, viz: cutting each potato into four pieces, leaving one or two eyes on each piece, planting the seed so that the cut part faces the surface; by so doing the sprout shoots down, and then turns up, making double the amount of vines. Before doing this, I followed the advice of Mr. Donzy Dagwell, of Balisme, France. I break off all the sprouts so that new ones will come out. I found this to be a perfect success. Mr. Brown argues that planting small potatoes is poor policy. He says that in planting, a person would not think of using poor seed.

We never see poor seed planted, (unless it is a potato,) with the expectation of raising a fair crop. We will take corn for instance. A farmer picks out his fairest and nicest corn, and hangs it up to dry, and boasts what fine seed corn he has; and you may say the same in regard to all other kinds of seed. Now, these few points would prove of great value to many of your readers if they would only try the experiment. I can assure you that they will feel well paid. People will say it takes more time. Of course it will; but what of that? *It takes more time to do anything well.*

NEW VIRGINIA CREEPER, *Ampelopsis Vetchii*.

THIS is a miniature foliage variety of our Virginia creeper, which clings to any building with the tenacity of the strongest ivy, and producing in great profusion its dense foliage of a glossy green, shaded with purple, cannot fail to command great attention. It is of exceedingly rapid growth, requires no nailing, and from earliest spring it produces its beautiful purple tinted leaves so thickly as to form the most perfect coating wherever it is planted, the young shoots being quite purple. The leaves are sometimes divided into three parts, and are sometimes entire, turning red in autumn, similar to the old kind. It was introduced by Messrs. Vetch, and long received first class certificates and prizes at the great shows in London.—*Hovey's Mag.*

RECIPES.

WRITTEN FOR THE AMERICAN FARMER, BY W. D. D., SPENCER, O.

Cure for Foot Rot in Sheep.—Pare all of the hoof off that is affected, (be particular in this,) then apply a wash made of nitric acid, one ounce, and an old fashioned penny dissolved in it. One or two applications will surely affect a cure.

Sure Cure for Fouls in Cattle.—When all other remedies have failed, I have seen this troublesome disease cured immediately by the application of coal oil, the same as we burn in our lamps—refined oil. One application is usually sufficient.

Cheap Manner of Keeping Ice.—Is to cut the ice up in large blocks, as you can handle them easily; then remove them to the most convenient place for storing away for summer. Place a quantity of sawdust upon the ground of about one foot in thickness, then cord your ice upon this as compactly as possible. When you have a sufficient quantity corded, make a pen nailed up on the sides with boards (most any lumber or slabs will do), about two or three feet higher than the ice, leaving a space on the inside of about three or more feet between the ice and sides of the pen; fill this with sawdust, and pack it as closely as possible by treading it down as you fill it in; cover the ice to the depth of three feet. This, if well built, will keep the ice all through the hot summer months. It is easily built, and costs simply nothing out, except a small pittance for lumber, and but little work. This has been tried in this vicinity, and is perfectly reliable.

PLOWING ORCHARDS.

THE following experiment communicated to us by Mr. H. Dayton, of Alden, Erie County, N. Y., is better than a column of theorizing. His orchard of $2\frac{1}{2}$ acres which had produced very little fruit for a number of years, and most of that wormy, was carefully plowed less than two inches deep late last fall, and harrowed and cultivated two or three times in the early part of the present season. The result is, he has picked this fall over 450 barrels of fine smooth apples, bringing in about \$1,600. The soil was a sandy gravel, and had been in grass about ten years.

LABELS FOR TREES.—At a recent meeting of the Institute of Technology, held in Boston, Hon. M. P. Wilder made a statement relative to a new method of labelling trees, accidentally discovered by him. In the use of zinc labels, which were the most durable in character, an indelible ink was used; but not having the ink at hand on one occasion, he wrote upon the zinc with a lead pencil. This writing, although it could not be rubbed off when first made, grew more distinct and durable with age, and, after several years, could not be erased except by scraping.

THE Honey Locust is growing in favor as a hardy hedge plant. It is of handsome foliage, a free and dense grower, and a perfect protection against cattle.

Ladies' Department.

DOMESTIC RECIPES.

Preservation of Meat.—A new process for preserving meat has recently been patented in England. It is claimed that meat may be kept perfectly safe in any temperature after having been prepared by soaking it in a solution of the following ingredients:—One pint of common salt dissolved in four gallons of clear, cold water, and half a gallon of the bisulphide of calcium solution. It is said that experiments show that meats so prepared will keep for twelve days in a temperature of from 80 to 110 degrees, and preserve their odor and flavor. By repeating the process, meats may be indefinitely preserved. A little solution of gelatine, or white of an egg, may be added to the mixture if it is desired to keep the meats an unusually long time.

Cheese Cake.—Bruise a half pound of cheese with one-eighth of a pound of butter; add four eggs and milk enough to render it the consistency of thick gruel; sweeten to taste; add one-half a lemon, and spice to your liking. Bake with bottom crust.

Boned Turkey.—This is a favorite dish at evening parties and may be thus prepared. Boil a turkey in as little water as may be, until the bones can be easily separated from the meat. Remove all the skin; slice, mixing together the light and dark parts. Season with salt and pepper. Take the liquid in which the turkey was boiled, having kept it warm, pour it on the meat, mix it well. Shape it like a loaf of bread, wrap it in cloth, and press with a heavy weight for a few hours. When served up, it is cut in thin slices. Chickens can be prepared in the same way.

Make Your Own Candles.—Take 2 lbs. alum for every 10 lbs. of tallow, dissolve it in water before the tallow is put in, and then melt the tallow in the alum water, with frequent stirring. This will clarify and harden the tallow so as to make a most beautiful article either for summer or winter use, almost as good as sperm.

Nails in the Foot.—To relieve from the terrible effects of running a nail in the foot of man or horse, take peach leaves, bruise them, apply to the wound, confine with bandage, and the cure is as if magic. Renew the application twice a day, if necessary, but one application usually does the work. Both man and horse have, in a few hours, when apparently on the point of having the lock-jaw, been cured.

Simple and Perfect Cure for a Burn.—Take essence of peppermint and whisky, in proportions of one part peppermint and three of spirits, and apply with cloths, and it gives perfect relief instantly. Peppermint and sweet oil is equally good, put on with cotton. This should be always at hand, whenever there is danger from such accidents, as it acts like a perfect charm, and will not fail to relieve.

Family Glue.—I make my glue in the following way: Crack up the glue and put into a bottle; add to it common whisky; shake up, cork tight, and in three or four days it can be used. It requires no heating; will keep for almost any length of time, and is at all times

ready to use, except in the coldest of weather, when it will require warming. It must be kept tight so that the whisky will not evaporate. The usual corks or stoppers should not be used. It will become clogged. A tin stopper, covering the bottle, but fitting as closely as possible, must be used.—*Germantown Tel.*

To Make Ink.—To make red ink, take best carmine 2 grains, rain water $\frac{1}{2}$ oz., water of ammonia 20 drops and a little gum arabic.

For blue ink take soft Prussian blue and oxalic acid equal parts, powder finely, add soft water enough to bring to thin paste, let it stand a few days, then reduce to desired shade by adding water in which a little gum arabic has been dissolved. The common box or prepared bluing, put in water makes a very good writing fluid.

For green ink, pound French berries and steep until a good strong yellow is made, then put in enough of the prepared blue to get the desired shade of green. A little alum in a saffron decoction makes a fine yellow, which may be turned green by use of prepared indigo.

The inner bark of black oak steeped until a strong decoction of yellow is obtained, makes a beautiful green by addition of blue.—*Ohio Farmer.*

To Clean Beds and Mattresses.—When feather beds become solid or heavy, they may be made clean and light thus:—Rub them over with a stiff brush, dipped in hot soap suds. When clean, lay them on a shed or any other clean place, where the rain will fall on them. When thoroughly soaked, let them dry in a hot sun for six or seven days, shaking them up well, and turning them over each day. They should be covered over with a thick cloth every night. This way of washing the bed ticking and feathers makes them very fresh and light, and is much easier than the old fashioned way of emptying the beds and washing the feathers separately, while it answers quite as well. Care must be taken to dry the bed perfectly before sleeping on it.

Coloring Furs.—To color furs black or brown, take 10 grains gallic acid, 10 of tincture of iron, and 1 oz. of acetic acid. Dissolve the gallic acid in the tincture of iron, and add the acetic acid, and apply with a fine comb. If black is desired, the furs must be moist—not wet; but if brown, the fur must be dry.—*Western Rural.*

LADIES, MAKE YOUR OWN PERFUME.

It is generally supposed that all the essences of flowers are produced by distillation. This is far from being the case; some of them would be seriously injured by such a process, and are caught and fixed, as it were, by what may be termed a fat-trap.

In the flower season at Cannes, plates of glass are thinly covered with clarified inodorous fat; upon or under this fat the flowers are placed, and the power this substance has to absorb and retain perfumes is astonishing. On these sheets of glass the most delicate odors are thus fixed almost as accurately as on the collodion-prepared plates the most delicate pictures are retained. In this way the jessamine, the violet, the tube-rose, and orange perfumes travel across France, and arrive here as pure as the day they were

given forth from the flowers themselves. The emancipation of the odor from its imprisonment is very simple; the fat, cut into small cubes, is placed in spirits of wine, and the delicate essence immediately deserts the coarse fat for the more spiritual solvent. Mr. Piesse, in his interesting work on perfumery, says that, "while cultivators of gardens spend thousands for the gratification of the eye, they altogether neglect the nose. Why should we not grow flowers for their odors as well as for their colors?" And we may add that ladies may utilize some of our own waste garden perfumes very easily, and with pecuniary advantage to themselves. Heliotrope, the lily of the valley, honeysuckle, myrtle, clove, pink, and wallflower perfumes, such as we get in the shops, are made-up odors cunningly contrived from other flowers. Yet they may be made pure with a little trouble. "I want heliotrope pomade," says Mr. Piesse in despair; "I would buy any amount that I could get." And the way to get it is very simple. If there is a glue-pot in the house, and it happens to be clean, fill it with clarified fat, set it near the hot house fire, or any other fire, just to make the fat liquid, and throw in as many heliotrope flowers as possible; let them remain for twenty-four hours, strain off the fat, and add fresh ones; repeat this process for a week, and the fat will have become a pomade *a la* heliotrope. The same process may be gone through with all the other flowers mentioned. A lady may in this manner make her own perfume, and we may add in the words of Mr. Piesse, "one that she cannot obtain for love or money at the perfumers."—*Literary Pastime.*

HOUSEHOLD CARES—No. 18.

TAKING tea recently with a party of ladies, at a near neighbor's, the chief topic of conversation was the inexhaustible one of hired help. Their general incompetency, inefficiency, and faithlessness, was duly commented on; but the more particular sin of which this class seemed to be guilty, was the sin of waste.

"Such heaps of bread in the swill pail," said one. "Yes; and whole ears of corn left from the table, which might have been dried as well as not," said another. "My girl always leaves half a dozen potatoes in the water to be thrown out with the peelings, and mine never empties her kettles at dinner time, but invariably leaves potatoes and corn, or squash, in each kettle, and while we are eating they are burning. The other day I said to Jennie: "Where is that new galvanized saucepan?" "Oh! well," she said, looking as innocent as could be, "that tomato sauce that was in it was burned to a cinder, and I could not clean it, so I threw it into the old iron heap in the cellar." I didn't say anything, but I put on an old dress, went and fetched it up, scraped the worst of the burn away, then boiled some wood ashes in it, and scoured it, making it as good as new. I thought I would shame her a little, but instead of appearing grateful to me for doing it, she banged the doors and the dishes, and muttered something about stinginess, &c. I was really provoked. These remarks and inexperience called out a good deal of discussion from all sides. Not more than

one or two in the room seemed to have the least idea that a shadow of blame could ever be attached to the mistress.

There is no doubt but that the expenses of a family are very much increased where hired women are employed to help in the kitchen—that is, unless the housekeeper herself takes entire charge of the whole arrangements. I think it is unnecessary for a mistress always to help clear away the table, or to assist in the actual getting of the meals; but I do think it essential, where economy is a consideration, for the mistress to be often in and out, giving her orders firmly, and her advice kindly, and when she sees needless waste, reproving and cautioning judiciously. A great deal of waste is occasioned by allowing the pieces of bread left from the table to be returned to the bread crock, and there left to mold. My way is this: The large unbroken slices left may be arranged one piece over the other on a plate, and a clean cloth folded over. It will be moist and good for the next meal. Then all broken and clean pieces should be spread on a plate in a dry place, and when quite dry, may be put in a bag for the purpose, and when a bread pudding or a forcemeat is needed, these pieces will be found to answer the purpose much better than fresh bread, as they soak much easier.

When engaging a girl, I find that the more explicit I am at that time in regard to her peculiar duties, the better servant she will make; that is, if I say to a girl before I engage her, I expect a girl to be particular about the cleaning of the silver, I expect a girl to always speak kindly to the children, and I expect this done at such an hour, and that done in such a manner, I have invariably found (of course if the girl was good for anything) that these special duties have been better and more promptly attended to during her stay, than other things not so particularly specified. In regard to going out in the afternoon or evenings, I never make any special arrangement, but I always say, I expect a girl to be reasonable with me in that respect, and I have found this idea to be an excellent one also. This idea of reason should enter into the mind of every mistress. Consider your servant from a human standpoint; she has a sensitive nature—a spiritual soul as well as you—she has a frail body liable to pains, disease, and death. There are times when her duties hang heavily on her hands, and when life with its never-ending work and cares seem a burden greater than can be borne—at such times it is not well (speaking from my own experience) to be too solicitous or too sympathizing, as many girls would impose upon your good nature; but a kindly overlooking of duty, and a refraining from reproof at such times, and perhaps a helping hand, would do much to encourage, and to command her esteem and love.

I think I have learned a little better way of making a sponge cake than usual. Take the white and yolk of 8 eggs; beat them separately to a foam; then to the yolks add 2 teacups of fine white sugar, and beat also to a foam, adding the lemon seasoning at this time; add to 1 tablespoonful of water $\frac{1}{4}$ of a teaspoonful of carbonate of soda; add, also, 4 tablespoonful of water, then two teacups of flour; add $\frac{1}{4}$ of a teaspoon of cream tartar, and sift to the cake; beat thoroughly, and add the whites carefully, and bake in a buttered and papered tin.

AUNT ROSA.

Editor's Table.

The Proposed Change.

We wish it were possible to give our subscribers as clear an idea of the size, appearance, and objects of the next volume of *THE FARMER* as we have in our own mind. We know they will be pleased with it, and feel that they could really do good in helping to increase its circulation. Nothing but the obligation we are under to this year's subscribers to complete the volume in the same form in which it now is, prevents our enlarging at once.

Our agents may rest assured we shall give them a paper of which they need not be ashamed. We only regret that we cannot send them a specimen copy now with which to canvass.

We shall, on the 1st of January, enter a field which no other paper occupies. *THE FARMER* will no longer be a "slow monthly"—however good, neither will it be a *weak* weekly, with room to let, but a well filled, neatly printed, and beautifully illustrated *Semi-Monthly*. Illustrated—not at the expense of reading matter, with old cast-off wood cuts, but for a purpose, with the best that can be procured. The enlargement will give us more space than now for agricultural and horticultural matter, leaving five or six pages for choice miscellaneous matter for the families and schools. In fact, we are going to unite two journals in one, advocating the three great interests of the country and the world—the Farm, the Family, and the School.

The Common Schools—the schools in which nine-tenths of the American people, and a much larger portion of the rural population receive their education, have now no journal devoted exclusively to their interests. If any interest near the people needs a live, practical, faithful journal, it is this.

We have published successfully for three years a paper of that character, entitled *The School Visitor*, which we purpose to unite with *THE FARMER* on the 1st of January.

In this large double paper these different themes will be discussed in entirely separate departments, by talented and practical writers, whose services have been or will be secured.

THE FARMER will hereafter get in its columns more matter adapted to his wants than ever before, while the teachers, trustees, and patrons of the Common Schools will find what they now get in no educational journal published, hints, suggestions, and instruction in regard to their duties and responsibilities, from men and women of their own number, now *actually in the harness*, as well as from others who, "though resting from their labors," are not "viewing the battle from afar," but have a close, active, and living sympathy with those who are now enduring the trials or enjoying the triumphs incident to their former profession. The children are by no means to be forgotten in this arrangement, but will have an instructive and entertaining department, one feature of which will be an original school dialogue at least once a month, adapted to their public school exercises and exhibitions.

This Union paper will take a position occupied by no other journal, and one too long unfilled, and can hardly fail to succeed.

The initial number of the new volume will be out about the middle of December.

In the meantime, is it too much to ask our friends to aid us?

We want to reach as many of the farms, the families, and schools of our country as possible. Teachers, you can help us out.

Our premiums are liberal, and others will be added to the list as the season advances. Let us hear from you promptly.

Our Farmers' Club.

"WALKS and Talks on the Farm" were formerly an interesting feature in *THE FARMER*, appreciated we believe by all, and which, like many other good things, have had their day.

If walks and talks from one farm, in one section of the country which has been walked over and talked about by one and the same man for the last fifteen or twenty years, have been so interesting and valuable to farmers, what may not the walks and talks be worth from a hundred to a thousand farms, and from as many working farmers in all sections of the country?

A so called "Farmers' Club" has for years held its weekly meetings in New York City—a good-sized town we'll admit, and densely populated—about election time. The inhabitants are enterprising, scientific, and practical voters; but whether the same can be said of their farming is doubtful. There is a vast amount of really useful information in the discussions of this club, and much that is equally silly, as might be expected. If good can come out of this Nazareth, what might not a Farmers' Club do holding its meetings in Rochester, the heart of great rural district?

Arrangements have been made, after consultation with several eminent farmers and horticulturists, to organize such a club for Western New York. The preliminary meeting for organization will be held at *THE AMERICAN FARMER* office, 62 Buffalo street, Rochester, on Wednesday, Dec. 9th, at 2 o'clock P. M. A general invitation is extended to all to be present, and participate in the proceedings. Our friends at a distance who may not be able to be with us, are invited to send in inquiries and suggestions.

We propose to have the proceedings of this club take the place of "Walks and Talks" in *THE FARMER*, and expect practical men from all parts of the country to relate their experience in this department.

Compare and Judge.

READER, it is now time to decide what papers you will take for 1890. Every man who owns an acre of land will find it for his interest to take at least one agricultural journal. Examine this and the last two numbers of *THE FARMER*, and compare them with others offered you; decide which contains the most really valuable matter; consult your pocket and subscribe at once for the one which all things considered, you think the best. The following just received from a subscriber in Ohio, is a specimen of the cheering words we are daily receiving:

"I am glad that you are about changing *THE FARMER* into a semi-monthly. It will be the best of its kind in the United States. I take four agricultural papers, and I think *THE FARMER* the best."
Respectfully,
W. D. D."

Literary Notices, &c.

THE TROTTING HORSE OF AMERICA: How to Train and Drive him, with Reminiscences of the Turf. By Hiram Woodruff. Edited by Charles J. Foster, of *Wilkes' Spirit of the Times*, including an introductory notice by George Wilkes, and a Biographical Sketch by the Editor. New York: J. B. Ford & Co.: 1868.

The composition of this work was suggested by Robt. Bonner, and is a simple, trite relation of the experiences and triumphs of that veteran of the turf, Hiram Woodruff, expressed in the easy style of Mr. Foster. It is the most complete work of the kind, and possesses all the fascination of a novel, even to others than horse men. It contains full directions for training, feeding, driving, &c., with descriptions of most of the celebrated trotters of our country, with their principal races. It is a large book of over 400 pages, gotten up in a style that does credit to the house.

GARDENING FOR PROFIT; A Guide to the Successful Cultivation of the Market and Family Garden. Illustrated. By Peter Henderson, South Bergen, N. J. New York: Orange Judd & Co.

This is among the books that no man who cultivates a plot of ground, however small, can afford to do without. It does not contain the foolish vagaries of a theoretical dreamer, but the experience of a practical man, who has during the past eighteen years, made a fortune by gardening. We can hardly conceive of anything that is left out of its 150 pages that would be of real value for a gardener to know. Price \$1.50, for which we will furnish it to any of our subscribers, postage paid.

SYDNE ADRIANCE; or, Trying the World. By Amanda M. Douglas, author of "In Trust," "Stephen Dane," "Claudia," &c.

Student—How does the book begin, go on, and end?
Festus—It has a plan, but no plot. Life hath none.

BAILEY.

Boston: Lee & Shepard. Rochester: S. A. Ellis & Co.

Although a work of fiction, it is not of the sensational character, in which the reader can find no parallel of characters in real life, but one in which some respect is paid to nature; one which makes truth appear more lovely, leaving a good, wholesome impression on the mind and heart of the reader.

THE PAMPAS AND ANDES. A Thousand Miles' Walk Across South America. By Nathaniel H. Bishop. With an Introduction by Edward A. Samuels, Esq., author of "Ornithology and Oology of New England," &c. Boston: Lee & Shepard.

This is a work of 810 pages, printed and bound in the model style of this house. The title indicates at once the interesting character of the subject, and the easy, natural style of relation makes it a really readable book. Sold by S. A. Ellis & Co., 40 Buffalo street, Rochester.

THE MARKETS.

OFFICE OF AMERICAN FARMER,
ROCHESTER, N. Y., Nov. 11, 1868.

In the last ten days there has been great financial excitement in New York, producing on the 5th and 6th of November, the greatest panic in the stock market ever experienced in Wall St. At the close of October there was an active call for money in consequence of trade at this season of the year, and stock speculators had been operating very largely, running up most kinds of

securities, particularly railroad shares, to a very high figure. In this state of things a combination was formed by heavy capitalists to break the market, and they accordingly locked up about \$15,000,000 of greenbacks. Operators in stocks and men engaged in legitimate business in order to raise money were obliged to throw their securities upon the market. Stocks as a consequence fell very rapidly, railroad shares dropping down all the way from 5 to 30 per cent. Matters have been improving since the 9th. The greenbacks have been permitted to go into circulation again, and stocks are recovering. Stock gambling is productive of much evil. Men who are doing or who propose to do a legitimate commercial business should never venture upon stock speculation.

Money is in very active demand generally throughout the country, but the West has not been much effected by the New York panic. Government securities during the money panic declined from two to five per cent, but they have recovered their former value, and there has in the past few days been an active call for investment. American securities are very firm and in demand in England and Germany, particularly in the latter country.

GOLD.—Gold sold yesterday at 134½. The market for the last ten days has been variable and excited in sympathy with the stock market. There are now indications of a general improvement in business.

WOOL.—We hear of no transactions in Western New York. The sales in the eastern markets were very large the latter part of October, but for the last ten days the sales have been light. Boston sales have recently been made at 44@56c for fleece, and 48@54c for pulled.

WHEAT AND FLOUR.—Wheat and flour have declined in the last two weeks. The accumulations of wheat are large at the West, and recently the demand from the East has been moderate.

CORN.—The Western corn market has been quite unsettled for the last week.

COAL.—There has been a large advance in coal.

GRAIN.

White wheat.....	\$ 2.00@ 2.40
Red.....	1.70@ 1.80
Barley.....	1.90@ 2.00
Oats.....	.62@ .65
Rye.....	1.20@ 1.35
Corn.....	1.20@ 1.25

FLOUR.

Spring Wheat.....	\$ 9.00@10.00
Red Winter.....	10.00@10.00
White Winter.....	12.00@14.00
Extra State.....	8.50@ 9.50

PROVISIONS.

Mess Pork.....	\$29.00@31.00
Lard.....	18@ 20c
Smoked Hams.....	18@ 20c
Shoulders.....	12½@ 18c
Beef.....	9.00@12.00

POULTRY.

Eggs.....	85@ 00c
Fowls, ½ D.....	14@ 18c
Spring Chickens, each.....	20@ 25c
Ducks, ½ D.....	15@ .c
Turkies, ½ D.....	16@ 20

FRUIT.

Apples, ½ bbl.....	\$ 8.00@ 8.50
Apples, ½ bush.....	75@ 1.00
do dried, ½ D.....	6¼@ 7c
Dried Peaches.....	25@ .c
Dried Plums.....	22@ 24c
Dried Cherries.....	80@ 85c

DAIRY PRODUCTS.

Butter, ½ D.....	28@ 45c
Cheese, dairy.....	18@ 18c
do factory.....	16@ 18c

VEGETABLES.

Onions.....	\$ 1.25@ 1.50
Beans.....	2.00@ 3.1
Potatoes.....	.70@ .85

Two young girls at Brantford, C. W., who hold diplomas from seminaries, have worked eight days in a harvest field this summer.

PREMIUMS.

EARLY ROSE POTATOES!!!

POULTRY OF THE WORLD!

CASH!

EVERYBODY wants to plant some of the famous Early Rose Potatoes next spring. We will send a pound of the genuine seed, prepaid by mail, for every FOUR subscribers to THE FARMER.

Jacob Moore, of Brighton, near Rochester, raised over 12 bushels of beautiful potatoes of this variety the present season from five pounds of seed.

H. D. Mills, of Ridgeville, O., raised 200 lbs. from one of seed, or over 16 bushels from five pounds!

We will tell our readers before next planting time, how these wonderful crops were produced.

Poultry of the World.

We will send, post-paid, for TEN Subscribers, Prang's new and beautiful chromo containing exact colored portraits of all the known valuable breeds of fowls in the world, worth \$2. A beautiful picture.

Patric Stock Pump.

We will give a Patric Stock Pump worth \$50, for the first 100 Subscribers sent in. This is the most valuable premium for the number of subscribers yet offered by any publisher. See description on page 336.

Weed Sewing Machine.

We will give a Weed Sewing Machine—the Family Favorite—worth \$60, for the first club received of 150, and one of the same machines for each Club of 200 received afterwards. We have taken pains to inform ourself in regard to the merits of different machines, and honestly believe this to be the best now in use.

The Best Dictionary in the World.

We will give a copy of Webster's Unabridged Dictionary, Pictorial Edition, price \$12, for every 50 Subscribers. Those who commence now before agents for other papers take the field can easily get any of the above premiums. If they fail on the first or best, they can take any other on the list. If they fail on all, we will pay them cash for each subscriber sent in.

Cash !!

To agents who want neither potatoes, pictures, nor any other premium named, we will pay the same per centage in CASH, or its equivalent in anything ordered at New York prices.

Let everybody work. We pay for one or for fifty. Commence now, and get the balance of the year free.

Send in the names with money as fast as they are obtained. They will be sent to any number of post offices.

English sportsmen are on their way to this country for a grand buffalo hunt in Nevada.

A little boy at Geneseo, Ill., recently fell into a grain bin through which grain was being run at the time, and was extricated from the spout. Physicians examined the body and found the throat, mouth, eyes, and ears, filled with grain, and life extinct.

Beecher's Sermons in the "Church Union."

MANY papers having announced that these sermons would not be printed in *The Church Union*, we take pleasure in stating that the sermons of this preacher do appear in every issue of this paper, and that they are to be printed hereafter at twelve o'clock on Monday, getting the sermon of Sunday out on the next day. We understand the publisher of *The Church Union* promises to print Mr. Beecher's sermons so long as they are acceptable to the Church, and requests all other papers to publish them from his own pages freely. If our friends want a wide-awake religious paper, unsectarian, and full of interesting matter, the largest and most catholic paper in the world, let them send to Henry E. Child, 41 Park Row, for a copy of this paper, enclosing 10 cents, or send \$2.00 to us, and we will see that they have the paper a year. Present subscribers to *The Farmer* can have *The Church Union* for \$1.75; new subscribers the *Union* and *Farmer* for \$2.50.

The Bryant, Stratton & Williams Rochester Business University.

WE are informed by a gentleman who is familiar with the above popular institution that it was never before in so flourishing condition at this season of the year, or patronized by so fine a class of young men. Its patrons are to a great extent, sons of the first business men of the country, which alone strikingly attests its efficiency in preparing young men for business.

The great impetus which has been given to business of every character since the close of the rebellion, the opening of the South to northern enterprise, and the great and increasing demand for educated business talent in the West renders the obtaining of the business education the *imperative duty* of every young man. Many of the young men who have graduated from it since the present proprietor, Mr. L. L. Williams, assumed charge, are now occupying positions of honor and emolument in Rochester, and other cities, while others are on the sure road to fortune in the great West. We would advise every young man who can spare three months to pursue a course of instruction in the Rochester Business University. You can in no other way make so good an investment.

NEW YORK July 1st, 1868.

DEAR SIR:—In your paper of last week you or one of your correspondents say that Dr. Drake is not the originator of the celebrated Plantation Bitters, and that they were manufactured and sold by one Pedro Martelle, an old Spaniard, in the Island of St. Thomas, over forty years ago, as every old sea captain can testify. Now, sir, I can certify to the above as being true, for I have followed the sea for ever forty years, most of the time doing business with the West Indies. These same Bitters differently put up and named, were brought to my notice on my first trip to the Island of St. Croix for a cargo of rum, and for years and years after, my ship's stores were never without them. I always supplied my family and many of my neighbors with them, and can truly say a better Bitters and Tonic, is not made in all the world. Yours truly, CAPT. HENRY WRENTZ.

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will more thoroughly equip a man for the business relations of life than the most extended College Course.

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The Course of Instruction includes all that the most accomplished business man will require during life, and can be pursued in a few months, and at a trifling cost. Moore's *Rural New Yorker* says: "This is the only institution as yet, which

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oct-21.

Moorestown, N. J.

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THE CHURCH UNION.

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HENRY E. CHILD,

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41 PARK ROW, NEW YORK.

The subscription price to the Church Union—the largest religious journal in the world, 56 long columns weekly—is \$2.50. Any one forwarding that amount to my address, will receive the *Church Union* and *American Farmer* for one year. Any present subscriber to *The Farmer* can have *The Church Union* for \$1.75, by forwarding that amount to me.

JOHN R. GARRETSEE,

Publisher American Farmer.

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Also, Delaware, Iona, Salton, Concord, Wenhawken, and some fifty varieties of Native Grapes, comprising every kind of value. Also, Blackberries, Raspberries, and Small Fruits generally. Send stamps for full Illustrated Catalogue to

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DELAWARE, D.

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THE LODI MANUFACTURING COMPANY, the oldest and largest concern of the kind in the United States, possessing extraordinary facilities for the manufacture of Fertilizers, *controlling exclusively* the night-soil, ofal, bones, and dead animals of New York, Brooklyn, and Jersey cities, as also the great Communiaw abattoirs, offer for sale, in lots to suit customers,

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DOUBLE REFINED POUURETTE,

Made from night-soil, blood, bones, and ofal, ground to a powder. Its effects have been most astonishing, doubling the crops, and maturing them ten days or two weeks earlier. Equal to the best brands of Superphosphate for Present Crop, although sold only for

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Packed in bbls. of 250 lbs. each.

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We warrant our Bone to analyse pure. Packed in bbls. of 250 lbs. each. For Winter grain, Double Refined Poudrette, and Fine Bone, mixed in equal proportions and drilled in with the seed, have produced most remarkable effects. Sold as low as any article of same purity and fineness in the market.

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Send stamp to pay postage on my new Illustrated Eight Page Circular, giving details, prices, testimonials, advantages of steam, &c., &c.

N. B.—A liberal discount to dealers.

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STRAWBERRIES,

Per 100—Charles Downing, \$3; Romeyn Seedling, \$3; Durand, \$2; Jucunda, \$1.50. Much less by the 1,000. All the common sorts cheap.

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Per 100—Philadelphia, \$3; Thornless, \$6; Mammoth Cluster \$12; Seneca, \$6; Doolittle \$8. All much less by the 1,000.

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Per 100—Kittatiny, 6; Wilson Early, \$20; Missouri Mammoth, \$25; Lawton, \$2. Much less by the 1,000. Agents wanted to sell plants. Send for price lists.

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OPINIONS OF THE PRESS.

That others may know what our brethren of the press think of THE FARMER, we copy a few from at least a thousand unsolicited notices from agricultural and other papers:

Moore's Rural New Yorker says:

THE AMERICAN FARMER is among the most promising of the new agricultural journals. Though it takes the place of *The Genesee Farmer*, it is decidedly superior to the defunct paper in all the essentials of a live agricultural and horticultural journal. It exhibits both enterprise and ability.

THE AMERICAN FARMER is typographically and editorially an improvement on *The Genesee Farmer*. It has timely suggestions about farm work, which farmers will do well to heed.—*New York World*.

THE AMERICAN FARMER is handsomely illustrated, and is every way worthy of extensive patronage, emanating from the great center of the fruit growing region, it contains very valuable information on those subjects.—*Rural Journal, N. C.*

Cheapest journal of the kind in America.—*Phrenological Journal, New York*.

Our opinion is, that no matter how many, or what other newspapers and agricultural journals a farmer may take, if he does not add THE AMERICAN FARMER to the list, he is shutting one eye to his own interests at the rate of about \$40 a year.—*Saturday Evening Post, Philadelphia*.

Every number contains information which is worth more to the farmer and fruit grower than the price of a year's subscription.—*Advertiser, Oswego, N. Y.*

THE AMERICAN FARMER contains advice which, if our farmers would follow, they would rarely have to complain of poor crops or empty purses.—*New Era, Clinton, C. W.*

Any one engaged in agriculture could not invest one dollar to better advantage than in taking THE AMERICAN FARMER for one year. It is the best and most convenient journal of the kind published in the United States.—*Free Press, Kittanning, Pa.*

It bears examination, and is printed on good paper and clear new type.—*Pennsylvanian, York, Pa.*

We are always glad to see agricultural papers, and Rochester is a great field for agricultural improvements, and that city is one of the best in the country for general information, which no doubt will be gathered for the readers of THE AMERICAN FARMER.—*Sentinel, Waltham, Mass.*

It is very neat and tidy in appearance, and we commend it to our agricultural friends.—*Democrat, Lockport*.

We do not hesitate to recommend it to every agriculturist in the country. One feature alone, under the head of "Farm Talk," is worth the subscription price. Much attention is paid to hop culture, sheep raising, and its instructive pages will be found a valuable auxiliary in imparting practical and theoretical knowledge to the farmer. Every one who desires to make the most of his farm and stock, should become a subscriber at once to this excellent monthly.—*Democrat, Cortland Village*.

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Horticulture, and

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Address,

JOHN R. GARRETSEE,

American Farmer,

Rochester, N. Y.

THE AMERICAN FARMER



VOLUME III.

ROCHESTER, N. Y., DECEMBER, 1868.

No. 13

PUBLISHED BY

JOHN R. GARRETSEE, 62 BUFFALO ST.

Price One Dollar a Year.

AMERICAN HEARTS AND HOMES.

WRITTEN FOR THE AMERICAN FARMER, BY FANNY CROSBY.

Ye may sing of the palmy isles that sleep
Like pearls on the ocean's breast,
Where the Genii of beauty their vigils keep,
And the Oriole builds her nest.
Ye may tell of the classic founts that flow
'Mid the soft Arcadian bowers,
Where the mellow tints of the sunlight glow,
As they play with the rosy hours.

But give me the land of the rocking pine,
And the brave old forest oak,
That rang with a lofty strain sublime,
That our Pilgrim sires avow'd.
Though dreary and wild was the rock-bound shore,
And cold was the wintry air,
The voice of the tyrant was heard no more,
The Angel of peace was there.
And a radiant gem from her crown she set
In the path where the moonlight roams—
A star, that in glory is shining yet
O'er American hearts and homes.
'Twas a beacon of hope in the darkest hour,
In the midst of oppression's night;
For it vanquished the foe in his pride and power,
With its mild, unclouded light.

Ye may boast of the splendor of courtly trains,
Of Brittain's princely dome—
But sweeter by far is the love that reigns
O'er American hearts and homes.
Where the Stars and Stripes of our country wave,
Far, far o'er the distant sea,
And herald the deeds of the gallant brave,
And tell of the noble free.

And the lonely exile worn with grief,
As weary and sad he roams—
May find for each sorrow a kind relief
In American hearts and homes.

Let me die in the land where my native streams
In their stately grandeur flow—
Where the tender smile of affection beams,
And the skies in their beauty glow;
On the standard of freedom mine eyes would rest
Ere my spirit upward roams—
I would give the last sigh of a faithful breast
To American hearts and homes.

NORWAY OATS.

THE great sensation in the agricultural world at present, and one that is now stirring up even the "Farmers' Club" in New York, is the so-called Norway Oats.

Humbugs have had such a splendid run in, the hands of those who could drive them skillfully, that farmers and those who speak for them, are getting cautious. Some, and among them those who have had their day in this very business, are over cautious and seem to think it a mark of superior discernment to look upon every new thing that is pushed with any degree of enterprise as a humbug, and claim great credit to themselves for denouncing them as such.

Several members of the "Farmers' Club" have made themselves ridiculous in denouncing these oats, and the firm that sold them as swindlers, when, by their own confession, they knew nothing about them. Even Mr. Fuller and Solon Robinson in a recent attack of this kind, said they were nothing but the Poland Oats, and in five minutes after, when a specimen was shown him, Solon owned they were nothing like them. Mr. Fuller said they were worthless, and shortly after said they were evidently good oats, but the proprietors had no business to call them "Norway" oats, as if it were any business of his what "trade mark" the proprietors chose to use. When driven from this position he abused the proprietors for charging \$10 a bushel for them—as if a man who had expended thousands of dollars in advertising in order to introduce them, would be willing to sell them at the cost of raising.

We confess that a careful perusal of this discussion before the Club has led us to believe that the oats are really valuable; and we believe that farmers—for they are not fools by any means—will be led to the same conclusion when they read what they say of them. Out of their own mouths have these wiseacres condemned themselves.

We can but admire Mr. Jones' pluck in standing before them and defending his cause. It does appear to us he had the best of it, and made his denouncers "hunt their holes." It will cost the farmers of the country but little to test them with

a small quantity of seed next year, which we mean to do, for we saw a large quantity of the seed in New York recently, and they certainly appear to be a valuable variety.

The history of the new grain which we had from a man, who seems to know whereof he affirms, is as follows:

"A few years ago, a New England farmer received from the Commissioner of Agriculture at Washington, a package of Norway peas, among which was a solitary grain of oats of unusual size and shape. Impressed with its appearance he planted it in his garden near his peas, and thought nothing of the circumstance until his attention was invited by his family to a wonderfully luxuriant clump of oat stalks, which had resisted the usual weeding-out process, and attained to the enormous growth of six feet upwards, with a corresponding lateral development. In this intruder upon the space devoted to garden vegetables, the farmer recognized the offspring of the strange germ which he had deposited in the soil a few months previous.

"It was manifest at a glance, that the wonderful production was a new species of oats, of which there existed no previous authentic account. The practical New England farmer did not stop to inquire whether the seed had derived its vitality from association with the peas in the package in which it was found, or to speculate upon its character and origin; but called it, by way of distinction, the 'Norway Oats,' preserved the seeds, and planted them the next spring with like results.

"The year after he distributed the product among many of his neighboring farmers, who substantially repeated his own experiments in its cultivation, and subjected it to the various tests by which its value as a substitute for the ordinary oat was to be ascertained.

"These various experiments have been of a character so highly satisfactory, that the Norway Oats have become a fixed fact. They have been endorsed by agricultural fairs in many of the States of the Union, and by intelligent practical farmers everywhere. A bureau for the distribution of the seeds, and of the information necessary to its culture has been established in the city of New York, the center of the great enterprises of the age.

"Such is the history, or rather the romance of the new cereal which is claiming the attention of the agricultural world. But great revolutions are not effected in any branch of human affairs without excitement or opposition. One of the oldest and most valuable of our cereals is not to be unceremoniously displaced by an unknown exotic, although the new comer may look down upon it as would a race of giants of the Cyclopean school upon the present generation of pigmies.

"Alarmed at the progress of the new oats, the 'Farmers' Club of New York' have deemed it their

duty to undertake the unenviable task in this age of improvement, of upholding the past in its contest with the present, of the old with the new order of things. But their opposition has only served to elicit new information, and additional testimony in behalf of the Norway Oats. Some of the facts in this connection will prove interesting to the general reader. General Stephen Thomas, Lieut.-Governor of Vermont, has witnessed some experiments with these oats, and says in relation thereto:

"I have seen the Norway Oats, raised by D. W. Ramsdell, growing in fields in this section, for the past three years, and I consider them far superior to any other oats in the country, for their great yield per acre, and excellent quality. The straw grows very strong, and they are not so liable to lodge as the other kinds."

"Hon. Rufus Hide, President of the Orange County Agricultural Society of Vermont, has personally superintended experiments in its culture, preservation, &c., and states the results in the following letter:

"I take great pleasure in adding my testimony to that of hundreds of others in this and other States, as to the advantages to be gained by substituting your Norway Oats for the old kinds. Their ability to produce more than twice as many bushels to the acre, and their hardiness and thrifty growth, rendering them much less liable to be destroyed by storms or disease, are points which no intelligent farmer can overlook. The question to be decided by farmers is not whether they can afford to buy the seed, but rather, can they afford to continue to plow and cultivate their land for 30 or 40 bushels to the acre, weighing 30 lbs. or less to the bushel, when they can just as well raise 100 bushels and heavier grain with the same labor.

"I can recommend them to farmers as being all that you claim for them, and am glad to know that you will be able to supply them to a larger extent the coming season than heretofore."

"If these statements are reliable, the substitution of the new for the old oats by the farmers of the United States would add to the national wealth some \$200,000,000 per annum, a sum which would well nigh pay the interest on the national debt, or pay the legal rate of interest on three thousand and three hundred millions of dollars. It is therefore not surprising that the Norway Oats should begin to divide with the momentous, financial and political problems now pressing a solution, the attention of the American people."

CLAY LOAM.—A correspondent of the *Journal of Agriculture* says he finds his clay-loam grounds increase more in productiveness by the use of eight bushels of salt to one bushel of plaster per acre, than from the application of barnyard manure.

REMEDY FOR INTESTINAL WORMS.

THE Boston *Journal of Chemistry* states on the authority of Mr. E. C. Haserick, of Lake Village, N. H.—a chemist of some note and a gentleman who has spent considerable time in investigating the habits of intestinal worms in animals—that worms in horses may be cured by simply keeping the external orifice thoroughly anointed with lard, and that this remedy will completely cure every case of worms in the intestines in one week. From his observation he is satisfied that worms in the intestinal canal cannot propagate their species without access to light and air, and he believes the prevalent idea that the parasitic ovum is deposited in the mucous follicles of the stomach and intestines, and is there developed and matured, is entirely incorrect. The intestinal cavities are not the natural breeding places for any variety or species, and the instinct of the worm leads it to crawl to the exterior orifice, and there outside the folds of the sphincter muscle the eggs are deposited and hatched. The process is a rapid one, the egg requiring but five or six hours after it is deposited to germinate and produce a new animal which at once enters the canal as its natural feeding ground and home. As the life of the worm does not exceed six days, Mr. Haserick claims that if the eggs deposited at the anus can be destroyed so as to prevent a repetition of life, the animal in one week will be entirely free of the trouble, the dead worms passing away in the faces.

In perusing his investigations regarding the habits of these worms, Mr. Haserick tried numerous agencies for an external application before becoming sure of the virtue of lard for the purpose. He says he has observed the worms approach the orifice, move about, and return to die, being unable to lay their eggs upon the oily surface. No internal medicine of any kind is necessary. Mr. Haserick also asserts that children can be relieved of worms in the same way by the application of lard to the anus. The severe itching in that locality is caused by the irritation of the parasites crawling to the surface to deposit the egg, and if this can be prevented so that no new families may hatch and colonize, the old ones soon die out and relief is given.

We regard this discovery as one of much importance, and although it is in complete variance with all our heretofore received authorities as to the habits and method of propagation of these worms, yet we are not the less disposed to believe it on this account, especially as the statements of Mr. Haserick are attested by many responsible parties, and his remedy has been practically tested throughout an extended neighborhood. The parasites alluded to are probably those known as *Strongyli* and *Ascarides*, the former about an inch, and the latter an inch and a half in length, although the latter make the most ravages and cause the greatest irritation in the parts alluded to. The former produce extraor-

inary ravages in the larger intestines, and sometimes eat through important structures, though they do not produce that violent itching posteriorly, that the *Ascarides* do. When this symptom with horses is noticed, we would advise an application of Mr. Haserick's remedy. Should our readers try it, we hope they will acquaint us with the result.—*Maine Farmer*.

AGRICULTURAL ITEMS.

—A Western exchange says Eastern manufacturers begin to realize from the diminishing amount of Western wool reaching Eastern markets, that the 557 woolen mills in Ohio, Michigan, Indiana, Illinois, Wisconsin, Iowa and Minnesota, with a capital of \$5,500,000, are able to use up a vast amount of the clip. Some of the Chicago wool-houses have done an immense business this season with manufacturers.

—A Hudson river steamer recently took 300 tons of cheese from Albany to New York, the largest load of that article ever shipped down the river. It came from Central New York, and was bound for Europe.

—An Alderney cow recently imported by Mr. Sharpless, of Philadelphia; has on two separate trials made thirteen pounds of butter per week, giving twenty-one quarts of milk per day, without any other feed than the grass in the pasture. This breed is really the milk pail stock, and should be more generally introduced throughout the country. They are the true dairy cow, being kind and gentle, and the flow of milk being very rich.

—Over 15, 000 sacks of wheat are on the Mississippi bank, near Keokuk, waiting for high water for transportation down.

—A correspondent of the *Germantown Telegraph* says that if bugs are driven off from potato vines with elder boughs, they will not return.

—The tobacco crop of Virginia is the best since 1860.

—Sweet oil administered to a horse that has the bots, it is said will effect a cure.

—A harness is stronger and more comfortable and lasts better, when kept soft and pliable with neat's foot oil.

TO MEASURE CORN IN THE CRIB.—Measure the length, width and depth of the crib in feet; multiply these three dimensions together, and the product by 4; cut off the last right-hand figure: those to the left express the number of bushels of unshelled corn. If measured in inches, multiply the three dimensions together, and divide the product by 4,300; the quotient will be the number of bushels.

BOOK FARMING.

AN Illinois farmer gives the following excellent remarks to *The Rural American* on the subject of book, practical and progressive farming. His views are eminently just and true. Knowledge is the fountain of wisdom in agricultural, as in other matters, and how better can it be obtained than by liberally sustaining the agricultural press, and availing oneself of the thousands of intelligent farmers who are recording their every-day experience for the benefit of others. Such papers as THE AMERICAN FARMER and others should be on the tables and in the libraries of every enterprising and progressive farmer in the country—a constant companion, educator and news medium through which the practical farmer may record not only his individual experience and experiments in agriculture—but also avail himself of the labors of others equally as zealous as himself.

X. Y. Z.

“Why is it so many of our farmers, who manifest good sense upon almost every other subject, are ready to condemn book farming? It certainly is not because sound judgment disapproves it. They know very well that the practical knowledge of a thousand farmers, whether printed and published through the medium of an agricultural paper, or in any other manner, is infinitely more valuable than the experience of a single individual, no matter how abundant his facilities may be for the acquisition of knowledge. Their good sense teaches them that there is no other way in which agricultural knowledge, or any other intelligence, can be as widely and rapidly disseminated as through the medium of public journals. Agriculture is a science as difficult in its perfect acquisition as almost any science you can mention, and yet some farmers, I am sorry to say, who have never enjoyed the advantages of an education to any extent, claim to possess upon this subject a knowledge far superior to that of the man who enjoys, through the medium of the best agricultural journals of the day, the benefit of the opinions, practice and experience of the most intelligent agriculturists of the whole country, and the world at large. The farmer who once subscribes for an agricultural paper, will never again be without one. He cannot afford to do without one, and the more he has the more he wants. It is not so much the price of subscription which prevents him from subscribing for an agricultural paper, as it is the dread of removing some old land mark set up by his ancestors perhaps, and which, he thinks, will guide him in future, as it did them in the past. He does not like to believe that there is anything to be done about a farm, which he does not know how to do, and that he does not know everything which ought to be done, or can be done profitably on a farm. He is afraid that people will think he is governed by the advice of the editor of some agricultural paper

while, in fact, he is acquiring the knowledge of perhaps ten thousand farmers, in different portions of the country. He cannot tolerate any innovations upon the old plan of farming, especially if it has been suggested by an editor, as he is afraid his neighbors, as ignorant perhaps as he is, will laugh at him. As his father plowed, and sowed, and reaped, and mowed, so must he do. Too proud, in his ignorance, to think that he should be taught by an editor how to conduct his farm properly and profitably. Never mind, old man, that pride must yield sooner or later. The boys are growing up, and if you are proof against all agricultural improvements, they are not. They believe in progressing with the age. They are anxious to know what crops are most profitable for a farmer to raise—what crops are best adapted to their land, and how to cultivate their crops and treat their land. They want to know what kind of stock makes the best return to the capital and labor expended upon it. They know there is a vast difference between the fruits which their father raises upon the old seedling trees scattered around the fields, and the nice grafted fruit upon the nice thrifty trees in the well cared for orchard of their neighbor, who takes an agricultural paper and who sells his apples for fifty cents or a dollar a bushel readily, while they cannot sell theirs at all, and are compelled to make them into cider or give them to the hogs, or let them rot upon the ground. I tell you to look out for the boys! They are not satisfied and will have their own way by and by. And now boys, the first money you get to spare, send to the editor of some good agricultural paper, and if you are not satisfied at the end of the year, just let us know it.”

NOTES FROM CANADA.

WRITTEN FOR THE AMERICAN FARMER, BY "MAC."

THE weather, from the middle of September to the 7th November, has been cool, dry and cloudy, with little frost, until the 22d October, when we had a wet snow storm followed by a very severe frost that night, which froze the ground to a depth of two inches and caused farmers to take up their roots in a hurry, fearing winter had set in. The potatoes, especially those varieties that push out towards the surface, got badly frost-bitten. Scotch Kidneys were much damaged by it, and now, when housed, show the rot the worst of any. They are the finest eating potatoes grown and yield good crops, but are thin skinned and susceptible to frost, and therefore bad keepers. If potatoes once get a touch of frost, even though not actually frozen, they become very liable to rot as soon as put into a warm cellar or root house though they may not show the least sign of rot when gathered in.

I am now satisfied that the Early Goodrich is an inferior and unprofitable potato to grow, except for

early planting in the garden, or near enough a city to make it pay to send them to market in June or July. I planted 4 bushels of seed this year, and gave them the best land and the best culture of all the varieties I had, yet they gave me less than half the quantity in return as compared with other kinds, and as for quality they are the worst potato I have grown both for flavor and appearance when cooked. They were the only potato that failed to pull up after the drouth of summer had passed. Scotch Kidney, Peachblows, Garnet Chillies, Jackson Whites, Cuzcoes and Early Williams all made a good growth after the drouth and gave a fair yield.

I notice by the New York market reports that Early Goodrich are the lowest in price of the many varieties brought in, and fetch less than half what Peachblows do.

There is unquestionably a short crop of potatoes, and by spring they will be dear, but just now they are being pushed on the market, mainly by small growers who have either no place to put them or are hard up for a little money wherewith to pay rent and taxes. Yet even at 60 cents per bushel potatoes are more profitable to grow than most farm crops, and if well cultivated, as they ought to be, leave the ground in a good condition for barley or spring wheat.

There will be but few turnips or carrots this year and what there are have been taken up and stored some weeks earlier than usual.

On the 7th November we had a rain storm from the east lasting 72 hours, not heavy, but a continuous drizzle. Yesterday morning (17th) another heavy storm from the east came on which, though lasting only 24 hours, gave more rain than the former, it was heavy and drenching, flooding the creeks and water-courses. Pastures are very bare, and stock, except sheep, in only middling condition. A great many auction stock sales have taken place this fall and cattle have gone 25 to 50 per cent below the prices of early summer, while sheep, especially well bred, heavy long wools, have sold at figures much above market quotations.

THE FALL WEB-WORM.

WE have seen many orchards the past fall sadly disfigured by unsightly webs. This pest seems to be increasing with us, and fruit growers, unless they take measures to prevent their increase, will, we fear, find them a formidable evil.

The American Entomologist, in answer to a query, describes them as follows:

"The brown hairy caterpillars, rather more than an inch long, which are covering the hickories with their webs in your vicinity, are popularly known as the Fall Web-worm. They are the larvæ of a small moth (*Hyphantria textor*, Harris) which is of a snow

white color, without marks of any other color whatever. During the months of September and October the worms descend from the trees, and either work themselves a short distance under the surface of the earth or creep under some shelter above ground, where they form slight cocoons by interweaving the hairs of their own bodies with a few silken threads. In these they are soon transformed to a shiny mahogany-colored chrysalids, and become moths the following June."

The surest method of warfare against them we would suppose to be the destruction of the nest before the worm descended to the ground. The web is so thick and combustible that an instant blaze will destroy it and fatally singe its inmates. A kerosene lamp resembling the "Wide Awakes" or a cloth fastened to a pole and soaked in kerosene would answer the same purpose. Perhaps late and shallow working just as it is about to freeze up would turn them "out in the cold" and prevent their propagation.

The Entomologist also gives the following description of Parsnip Caterpillars, about which so much has been said the past summer in the papers:

"The green black and yellow caterpillars found on your parsnip plants, are the larvæ of our common black Swallow-tail butterfly (*Papilio Asterias*, Cramer). They occur on the parsnip and carrot, as well as on other umbellate plants, but seldom become sufficiently numerous to get beyond our control. The butterflies are fond of hovering over and obtaining honey from the flowers of the Phlox, and in extricating their tongues, they generally pull off the petal and thus mar their beauty."

A GOOD SMOKE-HOUSE.

We find the following in *The Western Rural*: "We lately observed a well-planned smoke-house on the premises of a good farmer, worthy of a brief description. It was about six feet square, the lower half built of brick, furnished with an iron lined door and serving as an ash house and place for the fire. The upper part, about four feet high, besides the ascent of the roof, was made of wood. It was separated from the lower part by scantling joists, a space of two or three inches between them, through which smoke and air could freely pass, but sufficient to catch any ham that might accidentally fall, and thus save it from the fire. The upper part as well as the lower was entered by a door from the outside; the upper door may be kept locked, except when admitting or withdrawing hams; but the lower may be unlocked to attend to the fire, without any danger of the contents being stolen, as the thief cannot pass through openings between the joists."

SHELTER your stock.

THE USES OF CLOVER.

It would be very difficult to over-estimate the importance of this crop to all farmers engaged in mixed husbandry. Its introduction into England produced an entire revolution in the agriculture of that country. Clover laid the foundation of all those wise systems of rotation that have since made the agriculture of England a model, and a marvel to the world. Nor is its importance much less in those sections of America where its values are appreciated and rightly applied.

Clover is valued :

1. As a forage plant.
2. As a fertilizer.

As a forage crop, its special value is in the quantity and quality of the hay that it produces, and the rapidity with which it comes to maturity after being sown. Clover properly cured, is almost equal to good Timothy, for beef cattle, and much superior to all other hay, for milch stock. In pasture, the same relative values hold with the addition that, for hogs, clover is a grand specific, superior, perhaps, to all other grasses.

The specific value of clover, however, lies in its wonderful powers as a fertilizer. In this respect it is unequaled by any crop grown on the farm. The different ways in which it adds to the fertility of land are chiefly :

1st. *Shading the surface of the soil.* Owing to its rapid and luxuriant growth it soon forms a close and heavy covering over the soil, that acts as a mulch in protecting it from the scorching rays of the summer sun. At the same time that the soil is protected the weeds are smothered out, and the land cleaned up.

2nd. *By aerifying and disintegrating the soil.* Clover possesses peculiarly long and powerful tap-roots, that penetrate deep, loosening the soil and admitting the air. Thus rapidly changing the physical condition not only of the soil, but of the subsoil also.

3rd. *By effecting important chemical changes, necessary to enrich the earth with plant food.* Its abundance of foliage enables clover to gather from the atmosphere immense stores of gasses that give life to the plants, which its far-reaching roots send deep down into the earth. Thus a clover field becomes, as it were, a great reservoir for plant food. And clover itself becomes a great commissary, collecting food from the earth and air for whatever crop that may follow.

4th. *By preventing washing.* The clover much breaks the force of the hard beating rains, while the roots hold the soil in a mat as it were, thus preventing it from washing.

5th. *As a green manure.* Perhaps no crop is so valuable for turning under in a green stage, as clover. In addition to the immense amount of rich vegetable matter in its abundant roots, the plant it

self is extremely rich in all the materials necessary to the healthful growth of succeeding crops.—*Dixie Farmer.*

EXPERIMENTS IN WHEAT CULTURE.

THE Secretary of the Goodhue Farmers' Club, of Minnesota, communicates to *The American Agriculturist* the following interesting statement in regard to some experiments in wheat culture made by one of the members of the Club :

Field No. 1.—Two bushels to the acre was sown with the broadcast sower and cultivator combined, and the seed was planted at all depths from the surface, to 3 and 4 inches deep.

Field No. 2.—Was sown with a common wheat drill, east and west, one and a quarter bushels being used to the acre, planted about two and a half inches deep.

Field No. 3.—Three pecks of seed were drilled in, east and west, 2½ inches deep, and 18 inches apart. It was cultivated but once when about a foot high, with a 5-toothed walking cultivator, at an expense of \$1 per acre.

The results are thus stated: "No. 1 was good wheat, not damaged by heat, head medium in length, well filled, stood thick upon the ground. Was unequaled, some straws 5 and 6 feet in length, and some only 2 feet. Some heads were very green while others were ripe. The yield is estimated at from 20 to 25 bushels per acre. No. 2 was of a better color during growth than No. 1. Very even in straw and degree of ripeness. Heads about even, of extra length. Bundles very heavy, and the yield is estimated at 30 bushels per acre. No. 3 was extra at all times. Its unusual green color and broad leaves attracted much attention. No one supposed it the same kind of grain as lots 1 and 2. It stood out much more than either Nos. 1 or 2. It was uniform in length of straw and degree of ripeness. The heads would average one-third larger than No. 1, and the largest and heaviest we ever saw. Strangers here picked for the smallest heads, and then shelled from 60 to 80 kernels from each head. Our binders (and we had some from other States who had had much experience), said they never saw such large heads or such heavy wheat of this kind, namely, China Tea. The yield is estimated at 35 to 40 bushels per acre."

The Club arrives at the conclusion that they have been in the habit of using too much seed for spring wheat; that wheat needs cultivating; that if half a bushel of seed were used per acre, and sowed in drills 15 inches apart, and thoroughly cultivated, the average crop of Wisconsin might be doubled. They recommended, moreover, the expenditure of the price of the seed saved in giving the land a more thorough harrowing. In this they are wise; there

is nothing to which wheat so quickly responds as thorough tillage, and it may be a question whether this should be done previous to sowing or after the grain is up. There are other interesting subjects for investigation before any one can speak with authority. The exact amount of seed per acre, though depending in a measure upon the kind of wheat and the character of the soil, may be nearly approximated. The distance apart of the drills is another subject for experiment; 20 inches has been recommended. It is difficult to cultivate between those which are much nearer, and no doubt the roots will fill the ground between them at this distance.

FUNGI, OR SMUT.

THE farmer, in passing through his fields of corn or wheat, has his attention often arrested by ears of the grain which have undergone a most singular metamorphosis or change. In place of the sound kernels he finds huge black excrescence, composed of what seems to be an impalpable, sooty dust, which soils the fingers and clothing when brought in contact with it. This smut, or fungoid growth, is a very remarkable production, and, regarded from every point of view, seems to be devoid of all use—a thing to be hated—an abomination. The mass of sooty dust is a regular plant, of most singular and complex structure, and possessing a reproductive power hardly excelled by any vegetable or animal organism. As though the chances of the hateful thing for multiplying itself were not great enough with ordinary organs, it has conferred upon it three or four different modifications of the function. They may multiply themselves by means of the spawn, or mycelium, by self-division or lamination, which may be regarded as a species of germination, or they may be propagated by seeds or their equivalents, produced in special receptacles. Every cell or tissue may contain its germs, and each germ springs up into new forms, equally fitted for propagation, in a few hours or minutes. While examining some of the cells under the microscope, they are observed to pass through the course of their existence, and give birth to thousands of new organisms.

The number of germs or other reproductive bodies which parasite fungi produce, is incalculable—almost infinite. One grain in weight of the black matter found in place of the ear of corn, contains upwards of four millions of spores or seed vessels, which are again filled with sporules so minute that the highest powers of the microscope fail to discover them.

Doubtless the reader, if familiar with farm-work and a keen-sighted observer, has often seen a kind of ethereal smoke or evaporation proceeding from diseased heads of grain, when moved by a single breeze. This apparent vapor is formed of the millions upon

millions of the seeds of the fungi, which, proceeding from the ruptured vessels, float like an airy cloud or gossamer veil, whither the winds may drive them. The atmosphere is loaded with these germs of the latter days of summer; and, if it were not for a wise provision connected with their fructification and growth, fungus or mildew, would spread over the vegetable world like a pall of death. Nothing but fire or strong acids seem competent to destroy the seeds, so tenacious are they of vitality. Summer's heat nor winter's frost cannot kill, nor water drown them.

Fortunate indeed is it, that they require peculiar atmospheric and other conditions for their growth. If these are not favorable, they will not spread nor develop themselves. Some seasons are peculiarly suited to the awakening of the dormant seeds which rest upon everything, although entirely invisible to the naked eye. Last year, the fungus peculiar to the grape, called mildew, manifested itself to a fearful extent in many sections of the country, causing great loss. Sometimes the wheat crop is cut off by the fungoid growths called rust; and, occasionally, all vegetable substances suffer from the rapid fructification of these strange parasitic plants.

Sulphurous acid destroys the germs; and this we secure by the application of sulphur to the leaves and fruits before the pest fairly manifests itself. Under cover, in glass structures, it can be completely mastered by proper care; but out of doors, the ruin can hardly be averted.—*Dr. Nichol's Journal of Chemistry.*

RYE ON SANDY SOILS.—The Germantown *Telegraph* in an article on rye, says: None of the cereals can, in fact, be cultivated on a soil which contains eighty-five parts of one hundred of sand, except rye. But it may be remarked that the richer the land is, the more luxuriant will be the rye, unless, indeed, it be so replete with humus as to induce a plethora, which proves always detrimental if not fatal to the grain. All sandy lands, and even those which nearly approximate in their nature the character of sandy loams, part with their humus much more readily than clayey soils. This renders them capable of producing good crops of rye with less of soluble humus than would be necessary to capacify them for the production of a crop of wheat or corn.

A "FRIEND" writes to the editor of *The Dixie Farmer* that he had a butting ram, which he called "Butting Bob," because of his uncontrollable habit of butting down everything in the shape of gate, fence, or doors. He had been the worry of his owner's life. Seeing it stated in the paper that by clipping off the lower eyelashes you could stop an animal from jumping, he concluded to try the experiment on "Butting Bob." He did try, and the fellow had done no mischief for a month.

PREPARING TO DITCH IN WINTER.

FARMERS are generally crowded with work throughout the season. There are many who are days and often weeks behindhand in various jobs which they promised themselves should be done. Some of these jobs are crowded out of the list, and thrust over for another year. But we hardly ever meet with a man who keeps ahead of his work, and does more than he promises. It is therefore well to make up, so far as practicable, in winter, what has been omitted in summer and autumn.

There is another reason for making arrangements for work in winter. Hired men want steady employment, and can well afford to hire at lower wages in summer, provided they can be promised continued employment through the winter. Farmers—head men—have no trouble in finding plenty of business for themselves, in the innumerable jobs that present in the shape of repairs of tools, arranging buildings, planning work, overhauling the divisions of their farms, buying or selling stock, preparing grain for seed, &c.; but hired men cannot always do these things, and must have simpler and more continued labor.

One of the most essential of all improvements, often postponed till too late, is underdraining. Very few suppose it may be performed when the ground is frozen hard, and as soon therefore as sharp frost commences, the work of cutting drains ceases. This is not at all necessary; but on the other hand, it may be carried on through a considerable portion of the winter months, if properly conducted. We have on former occasions described the process by which ditches are cut with the ditching plow, the loosened earth being thrown out by hand. This process specially admits the performance of the work in winter. The following mode has been adopted where several hands were employed. Late in autumn, before the ground has become permanently frozen, the drains were laid out and the work was commenced by plowing furrows on the lines. These were deepened by repeating the process and throwing out the loose earth by hand, with pointed shovels turned up at the sides. The shovels were such as are sold commonly in market, and the work of turning up an inch or two of the sides readily done by any common blacksmith. When the ditches become a foot or more deep (being as narrow as may be made) it will require a hard freeze to affect at all the earth in their bottoms. About at this point the ditching plow is brought into requisition; and loosening up the subsoil, the shoveling out is continued by hand until the required depth of two and a half or three feet is reached. If the cold is quite sharp the motion of the plow and of the shovels through the day, will keep the earth open; and on the approach of a cold night, the ditching plow is passed

all along the ditches, so as to leave several inches of mellow earth in the bottom. This loosened earth being full of air cavities, is a poor conductor of cold, and will prevent the subsoil from freezing below, at the same time that it is easily broken up again the next morning, if somewhat frozen itself. Hence the work can go on without hindrance or difficulty. A little snow, if it happens to fall into the ditches, entirely prevents freezing, and is easily shoveled out. If very hard frost is apprehended, a load of corn-stalks, well bound in bundles, will go a good way in protecting the ditches, by being dropped lengthwise along them, usually remaining at the top without falling in, and affording efficient protection.

The tile should be laid and slightly covered before the thawing of spring, or much of the labor will have to be done over again by the falling in of the thawed earth.

This process will have to be varied somewhat in different places, according to the severity of winters and the amount of snow which falls—which the previous directions will enable any farmer of common judgment to perform.—*Country Gentleman.*

COOKING FEED FOR HOGS.

I am fattening some 175 hogs this season, and cook all their food in vats of about 12 bbls. each, and of which there are 3, and cook every day and feed a little warm; and my stock hogs are fed in the same way. Two years since I did not cook the feed, but last year and this I have, and am satisfied that at least 33 $\frac{1}{2}$ per cent. is saved by cooking. My hogs increase in weight faster upon 2-3 of the feed, which is mostly corn meal with a small amount of beef scraps, say 10 per cent.

I sold last season about 60,000 lbs., and think the amount will not fall short of that this season, and am now slaughtering almost daily. I have no doubt that for fattening cattle it will pay a large per cent. to cook their feed. As to sheep I cannot judge. I use a tubular boiler, upright, five horse power, and use about a ton of coal per month, at a cost of say \$9 repairs, and other incidentals, say \$6 per month, making a total cost of \$15 a month, which does not include the interest upon the first cost, nor the general depreciation. The first cost of boiler, vats, pipe, force pump, etc., and car to handle feed upon was about \$475. I think I make a saving by cooking, after deducting the extra expense, of not less than \$2,200 per annum.

My pork this year will pay a fair profit, and I have sold none for less than 15c, and some for 16c a lb.—*Cor. Boston Cultivator.*

A little boy of Chautauqua, New York, recently died from hay seed entering into the air passages, while playing with a head of timothy in his mouth.

SUBSIDENCE OF THE COAST OF NEW JERSEY.

THE geological survey of the coast of New Jersey has established the fact that the coast is gradually sinking beneath the ocean. One marked evidence of the fact is that various mills located in or near tide-water find the flood tides rising from a few inches to a couple of feet higher than when they were built, and the depth of water proportionately greater at low water mark. Another evidence is the wearing away and submergence of the shores. Facts of this character have been observed all along the coast. At Monmouth, on Raritan Bay, orchards and groves that were once familiar to the people have disappeared under the waters. The dimensions of many farms have been seriously circumscribed in this way. Men are living who used to plow lands that cannot now be found. At Long-Branch the sea rolls over the site of the Bennett House, built in 1803, and burned in 1819. It stood some distance from the water. The summer houses at this resort have several times been removed farther inland. At Cape Island the shore must have worn away nearly a mile since the revolutionary war. At Townbank a graveyard has been completely washed away by the sea, which flows a considerable distance inland. Dennis creek is said to have lost more than a mile of its length by the wearing away of the marsh at its mouth within the last seventy years. Near South Dennisville are places now covered with marsh and salt grass, which were formerly upland and covered with trees. An island in a meadow between Dennisville and Goshen had living trees upon it eighty years since. Now the mud is four and a half feet deep upon it, and during the high tides it is completely submerged. The bed of Dennis Creek contains some cedar stumps of large size, which are covered with seven feet of water at low tide. The bed of Roaring Ditch is thickly set with pine, cedar and gum stumps, which were exposed by the waters excavating the channel. In digging a ditch through a tide pond, magnolia and huckleberry roots were found under the mud. Then, after four feet more of mud, large pine stumps were found, while cedar snags were found four or five feet under the pine. They were standing with four or five feet of water above them at low tide. These buried stumps and timbers show that the land has sunk below its former level, and the facts continually transpiring under the observation of men evidence that this effect is still being produced. The whole amount of the subsidence is supposed to be seventeen feet or more, and it is calculated to proceed at the rate of two feet in a century. The subsidence is most noticeable in the southern part of the State, which has but little elevation above the level of the ocean, and immense changes may yet be wrought

upon its physical features. The causes that produce this depression may, however, cease to operate, as they undoubtedly have in the past.

THE SHEEP-BOT OR HEAD-MAGGOT.

EUROPEAN entomologists, including Kollar, who wrote specially upon injurious insects, assert positively that the female Sheep-botfly "lays her eggs in the nostrils of the sheep, whence the larvæ creep up into the frontal sinus." (*Kollar* p. 62.) On the other hand, we have been personally assured by Mr. Dan. Kelly, of Wheaton, DuPage county, Ill., that he reared these flies from the grub under a tumbler, and that, when opened, the fly had, not eggs, but living larvæ in her body. Moreover, Mr. Cockrill, in the very excellent article on wool-growing, which you have cut out for us from *The Dixie Farmer*, asserts that he "has opened these flies, when after the sheep, and found over 300 live, moving worms in ONE of them." And we have also been assured by several intelligent sheep-growers in the West, that all the female flies that they had examined contained not eggs, but living larvæ. We think that these apparently contradictory statements may be easily reconciled. Many flesh-flies, or blow-flies, as they are commonly called, if they can not find any suitable meat or carrion of any kind to lay their eggs on, retain those eggs so long in their bodies that they actually hatch them out into living larvæ, as we have ourselves repeatedly remarked. Yet the normal habit of these same flies is to lay eggs. In the same way we conceive that the normal habit of the Sheep-botfly is to lay eggs, and that it is only when she can not find any sheep at all to prey on, or when by any means she is prevented from reaching their nostrils, or when she is confined in a close vessel for an undue time—as was probably the case in Mr. Kelly's experiments—that the eggs hatch out prematurely inside her body, and are sometimes deposited afterwards in the form of living larvæ, or maggots, in the nostrils of any unfortunate sheep that she can come across.

EARLY ROSE POTATO.—This potato is supposed to be the earliest large variety at present known, although there may be others equally as good in this respect, but they have not been generally disseminated. The general characters may be summed up as follows: Very early, and large; skin smooth, of a pale rose color, almost white when fully matured; the eyes prominent, not deeply sunken as in many of the older varieties; form long, oval, slightly compressed; flesh snow-white, and very dry and mealy, without any strong flavor as found in some of the large late varieties; it is also very productive, and the tubers keep well and retain their good qualities until spring, and in this respect the Early Rose is far superior to the Early Goodrich.—*New York Sun*

NOTES, BY "S. W."

WRITTEN FOR THE AMERICAN FARMER.

FARMING IN HECTOR, SCHUYLER COUNTY, N. Y., AND
THE QUAKER MEETING.

After landing from the steamer at Frog Point, Cayuga Lake, we took the stage, up hill, to Trumansburg, two miles; although the rise is several hundred feet, the soil is fertile and all arable to the very brink of the gullied brook; farming slovenly, corn crops had evidently needed cultivating. How strange that a farmer will plow and plant, and then fall of a remunerating crop by neglecting to kill the weeds; yet weeds after all are a blessing, for in hoeing them the ground is kept loose, friable, and absorptive, an indispensable condition for a full crop, particularly in a dry season. Got a team to take us seven miles south to T. Carman's farm, on the banks of the little Takhannock Creek, near Mecklenburg. We went through a fine rolling country, soil a first-rate gravelly loam, farming not quite as neat as in some older counties, but crops good; after passing from Ulysses into Hector, we come to a region where stalwart pines had alternated with oaks and other deciduous trees; and as pine stumps are slow to rot and the roots are almost everlasting, the farmers here take them out with a stump puller, and turn them into a very efficient stump fence. The most thrifty apple trees we saw were growing in rows close to the road stump-fences; instead of impoverishing the soil like a green hedge these stumps add to its fertility as the rain washes out the vegetable soil they have taken with them,

THOMAS CARMAN'S FARMING.

He has 150 acres of all arable, first rate land, 20 acres in woods; every field has now been stumped, and miles of stump fence made; miles of stone underdrains have also been made. We went over one large field on which the water stood in many places four years ago until late in the spring; the stumps were pulled, and drains put in three feet deep and forty feet apart, and the first wheat crop paid the expense of drainage; nearly three tons of clover hay was cut to the acre on this field this season, and a light crop of clover seed from the second cutting. The soil of this farm is a very fertile gravelly loam, two feet deep, resting on a clay subsoil rich in calcareous matter; it is well suited to both grain and grass. His crops this season were 11 acres of long eight-rowed yellow corn, a large yield of not less than 100 bushels of sound ears to the acre; 19 acres of white winter wheat, 350 bushels—a little shrunk by the extreme solar heat; 20 acres of clover hay with 30 bushels of seed from second crop; he got 28 bushels seed from nine acres last year; 4½ acres of oats, a large crop of heavy oats; 15 acres of

barley, rather light, 27 bushels to the acre. His farm stock this season is 90 sheep, 7 horses, 5 cows, 5 calves, 9 steers, and 8 hogs. He hires one hand 8 months in the year at \$26 a month, and board, and a boy in winter at \$10 a month. Cuts his hay and grain with his own machines; but hires his threshing done and his clover seed cleaned; hires one extra hand three or four days in haying and harvest time; I never before saw such a thorough farming done with so little hired help; but he has every labor-saving implements, a work shop for repairs, and everything in order. His sale of grafted apples from his orchard this season was \$150. His rotation of crops is, first, wheat and clover; after two or three years in clover, manure and break up for corn; after corn, barley; then wheat and clover again, manuring the wheat field with rotten manure. As his soil is friable he does no late fall plowing, but hauls out his coarse manure to his corn ground in winter to plow-in early in the spring; but the secret of his large corn crop is the underdrained field, which enables him to plant three or four weeks earlier than farmers generally. He has two brothers, and a brother-in-law, on large farms adjoining, all of whom farm on the same masterly plan; with fine painted buildings, capacious barns and sheds, spouted to carry off the water and keep the farm yards dry. They are all Orthodox Quakers, their farming, like their religion, embraces true domestic economy. But in proof that their religious duties are as well attended to, as is their farm management, we went with them to attend their little mid-week meeting; here, although there was hardly enough men and women in attendance for "the face of the man to sharpen that of his friend," yet every one was on the watch, and no one slept, and we have the promise that "when two or three are gathered together in the Lord's name there will He be in their midst." True, there was no preaching, but this only evinced that the silent worship was not marred by the intrusion of man's wisdom, which is so often foolishness with God, who only asks for the tribute of a contrite heart. Chas. Lamb says, "for a man to refrain even from good words and hold his peace is commendable, but for a multitude it is great mastery."

"Still-born silence! thou that art
Flood-gate of the deepest heart!"

THE DRY SUMMER.

Although the past summer was better for the corn crop than the summer before, it has been worse for pasturage, as the drouth this season began a month earlier, and the solar heat has been much greater. Jos. Wright sold \$2,200 worth of butter from his farm last year; but his sales are a fourth less this season, although his cows have been fed night and morning as the pasturage failed. His butter is now sold at 60 cents a pound to the great up town hotels of New York.

SPIRIT OF THE AGRICULTURAL PRESS.**To Measure Hay in Mows.**

The editor of the New Jersey *Farmer* says that he has proved the following rule for finding the number of tons of hay in a given bulk:—Take a mow of 12 or 15 feet in depth, and which has been filled with hay as it was taken from the field, and has been lying till spring, and measure the length, breadth and height in feet; multiply them to get the cubical contents. For instance, the length is 20 feet, breadth 40 feet and height 16 feet; 20 times 40 makes 800, multiplied by 16, equal to 12,800 cubic feet, which being divided by 700, the number of feet that make a ton of 2,000 lbs., will give 18 tons, 201 pounds. The top of mow, say about one-third, we rate at 800 feet to the ton, the middle 700, and the bottom of the mow at 600; so the whole bulk would average 700 feet if the mow is 12 or 15 feet deep; but if only five or six feet deep, count 800 feet for a ton, and so according with other bulks.

Killing Ticks.

A correspondent of *The Country Gentleman* says that if a sheep or calf is covered with a rubber or leather spread, or thick blanket, and a tobacco smoke be made under this covering, every tick or nit will be destroyed in half an hour or less.

Sheds and Shelter.

Warm, comfortable quarters for stock will save food. They require more to resist the cold storms. Is not this evident to every one? Why, then, is so much stock exposed to the pitiless storms? It is always at the expense of the owner, either in the life of the animal, or in the extra food to sustain them. And, how merciless to see the shivering stock, with nothing but fence corners to protect them, when the rain and sleet are pouring down. We shiver to contemplate it. And yet, not half of our stock is protected. By all means, kind man, build barns, stables, sheds, or something, to keep your suffering stock warm. Now is a good time. A merciful man is merciful to his beast.—*Rural World.*

New Cow-Milking Apparatus.

The Mark Lane Express concludes a very full notice of the Havre International Exhibition by describing "a few odds and ends" found in the galleries. Among them we find the following account of a new cow-milking apparatus: "As to a cow-milking apparatus, the invention of M. Liverbardon, Rue de Provence, Paris. We cannot say that we are an ardent believer in the milking of cows by mechanical means, certainly not in such as aim at effecting it by such means of a complicated character. The majority of farmers believe, and they have at least a great deal to say on their side of the question, that milking the cow, like some other operations in practical farming, is best done by hand, and that all complicated apparatus to operate this should be avoided. Certainly the apparatus now before us has not this charge of complication of parts to go against it. Nothing can indeed be more simple; it consists of a small silver tube, which is simply inserted in the orifice of the teat, and which serves as a tube by which the milk

vessels completely empty themselves. The apparatus has been tried by several eminent continental agriculturists, who speak highly of the completeness of its action and the ease with which it can be used; and whether the fact will have any weight with our readers or not, which will depend upon the view they hold of the prize system, the appliance has had a prize awarded to it at the agricultural show held at Amiens last year. Before inserting the tube, the teat should be filled or swollen out with milk brought down by hand; the tube is then inserted gently, giving it on its entrance a slight turning motion which will facilitate its passage into the orifice of the teat."

Bees in Winter.

If two colonies are to be united, it can be done most easily by taking away the queen of one, a week or more before uniting them. We find bees never quarrel if one of the hives is queenless. A week after the queen is taken, put the frames best filled into one hive, shaking all the bees off the remaining combs, before the entrance, and put them away for another season, and the thing is done. If bees are in box-hives, we would not unite them until they are put into winter quarters; then it is only necessary to turn one hive bottom upwards and put the other on top of it. In a few days all the bees from the bottom hive will go up into the top one, and all together, will carry the stores up there. We used often to make one good colony out of two weak ones, in this way. It will be the case this season, we think, that many colonies will be strong in numbers, though with little honey. The early frost has put an end to hopes of these supplying their lack of stores, but these are the colonies that will pay to feed. Give them some aid now, and keep one of the bee-feeders full of syrup near them all winter, and you will find them paying back your care with interest. When there are abundant stores, but the bees are few, more bees may be given from a weak colony. Without a good cluster of bees they cannot protect themselves from cold. Bees die of cold more frequently than of starvation in this country. Examine your bees some morning, after a frosty night, and you can tell exactly how large the cluster is. Remember, however, that the bees decrease fast in numbers after frost comes. Some would have bees carried to winter quarters very soon after they cease to gather stores in the fall, and we are not sure but this may be the best way.—*Mrs. Tupper, in Iowa Homestead.*

Compare and Judge.

READER, it is now time to decide what papers you will take for 1869. Every man who owns an acre of land will find it for his interest to take at least one agricultural journal. Examine this and the last two numbers of *THE FARMER*, and compare them with others offered you; decide which contains the most really valuable matter; consult your pocket and subscribe at once for the one which all things considered, you think the best. The following just received from a subscriber in Ohio, is a specimen of the cheering words we are daily receiving:

"I am glad that you are about changing *THE FARMER* into a semi-monthly. It will be the best of its kind in the United States. I take four agricultural papers, and I think *THE FARMER* the best. Respectfully,
W. D. D."

Horticultural.

SEASONABLE WORK IN THE GARDEN.

WRITTEN FOR THE AMERICAN FARMER, BY WILLIAM WEBSTER.

As the winter is already upon us, the principal part of out-door operations must necessarily be suspended, but there are some things which can be very profitably done, such as the thinning out of shrubbery and removing trees that have grown up to be in the way of others that are more desirable to save. In the laying out of grounds trees have to be planted much thicker than they are intended to remain, and proprietors must summon sufficient courage to thin them out from time to time as the circumstances of the case may require. We have frequently urged this course, and can scarcely understand why the owners of fine places are so averse to thinning out such trees as have already become superfluous when their places might be made so much handsomer by the operation. Now is also the season to collect soil for spring hot-beds and other purposes.

In winter, prepare for spring, should be a part of the gardener's creed, and any industrious man who adopts this will seldom want a job. Old sods from fence corners, decaying leaves, vegetable mold and decomposed manure may be gathered together in a pile, and, if mixed with sand and a small quantity of lime, wood ashes and bones, or in fact any good fertilizing material, will make an excellent compost, if turned over occasionally, for the coming season. Two very important things connected with the amelioration of the soil are those of trenching and draining. All soils, if not absolutely composed of sand or gravel, are benefited by draining, and therefore wherever drains are needed they should be put in at once. As the operation of draining is in general better understood than trenching we will say but little about it at present.

Trenching, as understood by gardeners, is the digging and displacing of soil to the depth of eighteen inches to that of two or more feet; and to do this thoroughly the section to be trenched should be marked off into strips about three feet wide, running the whole length of the upper edge, and the soil in this strip must be entirely removed to the depth required and wheeled to the lower end of the section. When this is done it leaves an open trench. Another space is then marked off, and the earth from it removed to the first one, which should either have a layer of coarse sods or manure placed in the bottom. The earth, when being cast from the second trench into the first, should alternate with layers of manure about every ten or twelve inches until completely filled by this mode. If desirable, the original surface soil may still be used on the top. The whole operation consists of opening and filling a series of trenches with earth, manure, and compost, and when the last trench is reached and excavated the earth which was previously removed from the first, is at hand to fill it. Scarcely any thing connected with the amelioration of garden soil pays better than that of trenching.

RAISING FIGS IN OHIO.

GEN. JAMES T. WORTHINGTON, of Chillicothe, believes in cultivating figs in Ohio. We have seen them growing in his garden, and many visitors at our State Fairs have been regaled on this fruit from his generous baskets. In a late number of the *Scioto Gazette* Gen. Worthington urges the subject after this manner:

"The capabilities of our climate, owing chiefly to the extremes of heat and cold, about which so much complaint is made, are much greater than those of the European countries from which most of us derive our ancestry. The capabilities are as yet imperfectly developed, because we naturally cling to the productions and the modes of culture inherited by our fathers, however unsuited to our surroundings. But the frequent failures of late years of some of the fruits on which we were wont to rely, notably apples and peaches, should make us turn to others, although heretofore unknown among us, if equally valuable, and now certain to bear regular crops in our climate. Among these, after a trial of more than thirty years, the first of experiments, and latterly of complete success, I believe that the old-fashioned Biblical fig is one of the most promising.

"The fig tree is hardy, healthy, a quick grower, suits our summer climate admirably, and is easily protected without removal through our severest winters; is a sure bearer and very prolific. It grows from the slip, like a current bush, bearing fruit in three or four years from the slip, and I have had trees three years old bear a fair crop the year after they were transplanted. After the trees are four or five years old, they produce from the same area, with less labor, a larger and more certain crop in Southern Ohio, than either potatoes or tomatoes. The large yellow fig begins to ripen about the same time as the earliest summer apples—this year (1868) on the 14th of July. The smaller purple fig begins about a month later, and has a succession of crops until October. I mention these two varieties because they have succeeded best with me. I have this year, for the first time, dried a few of the large yellow figs, (the common fig of commerce,) and find them at least as good as those we import. These can be produced in our climate as cheaply as dried peaches, and much more regularly. I like them best fresh from the tree, and often breakfast on them. The demand by the family has been so great, that I have not thought of drying them until this season—when I have a cart load of ripe figs from an area of less than four square rods.

"The fig is not likely to be grown in large orchards, but is eminently the fruit of the cottager and villager, and when its merits and adaptability to our climate become generally known, will be as regularly grown, for family use, all over the Ohio Valley, as the potato or tomato.

"A great obstacle to the introduction of new crops is the suspicion by the much abused public, that anything new is highly commended chiefly because of the profits to accrue to the commender. For the fig tree, I can safely say that it is so easily and surely propagated and multiplied, that although it will be very profitable to the cultivator, it is not likely to be so to nurserymen."

THE MINER PLUM.

The editor of the *Utica Herald* when at the Wisconsin State Fair this fall, noticed on exhibition in the fruit department, a large, handsome, red plum of a different variety from any which he had before seen. On testing, it was found to be of good flavor, the skin rather thick, but leaving the mouth quite free from any astringent or unpleasant taste. He believes this plum is a seedling from some of the native plums of the northwest, and thinks it worthy of cultivation even if it had no special merit beyond the quality of its fruit. The propagator and exhibitor, Joel Barber, of Lancaster, Wis., enumerates its chief points of value as follows: the tree is perfectly hardy, and is not liable to injury from late spring frosts; it grows rapidly while young, and is free from every disease; it fruits early, bearing every year, and is never injured by the curculio; the fruit keeps well, will bear transportation, and is excellent for preserving. Of late years it is quite difficult to grow plums in many localities, on account of curculio and black knot. A plum, then, so large and excellent as the Miner, as shown to the editor at the Wisconsin fair, and which is proof against these enemies to plum culture, he thinks must be regarded as a desideratum. Originating in the northwest, where none but the hardiest of fruit trees are successfully grown, he has no doubt of the hardness of this variety.

MULBERRY TREES.—These trees grow in great abundance in California, increasing the natural wealth of that State. She gave 4,000,000 of trees for 1867, and we may say at least 5,000,000 for next year's use. The production of eggs has kept pace with the means to supply food for the worms, for it has been stimulated by a full demand from abroad.

At a recent meeting of the Wisconsin Horticultural Society, facts were presented which warrant the belief that the northern portion of that State is better adapted to fruit growing than the southern. The influence of the lake in some measure counteracts the effect of the dry winds of the southern part of the State, and then there are much heavier belts of timber in the north.

TOADS FOR GARDENS.—A correspondent of the *Lamoille News Dealer* says he successfully defends his vine patch by laying boards between the rows in such a manner as to afford shelter to toads in the day time, and leave it undisturbed, so that they will make their home under it, which they will do in great numbers. At night they sally out and devour every bug, and grow as fat as aldermen. He says he has a dozen or more of these little philanthropists making their home under a single board not more than six feet long.

The Illinois Grape Growing and Wine-Making Association will hold its second annual meeting at Bloomington, Ill., on Dec. 1-3, 1868.

PAINT all tools exposed to the weather.

The Proposed Change.

We wish it were possible to give our subscribers as clear an idea of the size, appearance, and objects of the next volume of *THE FARMER* as we have in our own mind. We know they will be pleased with it, and feel that they could really do good in helping to increase its circulation. Nothing but the obligation we are under to this year's subscribers to complete the volume in the same form in which it now is, prevents our enlarging at once.

Our agents may rest assured we shall give them a paper of which they need not be ashamed. We only regret that we cannot send them a specimen copy now with which to canvass.

We shall, on the 1st of January, enter a field which no other paper occupies. *THE FARMER* will no longer be a "slow monthly"—however good, neither will it be a *weak* weekly, with room to let, but a well filled, neatly printed, and beautifully illustrated Semi-Monthly. Illustrated—not at the expense of reading matter, with old cast-off wood cuts, but for a purpose, with the best that can be procured. The enlargement will give us more space than now for agricultural and horticultural matter, leaving five or six pages for choice miscellaneous matter for the families and schools. In fact, we are going to unite two journals in one, advocating the three great interests of the country and the world—the Farm, the Family, and the School.

The Common Schools—the schools in which nine-tenths of the American people, and a much larger portion of the rural population receive their education, have now no journal devoted exclusively to their interests. If any interest near the people needs a live, practical, faithful journal, it is this.

We have published successfully for three years a paper of that character, entitled *The School Visitor*, which we purpose to unite with *THE FARMER* on the 1st of January.

In this large double paper these different themes will be discussed in entirely separate departments, by talented and practical writers, whose services have been or will be secured.

The farmer will hereafter get in its columns more matter adapted to his wants than ever before, while the teachers, trustees, and patrons of the Common Schools will find what they now get in no educational journal published, hints, suggestions, and instruction in regard to their duties and responsibilities, from men and women of their own number, now *actually in the harness*, as well as from others who, "though resting from their labors," are not "viewing the battle from afar," but have a close, active, and living sympathy with those who are now enduring the trials or enjoying the triumphs incident to their former profession. The children are by no means to be forgotten in this arrangement, but will have an instructive and entertaining department, one feature of which will be an original school dialogue at least once a month, adapted to their public school exercises and exhibitions.

This Union paper will take a position occupied by no other journal, and one too long unfilled, and can hardly fail to succeed.

The initial number of the new volume will be out about the middle of December.

In the meantime, is it too much to ask our friends to aid us?

We want to reach as many of the farms, the families, and schools of our country as possible. Teachers, you can help us out.

Our premiums are liberal, and others will be added to the list as the season advances. Let us hear from you promptly,

Ladies' Department.

THE DRESS OF WOMEN.

BY DR. J. H. HANAFORD.

It is a difficult matter to conceive what particular idea of utility a fashionable lady or lass may have while preparing and arranging what, by courtesy, is called the dress of this class. While it is acknowledged that one object of dress is to economize the animal heat, to prevent its too rapid escape by the use of non-conducting fabrics, it would seem that this idea is almost entirely ignored by fashionable belles, who not only prevent the evolution of the ordinary amount of such heat by the contraction of the chest and the consequent diminution of the lung force, but are reckless, as it might seem, in the attempt to retain the small amount evolved. Very few of this class really have more than one-half or two-thirds of the clothing necessary to preserve an equalized circulation of the blood the means by which an equable heat is ordinarily preserved. The circulation of the blood in females, it is true, is a little more rapid than in males, yet this will not compensate for the relative disregard of comfort. It is usually conceded that females are less hardy, can endure less physical labor and exposure than males, though they may endure pain and suffering with more courage. Yet their dress would indicate that they claim more physical endurance than the sterner and rougher sex. Few men would dare, or even be permitted by their wives or sisters, to brave the rigors of our climate if attired in the meager clothing adopted by most females, particularly the fashionable. The thick and heavy overcoat of men has generally no equivalent in the ladies' attire, while the coverings for the feet, worn by fashionable belles, bear no comparison with the thick leather boots, with high legs and warm woolen socks, etc., worn by men through which the cold passes with comparative difficulty. Compare the nude arms, neck, and upper part of the chest, the gauze covering, or even that adopted by the more considerate females, with the flannels, thick cloth vests, coats and overcoats, thick, substantial and warm, worn by most men, the arms covered with four to six thicknesses of warm cloth, the thinnest equal to the fabrics ordinarily worn by females.

But few men are overlaid in our most rigorous seasons, at least, and yet it is rare to find a female wearing more than two-thirds of the clothing of men, while its adjustment is but poorly adapted too often to the retention of the animal heat. Are those arms really warm and comfortable? Is that chest, that vital part, sufficiently protected from the biting northern blasts, the nude neck not cold, the skin contracted and bloodless or purple? What prevents those cold winds from piercing and almost freezing the lower limbs? As a protection, what have they as an equivalent of thick lined pants and warm drawers of men, and the coarse and warm boots, etc.? Serge or glove-leather boots with cotton hose, expanding skirts, etc., are not an equivalent,

while the small amount of under garments cannot compensate for this outward deficiency.

Again, it is generally true that females have cold extremities, as if women and cold feet are synonymous terms. Why are their feet so generally cold? They are seldom sufficiently clad, though the recent changes of fashion are in the right direction; while the tight lacing of the "balmoral" effectually prevents all natural and free circulation of the warm blood from the heart, by which they ought to be warmed. More freedom in this respect, more vigorous exercise, calling these limbs into action, friction of the skin after a hot foot-bath and a dash of cold water, and indeed the use of the flesh brush or crash towel to the whole body, and even a wash of the same daily in cold water, under favorable circumstances, would do much toward warming these feet and cooling that "hot head," the natural result of cold feet.

In regard to the use of flannels next to the skin, there is an honest difference of opinion, based on their action on the surface. This may be removed by wearing such flannels with cotton or linen next to the skin, the flannels preventing the escape of the heat, and certainly proving more comfortable and less irritating. While it is not best to be overlaid, burdened, while the body should be made to enfold its proper amount of warmth, it is always safe to wear sufficient clothing for comfort, and only that amount, avoiding both extremes, too much artificial heat debilitating, while excessive cold overtakes and breaks down the constitution.—*Herald of Health.*

HOME EMPLOYMENT FOR WOMEN.

We often hear the exclamation from ladies whose household cares keep them at home: "How I wish I could get something to do to earn money." There is plenty to be done in the school, the shop, the factory, the sick room, &c., if one can go where the work is; but it is almost impossible to get work which can be done at home. Some indeed find their housework and family sewing sufficient to employ their time, but there are many who have considerable leisure, which they would gladly spend in something more profitable than "fancy work," if they could. This is proved by the avidity with which work that can be taken home, often laborious and unprofitable though it may be, is sought after.

There is a natural feeling of independence which makes one dislike to receive every dollar of spending money from another, though cheerfully granted; besides it would often be a great help in the family if the wife and daughters could earn their own clothing.

But what can they do? I shall not attempt to settle the entire question, but will leave it to the professional philanthropist, with the assurance that it is worthy of special attention. As regards farmers' wives and daughters, however, I think the exigencies of the case may be met at least half way. There is, or might be, for them, healthful, pleasant, and profitable home employment. Is there not, worthy farmer, some little spot of unimproved land near your house, which you

have often thought might be made profitable, if you had but the time to take care of it? Just step into the house and look at the plants growing in the window. What care they receive! Not a dead leaf, not a scraggy branch, but all fresh, thrifty, and beautiful. Notice that elegant shrub, growing from less than a cubic foot of earth—there is high culture. Now, if the same care and culture were applied to that bit of waste land, what might it not produce? The delicate skill which has brought these plants to such a degree of perfection, is just what is required in the successful cultivation of many desirable fruits and vegetables.

Suppose, then, that just for the sake of novelty, the ladies try the experiment of "gardening for profit." Let the ground be prepared in the fall for spring cultivation. There will be plenty of time during the winter to decide what it will be advisable to raise, and the best methods of so doing. Do not undertake the care of more land than can be properly managed. The same system and order upon which the skillful housewife so justly prides herself, should be extended to the garden.

Gardening is certainly an honorable employment for every one. A little improvement in public sentiment which shall make it customary for ladies, is very desirable.

These suggestions are not for those who live in luxury, and have a retinue of servants to attend them, nor for those who in the midst of a large family are already overburdened with care. They are made rather, that those who have spare time and are not afraid of work, may not overlook the pleasant and remunerative employment that is waiting their attention.—*Mattie, in New England Farmer.*

WHEN TO SAY "NO."

No, is a very little word;
In one short breath we say it—
Sometimes 'tis wrong, but often right,
So let me justly weigh it.
No, I must say when asked to swear,
And No, when asked to gamble;
No, when strong drink I'm urged to share,
No, to a Sunday's ramble.
No, tho' I'm tempted sore to lie
Or steal, and then conceal it—
And No, to sin when darkness hides,
And I alone should feel it.
Whenever sinners would entice
My feet from paths of duty—
No, I'll unhesitating cry,
No, not for price or booty.
God watches how this little word
By every one is spoken,
And knows those children as His own
By this one simple token,
Who promptly utters No, to wrong,
Says Yes, to right as surely—
That child has entered Wisdom's ways,
And treads her path securely.

A little son of Oscar F. Davis, of Whitehall, New York, died a few days since of paralysis, induced by laying his ears on the rails of a railroad track, to hear the sound produced by other boys pounding the track with stones.

DOMESTIC RECIPES.

Receipt for Curing Meat.—To one gallon of water take $1\frac{1}{2}$ lb. salt, $\frac{1}{2}$ lb. sugar, $\frac{1}{2}$ oz. saltpetre, $\frac{1}{2}$ oz. potash. In this ratio the pickle to be increased to any quantity desired. Let these be boiled together until all the dirt from the sugar rises to the top and is skimmed off. Then throw it into a tub to cool, and when cold pour it over your beef or pork, to remain the usual time, say four or five weeks. The meat must be well covered with pickle, and should not be put down for at least two days after killing, during which time it should be slightly sprinkled with powdered saltpetre, which removes all the surface blood, &c., leaving the meat fresh and clean. Some omit boiling the pickle, and find it to answer well, though the operation of boiling purifies the pickle by throwing off the dirt always to be found in salt and sugar. If this receipt is properly tried, it will never be abandoned. There is none that surpasses it, if so good.—*Germanstown Tel.*

To Cook a Turkey.—A lady correspondent of *The Western Rural* says, the "toughest old customer" will be tender if cooked in her way, which she gives as follows:—After dressing and stuffing the turkey, put in a boiler water to cover the bottom, and a basin to put the turkey on. Lay it on the back, not letting the water reach it. Cover the boiler, and steam two hours. Roast one hour. Boil liver, gizzard and heart in this water; then chop fine and put in the gravy. Pour the water from the boiler into the roastingpan, to baste the turkey with.

To Make Sausage.—A good sausage grinder is almost as essential to a well ordered kitchen as a coffee mill. The proportion of fat meat to lean will depend somewhat on the taste of different people, but there should in all cases, be a sufficient amount of fat in them to supply what is needed in cooking. If the pork you design for sausage contains too little lean, you can supply the deficiency by adding beef, which is less expensive, and which forms with the pork a mixture which is preferred by many to pork alone.

The most difficult part of sausage making is the seasoning. Many housewives have no rule about it, but add some salt, and pepper, and sage; cook a sample; find it is not seasoned highly enough, and try it over again; finally, from too little seasoning, the maker manages to get in too much, for having tasted for some time the substances used, their flavor is not so distinct as at first. An excellent proportion for the seasoning, is to add to one hundred pounds of chopped meat, two and a half pounds of fine salt, ten ounces of black pepper, and eight ounces of well dried sage leaves. It is preferable to buy the whole pepper corns, and to grind them at home, as ground pepper is often adulterated, and always loses its strength after being ground. Sage also often deteriorates by exposure to the air and moisture; but if it is in good condition, the above proportion will be most acceptable to the majority of tastes.

It is true that there are some persons who prefer other herbs besides sage, such as summer savory and thyme, and there are a few who relish spices of various kinds; but where sausages are to be made to suit the tastes of several persons, we must be careful not to add

any substance that will offend the taste of any one. All the ingredients should be thoroughly mixed together, stuffed in skins or bags made of cotton cloth, or placed in shallow earthen dishes. Their flavor is better after they have been made some days, than it is immediately after they are made.

Cure for the Toothache.—At a meeting of the London Medical Society, Dr. Blake, a distinguished practitioner, said that he was able to cure the most desperate case of toothache, unless the disease was connected with rheumatism, by the application of the following remedy: Alum, reduced to an impalpable powder, two drachms; nitrous spirits of ether, seven drachms; mix and apply to the tooth.

To Clean Glass.—Common newspaper is one of the best articles. The chemical operation of some ingredient of the printing ink gives a beautiful polish. Slightly moisten a piece of paper; roll it up and rub the glass; then take a dry, soft piece and repeat the process. No lint will remain, as in the case of using cloth.

What Causes Hair to Turn Gray.—An English writer has recently asserted that an undue proportion of lime in the system is the cause of premature gray hair, and advises to avoid hard water, either for drinking pure or when converted into tea, coffee or soup, because hard water is always strongly impregnated with lime. Hard water may be softened by boiling it; let it become cold, and then use it as a beverage. It also stated that a liquid that will color the human hair black, and not stain the skin, may be made by taking one part of bay rum, three parts of olive oil, and one part of good brandy, by measure. The hair must be washed with the mixture every morning, and in a short time the use of it will make the hair a beautiful black, without injuring it in the least. The articles must be of the best quality, mixed in a bottle, and always shaken well before being applied.

THE VILLAGE SEWING CIRCLE.

BY CHRISTINE H. CARPENTER.

A drowsy summer afternoon hung over the dainty little village of Maysville, nestling among the green Connecticut hills. The leaves of the clustering vines framing the pretty white cottages just stirred in the sunshine, while even the bees and butterflies crept to shelter in the hearts of the great red and white roses, faintly nodding to some occasional zephyr as it languished by. From the open windows of Widow May's "best room" a hum of voices stole out upon the scented air, and within, more than a score of busy hands fashioned divers fabrics into fair shapeliness. It was the weekly sewing circle of the Maysville church, for which a fair was in prospect for autumn, a fact that formed the secret of this feminine conclave. Who ever saw a sewing circle without its little tit bits of gossip? This was no exception to the rule. Presently a cheery face looked up from its owner's glancing needle:

"Do you know," said she to her neighbor, "that I've quite altered my opinion of Mrs. Wells lately? Pray don't start—she has not arrived yet—there's no one here one need care for."

"How is that?" asked the re-assured little matron thus addressed; "you used to think her the most extravagant woman in the village, and I'm not sure but you were quite right. To my certain knowledge she wears the most new dresses, the most new bonnets, and so costly, to say nothing of the style in which those children of hers are primped up! You don't pretend to imagine HER husband can stand it so much better than others I might mention?"

"Oh! no; Mr. Wells is not rich—only comfortable." "Well, I should say it must tax him awfully, poor fellow! Now I've more consideration than that, although L could impose upon Ned, he's so easy and good-natured. He does sometimes say, 'How nice Mrs. Wells always looks, and how pretty she fixes up those children;' but when I tell him what a power of money it would cost him for me and my children to dress up like that, I guess he don't mind being a little tired of seeing the same old things on us. I have all I can make off the place, the garden-truck and fruit—quite a round sum, too; but I can't make much of a show of it, for all that. I can't afford four new bonnets a year, and I can't afford two new dresses to my neighbor's one; and when I get one it's got to be plain, because dressmakers charge so much to trim it."

"Maybe you don't know how to economize." "Economize! Well you do astonish me! I shouldn't say it, perhaps, but I'd like you to point out another woman in Maysville who has the principle of economy more at heart, or one that can stretch out a dollar further'n I can!"

"Yes, I can do it." "Just tell me, and I'll take a lesson right off." "You might profit by it, too, as I have." "Do tell."

"It's Mrs. Wells." "Mrs. WELLS! That DOES beat my time—to set her up as my model! Now I dare say, if one really knew, she spends just three times as much."

"No, she doesn't, nor in fact any more than you do." "Oh, nonsense! How do you get over the four bonnets and the dresses and fancy furbelows one always sees about her?" The little matron shook her head sagaciously. "No, no, Mrs. Brown, you can't tell me! I calculate the whole matter in plain straightforward figures. Now, for instance: There were my two bonnets last year. Ned thought as how I should have something better than the hideous things Miss Smith gets up in the village, so I went to New York. Well, there were two days lost just going and coming at the very time I was most wanted, besides the cost, which I reckoned up would have bought a new dress for the baby. When I got there, such a chase as I had! Of course I was in a hurry. Every thing a body liked was dreadful dear; and then I wasn't sure but some old thing'd be palmed off on me, just like Lucy Stuart, who thought she'd a perfect bargain, and was something ahead of everybody, when it turned out it wasn't a bit like the real fashionable shape. The last time I went I tired myself almost to death looking for something reasonable, and at last had to take the nearest to my means. I thought it would do well enough till I got home, and Mrs. Wells called on me next day with the

very loveliest bonnet on her head I ever saw. It never cost less than twenty-five dollars in the city. I mean that gray velvet she had last fall."

"I know all about it, and it didn't cost but six dollars, and it didn't come from the city."

"Six dollars? You must be dreaming! And where, in the name of creation, could any one get such a bonnet in Maysville. Then, again, when I was in the city I saw a dress something like that blue merino of Susie Well's everybody liked so much. I thought I'd enough left to buy it for Ada. I knew the stuff wasn't more than fourteen shillings a yard, and it takes just four yards—that was seven dollars; but besides, there was the making and trimming. I went in and priced it. It was eighteen dollars."

"And Susie Well's cost her mother only about nine."

"That beats me out and out. Where does she go to get such bargains?"

"Not very often out of Maysville."

"Why, I never see them. When I go to Miss Smith for any thing new, most likely it's some notion she's borrowed from the Wellises. I do believe they set the fashions of this village for dress makers and all."

"Well, Mrs. Wells can do it if she likes, for the truth is, she has a sure guide. This is the secret."

"Do tell!" suspending her work to listen.

"Yes, and what's more, Mrs. Wells doesn't buy half those new things ready-made; she makes them herself."

"Oh! it's all in gumption, then. I never had any."

"No, not that alone. I went down to the house yesterday to take tea, and we got chatting, and somehow we came to talk about economy, and I said I didn't see how some folks managed to make such a show when others doing quite as well in the world couldn't. 'Now, you don't mean me?' said Mrs. Wells laughing like. 'Why, yes,' said I, bluntly; 'I do. I can tell you, Mrs. Wells, I went on, 'Maysville people do think you are awful extravagant.' 'Why?' said she. 'Because you have so many new things, and made so costly, and the children are always furbelowed enough to cost a small fortune.' 'Now, I'll warrant,' said she, 'that all mine and the children's new things don't cost me any more than yours, or any other family in the village as large as mine.' 'Why, how is that?' said I. 'Because I know how to manage,' said she. I make every penny tell, and just because I've got an invaluable aid to give me the very best advice, and keep me acquainted with the newest and best fashions for every month. It furnishes patterns and ideas, and tells what to get, and how to make up, so explicitly, that a body can't help understanding. There's my bonnets.' 'You have four a year, I remarked; one for every season, while I am obliged to make one serve for spring and summer, and another for fall and winter both.' 'True. Now I save all the cost and time and trouble of going to the city, for all I have to do is to consult my Mentor for shape, style and material. Past experience has proved to me that I can rely upon it without fear, and it is always full a month in advance, so that I have plenty of time for consideration. Send for the necessary articles, and there are the directions to make them up. My gray

velvet you admired only cost me six dollars, when I'd have had to pay twice as much otherwise. So you see four don't cost any more than your two, and besides, I have the pleasure of always being fresh and presentable. Just the same with cloaks and dresses. The rule applies all round. Then again, Miss Smith, our village oracle, never can deceive me with anything ancient. I have an incontrovertible authority from headquarters, too, that keeps me continually supplied with pretty fancies for Susie's and Maggie's clothing. I can always dress my children well and tastefully, because I spare myself one great expense, that of giving them out to be made, as I have within my reach such valuable and practically useful instructions, that it is a delight to connive and fashion for myself. Then I'm never at a loss for the boys either. My never-failing friend has always some valuable and serviceable suggestion. If my means are limited, there is sure to occur an idea that helps to make a cheap suit come out quite jaunty and becoming. There are a hundred and one other notions to add effect to a toilet; how to cut and ornament dresses, aprons, saks, jackets, or any of the indispensable in a well-regulated wardrobe, even to under-clothing. It puts to use all the odd ends of materials one may have. Nothing can go to waste when you are reminded so often of innumerable uses to turn it to.' 'I wish you would take pity on me,' said I, 'and put me on the right track, for I've got tired of pinching and screwing to no purpose.' 'With all my heart. I'm afraid you have always been, like many others, penny wise and pound foolish. Take the cost of a journey to the city and back—to which you are forced by Miss Smith's impositions or fear of them—three dollars, and purchase a year's subscription to *Demorest's Monthly Magazine*. That is the aid, counselor, and helpmate I've been telling you of.'

At this juncture Mrs. Brown chanced to glance out of the window; "I have just finished my story in time," said she, her voice subsiding. "There is Mrs. Wells coming up the garden path; you shall have her own testimony."

Bonnet and mantle disposed of, and work in hand, the new comer was prepared for the consultation by an active rehearsal from Mrs. Brown of a portion of her own and her neighbor's recent discourse. Mrs. Well's entrance had been the signal for the resolving of the several little groups of talkers into a general conversation. Not a few listened anxiously for her sentence upon Mrs. Brown's narrative.

"I am quite prepared to endorse all that I said yesterday," returned she at its conclusion, smilingly surveying her auditors, "and I can even say more. Mrs. Brown kindly complimented me yesterday upon the arrangement of my table, and more than one of you praised the trifles in the way of pastry and other refreshments I contributed to the refreshment table of our last year's fair. The household department of the magazine was my guide in numberless instances; it is especially devoted to the discussion scientifically of edibles and items of interest to housekeepers. You have seen such practical illustrations of the value of its various receipts, that I need scarcely dwell upon it. It utterly dispenses with the extra expense of cook-books

that are but too often humbugs, composed of mixtures neither wholesome nor palatable. The recipes of my reference will bear testing."

"Where did you learn of the existence of your article?" questioned Mrs. Hart.

"I read of it in our agricultural paper."

"Oh, we don't take that."

"Not take *The American Farmer*? I'm surprised! Why, it's to every one's interest to take such papers. You get your money's worth over and over. My husband says he sets as much by them as I do by my *Demorest's Monthly*. That must have been the reason Mr. Wells did so much better by his grain and hay than Mr. Hart. You see he had the advantage of knowing how to sell, and when and where to find a good customer, and all this through the paper, while neighbor Hart, even though he's quite as shrewd at bargaining, had to trust to luck after all. Mr. Wells says he finds so many items of use to him about gardening, and then there are the quotations from the city markets. It won't do to trust to hearsay. You want a reliable source for such information, so as to know how to shape your own arrangements. We always do well off our fruit, because we don't, of necessity, need to take much risk by bursting to get it out for sale in time when it is really too early or too late, and it must be sold at a sacrifice or be let to spoil. We watch the paper and are generally just about right for a very good sale. Just make a trial of it, and if you don't confess that you wonder how you ever did without it, I'll pay the cost of your subscription."

"But we're not farmers, and I suppose the paper is meant for their benefit alone."

"Oh, by no means. Nearly half of the paper is to be devoted to families and schools. Our teachers will get many good hints from it, and we parents will learn much in regard to our duties to the schools as well as the management of our own households. And then, the dear children are to have a department, with nice stories, poetry, children's music and puzzles, edited by the "Children's Poet" and real friend, Fanny Crosby, who has written so many sweet things for them within a few years—among them that beautiful hymn which husband and I sing so often—"Sweet Hour of Prayer."

"Why, that will be nice, won't it? But then we can't afford to take any more papers, so we shall have to do without this, for a paper with so much in it must cost a great deal."

"Oh, no, it's the cheapest paper I ever saw, and that's one great beauty of it; everybody can take it, for its only a dollar a year."

"Do tell! I must have it. But where can I subscribe?"

"I will take your name as I have concluded that a lady need not be ashamed to solicit subscriptions for such valuable journals as *Demorest's Monthly* and *The American Farmer*, while she may be doing much good to the community."

ADVERTISERS.—We shall circulate, of our next number, at least, 15,000 copies. Advertisements for that number must be handed in immediately.

Editor's Table.

PREMIUMS.

EARLY ROSE POTATOES!!!

POULTRY OF THE WORLD!

CASH!

EVERYBODY wants to plant some of the famous Early Rose Potatoes next spring. We will send a pound of the genuine seed, prepaid by mail, for every FOUR subscribers to *THE FARMER*.

Jacob Moore, of Brighton, near Rochester, raised over 12 bushels of beautiful potatoes of this variety the present season from five pounds of seed.

H. D. Mills, of Ridgeville, O., raised 200 lbs. from one of seed, or over 16 bushels from five pounds!

We will tell our readers before next planting time, how these wonderful crops were produced.

Poultry of the World.

We will send, post-paid, for TEN Subscribers, Prang's new and beautiful chromo containing exact colored portraits of all the known valuable breeds of fowls in the world, worth \$2. A beautiful picture.

Patric Stock Pump.

We will give a Patric Stock Pump worth \$50, for the first 100 Subscribers sent in. This is the most valuable premium for the number of subscribers yet offered by any publisher. See description on page 336.

Weed Sewing Machine.

We will give a Weed Sewing Machine—the Family Favorite—worth \$60, for the first club received of 150, and one of the same machines for each Club of 200 received afterwards. We have taken pains to inform ourself in regard to the merits of different machines, and honestly believe this to be the best now in use.

The Best Dictionary in the World.

We will give a copy of Webster's Unabridged Dictionary, Pictorial Edition, price \$12, for every 50 Subscribers. Those who commence now before agents for other papers take the field can easily get any of the above premiums. If they fail on the first or best, they can take any other one on the list. If they fail on all, we will pay them cash for each subscriber sent in.

Cash!!

To agents who want neither potatoes, pictures, nor any other premium named, we will pay the same per centage in CASH, or its equivalent in anything ordered at New York prices.

Let everybody work. We pay for one or for fifty. Commence now, and get the balance of the year free.

Send in the names with money as fast as they are obtained. They will be sent to any number of post offices.

CONTRIBUTORS.—Articles for the first number of our enlarged paper can not come too soon, as much of the matter is already in type, and the paper will come out as soon as possible.

Farmers' Club.

We hope our farmer friends, within reach of Rochester, will not forget the meeting called for the 9th (Wednesday) to organize a Farmers' Club. The following is the notice, as published last month:

"Arrangements have been made, after consultation with several eminent farmers and horticulturists, to organize such a club for Western New York. The preliminary meeting for organization will be held at THE AMERICAN FARMER office, 62 Buffalo street, Rochester, on Wednesday, Dec 9th, at 2 o'clock P. M. A general invitation is extended to all to be present, and participate in the proceedings. Our friends at a distance who may not be able to be with us, are invited to send in inquiries and suggestions."

We know of no reason why a club of this kind may not be well sustained in such a center as Rochester, and be of great use, not only to its members, but to farmers throughout the country, who will read its proceedings reported in the papers.

We hope to see a good attendance of all interested, on the 9th.

Early Rose Premiums.

To those who are writing for Early Rose Potatoes we would say that it is hardly safe to send them so late in the season, as they would be liable to be frozen, at least so say the dealers from whom we order the seed. Mr. Bliss, of New York, or Geo. W. Best, of Utica, who have the genuine article, will fill our orders for premiums, and send them direct from their stock to subscribers. They advise sending in the spring, but if any who are entitled to the premiums wish them sent now we will do so. But those who prefer waiting to running the risk can rely on their being forwarded early in the spring, good weight and sound. Remember, we send a pound for every four subscribers. We will give six pounds for 20 subscribers, which will be seed enough, with good care, for ten or a dozen bushels.

Horses in a Storm.

We acknowledge with pleasure, the receipt from the publishers, L. Prang & Co., Boston, of a copy of their superb new chromo "Horses in a Storm," after R. Adams. It is a perfect imitation of the more costly oil paintings, although more exquisitely finished than any oil painting we have ever seen. It would do very much to cultivate and elevate the tastes of community if the cheap daubs that now hang on the walls of many wealthy people even, could be displaced by such gems as this. Mr. Prang is doing much in the right direction by bringing such fine works of art within the reach of those in moderate circumstances. The price of this picture, sent securely packed from the publisher, is only \$7.50. We will place them within the reach of our readers who do not feel able to purchase, but are willing to do a little work for us. Any one sending us 35 subscribers to THE FARMER will have this picture sent to them direct from the publisher, without expense.

Literary Notices, &c.**THE CAROLINA FARMER.**

This is the title of a new monthly magazine just commenced at Wilmington, N. C., by William H. Bernard, and devoted to the agricultural interests of the two Carolinas. It is one of the most neatly printed journals on our large exchange list, and in its make up generally is a credit to the agricultural literature of the day. Price \$2 a year, in advance. We wish it success.

DR. HOWELL'S FAMILY. By Mrs. M. B. Goodwin, author of "Madge," "Sherbrook," etc. Boston: Lee & Shepard.

A book which, when commenced, it is difficult to lay down until finished. One which not only interests and pleases, but improves the reader, and one which we can cheerfully recommend.

DISEASES OF SHEEP.

Explained and described, with proper remedies to prevent and cure the same, with an essay on cattle epidemics. Especially dedicated to the use of farmers, sheep owners, &c. By Henry Clok, V. S., graduate of the Royal College at Berlin, Prussia, and late Veterinary Surgeon-in-Chief of the U. S. A. Philadelphia: Claxton, Remson & Haffelfinger. 146 pages, and we judge, from examination, a good book.

HILLSBORO FARMS. By Sophia Dickinson Cobb. Boston Lee & Shepard, 1869.

This is a nice book, of over 400 pages, in which the author has not aimed to teach anything, or to prove anything. Neither does she claim to have any special moral mission. But she has given us a charming picture of cosy life on New England farms and in New England hamlets, not overdrawn, but true to nature, fresh, spirited, and remarkably suggestive.

What's in a Name?

VERY much sometimes, reader. Don't you remember what a time you had trying to decide on a name for your — Oh! excuse us—we mean what a time Jones and his wife had before they decided to christen their first little Jones, Ichabod?

Did you ever try to think of a perfectly appropriate name for a new paper—one that would express all you wanted it to, and sound well, and look well in print; that would not be too short, and yet not too long, and one that would not interfere with any other publisher's pet name? If so, you may realize something of the importance of a name. The publisher of *The Wisconsin Farmer*—a really valuable journal, and a credit to the agricultural press, now in its twentieth volume—has concluded that its name is not broad enough in scope, and has decided to christen it *The Western Farmer* on the first of January, and enlarge it accordingly. We wish you success, Bro. Davis. Perhaps your circulation may yet grow so broad as to lead you to desire our more cosmopolitan name. Isn't *American* better than *Genesee* or *Wisconsin*?

SEND for circulars, specimen numbers, and directions to agents.

Get the Worth of Your Money.

As this is the season of the year when most people make arrangements for their years reading, a little advice on that subject may not be amiss. Few farmers at least, have any money to waste, and yet every one, however poor, needs a newspaper as well as an agricultural journal. How to get these, for the least money, is the question. Some think it economy to subscribe for one paper which attempts to cover both fields, and which costs them two and a half or three dollars. In doing this they neither get a good newspaper nor a good agricultural paper, but a sort of a half-and-half.

Let us show a better way to use your money:

The New York Tribune, Times, and World, The Rochester Democrat, Union and Advertiser, or Express, and hundreds of other good newspapers in cities and villages, may be had in clubs at a dollar and a half each. For that sum a man can have for himself and family a weekly account of passing events in a paper, if he wishes, of his own political stripe, much more full and complete than any so-called agricultural journal can pretend to give; while for the other dollar he can have the **THE AMERICAN FARMER** and **SCHOOL VISITOR**, and be thoroughly posted in agricultural and educational matters.

See "Proposed Change" on page 373.

A New Attraction.

It gives us great pleasure to announce to our readers, and especially to the children, who will hereafter have a warm corner in our paper, as they have always had in our heart, that we have engaged Fanny Crosby, of New York, "The Children's Poet," to edit the juvenile department. Few living females have written more beautiful things for the children, especially for Sabbath School children, than she. A large proportion of the words in Bradbury's delightful series of Sabbath School singing books are from her pen. She contributed, or "wrote to order," over thirty pieces, and among them, the best, in "Fresh Laurels." "Sweet Hour of Prayer," of which she is the author, is now, and ever will be, a favorite in the family and in religious circles.

"American Hearts and Homes," on the first page of the present number, is from her pen.

THE MARKETS.

OFFICE OF AMERICAN FARMER, }
ROCHESTER, N. Y., Dec. 3, 1868. }

Money matters generally throughout the country are close. This is not unfrequently the case at this time of the year. Large sums are required to move the crops, and the funds do not find their way into bank again usually until after the first of January.

The great financial excitement in New York, noticed in our last number, has pretty much passed by, and money is much more plenty in New York.

Erie Railroad matters are now in the courts. Two sets of receivers have been appointed by different judges, but it is not yet decided which shall act, if either.

Gold sold in New York on the 3d inst., at 135 $\frac{1}{2}$. The New York Sub-Treasury has recently sold something over \$1,000,000 in gold.

The investment demand for American securities continues good, though prices have been a little lower in consequence of the money pressure.

Wool.—The Eastern wool market is without material change. Sales are not large. There is nothing of importance doing in the interior; occasionally there are sales from second hands, but prices are governed by the eastern market.

WHEAT AND FLOUR.—Canal and lake navigation being in effect over for the season, prices of wheat and flour are a little firmer, both in the eastern and western markets. The amount of wheat in store in Milwaukee and other large grain depots at the West is less than at the close of navigation last year.

HOGS.—At this season of the year the pork market is usually active in this section, but thus far very little has been done. There is not enough arriving in this market, probably on account of the state of the roads, to supply the daily wants of butchers. Buyers offer from \$9 to \$10 per 100. The price at Chicago is \$8.25@89. The Albany quotations are \$10@10.80. It is believed the hog crop of Western New York will be light.

COAL.—There has been a decline in coal, and the prospect is that it will go still lower.

GRAIN.—White wheat, \$2.25@2.35; Red, \$1.70@1.80; barley, \$1.90@1.95; oats, 62c@70c; rye, \$1.20@1.35; corn, \$1.80@1.35.

FLOUR.—Spring Wheat, \$9@10; Red Winter, \$9.50@10; White Winter, \$18@14; Extra State, \$8@8.50.

PROVISIONS.—Mess pork, \$25@26; lard, 16 $\frac{1}{2}$ c@17c; smoked hams, 15c@16c; shoulders, 11c@12c; beef, \$9@12.

POULTRY.—Eggs, 35c@40c; Fowls, \$7.14c@16c; spring chickens, each, 20c@25c; ducks, \$7.15c@10c; turkeys, \$7.16c@18c.

FRUIT.—Apples, \$3.50@4; apples, \$3.50@4; apples, dried, \$11; apples, dried, \$7c@8c; dried peaches, 25c@30c; dried plums, 22c@24c; dried cherries, 30c@35c.

DAIRY PRODUCTS.—Butter, \$7.35c@40c; cheese, dairy, 13c@15c; cheese, factory, 16c@18c.

VEGETABLES.—Onions, \$1.25@1.50; beans, \$2@2.25; potatoes, 56c@75c.

Special Notices.

NO WIND, DUST, SNOW, OR RAIN,

Can penetrate where
TORREY'S PATENT WEATHER STRIPS
are used.
Send for Illustrated Circular showing our new improvements.
E. S. & J. TORREY & CO.,
72 Maiden Lane, New York.

ADVERTISEMENTS.

RATES OF ADVERTISING.—Advertisements of interest to farmers, will be inserted in **THE AMERICAN FARMER** for 25 cents a line, or \$2.50 per square of 10 lines, each insertion, payable in advance. To secure insertion, they should be sent in by the 15th of the previous month. **THE FARMER** has subscribers in every State, and nearly every Territory. There is no better or cheaper medium for advertising everything of general interest to rural residents in all parts of the United States and Canada. *Special notices, 50 cents per line.*

WOOD SAWING MACHINES.

HORSE POWER, SCREWS OF ALL KINDS.

Address, **J. W. MOUNT,**
dec Medina, N. Y.

HOP PLANTS FOR SALE.

GENUINE ENGLISH CLUSTER.

For price, address with stamp,

decJan **Box 103, Cobleskill, N. Y.**

AGENTS AND FARMERS WANTED.—"The King of Stock Books," 1,200 pages—200 illustrations—all about the history and varieties, crossing, breeding, feeding and management, diseases and their remedies, of the horse, cattle, sheep, swine, poultry, etc., etc. In cheapness and fullness it has no rival. Every farmer absolutely needs it. "The New Map Wonder," and a State map given to every subscriber, also to any person who will procure a good agent. For descriptive pamphlet address Goodspeed & Co., Chicago, New York, and Memphis. dec3m

AGENTS WANTED.—\$75 to \$200 per month! or a commission from which twice that amount can be made by selling the latest improved "Common Sense Family Sewing Machine," price \$18. For circulars and terms address C. Bowers & Co., 820 South Third street, Philadelphia, Pa. dec3m

THE STANDARD BIBLE DICTIONARY.
TWELVE REASONS
 FOR PURCHASING THE
COMPREHENSIVE
DICTIONARY OF THE BIBLE.

EDITED BY REV. SAMUEL W. BARNUM.

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