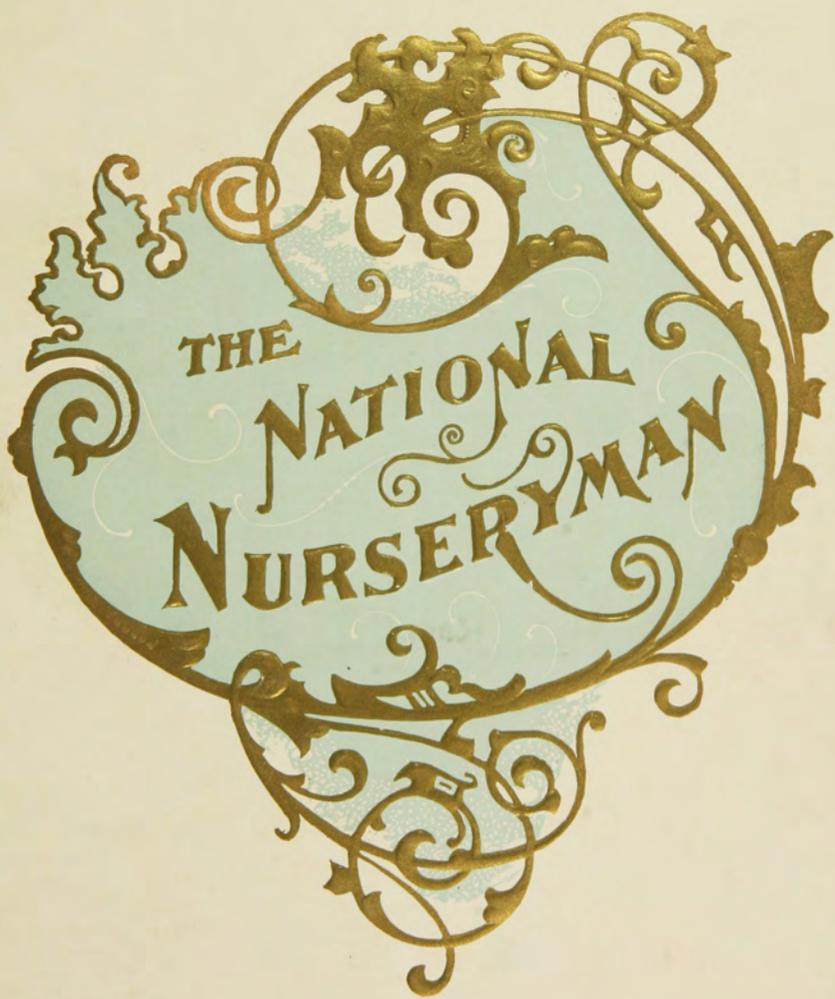


THE
NATIONAL
NURSERYMAN



February, 1899

San Jose Scale Laws.

A Compilation of the Acts Passed by Nineteen States of the Union.
 Complete Record of all Legislation Affecting Nursery Interests.
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The only thoroughly up-to-date compilation of these laws, arranged with special reference to the needs of the Nurserymen. A necessity in every nursery office in these days of restrictive legislation. Gives full information regarding certificates to be attached to stock, inspection, penalties, etc.

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Standard and Dwarf Apples, Crabs,
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Brault & Son, Directors, Angers, France,

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Eldorado, Maxwell and Lucretia Blackberries.	
MILLER, LOUDON and COLUMBIAN . . .	TRIUMPH, GREENSBORO and EMMA, and a full assortment of
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ANTICIPATING THE BETTER TIMES THAT ARE SURELY COMING WE HAVE RESERVED FOR THE SPRING TRADE OF 1899 A LARGER AMOUNT OF THE LEADING ITEMS THAN USUAL AND WOULD LIKE TO CORRESPOND WITH PARTIES WANTING ANY OF THE FOLLOWING IN QUANTITIES :

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Pear
Peach
Plum
Cherry
Mulberry
Quince, Etc.

OF THE ABOVE WE WOULD CALL SPECIAL ATTENTION TO OUR VERY LARGE SUPPLY OF

Apple
European Plum
and

Sweet and Sour Cherry Trees.

BY FAR THE LARGEST ASSORTMENT THAT WE EVER HAD TO OFFER TO THE SPRING TRADE.

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Blackberries
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Etc. . .

- Carolina and other Poplars—6 to 8, 8 to 10, 10 to 12, and 12 to 15 ft.
- Sycamore—European; 6 to 8, 8 to 10 and 10 to 12 ft.
- Magnolias—Acuminata, Soulangeana and others; 2 to 10 ft.
- Maples—Norway, Silver, Sugar, etc.; all sizes, 6 to 25 ft.
- Catalpas—Speciosa, Tea's Japan, Bungei, etc.; 6 to 12 ft.
- Mountain and European Ash—6 to 15 ft.
- Elms—American White, Scotch, etc.; 6 to 25 ft.
- Linden—European, American and Silver; 6 to 12 ft.
- Culip Trees—6 to 15 ft.
- Willows—Gold Bark, Laurel Leaved, etc.; 5 to 15 ft.

WEeping TREES.



- Mulberry—Tea's Weeping; strong 1 and 2 year heads. No finer lot in the country.
- Willows—Kilmarnock and New American; strong 1 and 2 year heads; straight smooth bodies.
- Willows—Wisconsin and Babylonica; handsome shapely trees, 5 to 15 ft.
- Birch—Cut-leaved; 4 to 25 ft.
- Elm—Camperdown and Fulva Pendula, Linden, Wp. Mt. Ash, Cornus, Beech, Cherry, etc.
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FORTY-FOUR GREENHOUSES filled with Roses, Palms, Ferns, Ficus, Azaleas, Araucarias, Geraniums, and other things too numerous to mention.

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Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Fine stock of Gooseberries and Currants.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

- 20,000 Kenyon Red Raspberry,
- 20,000 Turner,
- 300,000 Elm, 1 year,
- 25,000 Silver Maple, 3 to 4 ft.,
- 75,000 Berberry, 1, 2 and 3 years old,
- 5,000 Picea Pungens, transplanted, 18 to 24 in.
- 10,000 " " " " 13 to 18 in.
- 25,000 " " " " 8 to 12 in.
- 50,000 " " " " seedlings, 2 years, 2 to 4 in.
- 50,000 Ponderosa Pine, " " " " 4 to 6 in.
- 1,000 Paeony, Double Rose.
- 1,000 Paeony, Double Chinese.
- 500 P. L. Birch, 5 to 6 ft.
- 20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$ and 4 to 5 ft.
- 10,000 Horse Chestnut, transplanted, $\frac{3}{4}$ and $\frac{1}{2}$ ft.

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AMPELOPSIS VEITCHII. A tremendous stock of extra fine plants. Prices much reduced to get part of them placed early.

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ORNAMENTAL TREES. Catalpa, **Cytisus Laburnum**, **Elm**, **Euonymus**, **Magnolia**, **Maple**, (**Ash-Leaved**, **Norway**, **Silver**, **Sugar**), **Mt. Ash**, **Mulberry**, **Tulip Tree**, etc.

CURRANTS and GOOSEBERRIES. Extra fine stock of these and prices as low as the lowest.

PEACHES. Large assortment of varieties. Prices to suit the times.

Send for our price list which also offers a good assortment of **Apples**, **Cherries**, **Plums**, **Pears**, **Quinces**, etc., etc.

Are you handling our three specialties?

**YELLOW RAMBLER ROSE,
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AND ICEBERG BLACKBERRY.**

If not, why not? Send for sample plates and circulars. They are sellers.

CAUTION.—All persons are warned against purchasing any blackberry plants said to be of the white variety "Iceberg," originated by me, except the stock offered by Jackson & Perkins Co., of Newark, New York, whom I have appointed my sole agents for the propagation and introduction of said blackberry, and in whose hands I placed my entire stock.
LUTHER BURBANK, Santa Rosa, California.

JACKSON & PERKINS CO., Newark, N. Y.

KLONDIKE PEACH,

NAMED AND INTRODUCED BY
J. G. PATTERSON & SONS.

Placed at the Head of all Fancy, Late Market Peaches, by America's Highest Authorities.



Most beautiful late white peach in existence, says Prof. S. B. HEIDEN, ex-Pomologist, U. S. Dept., Agriculture.

Sold Klondikes at 40 cents per one-half peck. Steady and Smook brought only half that price.—Wm. FRYE, Fruit Grower, Pa.

Certainly a very handsome peach, possessing excellent quality, would assuredly command top figures in market.—J. W. KECK, Plum Specialist, Md.

Klondike is certainly the largest and best white fleshed peach I know of.—J. H. HALE, Peach King of America.

Klondike is as fine a white peach as we have ever seen at this season of the year. Would like to have your lowest price for 5,000 buds next season.—W. M. FRISSE'S Sons, Nurserymen, Md.

Fruit has never shown any indications of smut, mildew, black specks or cracking.

We have a good stock of this wonderful money maker, and will offer trees to the trade, for a short time only, at very moderate rates.

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FOR GROWERS AND DEALERS IN NURSERY STOCK.

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Vol. VII.

ROCHESTER, N. Y., FEBRUARY, 1899.

No. 1.

THE NURSERY PATRONS.

*Proceedings of Fruit Growers in Annual State Conventions—
Conditions and Prospects in Rhode Island, Western New
York, Illinois, Kansas, Pennsylvania, New Jersey,
Delaware, Maryland, Nebraska and Virginia.*

The forty-fourth annual convention of the Western New York Horticultural Society was held in Rochester, Jan. 25-26. Over 400 members were enrolled for another year. President William C. Barry of the firm of Ellwanger & Barry was confined to his home by the grip. Vice-president S. D. Willard, post-master of Geneva, presided. Among those present were:

Dr. G. C. Caldwell, of Cornell University; M. V. Slingerland, assistant entomologist of Cornell; David K. Bell, West Brighton; Professor W. H. Jordan, director of New York Agricultural Experiment station, Geneva; Wendell Paddock, S. A. Beach, of the same station; Oliver Troth, Camden, N. J.; L. H. Bailey, Cornell; I. P. Roberts, Cornell; S. S. Crissey, Fredonia; W. N. Britton, Rochester; Roland Morrill, of the Michigan State Horticultural society, Benton Harbor, Mich.; Herbert Collingwood, of the Rural New Yorker; L. H. Read, of the executive board of the Wisconsin State Horticultural society; William M. Orr, Fruitland, Ontario, Canada, superintendent of spraying experiments for provincial government of Canada; George E. Josselyn, Fredonia; J. J. Harrison, Painesville, O.; F. E. Rupert, Seneca; E. M. Moody, Lockport; T. S. Hubbard, Geneva; E. C. Peirson, A. H. Peirson, Waterloo; Wing R. Smith, Syracuse; V. H. Lowe, W. C. Smith, D. H. Patty, Mr. Henry, Geneva; C. H. Perkins, Newark; Irving Rouse, John Charlton, C. M. Hooker and others, of Rochester.

Professor Jordan advised the fruit growers of the state to organize and put the organization's label on their marketable fruit. Upon motion of S. Wright McCollum, of Lockport, the society endorsed a bill introduced at Albany, providing that where fruit growers dispose of their wares through commission merchants the latter shall, on application by the consignor, give to him the name of the person to whom the fruit was sold and the price paid. The intent of the bill, is to protect the grower against dishonesty on the part of the commission merchants.

Professor Slingerland delivered a lantern slide lecture on "Insect Pests of 1898." "Pruning and Cultivation of the Peach," was the subject of a talk by Roland Morrill, ex-president of the Michigan State Horticultural society at Benton Harbor. Mr. Morrill said he was somewhat modest in speaking before the society, as he considered Rochester as the center of horticultural knowledge and information. Mr. Morrill showed lantern slides and prefaced the illustrations with ideas on the cultivation of peach orchards. He advocated continuous cultivation and high fertilization with proper materials.

"We fellows out in Michigan think we know a thing or two about apple trees," said Mr. Morrill, "but bless you, you people in Western New York understand how to trim trees better than any I've ever seen."

Herbert W. Collingwood, editor of the Rural New Yorker, who raises strawberries down in Jersey with astonishing success and as a result knows all that can be learned about that fruit, gave some interesting and amusing experiences with the strawberry plant, interspersed with funny stories and jokes and a lot of good, homely philosophy. "I don't believe that a land ever wears out," he said. "It loses character and heart just like a man who's been abused. Cowpeas furnish the new character and the heart."

A new committee on the Patrick Barry gold medal for a new variety of fruit or ornamental tree, shrub, flowering plant or vegetable, was announced as follows: C. M. Hooker, John Charlton, John B. Colamer. There was no award this year of either the Barry prize or the George Ellwanger prize for the best collection of trees.

S. Wright McCollum, Lockport; I. H. Dewey and C. M. Hooker were appointed a committee on reclassification of freight weights. W. M. Orr read a paper on spraying. The meeting was probably the largest and most successful in the history of this well known society.

The exhibit of fruit was unusually fine considering the adverse conditions of 1898 for the growth of fruit. Ellwanger & Barry as usual made the principal display, although that of the state experiment station, at Geneva, was extensive. Ellwanger & Barry showed forty-five varieties of pears and thirty-six varieties of grapes. President William C. Barry, of the horticultural society, made special exhibit of a basket of superb specimens of the Anjou pear, and Mrs. Patrick Barry exhibited ten varieties of foreign grapes grown under glass as follows: Barbarossa, Raisin de Calabre, Gross Guillaume, Chasselas Napoleon, Black Alicante, Golden Queen, Black Morocco, Syrian, Golden Champion, Gromier du Cantal.

The following officers were elected: President, William C. Barry, Rochester; vice-presidents, S. D. Willard, Geneva; George A. Sweet, Dansville; Wing R. Smith, Syracuse; secretary-treasurer, John Hall, Rochester. Executive committee: C. M. Hooker, Rochester; C. W. Stuart, Newark; Nelson Bogue, Batavia; E. A. Powell, Syracuse; H. S. Wiley, Cayuga.

ILLINOIS.

The annual meeting of the Illinois Horticultural Society was held at Springfield, December 28-29. W. S. Perrine, Centralia; Charles C. Bell, Boonville, Mo.; H. R. Cotta, Freeport, and W. S. Ross, Alma, discussed fruit, and Arthur Bryant, Princeton, ornamental culture. A. M. Augustine, Normal, discussed commercial peach orchards, and H. Augustine the work of experiment stations. The legislature was urged to pass a pure food law. Many cash prizes of from \$2.00 to \$10.00 were awarded for fruit exhibited.

The following officers were elected: President, Henry M. Dunlap, Savoy; vice-president, R. A. Aldrich, Neoga; secretary, L. R. Bryant, Princeton; treasurer, J. W. Stanton, Richview; executive board, Henry M. Dunlap, Savoy; L. R. Bryant, Princeton; J. L. Hartwell, Dixon; G. L. Foster, Normal; H. L. Doan, Jacksonville; J. W. Stanton, Richview; C. W. Barnard, Manteno; L. M. Beal, Mt. Vernon.

KANSAS.

The annual convention of the Kansas State Horticultural Society was held at Topeka, December 27-29, with 150 members present. Among the prominent horticulturists there were Professor H. E. Van Deman, who discussed western orcharding, Frank Holsinger of Wyandotte, E. J. Holman of Leavenworth, George W. Munger of Greenwood, B. F. Douglas, Dr. Bohrer of Rice, S. S. Dickinson of Pawnee, E. D. Wheeler, state forestry commissioner; George E. Van Houten of Des Moines, secretary of the Iowa State Horticultural Society; Mr. Butterfield of Lees Summit, Mo.; A. F. Coleman of Corning, Ia.; A. L. Brooke, B. F. Smith, A.

THE NATIONAL NURSERYMAN.

H. Griesa, Professor E. E. Faville and E. A. Popenoe. President Fred Wellhouse presided. A number of papers were read and there was full discussion, all of which will appear in the society's annual report.

The following officers were elected: Judge Fred Wellhouse, Topeka, president; J. W. Robinson, Eldorado, vice-president; William H. Barnes, Topeka, secretary; Major F. Holsinger, Rosedale, treasurer.

NEW JERSEY.

The twenty-fourth annual meeting of the New Jersey Horticultural Society was held in Trenton, January 4-5. Secretary Franklin Dye of the State Board of Agriculture, and Secretary Budd of the Horticultural Society, strongly urged the members to keep posted on the details of the fruit growing business. The nurserymen are learning that it is necessary to keep posted on their business if they would succeed in the face of competition. Charles Black reported regarding the ravages of disease and insects during the year. Among those who delivered excellent addresses were A. Herrington of Madison, N. Butterbach of Oceanic, Hiram T. Jones of Elizabeth, H. W. Collingwood of New York, Director E. B. Voorhees of New Brunswick, Professor G. H. Powell of Delaware, Professor Byron D. Halstead of New Brunswick, Professor F. L. Beal of Washington, D. C., and Professor John B. Smith, state entomologist.

The following officers were elected: President, S. B. Ketchum of Bennington; vice-president, David Baird of Baird; secretary, H. I. Budd of Mt. Holly; treasurer, Charles L. Jones of Newark; executive committee, J. B. Ward, E. P. Beebe, D. A. Vanderveer, Ira J. Blackwell, J. B. Rogers.

PENINSULA.

The Peninsula Horticultural Society includes in its jurisdiction the whole of the Delaware and Chesapeake peninsula. It held its twelfth annual session in Smyrna, Kent county, Delaware, January 11 to 13. The papers read were eminently practical, and the discussions were spirited and to the point, being confined to stating facts rather than arguing theories. The range of subjects was wide, taking in all classes of fruits and vegetables that are grown in this climate. The prevailing opinion was that peach growing is by no means a thing of the past in this territory, for there is a strong and wide-spread determination to battle against yellows and other diseases, and the insects that have been destructive. The monilia fungus has been a very serious trouble for several years, and thorough spraying with Bordeaux mixture is the remedy, but it must be generally, persistently and thoroughly applied to be an effective preventive. The curculio is the worst insect foe, and a difficult one to manage. Jarring seems to be the only effective remedy and this will not come into general use for some time yet, because other troubles make the crop an uncertain one. With yellows and monilia under control, jarring for curculio would follow.

Apple growing has been on the increase, and with this increased attention, varieties have been studied and it has been learned that several kinds of high market value succeed admirably in this climate.

Grape growing and small fruits attracted a good deal of attention. The society was fortunate in having present Walter F. Taber, of Poughkeepsie, N. Y., who gave in detail the methods which have made him one of the most successful men

in the East. Successful Delaware and Maryland men added from their own experience information of timely and practical value.

The Maryland and Delaware experiment station men were on hand, and were loaded with good things which were freely distributed.

A. N. Brown, chairman of the committee on transportation charged that the railroad companies discriminated against the Peninsula fruit growers. The marketing of fruit was discussed by J. W. Kerr, Denton, Md. Prof. G. Harold Powell made a plea for nature study in public schools.

Officers were elected as follows: President, Captain R. S. Emory, Chestertown, Md.; vice-president, J. E. Carter, Smyrna, Del.; secretary and treasurer, Wesley Webb, Dover, Del. Captain Emory is an extensive and successful pear grower. Mr. Carter is largely interested in grapes, and the secretary has served in the same capacity since the organization of the society.

PENNSYLVANIA.

The Pennsylvania Horticultural Society held its fortieth annual session at Harrisburg, Jan. 18-19. Professor Van Deman, Parksley, Va., reported on nomenclature. Professor W. G. Johnson, state entomologist of Maryland recommended the adoption of the Maryland insect law. Cyrus G. Fox, George G. Stitzel and S. B. Heiges were appointed a committee on legislation.

Among the addresses were: "Quince Culture," W. B. K. Johnson, Allentown; "Improvement in Fruits and Flowers," Thomas Meehan, Germantown; "Nature Study in Schools," Frank M. Bartram, Londongrove; "Marketing of Fruit," A. N. Brown, Wyoming, Del.; "Legislation for Horticulture," William T. Creassey, Catawassa. The next meeting will be in Pittsburg.

The following officers were elected: President, S. B. Heiges, York; vice-presidents, Howard A. Chase, Philadelphia; Calvin Cooper, Bird-in-Hand; Gabriel Heister, Harrisburg; recording secretary, E. B. Engle, Waynesboro; corresponding secretary, William P. Brinton, Christiana; treasurer, Samuel C. Moon, Morrisville.

RHODE ISLAND.

The Rhode Island Horticultural Society met in Providence, Jan. 18. President Levi W. Russell presided and gave a summary of the society's exhibitions during 1898.

The following officers were elected; President, Joseph E. C. Farnham; vice presidents, Col. R. H. I. Goddard, Hon. Robert C. Taft, Edwin H. Burlingame; secretary and treasurer, Charles W. Smith; librarian, Christopher R. Drowne; Botanist, W. W. Bailey; board of trustees, Silas H. Manchester, E. I. Nickerson, J. G. Massie, J. D. Fitts, H. R. Teel.

NEBRASKA.

The thirtieth annual meeting of the Nebraska Horticultural Society was held at Lincoln, Jan. 10-12.

C. S. Harrison read a paper on "Parks and Forests;" E. F. Stephens, Crete, "Irrigation;" "Keeping Qualities of Apples," Peter Younger, Jr., Geneva.

In order to meet the expense of secretary sending out reports, etc., for the coming year, \$300 of premium money was donated by the members. No other western state gives so small an appropriation to its horticultural society as Nebraska, and few other societies are doing more good work. At Omaha

the highest medals for fruit were awarded to Nebraska growers. Five thousand reports of the work are circulated each year, and applications for them have been received from all parts of this country, and even from France. The members of the society feel that much more could be accomplished if the necessary funds were guaranteed. Iowa sets apart \$2,800 for the purpose and Illinois \$4,000. Aside from the premiums about \$1,500 are required for the running expenses of the Nebraska society.

The society declared that a park and forestry association for Nebraska should be formed.

The society elected the following officers: President, George A. Marshall, of Arlington; vice-president, J. H. Hadkinson, of Omaha; secretary, C. H. Barnard, of Table Rock; treasurer, Peter Youngers, of Geneva.

COMING MEETINGS.

Horticultural society meetings have been called as follows: Connecticut, at Hartford, Feb. 1-2; Quebec, at Montreal, Jan. 31-Feb. 1; Wisconsin, at Madison, Feb. 7-10; Nova Scotia, at Annapolis, Feb. 20-22; Eastern New York, at Albany, Feb. 21-22; Vermont, at Burlington, Feb. 21-22; Central Missouri, at Booneville, March 4; Massachusetts, at Worcester, March 8-9.

EASTERN NURSERYMEN.

The annual meeting of the Eastern Nurserymen's Association was held in Rochester January 25. The following officers were elected: President, William C. Barry; secretary, William Pitkin; executive committee, George A. Sweet, of Dansville; Wing Smith, of Syracuse; Irving Rouse, of Rochester; R. G. Chase, of Geneva; Charles J. Brown, of Rochester.

PLUMS FOR AMERICA.

J. W. Kerr, Denton, Md., in the course of a paper before the Maryland Horticultural Society, made an earnest plea for the native plum and concluded with this summary:

The case stands: The Japan plums upon the whole, are an acquisition of value to our fruit interests, up to date in moderation, still a blessing. Not as an orchard fruit in their present status, but rather as means, the instrument, with which the size of many of our native varieties can be increased and the quality of others improved. We cannot afford, nor should we risk any process or operation in this connection by which would be sacrificed the sterling points of superior excellence in the vital make-up of the trees of the purely American group. By a careful and comprehensive system of hybridizing, sooner or later, the desired balance between the two will be reached, resulting in trees possessing or rather retaining the vigorous and tough constitutions of our native groups with fruit equaling the best Japans in size and quality, and far less susceptible to the monilia which, in so many localities, rots the fruit of the pure Japans and to a greater or less extent corrodes the morals of the grower. Until this is accomplished and demonstrated by orchard results, it is infinitely safer where it is the purpose to reduce plum growing into dollars and cents, to plant an intelligently selected list of the best natives. The orchard ration is about 16 to 1 in favor of pure American varieties as the markets attest.

DUE APPRECIATION.

JOSEPH M. NEIL & CO., LA PORTE, IND., Jan. 25, 1899.—“The NATIONAL NURSERYMAN is very valuable and worth many times the price. We enclose \$1 to extend subscription. Every one in the trade who desires to be informed should be a subscriber. We should have renewed before.”

In Common Council.

Editor NATIONAL NURSERYMAN:

Among the most important items that we wish changed in the western classification, is the following: “Trees and shrubbery in bales completely wrapped or in bundles with bottoms boxed, each weighing 100 lbs. or over, 1 class; in bales or in bundles with bottoms boxed, each weighing less than 100 lbs. D1 class; in bales, roots wrapped, each bale weighing 100 lbs. or over, 1½.” We think this rule should be amended so as to allow the nurseryman to ship bales not completely wrapped, weighing less than 100 lbs., at the first class rate. For instance, if we desire to make a shipment of fifty bales weighing 800 lbs. it would be necessary for us to tie the fifty bales into eight bundles, making a very awkward bundle to handle as well as causing more or less injury to the stock. We see no reason why the railroad company should not haul the fifty bales at the same rate billed “Owners's risk and count,” not holding them responsible for errors in counting or checking off.

Another concession that we desire is on shipments of less than carlots—say from 4000 to 6000 lbs.—going to local points.

For instance, if the nurseryman desires to ship within 50, 100 or 200 miles on the same line of road where there is no transfer, he should be allowed to pack in bulk in car at the same rate as though the goods were boxed.

Another item is the matter of packing used in car-lot shipments. We think this rule should be amended so as to allow the nurseryman to use 1,500 lbs. of packing for each car. Every nurseryman knows that in order to pack trees in bulk and have them go through in good condition it is necessary to use a liberal amount of wet packing. The amount of water that is weighed up on the shipper at point of shipment will average at least 1,500 lbs. when if the same shipment is weighed at destination—if it travels any distance—this weight will all have disappeared by evaporation and leakage. This has been our experience from actual weights of shipments.

We would be pleased to hear the views of others along the line, as when the committee goes before the Traffic Association it will be necessary to be united and reasonable in our demands.

PETER YOUNGERS, JR., of Youngers & Co.
Geneva, Neb., Jan. 6, 1899.

PROFESSOR BAILEY ON THE SCALE.

Editor NATIONAL NURSERYMAN:

Persons who have read the note in your January issue respecting my remarks on the San Jose scale, desire that I define my position in respect to the matter. This I gladly do. I have said that we should not get up a scare on the San Jose scale. I have also said that if I had to choose between the scale and the codlin-moth in my own orchard I should take the scale. This is because I believe the scale more amenable to treatment. At the same time I am equally convinced that the scale may become a more serious pest to the state than the codlin-moth is, from the fact that the scale is readily distributed on plant stock and that it may kill the plants. I believe most emphatically in inspection.

L. H. BAILEY.
Ithaca, N. Y., Jan. 28, 1899.

NEXT GREAT MOVEMENT.

Horticulture in Europe Contrasted with that in America—Starting Figures Presented by Professor Bailey Regarding Agricultural Education on the Continent—What Is Needed for American Progress.

At the meeting of the Western New York Horticultural Society last month, Professor L. H. Bailey, fresh from a European trip, contrasted most entertainingly and instructively European and American horticulture. The limited time allowed him on the programme gave opportunity for but a suggestion of what the professor has in store as the result of his investigations.

"While there are in England," said Professor Bailey, "some large areas devoted to horticulture. European orchards and fruit plots are, as a rule, small. The commercial idea is not largely developed in Europe. There the people are satisfied if they can make a living out of their fruits. In America the fruit grower is not satisfied unless he can make a living and put money in the bank and become rich. In America everything is on a speculative basis. European orchards have a great variety of trees. Orchards that were originally apple orchards now contain here a cherry tree and there a plum or a pear tree, all through them. When an apple tree died it was replaced by an apple or other tree.

"The only attempt is to supply the local markets. For that reason Americans have been successful in shipping fruit in large quantities to Europe. Orchardists across the water do not attempt much in the wholesale way. And there is a difference in the fruits grown. Blackberries are practically unknown in Europe; they have no cranberries there as we know the fruit; field pumpkins, sweet potatoes and even bananas are not at all common. The question in America is, what variety of apple or pear is good for this section of the country. In Europe the question considered is, what variety is good for this town.

"Spraying, although having its origin in the old country, is not practiced as in America. We are far ahead of the Europeans in this respect. Of course there is extensive spraying of vines along the Rhine, in Northern Italy and in the Tyrol. But most of the spraying in Europe is on a smaller scale, with the knapsack sprayer. There could not be there such a discussion of spraying as we have heard here this afternoon. Indeed, there could not be such a convention of horticulturists as this in Europe."

Some notes as to yields of fruit trees and shrubs, taken from statistics in Kent county, England, the garden of the United Kingdom, were given. Six tons of pears are raised to the acre, and they sell at two cents per pound. Raspberries are packed in half barrels containing eighteen gallons. It should be added that these are used mostly for jam. Strawberries are carried in four-quart baskets. Plums, cherries, gooseberries and currants are packed in half-bushel baskets covered with green grass or paper. The transportation rate, from a point eighteen miles distant, to London, is \$4 per ton for apples and \$5 per ton for strawberries.

"As to the outlook for American fruit in Europe," continued Professor Bailey, "it should be borne in mind that European growers will supply the market for special varieties. The discriminating trade in Europe will be met by the home growers. But for the mass of the people who are glad to get

fruit of any kind, there is opportunity for the American grower. The outlook for large shipments, for instance, of the Ben Davis apple is good; and those who will eat the Ben Davis will also eat the Kieffer pear. But the European fruit growers are organizing to combat the American trade. They are going to try to drive the American out. I was in Germany at the time the embargo was put upon American fruit and trees. I was convinced that such action was not a matter of vindictiveness, but of self protection simply. If there had been as much written in Germany about an insect there as has been written about the San Jose scale in America, I would have been one of the first to have demanded an embargo upon German fruit. I think we have been too much scared ourselves. The San Jose scale is a serious pest, but it is a fair question whether we have not made too much stir about what we cannot help."

On the subject of the schools in Europe, particularly agricultural schools, Professor Bailey gave figures that were startling. The American people think this country has done much in the way of providing agricultural education and establishing experiment stations. Professor Bailey referred to the hundreds of agricultural schools in the European countries, and turning to France said that country has 3,362 schools of agriculture and 78 experiment stations which, in 1896, cost \$900,000. Besides this there are 79,000 primary schools in France where agriculture must be taught.

"Bavaria, Wurtemberg and Baden fifty years ago were in the condition, agriculturally, that Ireland is to-day," said Professor Bailey. "They have been raised to their present advanced state by government aid. The difficulties in the way of agricultural progress will not work themselves out, European governments have been alive to the importance of the matter.

"We in America have done much in the way of advancing our agricultural interests, but there is much more that must be done. We have provided institutions for higher education in agriculture; we have traveling lecturers and we have experiment stations. I think we do not need any more agricultural colleges nor any more experiment stations. But we do need to have agriculture taught in our public schools and our young people should have actual farm training. It may not be deemed advisable to teach agriculture in our primary schools. I want to call your attention to the importance of nature study. This is pursued at Cornell University with great success; also at other places. There are already 23,000 teachers ready to superintend and 16,000 pupils have asked for nature study. We have not the necessary actual training on the farm. In Europe there are model farms, but these are expensive. We have many model and typical farms. My proposition is that the government pay a certain sum, an honorarium, not a salary, to every farmer, per pupil, to impart instruction to boys outside of his own family; that a central bureau determine the fitness of farmers to impart this instruction.

"In my opinion farm training must be the next great agricultural movement in America. We have seen four great movements: 1, Agricultural colleges; 2, farmers' institutes; 3, experiment stations; 4, nature study. The fifth must be farm training."

C. F. McNAIR, DANVILLE, N. Y., January, 27, 1898—"Enclosed is our \$1 for your journal, which we cannot get along without and look for each month."

Among Growers and Dealers.

William Rosso will start a nursery at Johnson, Neb.

Thomas B. Meehan, Germantown, Pa., visited Rochester nurserymen last month.

L. C. Bobbink, Rutherford, N. J., representing foreign exporters, visited Rochester nurserymen recently.

Nelson Smith, of E. Smith & Sons, Geneva, N. Y., was in Rochester during the horticultural society meeting

The post office address of the Evergreen Nursery Company has been changed from Evergreen, Wis., to Sturgeon Bay, Wis.

George T. Powell, Ghent, N. Y., advocates the formation of a horticultural bureau by the New York Department of Agriculture.

Henry Schroeder reviewed the record of horticulture during the last decade in Keokuk county, before the Southeastern Iowa Society.

Pierce Bechtle, Le Mars, Ia., says there are a number of varieties of apples in the northwestern part of Iowa that are giving large crops of fine fruit.

California horticulturists propose the adoption of a new law in that state governing the quarantining of fruits and trees affected with insects or disease.

A bill pending before the Illinois legislature proposes to place \$5,000 in the hands of the state entomologist for the work of combating San Jose scale.

Gilbert Costich, Rochester, N. Y., purchased the nursery stock and implements of William S. Little last month for \$200. The office furniture was sold for \$9.75.

The American Newspaper Publishers' Association has presented to the United States-Canadian Joint High Commission a brief arguing for the preservation of the forests.

Ground for the horticultural building in the new botanical garden in Bronx park, New York, was broken on January 3d. The building will be ready for occupancy in October.

J. M. Hutchinson, representing August Rhotert, New York city, American agent for French, German, Holland and Belgium growers, called on Western New York nurserymen last month.

Joseph M. Neil & Co., La Porte, Ind., write: "Trade is opening beautifully down this way. The indications for a profitable season are most encouraging and will certainly be appreciated."

Kinsey's Fruit Farm and Nurseries, Kinsey, O., will hereafter be conducted under the name of William N. Kinsey, who has been the proprietor since the death of his father Samuel Kinsey, in 1883.

The Osborn Stoddard Nursery Co., Madison, N. J., has been incorporated with a capital stock of \$10,000. The incorporators are: William O. Stoddard, Jr., William D. Green, James H. Baker, Edmund K. Brown and Isaac K. Van Dewater.

Professor J. L. Budd who recently resigned the position of the head of the department of horticulture and forestry in the Iowa State Agricultural College, has begun a revision of Professor Charles Downing's apple book. To Professor Budd was willed the library of Charles and A. J. Downing.

Secretary A. J. Phillips of the Wisconsin Horticultural Society calls attention to the fact that while Montana exhibited

at Omaha exposition a Wolf River apple said to weigh 32 ounces, Wisconsin showed four of this variety weighing together seven pounds and two ounces. The Wisconsin and Missouri apple exhibits were especially fine.

"W. E. Houghton, of Ohio, likes to use a glass label for fruit trees," says Rural New Yorker. "He writes the name of the fruit and the name of the fruit agent on a slip of paper, and rolls it around a small, round stick. This is then put into a small homeopathic pill bottle, which is corked up and wired to a tree. It is a first rate plan to put the agent's name with the name of the tree. This information may come handy when the tree gets into bearing."

The stockholders of the West Michigan Nurseries have elected the following directors: John W. Bedford, Cushing; Arthur J. Dean, Eau Claire; H. A. Rackliffe, O. E. Fifield, C. W. Schriver, Benton Harbor; Frank M. Kelley, Benton Harbor; Milton Preston, Eau Claire; W. B. Moshier, Eau Claire; H. L. Bird, Benton Harbor. The directors have chosen these officers: President, John W. Bedford; vice-president, Frank M. Keller; secretary and treasurer, H. L. Bird; general manager, Charles W. Schriver; superintendent of farm, W. B. Moshier. There are 913 acres in the nurseries at Benton Harbor.

NEW ZEALAND SCALE LAW.

The governor of New Zealand has issued a proclamation stating that whereas it has appeared to his satisfaction that fruit trees and plants infested with various species of scale insects have been and still are imported into New Zealand to the danger and detriment of the fruit plantations of the country, the importation is absolutely prohibited of any trees or plants, including cuttings, buds, etc., infected with scale insects. To enable thorough control of the inspection necessary the ports of Auckland and Wellington are designated as the only two ports for such importations.

IOWA PLUM CULTURE.

Silas Wilson, Atlantic, Ia., is trying an extensive experiment in plum culture. The plum stands a good chance to take part of the prestige of the apple in Iowa. Mr. Wilson presented at Iowa Horticultural Society meeting a paper on the *Domestica* plum, whose culture has been neglected in Iowa for the Americana, Chickasaw and Japan. The south half of Iowa, said Mr. Wilson, is well adapted for the culture of the *Domestica* plum. He now has 3,000 *Domestica* trees under cultivation and about 500 of Americana and Chickasaw. The culture has been discouraged on account of the stock. Professor Budd suggested the sand cherry as a stock. Mr. Wilson said about his *Domestica*: "I expect to market in the near future as many bushels of plums from my *Domestica* trees as my friends who are giving all their attention to the native varieties, and I expect also to receive double the price for the same amount of plums that they do for theirs."

C. G. Patten, of Charles City, who has been appointed the Iowa delegate to the American Pomological Society convention, with Eugene Secor, of Forest City, as alternate, said there would be a warning note sounded about the *Domestica*, because, he said, the cold winters which occasionally sweep over even Southern Iowa will kill it out.

market on a carnation. Peter Fisher of Boston originated a variety which he named after the wife of T. W. Lawson. The carnation was boomed by Thomas F. Galvin and New York and Chicago people used every effort to procure the flower. According to the New York papers, Mr. Lawson offered \$30,000 for the 8,000 plants Mr. Fisher has, and the control of the variety. New York florists, it is said, are endeavoring to procure a plant of the Lawson from which to propagate. Single flowers of the Lawson carnation are rated at 75 cents. The story was denied but late last month Mr. Fisher acknowledged the sale at the price named.

The Mrs. Thomas W. Lawson carnation is a seedling of Daybreak and Van Leeuwen, originated four years ago. Last spring it won the silver medal of the Massachusetts Horticultural Society. It is registered with the American Carnation Society under the following description: "Color, dark pink; flowers of great size borne on an exceedingly long and strong stem, with an excellent calyx; vigorous growth and a free and early bloomer."

The story of the Lawson carnation had scarcely been denied when the The New York Times, not to be outdone by its contemporaries, announced that "for original business methods there live florists in Boston who can easily outdo New York tradesmen and throw those of Chicago into fits of envy." It is related that upon the death of Fanny Davenport, the actress, a Boston florist cabled actors and playwrights in London and Paris suggesting that wreaths be placed on the grave. All replied in the affirmative. A few weeks ago Victorien Sardou received a bill for \$110 and thereupon used some strong French words and refused to pay the bill. Other bills were: Olga Nethersole, \$60; Charles Wyndham, \$75; Henry Irving, \$90; Beerbohm Tree, \$100. Miss Nethersole is the only one who has paid for a wreath. High-priced nurserymen's novelties now seem cheap.

Professor William B. Alwood, entomologist of Virginia, has addressed a circular letter to horticulturists and entomologists embodying the information in the January issue of the NATIONAL NURSERYMAN regarding the federal scale bill.

THE BUSINESS OUTLOOK.

A conservative and authoritative estimate of the business outlook is that of the Storrs & Harrison Co., Painesville, O., who write as follows to the Florists' Exchange:

The volume of business transacted by us during the year 1898 was somewhat of an increase over that of last year, or in fact, any previous year, but as some of the leading items were lower in price the total received was but little more than in previous years. Remittances were more promptly made, we think, than during the three previous years.

As to the outlook we are living in hope. From present indications we think there is reason to anticipate a more lively trade the coming spring, unless something turns up to knock it in the head as the war scare did last spring. There should be an increased demand for apple and peach trees next spring, as there appears to be much greater inquiry for them than is usual at this season of the year. One thing that would benefit the trade would be the removing of the Canadian prohibition on importations of nursery stock; another, a decrease in plantings or production, one-half the quantity would bring the trade more profit than the whole does now.

WINTERING NURSERY STOCK.

There are many ways of wintering nursery stock in cellars, say Stephen's Hoyt's Sons, Connecticut, in answer to a query in the Rural New Yorker. Cellars for storing nursery stock for winter are usually made one story, say four-foot posts, covering a suitable piece of ground for such purpose. By suitable we mean ground that is dry, so that no water will stand in the ground. It is our custom to heel in the trees, in this covered ground, as thickly as we can stand them and have the soil work in among the roots. We always heel in not in bunches, but with the roots spread so that the earth may readily work in among the roots. In many of the dirt cellars, the trees are tied in bunches and piled up, covering the roots in moss or shavings, or any damp material, so that no roots are exposed to the air. In this way, a dirt cellar may be packed to hold five or six times as many trees as when the trees are heeled in as we do it. We have never tried this plan from the fact that we never approved of the method; yet trees may be kept all right when piled up as above stated. We have always found it a safe way to keep the trees, to heel in, and so have always followed this course.

In moderate or thawy weather, we open the ventilators to change the air, and if the cellar gets too warm, leave them open on a cold night to cool the cellar down somewhat. The cellar should be kept cool, and if it freezes some, it does no harm where the trees are properly heeled in. A cellar 25 x 75 feet will hold from 12,000 to 15,000 peach trees when heeled in, and about the same of pear. Trees thus wintered should be set out early in the spring, as they will start earlier than those left out through the winter.

NEW GEORGIA RULES.

The Georgia State Board of Entomology, composed of Chairman O. B. Stevens at Atlanta, P. J. Berckmans and J. Pope Brown, on January 18th, adopted the following rules regarding the shipment of nursery stock:

RULE 5. Each and every box, bundle or package of trees, shrubs or other plants commonly known as nursery stock shipped in car-load lots, or less than car-load lots into the State of Georgia from any other state or county, shall be plainly labeled with a certificate of inspection furnished by the entomologist, fruit inspector or other duly authorized official in the state or county in which said stock was grown, and also with the official tag of the Georgia State Board of Entomology hereinafter provided for, said certificate and tag to be valid for only twelve months from the date they bear, in accordance with sections 9 and 10 of the act cited. Such shipments not so labeled shall be liable to confiscation upon the order of the inspector.

RULE 6. Upon the filing of the proper certificate as above prescribed in accordance with section 13 of said act, and upon request of any person or persons residing in states or counties outside of the State of Georgia, dealing in or handling trees, shrubs, or other plants in this state, the certificates of the State Board of Entomology will be issued to the same without charge, and official tags bearing a fac simile copy of such certificate and the seal of the said board, will be furnished such applicants at cost, viz.: 69 cents for the first hundred or part thereof, and 25 cents for each additional hundred.

The provisions of the new Georgia law were published in the last issue of this journal.

FINDS IT VALUABLE.

J. C. GROSSMAN, WOLCOTTVILLE, IND., December 2, 1898—"Enclosed find \$1 to renew my subscription to NATIONAL NURSERYMAN. I find it worth considerable to me."

AN INSPECTOR REPORTS.**Wesley Webb's Statement to the Governor of Delaware—Examined Suspected Stock with Magnifying Glass—The Axe, Fire and Kerosene Employed in Orchards—No Indications of the Scale in the Nurseries of the State.**

Wesley Webb, inspector for the state of Delaware, makes the following report to the governor regarding his work for 1898:

I have found it necessary to devote nearly all my time to this work during the past season. The infested orchards have been visited as occasion demanded, some of them repeatedly. A minute and painstaking examination with a glass was made of suspected trees and shrubs; and in order to encourage prompt and effective action by the owners of the trees my services in applying remedies were freely given. The treatment advised depended upon the conditions to be met. When only a few trees were involved, while large interests were at stake, destruction by axe and fire was unhesitatingly advised and in most such cases was applied, with the most satisfactory results. Where a large number of trees were already infested, and no large number of additional trees were endangered, treatment with kerosene was recommended. The results of this treatment have been satisfactory in nearly all cases, and very little or no injury to the trees has come from the application of this very efficient insecticide. It is not a safe remedy to apply to peach and plum trees, but apples and pears may be treated safely at any season of the year, precaution being taken to use it in a fine spray in sufficient quantity only to wet the surface of the tree, and only on a sunny day.

Inspection of the nurseries of the state has shown them to be without any indications of the presence of the scale.

Since the introduction of this scale into Delaware thirty-eight orchards and gardens have been found to be infested with it. Six new cases have been brought to light within the last year. Twelve of these thirty-eight places are now probably free, as no scales have been found on them in 1898; fifteen others are so nearly free that it would be difficult if not impossible to find any scales now. There remain eleven cases of varying degrees of infestation, some of them having been only recently put under treatment.

It thus appears that there is reason to believe that the San Jose Scale can be eradicated from the state in a few years by vigilant and prompt action.

Respectfully submitted,
WESLEY WEBB.

Dover, Del., January 2, 1899.

CONTROLLING THE SCALE.

In a bulletin on the San Jose scale just issued by the Cornell station. H. P. Gould says:

Another season's experience has again demonstrated that the San Jose scale can be as easily controlled as many of the insects with which the farmer and fruit-grower are more familiar. The potato-bug has been fought for twenty years, the codlin-moth has been given annual treatments of Paris green ever since the general spraying of orchards has been practiced, yet these insects reappear in abundance every year. They and their kindred, however, cause no alarm; but if they were left unchecked in their ravages, the annual losses from them in this state would be almost inconceivable.

It may not be possible, from a practical point of view, to exterminate the scale in an infested orchard without injury to the trees any more than it is possible to exterminate the potato-bug; yet I am convinced that the same vigilant, persistent effort which controls the potato-bug, codlin moth and other insect pests will also control the San Jose scale.

I do not wish to minimize the danger from this insect, for it is indeed serious under conditions favorable for its development, but there has been a tendency unduly to emphasize the seriousness of the pest.

J. G. PATTERSON & SON, STEWARTSTOWN, PA., Jan. 14, 1899; "We mail (within) \$2 for our advertisement in your invaluable paper. It brings the answer all O. K."

AROUSED A POET.

There has been a movement in Minnesota to introduce a San Jose scale bill coupled with bond and license features similar to the one that came up two years ago. E. H. S. Dartt, of the girdling station at Owatonna, Minn., has evidently been thinking of the subject. This is the result:

THE SAN JOSE SCALE.

BY E. H. S. DARTT, OWATONNA, MINN.

This little pest of modest mien,
So small that it can scarce be seen,
Has swept our land from sea to sea
And ruined many a noble tree.

But by far its greatest harm
Has come to us through false alarm;
Bugman meets it as a stranger,
And to warn the seedy granger.
He opens eyes as wide as owl's
And fills the land with horrid howls.

He's cunning, and he thinks he sees
A chance to get some extra fees.
And so he howls and howls again
Until he's fooled our wisest men,
Who, in their fright invoke the law,
And from the bugman's wisdom draw.

The law is founded on inspection
And many scales escape detection,
And these they join in grand cotillions
For each scale left will make its millions.

State after state has been invaded,
And legislatures have been raided
By bugmen and their constant friends,
Who seek to forward selfish ends.

In Minnesota's frigid clime
The scale can't live an hour of time.
And still they want a law made stout
To keep the foreign rascals out,
And if it kills tree competition
'Twill better suit some men's condition.

Now while these persons keep on braying,
Old farmer John he works at spraying,
And it affords him great delight
To know that scales can't stand the fight.

But he's inclined to swear and cuss
Because they've made this awful fuss.
They've scared the Dutchman and Canuck
Till they refuse to take our truck.

If I could only have my way,
I'd save the world in half a day;
I'd girdle every mother's son
Caught doing what these fools have done;
I'd clean the trees with whale oil soap
And hang the rascals with a rope.

Humbugs, bedbugs, fleas, lice and rats,
Bugmen, Beermen, dogs, mice and cats
I'd crowd upon some worthless ship
And then I'd give it Hobson's tip.

BETTER THAN A CIRCULAR.

One advantage of the newspaper over the circular as an advertising medium is that it not only prints your advertisement but attends to its distribution as well.—Printer's Ink.

FRUIT BUD DEVELOPMENT.

R. M. Kellogg, Three Rivers, Mich., in a paper read before the Michigan Horticultural Society on fruit-bud development said :

Since the fruitgrower puts out trees and plants to secure the products of the fruit-buds, and is interested in the production of wood buds only so far as they contribute to the production of bloom and consequent fruit, we may consider some of the means of directing the energies of the plant in that direction. First, we insist that the weakness or disposition to form only wood-buds and runners is inherited, and therefore no tree or plant known to be unfruitful shall ever be used for propagation. It is a well known law of nature that when any power or faculty is not used for a long period it will become dormant and finally disappear; and when a plant through bad propagation or otherwise becomes an habitual wood-bud maker, it is not easily persuaded by any system of tillage to return to fruitage.

I have long felt that the practice of taking scions from nursery rows through many generations, without allowing them to bear fruit, is wrong. Such trees are not only late in coming into bearing, but they are easily exhausted, and in this weakened condition readily fall a victim to insects or fungi; and I beg to express my conviction that this has contributed more to the present deplorable condition of our orchards than any other one thing.

REGARDING SCALE LEGISLATION.

The American Agriculturist has the following pertinent remarks on the San Jose scale :

The inspection of imported nursery stock is now required by the laws of a number of states. In Michigan, New Jersey, Maryland, Kentucky, Iowa and North Carolina the law requires that there be attached to nursery stock coming from without the state certificates warranting it to be free from San Jose scale. Similar legislation is proposed for Massachusetts, New York, Ohio, Illinois, Nebraska, and perhaps other states. Quite a mass of legislation providing for the inspection of nursery stock within each state has also been enacted. Canada prohibits the importation of stock infested with San Jose scale. Uniform laws on this whole subject are desirable and can be readily obtained this winter if those interested will bring the matter before their state legislatures. A compilation of all federal, state and Canadian laws on the subject was published by the NATIONAL NURSERYMAN of Rochester, N. Y. We by no means underestimate the danger threatened by the San Jose scale, but there are other pests equally if not more serious, and we dislike to see the scale scare being worked to foster unnecessary legislation and expensive officials.

NURSERY CHRISTMAS TREES.

Mr. Hoyt, New Canaan, Conn., speaking of nursery grown Christmas trees said to the Rural New Yorker :

Nurserymen who live near villages or cities have some call for spruce or pine, but not many are sold. I presume that, if a nurseryman should plant for this purpose, and give room enough so that they would make a good form, quite a number might be sold. All sizes, from 3 to 4 feet up to 12 and 14 feet, are called for. The smaller sizes would sell at wholesale at from 15 to 20 cents each; retail, from 35 to 50 cents. The larger trees of good shape and color will wholesale at \$1, and retail for \$1.50 or \$2. Nursery-grown trees are of good shape, and they might be grown at a profit if handled just right. A good many evergreens are used about butcher shops, saloons and stores, which are of poor shape and bring a low price. Their shape is of no particular object in such places. The retailer does not want to give much for good trees, and is not willing to pay more than he can buy wild trees for. So that there is little encouragement for nurserymen to grow them. Three years ago, we sent two carloads of trees to New Brunswick, N. J. There were from 800 to 1,000 trees, and all we got for the lot was \$51.

Long and Short.

Spraying apparatus is offered by the Deming Co., Salem, O.

Linton & Kaup, Marceline, Mo., want Buerre Gifford pear trees.

C. L. Whitney, Warren, O., makes a specialty of small evergreens.

Houghton gooseberry plants are offered by W. B. Fulton, Kirkwood, O.

Millions of strawberry plants are ready for the trade at P. D. Berry's, Dayton, O.

Peach trees in 33 leading sorts are offered by Josiah A. Roberts, Malvern, Pa.

High grade ornamental stock is offered by Hoopes, Bro. & Thomas, West Chester, Pa.

The Dayton Fruit Tree Label Co., Dayton, O., has an unrivalled assortment of labels.

R. H. Blair, Kansas City, Mo., offers a general line of nursery stock and his well known box clamp.

Loganberry, transplanted and rooted tips, are wanted by William Fell & Co., Hexham, England.

New strawberries are offered by Flansburgh & Pierson, Leslie, Mich. The most complete list in Michigan.

Columbia raspberry, 2,000,000 fine plants, are offered by the originator, J. T. Thompson, Oneida, N. Y.

Albemarle Pippins and Winesap scions may be obtained on short notice of J. T. Clark, Yanus Mills, Va.

The Hicks grape is called the new Concord of the 20th century. It is offered by Henry Wallis, Wellston, Mo.

Tree and plant labels of all kinds and nursery stakes are offered by the Wooden Goods Co., Minneapolis, Minn.

A large surplus of small fruits and ornamental stock awaits a proposition at Parry's Pomona Nurseries, Parry, N. Y.

Greenville apple, Greenville strawberry and Eldorado blackberry headquarters are at Buechly's nursery, Greenville, O.

W. B. Cole, Painesville, O., offers at attractive prices a large lot of peach, plum, dwarf pear, Wealthy apple and small fruits.

Home grown roses and other ornamental stock must be sold to clear ground at the old Brighton Central Nurseries, Brighton, N. Y.

Some specialties in addition to the large stock of general nursery stock, are announced this month by the P. J. Berckmans Co., Augusta, Ga.

D. Hill, Dundee, Ill., is long on American Arbor Vitæ seedlings, Pinus Strobus, Hemlock and Douglas spruces. He has a large stock of all evergreens.

C. H. Joosten, representing the Boskoop Holland Nursery Association, offers hardy low-budded roses at very low prices; also tree roses, rhododendrons, etc.

The well-known Rossney pear can be had of the Pioneer Nurseries Co. Salt Lake City, Utah, or of the eastern agents, Phenix Nursery Co., Bloomington, Ill.

Brewer & Stannard, Ottawa, Kan., call attention to their complete assortment of nursery stock, apple, pear, cherry, peach, plum, apricot, small fruits and ornamentals.

Carolina poplars, especially adapted for city planting, are offered in large quantity by the Storrs & Harrison Co., Painesville, O. Smoke and gas have no effect on this tree.

The Evergreen Nursery Co., Sturgeon Bay, Wis., has an attractive announcement in this issue regarding evergreens offered to the trade for the spring of 1899. Any want can be supplied by this firm, which is in the land of the coniferæ.

T. S. Hubbard Co., Fredonia, N. Y., have a fine stock of Campbell's Early as well as other grape vines and small fruits on which they will give special prices to all who will send them a list of their wants. They also have a stock of Campbell's Early on the Canadian side which they can ship Canadian customers.

In Nursery Rows.

BORDEAUX MIXTURE.—To be effective this must be mixed shortly before being applied. As it is ineffective when kept even for a few weeks nothing is gained by the supposed economy of keeping it from one season to another.

SUTTON BEAUTY.—J. H. Hale: "You have gone all over the country to find new varieties, you people of New England and have neglected for forty or fifty years the best kind of them all, originated in the state of Massachusetts, the Sutton Beauty. I quite indorse what Mr. Powell says of it. One reason why it has not been widely disseminated, is because it is a slow grower in the nursery, while Baldwins are much more profitable to the nurseryman."

THE YELLOW WOOD.—During many years the late Andrew S. Fuller lauded the Yellow Wood, *Cladrastis tinctoria*, as the king tree of the lawn. The editor of Rural New Yorker has followed as an advocate of this noble lawn tree. But now Mr. Carman reports that his tree is dying when twenty-seven years old, and that Mr. Fuller's finest tree has died. Professor J. L. Budd has agreed that the tree in Iowa seemed to be an ironclad. At Ames trees over twenty years old are still perfect, and he speaks of one tree in Des Moines forty years old still perfect and very beautiful. As yet his opinion is that the Yellow Wood and Cut-Leaved Birch are our finest and hardiest lawn trees.

LONG APPLE SCIONS.—Making apple root grafts with long scions is entirely practicable, judging by my own experience, says Professor Van Deman in Rural New Yorker. I am now thinking of putting up a few thousand for my own use, and if I do so, I expect to cut scions about one foot long, with well developed terminal buds. Only good strong one or two-year-old apple seedlings should be used, and these may be made into two good cuts. I was talking at the Omaha Exposition with F. Wellhouse, of Kansas, and J. C. Evans, of Missouri, on this very subject. As they are among the very largest and most experienced orchardists in the world, and grow their own trees for planting, what they say is the very safest to follow in this matter. They both agreed, and said in plain terms that they now practice using longer scions than formerly, and not over three-inch pieces of first class apple seedlings. These long scions are a little more bother to handle than the old six-inch cuts, but they are more easily cultivated when small, and make better trees.

THE SILVER SPRUCE.—M. E. Hickey, Marcus, Ia., says of this king of evergreens: "The lovely Colorado spruce will never be common until it is grown from cuttings or by grafting. It will not surely reproduce from seed." As grown from seed, says Professor Budd, not more than one in a hundred of the trees will take on the beautiful silvery blue expression of the specimen trees we see in Denver or Nebraska cities, and in now and then a yard over the whole Northwest. But in dividal specimens of the rarest shades can be reproduced exactly by growing from cuttings of the young wood and by grafting. Fortunately for the perpetuity and general planting of these finest specimens, it grows more easily and uniformly from cuttings than any ever green except the Arbor Vitae and Juniper. Hoopes Brother and Thomas, and other eastern propagators, grow them from cuttings with about as much certainty as the rose. Over the prairie states, where the tree is such a success, its growth should be taken up by those who understand propagation under glass.

WAXED CLOTH FOR BUDDING.—Answering an inquiry as to how waxed cloth for budding is made, H. E. Van Deman, in the Rural New Yorker, says: "The way I make waxed cloth for budding or grafting is to heat ordinary grafting wax in a kettle until it is as liquid as water. Prepare tender muslin or calico cloth in strips about six inches wide and of any convenient length, say one or two feet. Cut small sticks the size of a lead pencil into lengths two inches longer than the cotton is wide. Roll the cloth on them, one piece after another until about two inches in diameter. Drop these into the hot wax, and let them thoroughly soak. Dip them out with a big fork, and as soon as the projecting ends of the sticks are cool enough to hold in the fingers, let one person take a roll by these ends and another start the cloth to unrolling. Hold it over a bush, and let the waxed cloth lie on the branches to cool. Keep on until all are so spread out. When cool, they may be laid together in a cool place and used as needed. Tear them into such strips as may be needed to cover the wounds on the grafted or budded trees."

Foreign Notes.

John Waterer & Sons, Limited, Bagshot, England, advertise theirs as an American nursery.

Sir W. T. Thistleton Dyer, director of the Royal gardens, Kew, England, has been promoted by Queen Victoria to be a knight commander of the Order of St. Michael and St. George.

An Englishman has patented a new method of propagating plants and trees, consisting of grafting a piece of root from one plant into the branch of another, the offshoots partaking of the nature of the grafted root.

During December, 1898, there were imported into England 231,324 bushels of apples more than during December, 1897; 11,671 bushels more of grapes, 7,059 bushels more of pears and 268 bushels less of plums.

On Jan. 9th, the employees of Messrs. Palmer & Co., Annan, Scotland, struck for an advance in wages. The men were being paid 15 shillings per week, working ten hours per day in the summer and eight in the winter. They demanded 4 pence per hour. An increase of one shilling per week was offered and refused and an offer of two shillings per week increase was accepted pending a meeting of the directors.

At the last meeting of the Berlin Horticultural Society, Professor Frank detailed results of his investigation of samples of the San Jose scale sent to him from America. He finds it entirely distinct from the *Aspidiotus conchaeformis* which is widely dispersed in Europe. American writers have said that the San Jose scale has three generations yearly and that each female breeds 600 scales. Professor Frank says the San Jose scale has but one generation yearly and that there are but thirty ovules containing young,

BROWN BROTHERS' OFFICE.

Brown Brothers Company, Rochester, N. Y., will change their post office to Brighton, N. Y., in the spring. In connection with the change a member of the firm said:

We have about 90 acres of land at Brighton, and on this are located our cellars and packing yards. We have in course of construction, a new office building, which will be sufficiently large to accommodate the various branches of our establishment. Our idea in building is to afford a permanent headquarters, and to simplify our work. It is necessary that our cellars and packing yards be watched constantly, as they contain much valuable property that needs constant attention. In summer when the stock is growing, it is especially necessary that there be competent people about. It is on our Brighton plot that we experiment with various fruits, a branch of the business that requires undiminished attention.

Our new office building, is in colonial style, to be finished inside with white Georgia pine. The entire interior is to be snow white. We expect this effect, when ornamented with flowers and fruits will be of unusual beauty. It will be unique in the way of office buildings.

We will be slightly inconvenienced in that Brighton is but a small post office, and the mail deliveries will not be so frequent as in Rochester. We do not believe this will make any great amount of difference to us. The building is now in course of construction, and we expect to take possession late in March.

Recent Publications.

Luther Burbank, Santa Rosa, Cal., has distributed among nurserymen his 1899 supplement to his "New Creations," in which several new plums, a new quince and two new roses are described.

The U. S. Department of Agriculture has issued bulletins on these subjects: "Thirty Poisonous Plants of the United States;" "Miscellaneous Results of the Work of the Division of Entomology;" "Experiment Station Record, Vol. X, No. 4.

WASTE BETWEEN NURSERY AND ORCHARD.

State Entomologist John B. Smith of New Jersey at the annual meeting of the State Horticultural Society brought out points to which American Gardening calls attention. Has it ever occurred to the average fruit-grower what an enormous waste there is between the nursery and the bearing orchard? In the State of New Jersey 5,000,000 young peach trees are raised annually; more than in any other state in the Union. A very conservative estimate would place the number at 10,000,000 east of the Rockies. At 150 trees per acre this means 6,700 acres of orchards for New Jersey. As an actual fact, there are less than 1,900 acres of peaches in the state—those trees which are raised in the state during a single year would set this acreage three times over. There is no doubt whatever that less than 10 per cent of all the peach trees set out ever bear fruit, and the same is true of other fruits.

“What has become of the trees? They have been ruined by the shiftlessness of growers. A large per cent of farmers don't know what they want peaches for anyway. They simply clear the land, set out the trees and literally wait for them to bear.”

RHODODENDRONS, NOT IMPORTED AND THEREFORE HARDY.
Hardy Azaleas, Japanese Maples, Magnolias, (LIVING GUARANTEED.)

Rare Evergreens, other Trees, new Shrubs, Hedge Plants.

PARSONS & SONS CO., Limited, Flushing, N. Y.
Certificated freedom from scale.

Surplus Stock, PEACH TREES.
Spring, 1899.

A nice clean even grade, stocky (not switches) 3 to 4 ft., and 4 to 5 ft.

Elberta, Bilgins, Crawfords, and 30 other leading sorts, by single 100, or bulk in car lots. Asparagus Roots. Large quantity Barr's and Moore's X-bred, Raspberry Plants, Marlboro, Golden Queen, Gregg, &c. Norway Spruce, bushy, 3 ft., 4 ft., 5 ft. to 7 ft. Am Arbor Vitæ, bushy, 3 ft., 4 ft., 5 ft. Norway Maples, transp., 2 and 3 ft., 8 to 9, and 10 ft. Carolina Poplars, 6 ft. to 25 ft., ½ inch to 5 inch. Cal. White Birch, 12 to 14 ft. Cal. Privet 1 and 2 years; fine plants.

JOSIAH A ROBERTS, Prop., Malvern, Pa.

C. L. WHITNEY, WARREN, OHIO
Specialty—SMALL EVERGREENS.

Especially fine Stock, Arbor Vitæ, Juniper, Pines, Pungens, Spruce, &c.
SEE MY PRICES.

We offer at rates that will secure your order:

25,000 PEACH—Largely Jaques, R. R. B Smock, Lemon Free, Ingles Mammoth, Gold Drop and Elberta. Also the new Early Yellow Freestone Grapes.

20,000 PLUMS—2 yr.; Lombard, Shippers, Guil, Pond, Abundance, etc.
PEAR STANDARD. LEADING SORTS.

10,000 DWARF PEAR—Mostly Duchesse.
1,000 WEALTHY APPLE—3-4 in.; 4 yr.
100,000 GRAPE VINES—1, 2 and 3 yrs. Concord, Worden, Ives, Pocklington and Woodruff Red.

BLACKBERRIES—Snyder, Taylor, and R. C. Plants.
RASPBERRIES—Cuthbert, Thompson's E. and Hansel.
CURRANTS—Victoria and Black Naples.

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Furnished upon short notice at reasonable prices. Correspondence solicited.
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ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

Eastern Agents, **PIONEER NURSERIES COMPANY,**
PHOENIX NURSERY CO., Salt Lake City, Utah.
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We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

Strawberry Plants.
MILLIONS OF THEM.

The Largest Stock of Carrie, Earliest, Excelsior and Clyde, in the United States.

Prices the lowest. Also a large stock of Raspberries, Blackberries, Currants and Gooseberries.

Be sure to get my prices before buying elsewhere. All stock certified and guaranteed true to name. List free.

Address, P. D. BERRY, Dayton Ohio.

150 Beurre Giffard, Dwarf Pear, Wanted,
TRUE TO NAME, No. 1. Write at once with price.
LINTON & KAUP, Props., East Hill Nurseries, MARCELINE, MO.



The Popular CAROLINA POPLAR.

Just the tree for city planting—Thrives where others fail—Resists smoke and gas as the sassafras does here. 75,000 of them, beautiful trees 6 to 8, 10, 12 and 15 feet. Immense stock of all other Shade Trees, Shrubs and Fosses. Hundreds of thousands of Fruit Trees, Small Fruits, Grape Vines, Plants, Seeds. Valuable Catalogue free. Correspondence solicited. Write us your wants if you would procure the best at bottom prices.

45th YEAR. 44 GREENHOUSES. 1,000 ACRES.
THE STORRS & HARRISON CO., Box 534 PAINEVILLE, OHIO.

APPLE SEEDLINGS.

lings, and Osage Hedge Plants.

SAN JOSE SCALE has never been found in Nebraska.

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ALL OLD AND NEW VARIETIES. Immense Stock, Warranted True QUALITY UNSURPASSED. A fine stock of Campbell's Early vines at low rates. Send list of wants for prices.

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

Of my own growing

- 2000 Bismarck Apple.
- 1000 Hale Plum.
- 5000 Snow Ball.
- 2000 Altheas, Totus Albus and Jeanne D'Arc.
- 3000 Dogwood—variegated leaf.

Imported Seedlings, Tree Roses, Rhododendrons, Industry Gooseberry, etc., of superior quality:

Hiram T. Jones, Union Co. Nurseries, Elizabeth, N. J.

The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both bulap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry

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Included. Ask for prices and terms.

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PROPRIETORS OF THE
LEES SUMMIT NURSERIES.
A full line of stock for wholesale and retail. Correspondence solicited.
The only practical Box Clamp in use at low price.

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EXTRA FINE PLANTS

At . . Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,
RASPBERRIES, BLACK-
BERRIES, Etc.
In the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

CHARLES DETRICHE, Senior, ANGERS, FRANCE,

Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

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Sole Representatives for the United States.

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First class stock at reasonable prices, in large or small quantities. Apple grafts made to order. Shade Trees, Forest Seed-

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Most complete list of popular varieties in Michigan. Strong, healthy plants Fresh Dug and Guaranteed to all parts U. S. and Canada. We also make a Specialty of Choice Michigan Grown SEED POTATOES. Send for descriptive Catalogue FREE and note what our customers in many states say about our carefully grown and graded stock.

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Honey Locust Hedge, Most Ornamental for Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates. Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

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Full information regarding rates, etc., cheerfully given.
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 600 Acres, 13 Greenhouses.
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Eastern agents for *Rossney Pear*, the best and handsomest pear yet introduced. We have an unusually fine stock of *Irish Juniper*, 2 to 3 ft. and 3 to 4 ft., also a splendid stock *Hybrid Perpetual*, Moss, Climbing, *Hybrid Tea* and *Ever-blooming Roses*, all on own roots. Correspondence solicited.

Send list of wants for prices. BLOOMINGTON, ILL.
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Hardy Shrubs, Trees, Vines, Evergreens and Perennials.

A large and fine stock of well-rooted plants, grown in a sandy loam. Good plants, best sizes for planting; very cheap.

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There is a great demand for Root Grafts this year, and prospective buyers will only be certain of the fulfillment of their orders by placing the same early.

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Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.
20,000 Japan Plums—One year old.
20,000 Grape Vines—Two and three years old.
100,000 Asparagus Roots—Two and three years old

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you. Descriptive catalogue if requested.

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Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

10,000 Keiffer Pears—Extra good Stock—Boxes at Cost.

2 years, 5 feet and up, branched.
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5,000 Everbearing Peach Trees—3 and 5 feet.

Special offer to close out stock.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

100,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

10,000 Roses—Field grown: including 5,000 Marechal Niel budded upon Manetti, 18-24 inches.
Two Acres in Cana.

Biota Aurea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

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100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.
Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

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WHY? Because it is the BEST MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the quickest and surest.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

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Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.
IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

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A limited quantity of Natural PEACH PITTS to offer.

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Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

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We give special attention to Dealers' complete lists. Fall trade list on application.

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PEACH TREES at BAIRD'S Nurseries by the 1000 or CAR LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely.

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

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MERSEREAU Large size, best quality, very productive, absolutely hardy, carried and developed its full crop during the severe drought last July and August. Prices on application.

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Offers for Spring trade 1,000,000 Platte Valley Red Cedar, grown from seed. Send for Catalogue and mention paper.

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Standard and Dwarf Pears, Plums, Sweet Cherries and Currants. All sizes and grades in large supply and great assortment. Also a full line of Grape Vines and general nursery stock. Send list of wants for lowest prices.

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HONEY LOCUST and RUSSIAN MULBERRY SEEDLINGS.

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For sale by the ORIGINATOR, 200,000 of the FINEST PLANTS, one and two years old. Write for prices to

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The new Concord of the 20th Century.

Conquers the land on its merits. Silver Medal at Omaha Exposition. Sold under seal and contract only.

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WELLSTON, St. Louis Co., Mo.

100,000

Palmer, Souhegan, Gregg, Nemeha and Kansas Raspberry Tips

and other small fruit plants for spring planting. Price list free.

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BUDED AND ON OWN ROOTS.

Write me for prices.

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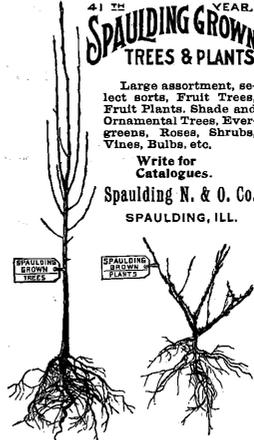
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We want, for 1899, a Foreman, and two first-class nurserymen thoroughly familiar with the propagation of nursery stock of all kinds. Only competent men who know their trade, need apply. Steady employment at the Oldest Nurseries in Texas.

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SEND US A LIST OF YOUR WANTS



APPLE, (Get O-U-R) CHERRY Prices.

STD. ^{A, N, D} DW. PEAR

Plum, Peach, Apricot, Quince.

Glove Pruned Trees

Smooth bodies, Heads right, Grade right. Special offers for the Trade.

BLACKBERRY and Other Small Fruit Plants.

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SCIONS, CUTTINGS.

Cordage Burlaps

GET OUR PRICES.

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Connected by Telephone.

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FRUIT PLATES Vredenburg & Company,

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NURSERY STOCKS

OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphia, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia. and all sorts of Fruit Tree Stocks, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

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For Price List apply to

KNAUTH, NACHOD & KUHNE, 13 William St., NEW YORK.

When writing to Advertisers mention The National Nurseryman.

Evergreen

Nursery Company,

Former Postoffice address Evergreen, Wis., changed to Sturgeon Bay, Wis. (which has always been our freight, Express and Telegraph Office) in order to avail ourselves of better postal facilities for our large and growing business.

Extensive Growers for the Wholesale Trade.

STURGEON BAY, WIS.



Offer to the Trade for Spring of 1899:

American Arbor Vitæ (*Thuja Occidentalis*)—Transplanted; 4 to 8 in., 8 to 12 in., 12 to 18 in., and 18 to 24 in., in large quantities.

Balsam Fir (*Abies Balsamea*)—Transplanted; 4 to 8 in. and 8 to 12 in. in unlimited quantities; also seedlings in any quantity. Smaller sizes, both seedlings and transplanted, in good supply. A No. 1 splendid stock.

English Juniper—18 to 24 in., and 2 to 3 ft.; seedlings; fine stock.

White Pine (*Pinus Strobus*)—12 to 18 in. and 18 to 24 in.; large stock.

Scotch Pine (*Pinus Sylvestris*); **Austrian Pine** (*Pinus Austriaca*) and

Bull Pine (*Pinus Ponderosa*)—1 and 2 yr. seedlings in large supply.

Red Cedar (*Juniperus Virginiana*)—5 to 9 in. seedlings; extra fine, uncommon hardy; grown from seed in our own nursery and have stood two of our cold northern Wisconsin winters.

Colorado Blue Spruce (*Picea Pungens*)—2 yr. seedlings.

Douglas Spruce (*Abies Douglasii*)—1 and 2 yr. seedlings.

Hemlock Spruce (*Abies Canadensis*)—4 to 8 in., 8 to 12 in. and 12 to 18 in. seedlings; unlimited quantities. Native seedlings of northern Wisconsin and hardy anywhere.

Norway Spruce (*Abies Excelsa*)—2 to 3 in., 3 to 4 in., 4 to 6 in., 6 to 8 in. and 8 to 10 in. seedlings in immense quantities.

Rocky Mountain Blue Spruce—2 to 4 in. seedlings.

White Spruce (*Abies Alba*)—2 to 3 in., 3 to 4 in., 4 to 6 in. and 6 to 8

in. seedlings in immense quantities, and 4 to 8 in., 8 to 12 in. and 12 to 15 in. transplanted, in good supply.

European Black Ash—Large stock; 8 in. to 6 ft. Largest supply in 8 to 12 in., 12 to 18 in. and 18 to 24 in.

Ornus Ash—4 to 8 in. seedlings, and a few larger sizes.

American White Ash—4 to 8 in., 8 to 12 in. and 12 to 18 in., both seedlings and transplanted. The two smaller sizes in large quantities.

American Linden (*Basswood*)—Seedlings; in any quantity.

American Beech—Seedlings; in large quantities.

American White Elm—Immense quantities of 4 to 8 in. and 8 to 12 in. seedlings.

European Larch—3 to 4 ft. and 4 to 5 ft.; some still larger.

American Larch—seedlings; 2 to 4 in. and up in any quantity.

Sugar Maple—Seedlings; all sizes from smallest up in any quantity.

Soft Silver Maple—8 to 12 in. and 12 to 18 in. seedlings, large quantities; 12 to 18 in., 18 to 24 in. and 2 to 3 ft. transplanted, good supply.

High Bush Cranberry—A large stock of both seedlings and transplanted.

California Privet—1 to 2 ft., transplant; large stock.

Dog Rose (*Rosa Canina*)—A large stock of seedlings.

Wild Rose (*Rosa Blonda*)—Strong, transplanted stock.

The above and many other varieties offered the trade at reasonable prices for first-class stock.



Our Method of Packing, recognized authorities say, is the best, and will carry trees safely to any part of the world.

Correspondence solicited—Write us if you are in need of anything in our line.

EVERGREEN NURSERY COMPANY,

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HARDY LOW-BUDDED ROSES. *At Lower Prices than ever before Offered.*

Tree Roses, Azaleas, Rhododendrons, Clematis, Hydrangea Paniculata Grandiflora, Snowballs, &c., from

THE BOSKOOP HOLLAND NURSERY ASSOCIATION.

Send an estimate of your wants for March or April importation, stating quantity.

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5,000 SUGAR MAPLES,
10,000 SILVER MAPLES,
2,000 AMERICAN LINDENS,
10,000 JAPANESE WINEBERRY.

50,000 BLACKBERRIES,
20,000 STRAWBERRIES,
5,000 NORWAY MAPLES,
5,000 ASH LEAF MAPLES,

5,000 JAPAN WALNUTS,
1,000 MAGNOLIAS,
50,000 RASPBERRIES.

Superior stock of Chestnuts, Pears, Peaches, Plums, &c.

Write for special quotations on large quantities and for a copy of 1899 Catalogue.

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I have not decreased my planting during the past four years of hard times; I have therefore ready for market a full supply of all Leading, Hardy Varieties—most all sizes.

I AM LONG ON

American Arbor Vitæ Seedlings, 6 to 10 and 10 to 15 inch, extra quality.
Pinus Strobus (White Pine) seedlings and transplanted, 3 to 5 and 6 to 10 inch and 2 to 3 feet.
Abies Canadensis (Hemlock Spruce) twice transplanted, 300,000, 6 inch to 1½ feet. Douglas Spruce, seedlings, 3 to 5 and 6 to 10 inch.
The Greatest Bargains are in that most beautiful of all Evergreens, the *Picea Pungens*, transplanted, 6 to 10 inch; 10 to 12 inch; 12 to 15 inch; 15 to 18 inch. Low prices as long as stock is unsold.

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List and prices of our immense stock of HIGH GRADE ORNAMENTAL TREES AND SHRUBS,

And thus secure unsurpassed service in filling your orders. You will never have cause to regret it.

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MUST BE SOLD TO CLEAR GROUND

A large and very complete line of HOME GROWN ROSES, both Std. and Dwf. 100 varieties. Ornamental Trees and Shrubs, California Privet, all grades. Currants and Gooseberries, large stock. Special quotations.

50,000 Evergreens, of all grades, at prices that cannot be duplicated in America. Also all grades of Fruit Trees of the following:

Cherries—Sour and sweet, full assortment.
Plums—A large lot.
Prunes (20,000)—Very heavy—extra fine—must be sold.

Quinces—Large and fine lot.
Std. and Dwf. Pears—2 year old, extra fine.
25,000 Peaches as fine as ever grew, in three grades.

We expect to make an extra push on all of this stock the coming season, and will soon issue our Trade List with a schedule of prices that will surprise you. In the meantime we solicit any correspondence that you would wish to make regarding the above stock. Address—

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As Foreman or Manager of Nursery. Life experience with some of the largest firms in the United States, and have a thorough practical knowledge of all the details of the business, and for the past six years have had charge of a large concern. Position desired for this fall or next spring. Best of references as to character and ability.

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INSIST ON OUR SEALS AND THUS INSURE AGAINST IMPOSITION.

The Largest Stock of other First-Class Grape Vines. Extra Fine Stock of Gooseberries, Currants, Blackberries, &c. Let us Know your Wants.

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One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

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Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

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OTTAWA, KANSAS,

Offer to the trade a large and complete assortment of

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APPLE,

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CHERRY,

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Gooseberries, Grape Vines, Currants,
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Ornamental Trees, Shrubs and Vines.

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SMALL FRUIT PLANTS.

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A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myro-
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ORDER EARLY

We have in surplus a good supply of Apple Trees, Evergreen Seedlings, Strawberry Plants, Raspberry and Blackberry Plants from Root Cuttings. Also a good assortment of Ornamental Shrubs and TREES. A fine lot of Roses grown on their Own Roots. Write and get our prices. We can please you.

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LOGAN BERRY, transplanted; also strong rooted tips. Quote prices per 1,000, stating quantity to offer to

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Large Stock of 2-year No. 1 Grade, very cheap.

Also Victoria Currants, Munger, Eureka, Gregg and Cutbert, Raspberry Plants, Eldorado Blackberry.

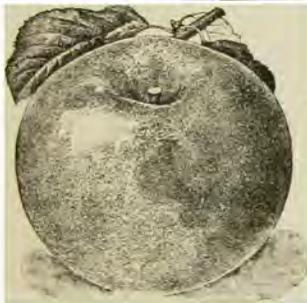
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American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitae, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and GOOSEBERRIES extensively grown. Better stock never grew.

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*Standard and Dwarf Pears,
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Sweet and Sour Cherries,
Quinces, Apples, Peaches,
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Headquarters for new varieties of fruit.
Submit a list of wants and get our price.

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Plums *Empire, Wickson "Japan."* Peaches *Fitzgerald, Triumph.*

From Anywhere **East**

To Everywhere **West**

The Great Rock Island Route

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Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

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Large, perfect shape
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Best varieties **Star w
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Peaches grown from nat
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from scale and yellows
Write for latest catalog—FREE
HARRISON'S NURSERIES,
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Strawberry Plants.

FITZGERALD PEACH

The finest quality yellow peach in
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Asparagus roots; new produc-
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**Japan Plums, Miller Red Rasp-
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We offer probably the largest selection of varieties of any firm in the United States. Plants grown on new land have been well fertilized and strong, well rooted and of good stout crown. Tied 27 and 54 in bunch.

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ONE YEAR. 6 VARIETIES.

*Columbian, Mammoth White, Donald's Elmira,
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Plum or Peach Roots

*Abundance, Charlotte, Millard and
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A FEW HUNDRED THOUSAND UNSOLD,
BETTER PLACE YOUR ORDER TO-DAY. THEY WILL BE SOLD.

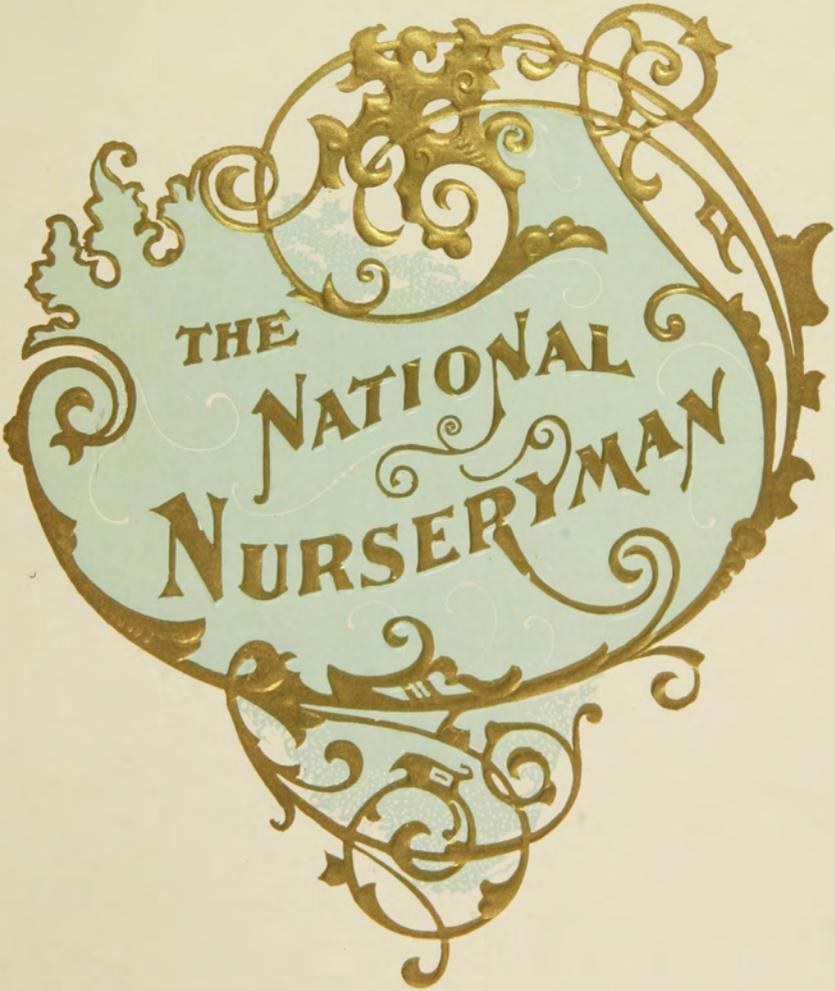
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Wholesale Catalogue free

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All Trees fumigated.



March, 1899.

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A Compilation of the Acts Passed by Nineteen States of the Union.
 Complete Record of all Legislation Affecting Nursery Interests.
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The only thoroughly up-to-date compilation of these laws, arranged with special reference to the needs of the Nurserymen. A necessity in every nursery office in these days of restrictive legislation. Gives full information regarding certificates to be attached to stock, inspection, penalties, etc.

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Offer for Spring of 1899 in different grades.

LARGE ASSORTMENT OF

Standard Pears, European Plums,
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LIMITED ASSORTMENT OF

Standard and Dwarf Apples, Crabs,
 Sweet Cherries, Dwarf Pears,
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 Weeping Mt. Ash, Lombardy Poplars,
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 Altheas, German Iris, Syringa Grandiflora,
 Dormant H. P. and Tea Roses on own roots.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

Long Distance Telephone in our Office.
 Use the Nurserymen's Telegraphic Code in Telegraphing.
 Codes will be Furnished on Application.

Duplicate copy of Certificate of Inspection, given by State Commissioner of Agriculture, sent with every shipment, showing stock healthy.

THOMAS W. BOWMAN & SON,
 1860. ROCHESTER, N. Y. 1899.

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ANDRE LEROY NURSERIES,

Braul & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing will enable them to supply for the Fall 1898 and Spring 1899, large quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest market prices, also a fine and complete variety of **ORNAMENTALS, ROSES, SHRUBS, Etc.** Apply for special quotations to

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Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

200,000 Peach Trees, | 100,000 Blackberry,
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Eldorado, Maxwell and Lucretia Blackberries.

MILLER, LOUDON and TRIUMPH.
 COLUMBIAN . . . GREENSBORO and EMMA,

Raspberries. and a full assortment of

Wickson, Red June and Giant **Peaches**

PLUMS. . . . AND OTHER FRUIT.

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 Our Catalogue will save you money.

MYER & SON,

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45th Year.

44 Greenhouses.

1000 Acres.

Nurseries

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy and hardy nursery stock as can be found between the oceans, comprising one of the most complete assortments of Fruit and Ornamental Trees, Small Fruits, Nut Bearing Trees, Grape Vines, Shrubs, Roses, Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.

ANTICIPATING THE BETTER TIMES THAT ARE SURELY COMING WE HAVE RESERVED FOR THE SPRING TRADE OF 1899 A LARGER AMOUNT OF THE LEADING ITEMS THAN USUAL AND WOULD LIKE TO CORRESPOND WITH PARTIES WANTING ANY OF THE FOLLOWING IN QUANTITIES :

Apple



Pear
Peach
Plum
Cherry
Mulberry
Quince, Etc.

OF THE ABOVE WE WOULD CALL SPECIAL ATTENTION TO OUR VERY LARGE SUPPLY OF . . .

Apple
European Plum

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Sweet and Sour Cherry Trees.

BY FAR THE LARGEST ASSORTMENT THAT WE EVER HAD TO OFFER TO THE SPRING TRADE.

Currants,



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Blackberries
Raspberries
Strawberries
Grape Vines
Etc. . .

Carolina and other Poplars—6 to 8, 8 to 10, 10 to 12, and 12 to 15 ft.

Sycamore—European; 6 to 8, 8 to 10 and 10 to 12 ft.

Magnolias—Acuminata, Soulangeana and others; 2 to 10 ft.

Maples—Norway, Silver, Sugar, etc.; all sizes, 6 to 25 ft.

Catalpas—Speciosa, Tea's Japan, Bungei, etc.; 6 to 12 ft.

Mountain and European Ash—6 to 15 ft.

Elms—American White, Scotch, etc.; 6 to 25 ft.

Linden—European, American and Silver; 6 to 12 ft.

Culip Trees—6 to 15 ft.

Willows—Gold Bark, Laurel Leaved, etc.; 5 to 15 ft.

WEeping TREES.



Mulberry—Tea's Weeping; strong 1 and 2 year heads. No finer lot in the country.

Willows—Kilmarnock and New American; strong 1 and 2 year heads; straight smooth bodies.

Willows—Wisconsin and Babylonica; handsome shapely trees, 5 to 15 ft.

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Deciduous and Climbing Shrubs—Acres of them.

Evergreen and Evergreen Shrubs—In large quantities.

Roses—Two year field grown, Hybrid Perpetual, Moss, Climbers, Wichuriana and Wichuriana Hybrids, Rugosa, and Rugosa Hybrids and Multiflora Japonica.

FORTY-FOUR GREENHOUSES filled with Roses, Palms, Ferns, Ficus, Azaleas, Araucarias, Geraniums, and other things too numerous to mention. . . .

Write us your wants and we will quote you bottom prices. Trade List and Catalogue free.

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"The most complete Nurseries on the American Continent."

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**MOUNT
HOPE
NURSERIES,**

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The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

- 20,000 Kenyon Red Raspberry.
- 20,000 Turner,
- 300,000 Elm, 1 year,
- 25,000 Silver Maple, 3 to 4 ft.,
- 75,000 Berberry, 1, 2 and 3 years old,
- 5,000 Picea Pungens, transplanted, 18 to 24 in.
- 10,000 " " " " 12 to 18 in.
- 25,000 " " " " 8 to 12 in.
- 50,000 " " " " seedlings, 2 years, 2 to 4 in.
- 50,000 Ponderosa Pine, " " " 4 to 6 in.
- 1,000 Paeony, Double Rose.
- 1,000 Paeony, Double Chinese.
- 500 P. L. Birch, 5 to 6 ft.
- 20,000 American and European Mt. Ash, transplanted, $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{2}$ and 4 to 5 ft.
- 10,000 Horse Chestnut, transplanted, $\frac{3}{4}$ and $\frac{1}{2}$ ft.

✿ GARDNER & SON, Osage, Iowa.

APPLE SEEDLINGS FOR SALE.

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| Nebraska Grown. | } | 150,000 No. 1 Straight $\frac{3}{8}$ and all up. |
| Immediate Shipment. | | 200,000 No. 2 " " $\frac{1}{2}$ to $\frac{3}{8}$. |
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| | | 150,000 No. 3 Straight and Branched. |

Also a large line of General Stock including Apple, Cherry, Pear, Plum, Small Fruits, Ornamentals, Etc.

ADDRESS D. S. LAKE, SHENANDOAH, IOWA.

8,000 APPLE! SURPLUS!!

Consisting of YELLOW MAY, RED ASTRACHAN, BEN DAVIS, CARTER'S BLUE, in two grades, $\frac{3}{4}$ to $\frac{1}{2}$ and $\frac{1}{2}$ to $\frac{1}{4}$.

CHEAP!!! WRITE FOR PRICES TO

W. D. BEATIE, - Atlanta, Ga.

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Jackson & Perkins Co., Newark, New York.

ROSES. Our stock of roses this season is of the finest quality and has so far over-run our earlier estimates in quantity that we still have a good assortment of nearly all the leading varieties. Our **Yellow Ramblers** at the reduced price are an especial bargain, being extra heavy plants with three or more canes 4 to 5 ft. high, cut back to 2 $\frac{1}{2}$ ft. Also **Crimson Rambler**, **Pink Rambler**, **White Rambler**, **Penzance Sweet Briars**, **Carmine Pillar**, **Olio**, **Margaret Dickson**, **Marchioness of Lorne**, and a long list of other varieties.

CLERMATIS. Strong two-years-old, first class, field-grown plants. Guaranteed to give satisfaction. Also No. 1 $\frac{1}{2}$ grade, equal to 1 yr. No. 1 at very low prices. **Henryit**, **Jackmanni**, **Loug**, **Cardida**, **Mme. B. Veillard**, **Mme. Ed. Andre**, **Paniculata**, **Ramona**, etc.

AMPELOPSIS VEITCHII. A tremendous stock of extra fine plants. Prices much reduced to get part of them placed early.

SHRUBS. A fine assortment of fine stock, including, **Deutzia**, **Exochorda Grandiflora**, **Fritze**, **Halesia**, **Hydrangea**, **Lilacs**, **Snowball**, **Spires**, **Weigelia**, **Xanthoceras Sorbifolia**, etc.

ORNAMENTAL TREES. **Catalpa**, **Cytisus Laburnum**, **Elm**, **Eunymous**, **Magnolias**, **Maple**, **Ash-Leaved**, **Norway**, **Siber**, **Sugar**, **Mt. Ash**, **Mulberry**, **Tulip Tree**, etc.

CURRANTS and GOOSEBERRIES. Extra fine stock of these and prices as low as the lowest.

PEACHES. Large assortment of varieties. Prices to suit the times.

Send for our price list which also offers a good assortment of Apples, Cherries, Plums, Pears, Quinces, etc., etc., etc.

Are you handling our three specialties?

**YELLOW RAMBLER ROSE,
CUMBERLAND RASPBERRY
AND ICEBERG BLACKBERRY.**

If not, why not? Send for sample plates and circulars. They are sellers.

CAUTION.—All persons are warned against purchasing any blackberry plants said to be of the white variety "Iceberg," originated by me, except the stock offered by Jackson & Perkins Co. of Newark, New York, whom I have appointed my sole agents for the propagation and introduction of said blackberry, and in whose hands I placed my entire stock.
LUTHER BURBANK, Santa Rosa, California.

JACKSON & PERKINS CO., Newark, N. Y.

KLONDIKE PEACH,

NAMED AND INTRODUCED BY

J. G. PATTERSON & SONS.

Placed at the Head of all Fancy, Late Market Peaches, by America's Highest Authorities.



Most beautiful late white peach in existence, says Prof. S. B. HELOWS, ex-Poinsettologist, U. S. Dept., Agriculture.

Said Klondikes at 40 cents per one-half peck. Steadily and stock brought only half that price. —W. M. FREY, Fruit Grower, Pa.

Certainly a very handsome peach, possessing excellent quality, would assuredly command top figures in market. —J. W. KENN, Plum Specialist, Md.

Klondike is certainly the largest and best white-fleshed peach I know of. —J. H. HALE, Peach King of America.

Klondike is as fine a white peach as we have ever seen at this season of the year. Would like to have your lowest price for 5,000 buds next season. —W. M. PETERS' SONS, Nurserymen, Md.

Fruit has never shown any indications of smut, mildew, black specks or cracking.

We have a good stock of this wonderful money maker, and will offer to the trade, for a short time only, at very moderate rates.

Also Large Assortment of PEACH and JAPAN PLUM TREES.

Let us make you prices on Car Load Lots.

Only a few more KLONDIKE Trees to offer.

When in want of $\frac{1}{2}$ to $\frac{3}{4}$ inch, 4 to 5 ft. Peach, drop us a card. We have some 50,000—mostly Elberta, Crawford and old Standard sorts. Prices to sell.

J. G. PATTERSON & SONS, Stewartstown Nurseries, STEWARTSTOWN, PA.

When writing to Advertisers mention The National Nurseryman.

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First class stock at reasonable prices, in large or small quantities. Apple grafts made to order. Shade Trees, Forest Seed-

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SAN JOSE SCALE has never been found in Nebraska.

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ALL OLD AND NEW VARIETIES. Immense Stock, Warranted True QUALITY UNSURPASSED. A fine stock of Campbell's Early vines at low rates. *Send list of wants for prices.*

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.
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Of my own growing { 2000 Bismarck Apple.
1000 Hale Plum.
5000 Snow Ball.
2000 Altheas, Totus Albus and Jeanne D'Arc.
3000 Dogwood—variegated leaf.
Imported Seedlings, Tree Roses, Rhododendrons, Industry Gooseberry, etc., of superior quality:

Hiram T. Jones, Union Co. Nurseries, Elizabeth, N. J.

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[ESTABLISHED 1876]

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Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

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Most Ornamental Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

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FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

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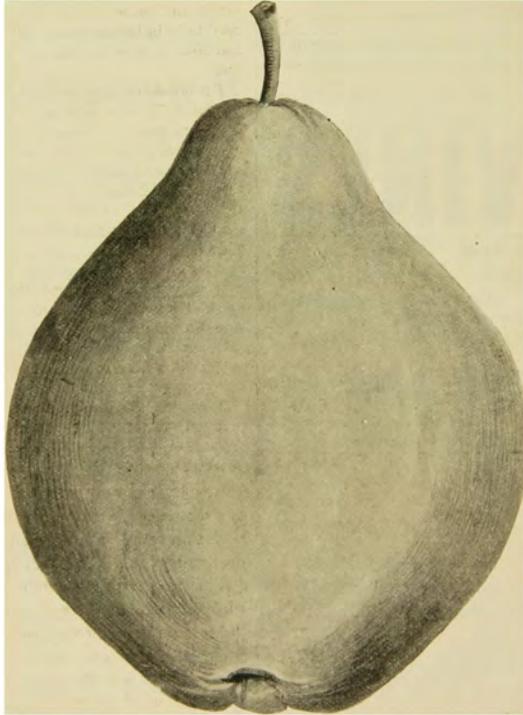
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THE ROSSNEY PEAR.

INTRODUCERS: PIONEER NURSERIES Co., - - - SALT LAKE CITY, UTAH.

EASTERN AGENTS: PHENIX NURSERY CO., BLOOMINGTON, ILL.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"The purchase made, the fruits are to ensue."—Othello, Act II, Sc. 3.

VOL. VII.

ROCHESTER, N. Y., MARCH, 1899.

No. 2.

PACIFIC COAST GROWERS.

Extensive Horticultural Interests of Washington, Oregon, and Idaho—Effective Education in the Production of Fine Fruit—Growers, Shippers, Railroad Men, Commission Men and Consumers Rapidly Getting Together.

The enterprise which characterizes every movement on the Pacific coast was manifest at the sixth annual meeting of the Northwest Fruit Growers' Association, at Spokane, Wash., January 24—26. There was a large attendance of growers, shippers, packers, and commission men. A delegation of the last named from Minneapolis, Chicago and other points was present. Dr. N. G. Blalock, the president, in his address, said:

I think we can congratulate ourselves on the outlook. Daylight is appearing, and, while the financial sky is by no means clear and bright over all classes, and while dark and unfavorable shadows hover over portions of the laboring classes, there are now more bright linings visible than have been observed for the past six years.

This is especially so in the western horizon. Washington, Oregon and Idaho, with their wonderful and diversified resources, are the brightest stars in the galaxy of states to-day, financially speaking. More of our people are employed in the different vocations at remunerative salaries than in any other section of the United States or of the world. Our wheat, barley, corn, oat and rye fields, our mines of gold, silver, copper, lead, iron and other precious metals, our varied interests, our fisheries and our fruit, poultry and vegetable industries employ more of our citizens of the laboring class in proportion to the population than in any other portion of the United States. Our capabilities based upon the natural resources of these three states, are almost unlimited.

A great object of this association is to bring the growers, the packers and the shippers in closer touch with the commission men, the railroad men and the consumers to the mutual benefit of all. This object is important and should not be neglected.

As a consequence of the present high tariff on prunes a number of prune orchards have been cut down and other crops planted in their stead. I can refer to one orchard of 6,000 prune trees, which were loaded down with fruit last spring, but were pulled up and consigned to the brush pile and the land sowed to wheat. Such would not be the case were prune growing and shipping profitable. I think it will only be necessary to call the attention of the railroads to this fact in order to secure a reasonable reduction in rates so as to encourage the continuance of prune culture.

Professor F. A. Huntley of the University of Idaho discussed tree raising, advocating low headed trees on the ground that the food that is collected by the roots has but a short distance to circulate in reaching the top and is less of a draft on the vitality of the tree than in the case of the high-headed tree; also the trunk of the tree is less exposed to various forms of injury through severe climatic conditions, which would have greater chance to harm the high-headed trees and thus hinder the perfect development.

E. J. Palmer, Minneapolis, representing a prominent commission firm, said:

There is no question that the apple orchards in the eastern states,

namely Michigan, Ohio, New York and the New England states are deteriorating rapidly. The orchards have, to a large extent, been neglected, and the results are that the quality of the fruit is not what it used to be in former years. While the apple crop of 1898 in Michigan and New York was a fair one as to quantity, the quality was generally poor.

The orchards in the southern states, Kansas, Missouri and Arkansas, are generally new, and the fruit, as a rule, much more satisfactory. But from past experience it has been observed that they have a good crop, usually, only every other year.

There is no question that you grow as fine an apple in Washington, Oregon and Idaho as can be produced in the United States, and we think you will, nearly every year, find a satisfactory market in the East for your best fruit, if more care is exercised in the packing and shipping.

We would suggest that you discontinue growing so many varieties, especially the new ones, and that you turn your attention to such as are well known in the eastern markets, viz.: Spitzenburghs, Wine-saps, Jonathans; in fact, the trade in the East prefers a red apple, and such grades as will make fancy stand stock. Straight cars of such goods will sell to much better advantage than mixed cars containing so many varieties not familiar to the trade.

Regarding the packing, sorting and shipping, we would suggest that you can not be too careful along this line. Stock should be carefully graded as to quality, size and color. Each grade should be packed separately.

Resolutions were adopted urging the raising of the standard of excellence in fruit growing and of obtaining better transportation rates; also demanding federal and state legislation protecting pure food products.

The transportation committee reported that it had conferred with the railroad representatives and had asked a reduction of the rate on dried prunes and a rate on green prunes and pears at the same figure as apples; also that this rate apply equally to straight or mixed cars of apples, pears or prunes, at a minimum weight of 24,000 pounds.

The following officers were elected: Dr. N. G. Blalock president; F. L. Wheeler of Yakima, vice-president for Washington; L. A. Porter of Lewiston, vice-president for Idaho; E. L. Smith of Hood River, vice-president for Oregon; E. Hutcherson of Ladner, vice-president for British Columbia; C. A. Tonneson of Tacoma, secretary; W. S. Offner of Walla Walla, treasurer.

Tacoma was selected as the place of meeting for the convention next year.

CONNECTICUT.

The eighth annual meeting of the Connecticut Horticultural Society was held at Hartford, Feb. 1-2. President J. H. Hale presided and in his address said that the increasing demand for fine fruit has constantly kept ahead of the increase of population and even at low prices the grower received greater net profits than from the other average farm crops of the state. Mr. Hale advocated the setting out of acres of the abandoned farm lands to good varieties of red winter apples, saying that they could easily be made to pay dividends of \$1,000 per acre. He favored thorough plowing and constant stirring up of the

soil to produce vigorous trees. The tendency was towards the growing of more beautiful fruit; but growers need not, as a consequence, expect higher prices. Fruit had been higher, in proportion to other farm produce, for a long time. He still was urgent in his advocacy of the destruction of peach trees diseased by the yellows, and said that now the state had abandoned the fight it was due to the growers that they carry it on themselves.

Edwin Hoyt of New Canaan spoke of co-operative fruit growing for Connecticut growers as a means to compete with other sections of the country.

Ex-president Roland Morrill of the Michigan society described his extensive culture of peach trees. J. W. Clark, North Hadley, Mass., told how he grows first-class fruit that sells at fancy prices in Boston. H. W. Collingwood, of New York, and Dr. E. H. Jenkins discussed fertilizers for fruit trees. J. Norris Barnes believed that the result of the repeal of the law will be to cause a thinning out of the growers and the orchards, and that the business will eventually be controlled by the large growers, who will be forced to take aggressive steps to protect themselves from the disease.

The following officers were elected: President, J. H. Hale, South Glastonbury; vice-president, J. H. Merriman, New Britain; secretary, H. C. C. Miles, Milford; treasurer, R. A. Moore, Kensington.

WISCONSIN.

The State Horticultural Society of Wisconsin met in Madison Feb. 7-9. Reports on the Omaha exhibit were made by L. G. Kellogg, Ripon; A. L. Hatch, Sturgeon Bay; William Toole, Baraboo; E. C. Coe, Fort Atkinson; A. J. Phillips, West Salem. "Orcharding in the Northwest" was discussed by J. M. Underwood, Lake City, Minn. A. L. Hatch of Sturgeon Bay, spoke on "The Business Side of Fruit Culture in Wisconsin." "This state," says the Country Gentlemen, "though sending large quantities of apples to other states, has not one business orchard, because local nurserymen insist that eastern apples cannot be grown there. Wisconsin can grow good apples: it is a question of care and culture, not soil or climate."

The following officers were elected: President, Franklin Johnson, Baraboo; vice-president, O. W. Babcock, Omro; secretary, A. J. Phillips, West Salem; treasurer, R. J. Coe, Fort Atkinson; corresponding secretary, Mrs. V. H. Campbell, Evansville.

EASTERN NEW YORK.

The third annual meeting of the Eastern New York Horticultural Society was held at Albany, Feb. 21-22. Governor Theodore Roosevelt addressed the convention, relating his experience in farming in the West and of his having served as deputy sheriff and employing the sheriff as a farm hand. Mr. Flanders of the state department of agriculture, and Professor W. G. Johnson, entomologist of Maryland, discussed the San Jose scale.

Professor Slingerland of Cornell University, stated that the tendency to lay so much stress on the ravages of the San Jose scale upon our fruit is the principal cause which has led to the refusal of foreign countries to admit our fruits. It would be to the advantage of our fruit growers, he continued, if there was less talk on this subject.

W. D. Barnes, of Middle Hope, said: "There are now laws for the destruction of black-knot, and inspection of trees

for San Jose scale. While some advocate the extension of similar laws looking to the compulsory destruction of canker-worm, tent caterpillars, etc., it seems to me that the benefits probably secured would not equal the cost of their enforcement and would most likely add to the list of dead letter laws that are now found on our statute books."

The lecture of Professor Willis G. Johnson, of Maryland, on the San Jose scale had its effect and a resolution embodying recommendations made by him was unanimously adopted by the society. It requests that a law be passed which shall cause all nursery stock of the state to be fumigated rather than inspected as now required, and that the work be placed in the hands of the state entomologist in co-operation with the department of agriculture. George T. Powell, of Great Neck, and W. F. Taber, of Poughkeepsie, were appointed a committee to meet the commissioner of agriculture and the state entomologist to discuss this question.

These officers were elected: President, James Wood, of Mount Kisco; vice-president, W. F. Taber, of Poughkeepsie; secretary and treasurer, E. C. Powell, Great Neck.

MORRILL ON PEACH CULTURE.

Roland Morrill describes his method of growing peaches in his successful orchards at Benton Harbor, Mich., as follows:

He cultivates the peach tree by pushing it ahead as rapidly as possible, fertilizing none until the bearing years have been reached. The ground beneath the trees is cultivated by plow, harrow or weeder, as often as from thirty-five to fifty times a season, the weeds are all kept clear and there is abundant opportunity for moisture. The consequence is that the tree matures within three years to be from ten to twelve feet high with a body five to six inches through and about twenty inches in height at the trunk. The peaches from these trees can be picked easily, most of them from the ground, and Mr. Morrill quoted one instance where an ten-acre section of trees eight years old, had netted him \$11,000. His illustrations showed the most vigorous pruning and he said that after the first three years he cut and trimmed out nearly two-thirds of the growth of wood. Fertilization for the crop was of wood ashes and ground bone, with a good surplus of ashes.

PROPOSED KANSAS LAW.

Through the courtesy of President A. L. Brooke of the American Association, we are in receipt of a copy of a bill introduced in the Kansas legislature providing for the creation of a state entomological board composed of the entomologists of the University of Kansas, the state agricultural college and the state horticultural society, whose duty it shall be to inspect any premises in the state where pernicious insects are believed to exist and take such measures to eradicate the pest as may be deemed necessary, at the expense of the county commissioners. No indemnity is to be allowed for trees or plants destroyed.

Whenever a resident nurseryman desires his trees, scions or other nursery stock inspected, a member of the board will respond: If no pernicious insects are discovered a certificate of inspection is to be issued upon payment of the expenses of the inspection.

Among Growers and Dealers.

B. O. Curtis, Paris, Ill., has a nursery established in 1818.

H. J. Latshaw is secretary of the Kansas City, Mo., Tree Planting Association.

A Michigan fruit grower reports a temperature of 18° to 20° below zero in the peach belt.

E. H. Vick, formerly of Rochester, N. Y., will establish a nursery business at Red Bank, N. J.

S. D. Willard, Geneva, N. Y., says that fruit buds seem to be but little damaged about Geneva by the recent extremely cold weather.

One hundred thousand fruit trees are said to be in one orchard in the state of North Carolina, on land that was thought to be useless until a few years ago.

J. H. Hale says that both his Connecticut and Georgia peach crops are gone, and probably the trees in the latter case. The mercury in the South dropped from 80° to zero with the trees in bud.

The San Jose scale is not greatly feared by Connecticut fruit growers. "God sent this scale," said J. H. Hale, "to thin out the trees that were chiefly engaged in supporting codling worms."

The remarkable progress of the carnation as a commercial factor in the florist's trade is attributed to the influence of the American Carnation Society. It is proposed that an American Rose Society be formed.

William C. Barry, of Ellwanger & Barry, Rochester, N. Y., thinks the damage to fruit buds by the cold weather will not be so serious as has been feared. "I believe there will be a large crop of fruit notwithstanding the cold spell," said he.

Some of those who attended the Niagara Peninsula United Fruit-Growers Association at St. Catharines, Ont., thought the San Jose scale act which directs that infested trees be destroyed, was too much in favor of the nurserymen. However, a resolution approving the act was adopted.

At the eighth annual meeting of the American Carnation Society in Philadelphia, February 16—17, these officers were elected: President, William P. Craig, Philadelphia; vice president, W. F. Kasting, Buffalo; secretary, Albert F. Herr, Lancaster, Pa.; treasurer, F. Dörner, Jr., Lafayette, Ind.

Western New York horticulturists have secured the right to ship car-load lots of pears and quinces in boxes and kegs as fourth-class, and in lesser quantities, second-class. This means a reduction over the old rates of 10 cents per 100 pounds in car-load lots, and five cents on smaller shipments.

John O. Shadow, secretary and manager of the Southern Nursery company, of Tennessee, has sold his interest to N. W. Hale, of Knoxville, W. L. Wilson and F. H. Kean, of New Orleans. Mr. Hale is now president and Mr. Wilson secretary and manager, and the general offices have been moved from Nurseries, Tenn. to Winchester.

SAN JOSE SCALE LAWS AND REGULATIONS.

As the spring shipping season approaches, the value of the compilation of scale laws of Canada and the states is appreciated. Full information regarding the requirements as to certificates in the several states is given in pamphlet form. Price 25 cents, postpaid. The National Nurseryman Publishing Co., 305 Cox Bldg., Rochester, N. Y.

THE ROSSNEY PEAR.

The Pioneer Nurseries Company of Salt Lake City, Utah, write us that they are having phenomenal success in selling the Rossney pear, which they have originated and are introducing. In this issue we show a half-tone cut of the fruit which is described as follows:

"A new and excellent pear, raised from seed at Salt Lake City, Utah, in size, medium to large; very fine grain, flesh melting and juicy; very sweet. Ripens two weeks after Bartlett. Is an excellent keeper and shipper. The tree is much stronger than Keiffer. Luther Burbank says, under date of October 5, 1895: 'The samples of Rossney pear arrived in due season. The large size, handsome form, and creamy skin with crimson blush, gives the fruit a tempting appearance; and the tender, creamy flesh, of just the right texture, with no hard spots and an unusual small core, with its superior flavor, makes it about the best pear seen. If the tree is vigorous, healthy, and productive, would prefer it to any other, even the standards Bartlett or Seckel.'—Copyrighted 1897.

The history of this new pear is short and as below:

Rossney pear is a chance seedling grown from a lot of seed planted at Salt Lake City about twenty years ago. In the fall when budding, this particular seedling was noticed to be thrifty and a vigorous grower, so it was let stand. At five years of age it bore its first fruit. Since then the tree has borne a full crop every year. The fruit is always of uniform size, shape, and coloring. Neither blight, nor any other disease, has ever in any way affected the tree. The tree is very hardy, both in wood and fruit buds. The fruit always averages much larger than Bartlett.

D. M. Moore, a reputable nurseryman, who has seen the fruit, and the trees growing in their nursery says: "We seldom find a single variety combining so many good points as does the Rossney. In size it equals Howell; in color it has the rich tints of yellow and carmine of the Clairgeau; in flavor it compares favorably with that old standard of excellency, Bartlett; in trees, as seen growing in your nurseries, Rossney surpasses in clean, thrifty, stocky growth, any variety with which I am acquainted."

It seems to us that such a pear cannot be surpassed, and as it ripens about two weeks after Bartlett, it ought to be as popular and profitable as any new fruit of recent introduction. Its beauty, quality and size, as testified to by J. T. Lovett of Little Silver, N. J., in the following language, ought to induce every one who can, to try a few trees. Mr. Lovett says: "Without exception they (Rossney) are the most beautiful pears that I have ever looked upon. The form and size are good and the quality excellent."

The originators are sure that Rossney will ship better than Bartlett, and its keeping quality far surpasses that variety. All trees are being sent out under seal and trade-mark. No restrictions on propagation. To be sure you get the genuine, insist on the seals of the Pioneer Nurseries Co.

The eastern agents are: Phoenix Nursery Co., 1215 N. Park St., Bloomington, Ill.

NO CHANGE IN NEW YORK LAW.

S. D. Willard, Geneva, N. Y., of the Western New York Horticultural Society's committee on legislation has agreed with the commissioner of agriculture to make no change in the New York state law relating to nursery inspection. An increase in the appropriation will be asked. Under the law dealers in nursery stock must acquire title to stock in nursery rows in order to procure a certificate, as certificates are issued only on stock in nursery rows.

GROWING NURSERY STOCK.

"Start Right and Keep Right," Was the Key Note of Orlando Harrison's Paper Read Before the Annual Convention of the Maryland Horticultural Society—Experience and Industry Are Prime Factors.

At the first annual convention of the Maryland Horticultural Society, in Baltimore, Orlando Harrison, of the firm of J. G. Harrison & Sons, Berlin, Md., read the following paper on the growth of nursery stock:

"In every branch of business, it is one of the most important objects to start right, and then keep right. The nursery business is one branch of industry that requires the manager to put into action every muscle, every nerve and all the brain that is available, for it means a great deal to carry it out as it should be; rising early and retiring late, and making use of every moment in the proper way.

"In planting nursery stock, it is important to be at the point, and start right. The first thing is to get the ground in good condition by plowing it a medium depth and subsoiling, in order to retain the moisture and give the roots a better chance to grow. After this is done, then comes the planting of the peach seed, which, of course must be the very best natural seed. If not, then what shall we plant? After the seed are planted, spread the land with slacked stone lime, about 25 bushels to the acre, which I consider a protection against some insects. Care should be taken that it is evenly applied, for if thrown in large lumps, it often injures the small seedlings. Before the seed begin to sprout, run the harrow over the ground and from then until the first of July, the young seedlings should be under constant cultivation, or at least once a week. This is one of the important features in growing fine nursery stock.

"Next comes the season for June-budding which begins about the last of June and continues for about two or three weeks. What we term fall budding, usually begins about the first of August, which is the only safe month for dormant budding, or at least, I have been taught that, by meeting with severe losses by later budding. Sometimes it proves successful, but more often it is a failure. The preparing of the buds is another essential feature that should be carefully looked into and should be done by one of self-interest and experience. They should be cut early in the morning while the dew is on and leafed as soon as possible, wrapped in a damp cloth, and put in a cool place and fumigated before they are inserted. After the trees are budded and are well wrapped with raffia, they should be allowed to rest for about ten days before the bands are cut.

"The following spring comes a point that should be well attended to, which is the cutting back of the young trees. They should be cut off just above where the bud has been inserted, with a slant back of the bud, when the trees are beginning to push out their buds. As soon as all the tops are removed, cultivation must begin again by first bar plowing the trees, using potash and bone; if necessary, a little nitrate of soda during the warm weather. When the trees are from three to four feet high, we trim the lower limbs to make a smooth-bodied tree.

"There being so much inquiry about shipping early in the fall, we are compelled to stop cultivation as soon as we are sure that the buds are matured. We bud from the nursery

row, unless it is some new variety which is cut from the original trees. Is there a better way? It is useless to think about budding a million trees from orchard buds, and even if we could we would not want them under the present conditions of a great many orchards. For instance, I was in Hagerstown during the summer of 1897 and saw the McCollister peach, and thought it an improvement on that variety grown elsewhere. Upon my return home, I wrote J. Pearson Loose, who had the peach, asking him if it was safe for me to obtain buds of that variety from his orchard. In reply, he said it was not, as there were diseased trees near them. If every man who is asked for a variety of buds would be as cautious as this one, the fruit growers might protect the nurseryman in many instances in keeping clear of those diseases and thus help the nurseryman keep right.

"About the last of August, the inspectors appear, which is usually about a week before we are ready for them, and it is much to Professor Johnson's delight to make a snap shot and get a full view of one of us in our six-day boots. If there are two broods of ants in the same nursery, he will be sure to find them, and if there are no grasshoppers to be found, he will hunt the nearest cornfield. He comes as near covering every foot of the nursery as a fox terrier will the track of a rabbit, and if you do not watch him close, he will stumble over something. Closely following Professor Johnson, comes Professor Townsend, who has entered the broad field, looking after the general health of trees, yellows and other diseases, but I am pleased to say that neither of them have ever found a case of yellows in old Worcester county. I say: God bless the inspectors. If there were no other point but clean cultivation, it is a good one in itself, for who wants these men to visit their nursery and find more weeds than trees.

"The next point of interest is the digging of the trees, which is usually done about the middle of October, although it is better to wait until the first of November, especially if we have a warm fall. It is much worse to strip the leaves from the trees, than to ship them a little late and have them frozen in the box. In the first age of the nursery business, the spade was used for digging the trees. Then came the tree digger, which was sold for about \$40; and as the people were becoming more and more intelligent, the old tree digger has been greatly improved. A firm in Michigan informs us that they have the latest and best, which is a steam tree digger, costing about \$750. Now where is this increased expense going to stop?

After the trees are gotten out of the ground, comes the work of fumigation, which is a process that is undergone to protect us against the spreading of the San Jose scale, if there should be any in the nursery, in order to keep right. Many of you who were here last January no doubt, remember about the mad dog being in Western Maryland, and it was asserted that the dog was with the nurseryman and they did not care to catch him. I was forcibly impressed by this statement, and returning home I wrote to Professor Johnson, Capt. R. S. Emory, S. B. Loose, and Howard Davis (of the Franklin Davis Nursery Company), who were on the committee to present the nursery bill to the Assembly, and asked them if they could not have the bill specify that all trees grown and handled by Maryland nurserymen should be fumigated, and much to my satisfaction, it was made a law by the state of Maryland. Nevertheless, it caused another expense which of

course, was the building of a house for the purpose of fumigation, and I would say something about the expense, but Captain Emory is here, who has been washing trees for years with whale oil scrap to protect them from scale, and is now fumigating trees—work that the nurseryman should have done before the trees left the nursery. But with Captain Emory's consent, I will say that fumigating trees is expensive and cannot be figured out accurately, as one would imagine, as you cannot always fill the house. When fumigating only a thousand trees, it costs the same as for five thousand or more, but in order to keep right, we are willing to continue until our state officials say, enough.

"We believe in the system of fumigation, and are proud that our state was the first to make laws requiring it. The time is not far distant when every state in the Union will follow Maryland's lead, and if any one nurseryman does not follow this system, he will have to go out of the business.

"One word about strawberries. We grow the plants for sale and not the fruit for market, and to get the best results, do your own experimenting with varieties. We have a list of over seventy-five varieties, and no grower should have more than ten, and half of that number would be better. We plant new land as far as practicable and consider it far superior to old land that has been long cultivated. One point with us is to clean up new land each year for strawberries. In planting the main fields, we use the Bemis transplanter. With team, one man and two boys, we planted sixty acres in due season last spring. The principal fertilizers used are crimson clover, cow peas, barnyard manure, dissolved bone, nitrate of soda, muriate of potash, and the value of each is classed in about the order named.

"The last of all, but not least, is the asparagus. For this, we select a light gravelly soil, particularly adapted to plant growth. The seed are soaked in milkwarm water for ten days or more, changing the water daily, and drilled in rows. We use five varieties, of which about half are Palmetto. This variety makes a better growth than the others and seems to suit the southern planter best, while the New England grower asks for the Conovers. So, do not be disgusted at nurserymen trying to grow so many varieties, for it is only to keep right, to sell plants and trees. To start right and keep right means more than a nurseryman can answer."

CONNECTICUT FRUIT GROWING.

At the recent meeting of the Connecticut Horticultural Society, at Hartford, Edwin Hoyt, of New Canaan, took a gloomy view of average New England farming. Yankee farmers have reached a crisis. They cannot make a living along the old lines. Western competition has ruined the home market for staple farm products, and nearly stopped the sale of farms. Good fruit, and especially the apple, is the most promising crop for New England soil. Illinois alone has 20,000,000 apple trees. The best markets in the country lie inside a line drawn 10 miles west of the Hudson, north to Albany and Northeast to Portland, Me. He advocated a combination among Connecticut farmers to produce and sell apples. This is the way to compete with the vast orchards of the West. President J. H. Hale said:

Acres upon acres of so-called abandoned farm lands in Connecticut, if planted to good varieties of red winter apples, might easily be made

to earn dividends on land values of \$1,000 per acre; yet such lands are in the tax list at the present time at prices ranging from \$5 to \$15 per acre. Just at the present time in the market, a bushel of good apples will sell for as much as two bushels of wheat, yet to produce a dollars' worth of wheat, will take thirty times as much plant food out of the soil as it would to produce a dollars' worth of apples.

MASSACHUSETTS INSECT BILL.

A bill introduced in the Massachusetts legislature provides for the appointment of a state inspector who shall inspect nurseries once a year. A certificate is to be given in case no San Jose scale or other injurious insect is found. In case such insect is found the pest shall be eradicated within two weeks.

In the case of nursery stock coming into the state under certificates by properly authorized inspectors in other states or countries, or by an official of the United States, those certificates may be accepted in lieu of examination, at the discretion of the inspector.

The inspector is to have full power to enter any nursery or orchard and treat or destroy trees or plants having insects. The cost of treatment is to be borne by the town. Owners of infested stock which has been destroyed may have recourse to the courts if they believe they have been unjustly treated by the inspector.

Section 5 is as follows:

It shall be unlawful for any person, transportation company, or common carrier to bring within this Commonwealth any package containing trees, shrubs, vines, woody plants, scions, buds, or grafts, commonly known as nursery stock, unless the same are accompanied by a label stating the contents of the package, the addresses of the consignor and consignee, and a certificate showing that the contents of the package have been inspected within one year previous to date of shipment, by a properly authorized official of the state or country where such stock was grown, and found to be apparently free from said scale or other dangerously injurious insects; and if by oversight, accident, negligence, or otherwise, any package of nursery stock is received at any depot, wharf or warehouse in this country, unaccompanied by such certificate, said stock shall not be removed from the place where it is first stored, and it shall be the duty of the transportation company to notify the inspector of the receipt of the same, the disposition of such stock to be left to his discretion. In the case of the stock coming in bond, improperly labelled or without certificate, examination may be made at the discretion of the inspector at the custom or warehouse where such stock is to be delivered. Any one offending against the provisions of this section shall be liable to a fine of not less than twenty-five dollars nor more than two hundred dollars for each and every offense.

All stock shipped within or from the state shall bear a certificate.

J. Woodward Manning, Boston, writes: "Massachusetts is burdened with so much insect legislation that it would not be surprising if sufficient opposition developed to prevent the passage of this bill."

WANTS TO KEEP POSTED.

C. E. WHITTEN, BRIDGMAN, MICH., Feb. 8, 1899.—"Enclosed find \$1.00 for my subscription to *our* paper. I want to keep posted as to what is being done throughout the country in our line, and don't know of any other or better way than by taking the NATIONAL NURSERYMAN.

THE FIRST ONE OPENED.

W. H. KAUFFMAN, STRATFORD, IA., Feb. 4, 1899.—"Your reminder of Jan. 21st, that my subscription was due received and I herein hand you the amount, \$1. Of all the horticultural papers I get, the NATIONAL NURSERYMAN is the first one opened. Wishing you success and plenty of it."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1899—At Chicago, Ill., June 7, 8.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., MARCH, 1899.

THE DAMAGE TO FRUIT.

The latest information regarding the extremely cold weather of last month is that much damage was done to fruit buds over a wide area. Every assertion, however, is subject to modification in the light of subsequent developments. Special investigations by "Bradstreet's" show that the damage done by the storm and low temperature in the Northwest and West was less than expected, being, in fact, more in the nature of a temporary check than a permanent impairment of favorable conditions. But from the South there come reports of serious damage, particularly to the growing fruit and the vegetable crops. In Georgia the peach trees have been killed; in Florida, the orange industry has sustained losses only second to those in the great blizzard of a few years ago, and in Louisiana there is a total loss in the orange industry, the vegetable crops have been destroyed and great damage has been done to the sugar cane as the result of the coldest weather in the history of that state.

W. M. Bomberger, treasurer of the Iowa Horticultural Society, under date of February 18th, writes to the NATIONAL NURSERYMAN: "A temperature of 28 to 30 degrees below zero last ten days will change and modify much horticultural work in the Middle West and trans-Mississippi valley in the near future. There is no question that many fruits are injured. How much cannot be determined until a little later. But fruits and fruit trees were the best fortified this season against low temperature and extremes by ripeness, and the test on the more tender class will be exceedingly interesting, and we think will greatly modify many erroneous opinions and effect the traffic in nursery stock largely in the near future."

The Florida commissioner of agriculture says that the severe weather of last month was decidedly less destructive to oranges, pineapples and other crops than was the freeze of February 1895. State Entomologist Scott of Georgia is authority for the statement that the Georgia peach crop has been destroyed.

TOO MUCH LEGISLATION.

The reaction in the matter of San Jose scale legislation and discussion has come with strong force. Again and again of late have the wisest and broadest-minded entomologists taken up and repeated the expression of the ablest horticulturists and nurserymen that there has been too much talk of the ravages of the San Jose scale. The fruit interests of the country have been damaged more by means of embargoes resulting from such discussion than by the work of the insects. From Maryland alone came reports of the devastation of orchards by the San Jose scale, but from Germany, France, Austria, and Canada come reports of the closing of ports to American fruit.

The statements of Professors Bailey, Smith and Slingerland, backed by those of others scarcely less distinguished for their knowledge of entomology, declaring that the codling moth and other pests are more to be feared than the San Jose scale, voice the sentiment of the majority of fruit growers to day.

When what is known as the Washington convention of entomologists and horticulturists proposed vigorously federal legislation, the nurserymen of the country met the issue squarely and fearlessly, only insisting that the proposed legislation should be just and that they should be consulted in the framing of the bill.

Through their trade journal, the NATIONAL NURSERYMAN, the nurserymen have been fully and promptly informed of all legislation in this country and Canada relating to this subject. This journal circulating only among nurserymen, has discussed the matter within the trade, except insofar as the entomologists have been glad, according to their own statements, to learn through it the sentiment of the nurserymen. And they have freely admitted that the nurserymen have been ready from the first to co-operate in securing such laws as have been deemed necessary.

And, now, inasmuch as twenty or more states of the Union have adopted laws regulating the inspection of nursery stock, and there has been no record of the promised spread of the San Jose scale, it would seem good policy to turn attention to topics which shall result in increasing the trade in these times of steadily improving business conditions.

The spring shipping season approaches and we may add that it will be of advantage to all nurserymen to procure the

compilation of the insect laws of the states and Canada offered in pamphlet form by the NATIONAL NURSERYMAN.

THE COMING CONVENTION.

The annual convention of the American Association of Nurserymen is three months ahead; yet in the busy weeks of that brief interim there is apt to be too little thought of the benefits that may be derived from well-laid plans for the annual gathering. It is true that article 2 of the constitution of the Association states as the first object of its existence, "relaxation from business." But there is a question whether there is not room for much that is of a business nature, as well as relaxation at these annual gatherings of a national organization in an age when time and opportunity count so greatly.

The American Association is approaching the silver anniversary of its establishment. In the quarter of a century of its existence there has been marvelous development in horticulture, and at the opening of a new century there will be found many problems for the nurseryman to discuss. The thought is suggested that now, in a period when improved business conditions are following a prolonged depression, the members of the Association should be in a mood to respond promptly to practical propositions looking toward the advancement of trade, and take advantage of the rising tide. Can the members of the Association afford to devote the time and expense of attendance at the convention of 1899 primarily to a relaxation from business?

The constitution further states that the objects of the Association are also the cultivation of personal acquaintance with others engaged in the trade, the exhibition of fruits, flowers, plants, or manufactured articles used in the business, and the exchange and sale of stock. All this is of interest and undoubtedly of value to the members. But it is of the formal sessions of the convention that improvement is suggested. Can not the programme be arranged far enough in advance to permit the planning necessary to make it efficient in the highest degree for all concerned? With only the sincerest interest in the welfare of the Association, we suggest that it is not too early to prepare a programme which shall arouse not only the members who attend the coming convention, but those who remain at home and read the proceedings, to the possibilities for individual and collective advancement in the trade that the Association has in store. May it not be that there are many members who feel they cannot afford the time and expense required to attend the convention as a relaxation from business; yet who would make every effort to be present if, in addition to the fulfilment of the objects stated in the constitution, they were assured of a programme crowded with features they could not afford to miss?

At one of the recent conventions of the Association there was a suggestion that biennial instead of annual meetings be held because the small attendance seemed to indicate a lack of interest on the part of the members. With five or six thousand nurserymen actively engaged in so important a business in this country, it would seem that the national trade organization should have a membership sufficient to warrant the holding of an annual convention. In twenty-two states of the Union have just been held horticultural society meetings attended by large numbers of orchardists enthusiastic in their efforts to absorb the practical information resulting from the

experience of others. Nurserymen have been prominent in all these meetings. And now, as the nurserymen's annual convention approaches, there is time to prepare a vast amount of information of the most practical kind for exchange at the Chicago meeting. There should be material for an interesting session of nurserymen to whom these fruit growers look for the stock to start their orchards. In this very issue of the NATIONAL NURSERYMAN is a report detailing the topics before an enthusiastic meeting of Pacific coast fruit growers.

It is suggested that, in the preparation of the programme for the June convention, the papers to be read deal with topics of paramount interest to the trade generally; that they be not confined to conditions which can interest but a few of the members, and that they be as brief as possible, so that as many topics as the length of the sessions will permit may be touched upon; that the members discussing the papers be limited as to time of speaking and that a question box be provided and freely used. It was upon some such lines that the recent annual meeting of the Western New York Horticultural Society was conducted and it was unanimously agreed by the 600 in attendance that the meeting teemed with valuable information. Pencils flew over note books throughout the hall in efforts to jot down what overtaxed minds were endeavoring to retain.

There are veterans of wide experience and young men with new ideas among the members of the American Association of Nurserymen who can exchange thoughts to the great advantage of all, under skillful direction. There are topics which are usually discussed in the hotel lobbies at the nurserymen's conventions that would make the sessions spicy if they were reserved for or repeated there. The chances are ten to one that you will get more than you will give away. Many questions occur to members long in advance of the convention which might be written now and gathered later in the question box—questions relating to the practical work of the nurseryman and likely to be answered by experts in such a gathering. There is a vice-president for each state in the Union and each of these who is on hand could present a brief report on nursery topics in his state which would be of interest, and those vice-presidents who were not present could send reports to be read by the secretary.

A register of all present should be secured. The members after a spicy first session will leave the hotel lobbies and be on hand to a man when the gavel falls after dinner. Four full sessions will be demanded. No better time for an enthusiastic convention could be had than this year when the meeting is to be held in a popular convention city, centrally located, without the distraction of a big exposition, and in an era of good feeling.

Doubtless there are many who have suggestions that will tend to build up the association by increasing its membership to what it ought to be and making its influence felt. There should never again be any anxiety over the question as to whether there were enough members present to secure the reduced rates offered by the railroads.

Send the suggestions in. Here's for a rousing convention in Chicago on the second Wednesday in June, and may the membership on the twenty-fifth anniversary in 1900 be doubled!

In Common Council.

Editor NATIONAL NURSERYMAN :

We read and appreciate the NATIONAL NURSERYMAN, (our J. O. Nevins is a regular subscriber). A nurseryman cannot invest a dollar to better advantage. We hope to see you "everlastingly go after" the wholesale nurserymen that send out their price list on cards without covers. It is un-business like, and injures the retailer. We would much rather any wholesaler who cannot afford an envelope for his price list would take our name off his mailing list.

Blue Rapids, Kas., Feb. 27, 1899.

NEVIN BROS.

THE PRESIDENT APPROVES.

The opinion of President A. L. Brooke of the American Association of Nurserymen, upon the suggestions in this issue regarding the coming convention of the Association was asked. President Brooke sends the following prompt and cordial endorsement :

Editor NATIONAL NURSERYMAN :

Your favor of 24th inst. is promptly at hand and carefully noted. I can assure you I am in perfect accord with the letter and spirit of your able editorial. I am certain it is the wish of the members of the Association to make the next convention of the American Association of Nurserymen the most successful one yet held. I think your idea of the "Question Box" is a good one.

I would suggest that a certain part of each day be set apart for the proper consideration of these questions ; say a certain hour of each day.

I would also suggest, if permitted, that the morning sessions be set apart for any scientific papers we may have the good fortune to have presented to the Association. Right here I wish to offer the name of Prof. S. J. Hunter of the Kansas State University, who has kindly offered me a paper on "Our Insect Friends ; What They Are Doing for Us." I hereby offer you his services. Prof. Hunter will be in Chicago at that time.

It strikes me with a great deal of force that we could use a few papers on purely business propositions to good advantage. I also think we could use about three days in convention to good advantage ; say meet first at 2 P. M. first day and follow two days after. I throw out these ideas at random and will add that I am quite ready and willing to do all in my power for the success of the convention. I think the immediate future for the live nurseryman is bright with prospects and the golden fields are awaiting us. The clouds are now hanging low over the nurserymen of the West, but even they bear a silver lining if we will but aid in parting them.

With best wishes for success I remain

Yours truly, A. L. BROOKE.

N. Topeka, Kan., Feb. 27, 1899

RENEWALS ARE DUE.

Many subscriptions for the NATIONAL NURSERYMAN expired with the issues of January and February, 1899. Prompt renewals will ensure receipt of the official trade journal regularly. Send \$1 by return mail.

Subscribe for the NATIONAL NURSERYMAN.

From Various Points.

A bill has been passed by the Indiana legislature providing for inspection of nursery stock within the state and prohibiting railroad companies from handling nursery stock upon which there is no certificate.

F. H. Stannard, Ottawa, Kans., writes concerning the coming meeting at Chicago: "We believe that the meeting will be one of unusual interest on account of the advance in prices of a good many kinds of nursery stock."

The Corning Nursery Co., Corning, Ia., has been dissolved. It is not yet decided what will be done to close up the business. To prevent prices getting into hands outside the trade they should be sent to S. W. Morris, Corning, Ia.

The third annual meeting of the Vermont Horticultural Society was held at Burlington, February 21—22. Professor F. A. Waugh, secretary-treasurer, T. L. Kinney, of South Hero, the president, and others discussed fruit topics. The officers were re-elected.

The following called recently upon Genesee Valley nurserymen: E. Albertson, Bridgeport, Ind., vice-president of the American Association; J. E. Killen, representing C. H. Joosten, New York; F. G. Salkeld, of the L. Green & Son Co, Perry, O.; Mr. Chase, of the Alabama Nursery Co.

The Georgia scale law was published in the January issue of the NATIONAL NURSERYMAN; the Georgia regulations for nurserymen in the February issue. New bills are pending in Kansas, Minnesota, Illinois, Massachusetts, and California. The Eastern Nurserymen's Association sent out to members last month the Georgia regulations.

FILE YOUR TRADE JOURNAL.

Nurserymen with whom we have talked say that they have had occasion repeatedly to refer to back numbers of the NATIONAL NURSERYMAN for information. The index of each volume affords ready reference to trade topics.

Send in your subscription *now* and get all the numbers of the year. Can you afford to do business without being posted? Send \$1.00 by return mail and get the journal regularly. Those who have not renewed their subscriptions are not up to date in trade matters.

MINNESOTA SCALE BILL.

A long "scale" bill has been introduced in the Minnesota legislature. It has aroused the opposition of nurserymen both inside and outside of the state. E. H. S. Dartt, Owatonna, Minn., says: "It is not at all likely that it will disgrace the statute books of the state."

E. M. Sherman, Charles City, Ia., says the bill provides for bonds, license fees, etc., and gives the state entomologist far too much authority. "I believe," says Mr. Sherman, "that section 8 requires a separate inspection of each shipment into the state and the small nurserymen of Minnesota may also find that it means plenty of trouble for them."

Long and Short.

Brown Brothers Co., Rochester, N. Y., want a foreman.

Peirson Bros., Waterloo, N. Y., offer a line of general nursery stock.

Eight thousand apple trees represent the surplus of W. D. Beattie, Atlanta, Ga.

American elm and Lombardy poplar are wanted by Fred. W. Kelsey, 150 Broadway, New York.

Half a million apple root grafts are offered in another column by F. W. Watson & Co., Topeka, Kan.

Nebraska grown apple seedlings for immediate shipment can be had of D. S. Lake, Shenandoah, Pa.

Hardy herbaceous plants and bulbs in great variety are offered by Vick & Hill Co., Rochester, N. Y.

The Storrs & Harrison Co., Painesville, O., have a most attractive announcement of general nursery stock.

Spanish, Cuban, Kanaka or Malay names will be printed on wired tree labels, if desired, by Benjamin Chase, Derry, N. H.

Special attention is called by George Achelis, West Chester, Pa., to a fine stock of Norway and sugar maples and other ornamental stock.

All trees offered by J. G. Harrison & Sons, Berlin, Md., are of the very best. They are also headquarters for peaches, strawberries, and asparagus roots.

Peach experts have pronounced the Klondike peach very desirable for many reasons. J. G. Patterson & Sons, Stewartstown, Pa., have a few more trees to offer.

Hardwood Canada unleached ashes containing elements which make worn-out soil rich and fertile, will be shipped in perfectly dry condition by George Stevens, Peterboro, Ont.

D. Hill, Dundee, Ill., has purchased the entire stock of the Elgin Nurseries, at Elgin, Ill. An unusual opportunity to stock up from the 8,000,000 evergreens is here presented.

Henry Wallis, Wellston, Mo., says: "The Hicks grape took the silver medal at the Omaha exposition in 1898. Hon. Samuel Miller said in 1897: 'In Campbell's Early, McPike and Hicks we have three grand new grapes hard to excel.'"

In Nursery Rows.

LEAF SPOT ON NURSERY STOCK—The Experiment Station Record summarizes a Cornell station bulletin by B. M. Duggar, describing the leaf spot due to *Septoria piricola*, which he says is widely distributed, and although the fungus is one of the most important from an economic standpoint, it seems to have been almost wholly overlooked or neglected. It is usually confused with the ordinary leaf blight. The leaf spot, as it appears on the green leaves, is usually larger, more sharply defined, and somewhat angular, being roughly limited by the subdivisions of the venation. The center of the spots is grayish white, dotted with minute pycnidia. Surrounding this is a brown zone, which frequently shades off into a purplish color. The author reports the disease as probably occurring all over the State of New York wherever pears are raised, and also in Pennsylvania, Maryland, Virginia, Alabama, and elsewhere. His investigations seem to indicate that different varieties are subject to the disease in varying degree. Anjou, Seckel, Bosc, Summer Doyenne, and Bartlett are quite subject; Louise Bonne, Clairgeau, Clapp Favorite, Flemish Beauty, and others to a less extent; Duchess very slightly, and Kieffer and Winter Nellis are apparently free from it. An experiment was conducted in which Bordeaux mixture, ammoniacal copper carbonate, and potassium sulphide solution were sprayed on Bartlett and Seckel trees for the prevention of leaf spots. Three sprayings of Bordeaux mixture gave almost complete protection against the disease. The occurrence of leaf spot on nursery stock has also been investigated, and some attempts have been made to prevent injury. In this case, as in the trial in the orchard, Bordeaux mixture gave the best results.

NURSERY APPLE TREES—William Henry Smith, Grassland, Tenn., says: "All grafted trees are grown on piece roots. Those who cut

their seedlings 8 to 10 inches long, call it whole root grafting; those who cut the seedlings 2 to 6 inches long call it piece root grafting. Not only so, but the whole root men have the short-branched seedlings picked out for them, and the piece root men have the long smooth seedlings as free from branches as possible selected for their special use. Apple seedlings grown under the best conditions are usually 10 to 18 inches long. This depends entirely upon the soil in which the seeds are planted. I have seen them 30 inches long. On very shallow, poor soil 6 to 10 inches is the usual length. Budded apple trees grown on the entire seedling roots usually have the tap roots cut off more or less when taken up and reset. There is only one way uniformly to get good whole root trees—plant the seed where you want the trees to be and bud or graft them as they stand. If we must take choice between a good tap-rooted tree without the surface root on the scion and a piece root tree with plenty of surface roots of its own, we prefer the latter, because reason and experience go to prove it is the better tree. This is all the piece root men contend for. When but few trees were raised and but few were needed, it was the custom to grow a few good seedlings and early in the spring they cut them off one or two inches below the surface of the ground, split and inserted a wedge shaped scion, pulled up the dirt and gently pressed around the scion. This was called stock grafting. After growing them one season they were carefully taken up and reset because the tap root was then considered the all important thing. This is just right to get good surface roots, which experience teaches me to be more important than the long tap root."

Recent Publications.

Bulletins of the Kansas Experiment Station show that Professor E. E. Faville is doing good work in the department of horticulture and entomology.

No. 5 of Vol. X of the Experiment Station Record contains besides information referred to elsewhere in this issue several pages of matter of much interest on the codlin moth.

Among the most attractive of the season's catalogues that have come to our desk are the following: Ellwanger & Barry, Rochester, N. Y. novelties in fruits and ornamental stock; W. A. Manda, South Orange, N. J., new, rare and beautiful plants, seeds and bulbs.

In the Macmillan Company's "Book Reviews" for February is a sketch, by Professor L. H. Bailey, of American texts designed to aid the teaching of agriculture in the common schools. The chronological bibliography shows 25 such books. To this list must be added Professor Bailey's "The Principles of Agriculture," published by the Macmillan Co., New York.

If there is anything about the Kansas apple that has escaped the notice of William H. Barnes, secretary of the Kansas State Horticultural Society, it must be insignificant indeed. Mr. Barnes has compiled a book of 230 pages on the apple. He tells what it is, how to grow it, its commercial and economic importance, and how to utilize it. He gives laws pertaining to apple orchardists of his state and articles on the chemistry of the apple, the apple business and a short account of the famous Wellhouse orchards. He cites the 13 states which produced in 1889 more apples than did Kansas. There are lists showing shipments abroad from each port per week during 1897 and 1898 and a comparison of seasons since 1881. There are revised lists of apples recommended for growth in Kansas and descriptions and opinions on each of the 84 varieties named in the book. Under the head of "The State by Districts," are the detailed experiences of 281 of the most prominent apple growers in the state, men who have been orcharding in Kansas from twenty to forty years. This is the most valuable feature of a really remarkable compilation. The lessons to be learned from the experiences of these men as here set down are almost without number, and they are of value not only to Kansas growers, but to all who grow the apple. One hundred and forty-four pages of the book are devoted to these personal reports. A summary of the points brought out follows the reports. Then there are miscellaneous articles devoted to the treatment of orchards, cold storage, evaporators and insect enemies, with illustrations. Finally there is an index affording ready access to this mine of information regarding apple growing in a single state. Mr. Barnes was born in New York city, served in the artillery in the Civil war and has resided in Kansas 29 years.

PENFIELD NURSERIES

I have still to offer
10,000 Peach Trees,
1,200 Cherry Trees,
500 Plum Trees,
2,500 Apple Trees.

Also a good assortment of standard and dwarf pears, quinces and small fruits. Send me your list of wants.

EUGENE COVEY, Penfield, N. Y.

Hardy Herbaceous Plants.

Coronopsis lanceolata, Clematis Davidiana, Dielytras, Day Lilies, Eulalia, Funkia Alba, Hibiscus, Crimson Eye, Hemerocallis Flava, Hollyhocks, Hardy Pink, Iris, Phlox, Rudbeckia, Golden Glow, Paeonies, Yucca.

BULBS.

Amaryllis, Callas, Caladiums, Cannas, Gladiolus, Lilies, Maderia Vines, Tuberoses.

Also a fine lot of Deutzia Double White and Pride of Rochester. 3 to 4 feet. Forsythia Portunii, 3 to 4 feet, Spirea Prunifolia, fall plant, 3 feet, and Honeysuckle, Hall's Japan.

Low Prices Given on Application.

VICK & HILL CO.,
ROCHESTER, N. Y.

RHODODENDRONS,

NOT IMPORTED AND THEREFORE HARDY.

Hardy Azaleas, Japanese Maples Magnolias,
(LIVING GUARANTEED.)

Rare Evergreens, other Trees, new Shrubs, Hedge Plants.

PARSONS & SONS CO., Limited, Flushing, N. Y.
Certificated freedom from scale.

Surplus Stock, PEACH TREES.

Spring, 1899.

A nice clean even grade, stocky (not switches) 3 to 4 ft., and 4 to 5 ft.

Elberta, Biglens, Crawfords, and 30 other leading sorts, by single 100, or bulk in car lots. Asparagus Roots. Large quantity Barr's and Moore's X-bred, Raspberry Plants, Marlboro, Golden Queen, Gregg, &c. Norway Spruce, bushy, 3 ft., 4 ft., 5 ft. to 7 ft. Am Arbor Vitae, bushy, 3 ft., 4 ft., 5 ft. Norway Maples, transp., 2 and 3 ft., 8 to 9, and 10 ft. Carolina Poplars, 6 ft. to 25 ft., 1/2 inch to 5 inch. Cal, White Birch, 12 to 14 ft. Cal. Privet. 1 and 2 years; fine plants.

JOSIAH A. ROBERTS, Prop., Malvern, Pa.

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Specialty—SMALL EVERGREENS.

Especially fine Stock, Arbor Vitae, Juniper, Pines, Pungens, Spruce, &c.
SEE MY PRICES.

We offer at rates that will secure your order:

25,000 PEACH—Largely Jaques, R. R. B Smock, Lemon Free, Ingles Mammoth, Gold Drop and Elberta. Also the new Early Yellow Freestone "Graves."

20,000 PLUMS—2 yr.; Lombard, Shippers, Guai, Pond, Abundance, etc.

PEAR STANDARD. LEADING SORTS.

10,000 DWARF PEAR—Mostly Duchess.

1,000 WEALTHY APPLE—3-4 in.; 4 yr.

100,000 GRAPE VINES—1, 2 and 3 yrs. Concord, Worden, Ivess, Pocklington and Woodruff Red.

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CURRENTS—Victoria and Black Nappes.

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APPLE SEEDLINGS.

I have about 200,000 No. 3 Apple Seedlings for lining out, which I will sell very cheap, or will exchange for other stock.

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PIONEER NURSERIES CO.

ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

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We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

Strawberry Plants.

MILLIONS OF THEM.

The Largest Stock of Carrie, Earliest, Excelsior and Clyde, in the United States.

Prices the lowest. Also a large stock of Raspberries, Blackberries, Currants and Gooseberries.

Be sure to get my prices before buying elsewhere. All stock certified and guaranteed true to name. List free.

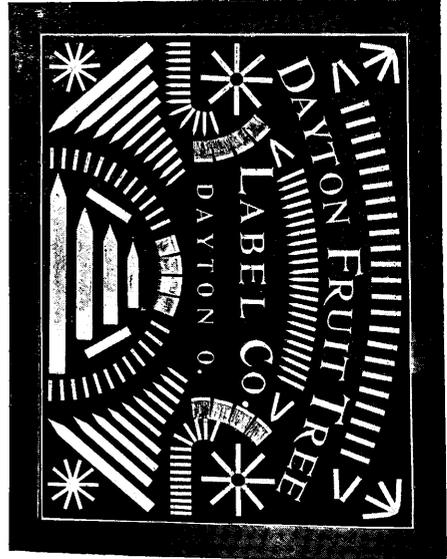
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Cree and Plant Labels.

Plain, Painted, Printed, Notched, Bored, Copper Wired, Iron Wired, Nursery Stakes. Send for Samples and Prices.

Manufactured by WOODEN GOODS CO.

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The Popular CAROLINA POPLAR.

Just the tree for city planting—Thrives where others fail—Resists smoke and gas as the salamander does fire. 75,000 of them, beautiful trees 6 to 8, 8 to 10, 10 to 12 and 12 to 15 feet. Immense stock of all other Shade Trees, Shrubs and Roses. Hundreds of thousands of Fruit Trees, small Fruits, Grape Vines, Plants, Seeds, Valuable Catalogue free. Correspondence solicited. Write us your wants if you would procure the best at bottom prices.

45th YEAR. 44 GREENHOUSES. 1,000 ACRES.
THE STORRS & HARRISON CO., Box 534 PAINEVILLE, OHIO.



P. J. BERCKMANS,
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ESTABLISHED IN 1856.

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FRUITLAND NURSERIES

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

10,000 Keiffer Pears—Extra good Stock—Boxes at Cost.

2 years, 5 feet and up, branched.
2 years, 4 to 4½, branched. Offer our prices.

10,000 Standard Pears.

5,000 Everbearing Peach Trees—3 and 5 feet.

Special offer to close out stock.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

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100,000 Amour Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.
10,000 Roses—Field grown; including 5,000 Marechal Niel budded upon Manetti, 18-24 inches.
Two Acres in Canna.

Biota Aurea Nana.

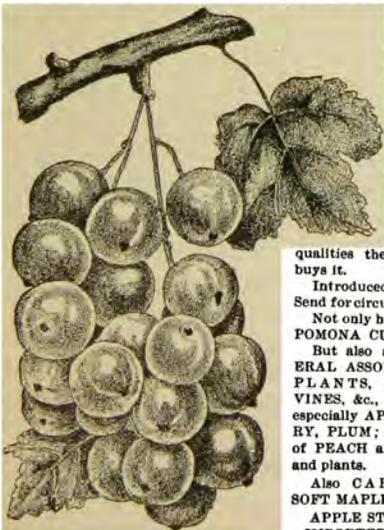
Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants; prices low.
Broad leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

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100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.
Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the BEST MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the quickest and surest.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS.

But also a COMPLETE GENERAL ASSORTMENT OF TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS. IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH FITS to offer.

Address, ALBERTSON & HOBBS,

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THE

Geneva Nursery

Established in 1846.

Headquarters for : :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of : :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.

PÆONIAs—Large Assortment, Named Varieties.

DAHLIAS—New Cactus, Large Flowering, Ponpon.

full Assortment in : :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists. Fall trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

PEACH TREES at BAIRD'S Nurseries by the 1000 or CAR LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely.

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

NEW BLACKBERRY

MERSEREAU Large size, best quality, very productive, absolutely hardy, carried and developed its full crop during the severe drought last July and August. Prices on application.

WILEY & CO., Cayuga, N. Y.

RED CEDAR NURSERY,

F. H. BRUNING, Proprietor.

Offers for Spring trade 1,000,000 Platte Valley Red Cedar grown from seed. Send for Catalogue and mention paper.

F. H. BRUNING, KENT, IOWA.

SURPLUS STOCK

Standard and Dwarf Pears, Plums, Sweet Cherries and Currants. All sizes and grades in large supply and great assortment. Also a full line of Grape Vines and general nursery stock. Send list of wants for lowest prices.

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W. T. HOOD & CO., Old Dominion Nurseries

RICHMOND, VA.

Will have a full stock for the trade of fall of '98
and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals
500 bushels of natural Peach Pits crop of '97

WANTED—To sell an interest in the Old Dominion Nurseries to
a thorough practical nurseryman. **W. T. HOOD.**

Phoenix Nursery Co.,

Established 1852.
600 Acres.
13 Greenhouses.

SUCCESSORS TO
SIDNEY TUTTLE & CO. **Nurserymen and Florists.**
Eastern agents for **Roesney Pear**, the best and handsomest pear yet intro-
duced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4
ft., also a splendid stock **Hybrid Perpetual, Moss, Climbing, Hybrid Tea**
and **Ever-blooming Roses**, all on own roots. Correspondence solicited.

Send list of wants for prices.
P. O. BOX 625.

BLOOMINGTON, ILL.

1840—OLD COLONY NURSERIES—189

*Hardy Shrubs, Trees, Vines, Evergreens
and Perennials.*

A large and fine stock of well-rooted plants, grown in a sandy loam. Good
plants, best sizes for planting; very cheap.

Trade List Free on
Application.

T. R. WATSON, Plymouth, Mass.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,

SPRINGFIELD, NEW JERSEY.
SURPLUS OF

PEACH, PLUM, CURRANTS,

POPLARS AND SHADE TREES,

PRIVET, SHRUBBERY, EVERGREENS, ROSES.

HEADQUARTERS FOR NURSERY STOCK.

Baltimore and Richmond Nurseries,

BALTIMORE, MD.

FRANKLIN DAVIS NURSERY CO.

50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.

LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grap s,
Shade Trees,
Evergreens,
Shrubs.

Strawberries,
Nut Trees,
Japan Pear Seedlings,
Gooseberries,
Roses,
Raffia,
General Supplies,
&c., &c.,
&c.

Be Quick!

WE HAVE 500,000 APPLE
ROOT GRAFTS READY
FOR SHIPMENT.

Send for revised list showing numbers and varieties
unsold to date.

WE HAVE ALSO 50,000
KIEFFER PEAR GRAFTS—
ON No. 1 IMPORTED
ROOTS.

These are fine and will make fine trees at two
years old.

Grafts can be shipped on one day's notice. *Be
quick* with your order before assortment is broken.

F. W. WATSON & CO.,
TOPEKA, KANSAS.

When writing to Advertisers mention The National Nurseryman.

SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you.
Descriptive catalogue if requested.

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CAMPBELL'S EARLY GRAPE.

INSIST ON OUR SEALS AND THUS INSURE AGAINST IMPOSITION.

The Largest Stock of other First-Class Grape Vines. Extra Fine Stock of Gooseberries, Currants, Blackberries, &c. Let us Know your Wants.

GEO. S. JOSSELYN, Fredonia, N. Y.

EXPANSION

Seems to have carried the day, and accepting the situation we are ready to *expand* our business to meet any possible demand for our unexcelled

PRINTED AND WIRED TREE LABELS.

Spanish, Cuban, Porto Rico, Kanaka or Malay names printed, if desired.

BENJAMIN CHASE, DERRY, N. H.

The Syracuse Nurseries

...THE WORDEN SECKEL PEAR...

One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

**SMITHS & POWELL COMPANY,
SYRACUSE, N. Y.**

Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

BREWER & STANNARD

OTTAWA, KANSAS,

Offer to the trade a large and complete assortment of

NURSERY STOCK.



APPLE,

PEAR, Standard and Dwarf,

CHERRY,

PLUMS, Japan and European,

PEACH,

APRICOT.



Gooseberries, Grape Vines, Currants,

Raspberries, Blackberries, Apple Seedlings,

**Forest Seedlings, and Osage Hedge Evergreens,
18 inches to 3 feet.**

Ornamental Trees, Shrubs and Vines.

When writing to Advertisers mention The National Nurseryman.

Everything in 

SMALL FRUIT PLANTS.

Catalogue and Price List
..Free..

W. N. SCARFF, New Carlisle, O.

CANADA ASHES.

No. 1 Hardwood Canada Unleached Ashes, containing all the elements which make worn-out soil rich and fertile. I am anxious to have you make a test of my ashes, and see if there is not big money in them. Shipped in Carload Lots in perfectly dry condition thereby increasing their value from 15 to 20 per cent. Also Pure Ground Bone for Sale. For prices, pamphlets, etc., address

**GEORGE STEVENS, "The Hustling Ash King,"
P. O. Box 689, PETERBORO, ONT., CANADA.**

ORDER EARLY

We have in surplus a good supply of Apple Trees, Evergreen Seedlings, Strawberry Plants, Raspberry and Blackberry Plants from Root Cuttings. Also a good assortment of Ornamental Shrubs and TREES. A fine lot of Roses grown on their Own Roots. Write and get our prices. We can please you.

The Sherman Nursery Co.

CHARLES CITY, IOWA.

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APPLE ROOT GRAFTS.

APPLE SEEDLINGS,

No. 1 Branched and Straight roots.

HONEY LOCUST and RUSSIAN MULBERRY SEEDLINGS.

DWARF JUNE BERRY TRANSPLANTS.

J. A. GAGE, Fairbury, Nebr.



FOR SALE. An opportunity to engage in the Nursery business in Colorado. The oldest established Nursery in Colorado is for sale on very liberal terms. Owners have other business interests. No great amount of capital required. This is an opportunity of a lifetime. For full particulars, address,
Post Office Box 264, Canon City, Colo.

WANTED. AMERICAN ELM, 3 to 4 inch Caliper.
LOMBARDY POPLAR, 2 to 3 inch Caliper.
Prices per 500 and particulars to
FRED. W. KELSEY, 150 Broadway,
NEW YORK.

"NICKS" The Queen of Grapes.
The new Concord of the 20th Century.
Conquers the land on its merits. Silver Medal at Omaha Exposition. Sold under seal and contract only.
HENRY WALLIS, Proprietor,
WELLSTON, St. Louis Co., Mo.

100,000
Palmer, Souhegan, Gregg, Nemcha and
Kansas Raspberry Tips
and other small fruit plants for spring planting. Price list free.
J. W. COGDALL, Springfield, Ill.

H. P. and Climbing Roses
BUDED AND ON OWN ROOTS.

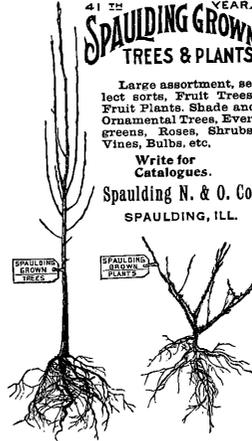
Write me for prices.
C. L. YATES, Rochester, N. Y.
When writing to Advertisers mention The National Nurseryman.

WANTED.

A first-class nursery foreman. Apply by letter stating experience and references.

BROWN BROS. CO.,
Rochester, N. Y.

SEND US A LIST OF YOUR WANTS



APPLE, (Get O-U-R) CHERRY (Prices.)

STD. DW. PEAR
Plum, Peach, Apricot, Quince.

Glove Pruned Trees
Smooth bodies, Heads right, Grade right. Special offers for the Trade.

BLACKBERRY and Other Small Fruit Plants.

CAR. POPLAR, H. P. ROSES, and ORNAMENTALS.

SCIONS, CUTTINGS.

Cordage Burlaps
GET OUR PRICES.

KNOX NURSERIES.

(ESTABLISHED 1851.)

We offer for Spring 1899 shipment Apple Trees, largely Ben Davis, Jonathan, G. Golden and Wealthy. Also a fine lot of 2 year Cherry Trees, and a nice lot of Elberta Peach Trees, Ohio and Egyptian Raspberry Tips. Large stock of Strawberry Plants, Clyde, Gardner, Brandywine, Gandy and Lovetts. Have a bargain in 3 year Cherry trees for some one. Send us a list of your wants.

Connected by Telephone. H. M. Simpson & Sons, Vincennes, Ind.

FRUIT PLATES Vredenburg & Company,

AND NURSERY SUPPLIES. ROCHESTER, N. Y.

NURSERY STOCKS

OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphia, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of Fruit Tree Stocks, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

Transon Brothers Nurseries

BARBIER & CO., SUCRS., ORLEANS, FRANCE.

For Price List apply to

KNAUTH, NACHOD & KUHN, 13 William St., NEW YORK.

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Evergreen

Nursery Company,

Former Postoffice address
Evergreen, Wis., changed
to Sturgeon Bay, Wis. (which
has always been our freight,
Express and Telegraph Of-
fice) in order to avail our-
selves of better postal facilities
for our large and growing
business.

Extensive Growers for the Wholesale Trade.

STURGEON BAY, WIS.



Offer to the Trade for Spring of 1899:

American Arbor Vitæ (*Thuja Occidentalis*)—Transplanted; 4 to 8 in., 8 to 12 in., 12 to 18 in., and 18 to 24 in., in large quantities.

Balsam Fir (*Abies Balsamea*)—Transplanted; 4 to 8 in. and 8 to 12 in. in unlimited quantities; also seedlings in any quantity. Smaller sizes, both seedlings and transplanted, in good supply. A No. 1 splendid stock.

English Juniper—18 to 24 in., and 2 to 3 ft.; seedlings; fine stock.

White Pine (*Pinus Strobus*)—12 to 18 in. and 18 to 24 in.; large stock.

Scotch Pine (*Pinus Sylvestris*); **Austrian Pine** (*Pinus Austriaca*) and

Bull Pine (*Pinus Ponderosa*)—1 and 2 yr. seedlings in large supply.

Red Cedar (*Juniperus Virginiana*)—5 to 9 in. seedlings; extra fine, uncommon hardy; grown from seed in our own nursery and have stood two of our cold northern Wisconsin winters.

Colorado Blue Spruce (*Picea Pungens*)—2 yr. seedlings.

Douglas Spruce (*Abies Douglasii*)—1 and 2 yr. seedlings.

Hemlock Spruce (*Abies Canadensis*)—4 to 8 in., 8 to 12 in. and 12 to 18 in. seedlings; unlimited quantities. Native seedlings of northern Wisconsin and hardy anywhere.

Norway Spruce (*Abies Excelsa*)—2 to 3 in., 3 to 4 in., 4 to 6 in., 6 to 8 in. and 8 to 10 in. seedlings in immense quantities.

Rocky Mountain Blue Spruce—2 to 4 in. seedlings.

White Spruce (*Abies Alba*)—2 to 3 in., 3 to 4 in., 4 to 6 in. and 6 to 8

in. seedlings in immense quantities, and 4 to 8 in., 8 to 12 in. and 12 to 15 in. transplanted, in good supply.

European Black Ash—Large stock; 8 in. to 6 ft. Largest supply in 8 to 12 in., 12 to 18 in. and 18 to 24 in.

Ornus Ash—4 to 8 in. seedlings, and a few larger sizes.

American White Ash—4 to 8 in., 8 to 12 in. and 12 to 18 in., both seedlings and transplanted. The two smaller sizes in large quantities.

American Linden (*Basswood*)—Seedlings; in any quantity.

American Beech—Seedlings; in large quantities.

American White Elm—Immense quantities of 4 to 8 in. and 8 to 12 in. seedlings.

European Larch—3 to 4 ft. and 4 to 5 ft.; some still larger.

American Larch—seedlings; 2 to 4 in. and up in any quantity.

Sugar Maple—Seedlings; all sizes from smallest up in any quantity.

Soft Silver Maple—8 to 12 in. and 12 to 18 in. seedlings, large quantities; 12 to 18 in., 18 to 24 in. and 2 to 3 ft. transplanted, good supply.

High Bush Cranberry—A large stock of both seedlings and transplanted.

California Privet—1 to 2 ft., transplant; large stock.

Dog Rose (*Rosa Canina*)—A large stock of seedlings.

Wild Rose (*Rosa Blonda*)—Strong, transplanted stock.

The above and many other varieties offered the trade at reasonable prices for first-class stock.



Our Method of Packing, recognized authorities say, is the best, and will carry trees safely to any part of the world.

Correspondence solicited—Write us if you are in need of anything in our line.

EVERGREEN NURSERY COMPANY,

STURGEON BAY, (Door Co.,) WISCONSIN.

HARDY LOW-BUDDED ROSES. *At Lower Prices than ever before Offered.*

Tree Roses, Azaleas, Rhododendrons, Clematis, Hydrangea Paniculata Grandiflora, Snowballs, &c., from

THE BOSKOOP HOLLAND NURSERY ASSOCIATION.

Send an estimate of your wants for March or April importation, stating quantity.

C. H. JOOSTEN, Importer, - 193 Greenwich St., New York.



5,000 SUGAR MAPLES,
10,000 SILVER MAPLES,
2,000 AMERICAN LINDENS,
10,000 JAPANESE WINEBERRY.

SURPLUS.

50,000 BLACKBERRIES,
20,000 STRAWBERRIES,
5,000 NORWAY MAPLES,
5,000 ASH LEAF MAPLES,

5,000 JAPAN WALNUTS,
1,000 MAGNOLIAS,
50,000 RASPBERRIES.

Superior stock of Chestnuts, Pears, Peaches, Plums, &c.

Write for special quotations on large quantities and for a copy of 1899 Catalogue.

PARRY'S POMONA NURSERIES, Parry, N. J.

3,000,000 MORE.

Having purchased the entire stock of the Elgin Nurseries at Elgin, Ill., I intend my patrons shall share with me in the benefits of this immense purchase. I have not counted them, simply made a rough estimate, but am safe in saying there is over three million including hundreds of thousands of Picea Pungens, Douglas Spruce, Pinus Ponderosa and Engelmanni Spruce. If you want to stock up with the best selling evergreens correspond with me or come and make selection—part of the land must be cleared.

D. HILL, Evergreen Specialist,
DUNDEE, ILLINOIS.

OBTAİN *List and prices of our immense stock of HIGH GRADE ORNAMENTAL TREES AND SHRUBS,*

And thus secure unsurpassed service in filling your orders. You will never have cause to regret it.

HOOPES BRO. & THOMAS, *Maple Avenue Nurseries,*
WEST CHESTER, PENNA.

MUST BE SOLD TO CLEAR GROUND

A large and very complete line of HOME GROWN ROSES, both Std. and Dwf. 100 varieties. Ornamental Trees and Shrubs, California Privet, all grades. Currants and Gooseberries, large stock. Special quotations.

50,000 Evergreens, of all grades, at prices that cannot be duplicated in America. Also all grades of Fruit Trees of the following:

Cherries—Sour and sweet, full assortment.

Plums—A large lot.

Prunes (20,000)—Very heavy—extra fine—must be sold.

Quinces—Large and fine lot.

Std. and Dwf. Pears—2 year old, extra fine.

25,000 Peaches as fine as ever grew, in three grades.

We expect to make an extra push on all of this stock the coming season, and will soon issue our Trade List with a schedule of prices that will surprise you. In the meantime we solicit any correspondence that you would wish to make regarding the above stock. Address—

THE OLD BRIGHTON CENTRAL NURSERIES,
BRIGHTON, N. Y.

THE AMERICAN FLORIST COMPANY'S DIRECTORY FOR 1899,

Is now ready, revised and corrected to date, with 1336 names of new concerns. This book, issued every year at great expense, contains the names and addresses of all the Florists, Nurserymen and Seed Merchants in the United States and Canada. Price, \$2.00.

AMERICAN FLORIST COMPANY, Chicago, Ill., U. S. A.

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PEIRSON BROS., WATERLOO, N. Y.

Surplus Stock of STD. and DWF. PEARS, CHERRIES, PLUMS, PEACHES, STD. APPLES, MEDIUM GRADE.

Raspberries, Blackberries, Gooseberries, Roses—fine grade of stock. Write for prices with list of wants.

When writing to Advertisers mention The National Nurseryman.

"Largest Orchards and Nurseries in the State."

1846 **E. SMITH & SONS,** 1898

GENEVA, N. Y.

ARE OFFERING SPECIAL INDUCEMENTS

to NURSERYMEN and DEALERS on

*Standard and Dwarf Pears,
European and Japan Plums,
Sweet and Sour Cherries,
Quinces, Apples, Peaches,
Maples, Ash, Hydrangeas,
Roses, Evergreens
and Small Fruits.*



Headquarters for new varieties of fruit.
Submit a list of wants and get our price.

New!

Plums Empire, Wickson "Japan."
Peaches Fitzgerald, Triumph.

SPECIAL attention is called to my
Fine, Large Stock of

**NORWAY
AND
SUGAR MAPLES,
MAGNOLIA ACUMINATA
AND TRIPETALA,
OSAGE ORANGE,
One and two years.
AMERICAN ARBOR VITAE,
IRISH JUNIPERS
AND
NORWAY SPRUCE.**

Also a full line of Nursery Stock.

Please address

GEORGE ACHELIS,
West Chester, Chester Co., Pa.

**For Park
and Street Planting.**

American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitae, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and GOOSEBERRIES extensively grown. Better stock never grew.

**NELSON BOGUE
BATAVIA NURSERIES,
BATAVIA, N. Y.**

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From Anywhere **East**
To Everywhere **West**

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of _____
Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists on route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

Great Convention cities throughout the country.

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G. E. P. A., **Jno. Sebastian, G. P. A.,**
305 Broadway, NEW YORK. CHICAGO, ILL.

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J. C. HARRISON.

ORLADO HARRISON.

G. A. HARRISON.

J. C. HARRISON & SONS, BERLIN, MD.

FUMIGATION.

Under the law of 1898 all nursery stock in Maryland must be fumigated. Although this adds to the cost of stock we made no effort to evade the law, but on the other hand we have given it our hearty support, believing, as we do, that it is a wise precaution although we have never found in our nurseries the faintest traces of disease.

We are sure our patrons will appreciate our efforts to furnish

CLEAN, HEALTHY STOCK

We have the most complete fumigating rooms in the State, and take as much care as it is possible for one to take, to properly fumigate all our stock. Prof. W. G. Johnson, the State Entomologist, superintended the construction of all our buildings, and the work is done under his direction, to whom we refer to confirm the accuracy of our statements. In addition to this precaution, we have always used the utmost care in the purchase of peach seed, to see that they are obtained from sections not infected with yellows or other diseases of the peach. As a further precaution we plant peach nurseries only on ground not previously set in peach trees. This makes the growing of our trees much more expensive, requiring, as it does, constant purchasing and leasing of land for the purpose. Our buds are all taken from our own fields, except those purchased from introducers of new varieties, and these buds are fumigated before set in trees.

We are equally cautious about the growing and preparing of our strawberry stock.

The nursery business with us is a life time business, and we realize the fact that it can only be built up and maintained upon just principles. Our customers must be our agents to speak for us, else we cannot succeed. We have always realized this principle.

We have a member of the firm for each department of the business. This is the reason why we can rely upon its being done right.

WE HAVE THEM.

Millions of Strawberry Plants

AND PRICE LOW.

Can dig any day.

VARIETIES.

Aroma [per], Berlin [imp], Bedar Wood [per], Barton's Eclipse [per], Bubach [imp], Bismark [per], Brandywine [per], Brunette [per], Crescent [per], Clyde [per], Carrie [imp], Capt. Jack [per], Cobden Queen [imp], Clarence [per], Columbian [per], Cumberland [per], Cyclone [per], Darling [per], Delaware [per], Dayton [per], Excelsior [per], Enormous [per], Eleanor [per], Enhance [per], Evans [per], Giant [per], Gandy Bell [per], Gandy [per], Greenville [imp], Glen Mary [per], H. & H., Hall's Favorite [per], Haverland [imp], Hoffman [per], Holland [per], Hovey [per], Howell [per], Hunt, Imp'd Parker Earle [per], Jesse [per], Kansas Prolific [per], Lady Thompson [per], Lovett [per], Marshall [per], Muzoon, Margaret [per], Mitchell's Early [per], Morgan's Favorite [per], Meek's Early [per], Nick O'Hamer, [per], Ocean City [per], Pride of Cumberland [per], Paris King, Ruby [per], Reid's Prolific [per], Ridgeway [per], Rio [per], Seaford, or Lloyd [imp], Star [per], Splendid [imp], Saunders [per], Sharpless [per], Sunnyside [imp], Staples [per], Tennessee Prolific [per], Up to Date [per], Young's E. Sunrise [per], Wm. Belt [per], Watfield [imp], Wilson [per], Woolverton [per], Gardner [per]. Plants tied 25 in bunch.

PEACH TREES BY THE THOUSAND OR CARLOAD. . . .

Standing in the nursery row, will be fresh dug—smooth and clean. No cold storage needed here.

VARIETIES.

Amsten Jude, Alexander, Brandywine, Blyeau's October, Bernard's Early, Bray's E. Rippe, Crawford's Late, Crawford's Early, Connet's So. Early, Champion, Chalm's Choice, Crosby, Connecticut, Chinese Cling, Bureka, Elberta, Early Rivers, Early Michigan, Fox Seedling, Foster, Fitzgerald, Ford's L. White, Geary's Holden, Greensboro, Gold Drop, Gloire, Hill's hill, Hale's Early, Kalamazoo, Lemon Free, Lewis Lorentz, Ler's Late, Moore's Favorite, McIntosh Morris' White, Mt. Rose, New Prolific, Old Mixon Cling, Old Mixon Free, Prize, Reeve's Favorite, Stephen's Rare Hip, Smock, Salway, Snow's Orange, Stamp the World, Sneed, Triumph, Thurber-Trot's Early, Wonderful, Wheatland, Wager, Willet, Walker's Variegated Free, Wilkin's Cling, White Heath Cling, Waterloo.

GRADES.

First class, extra, 5 to 7 feet; first class, 4 to 6 feet; first class, 3 to 4 feet, stalky; first class, 2 to 3 feet, branched; first class, 1 1/2 to 2 feet, first class, June buds, 1 1/2 to 2 feet; first class, June buds, 12 inches up.

PLUM OR PEACH ROOTS.

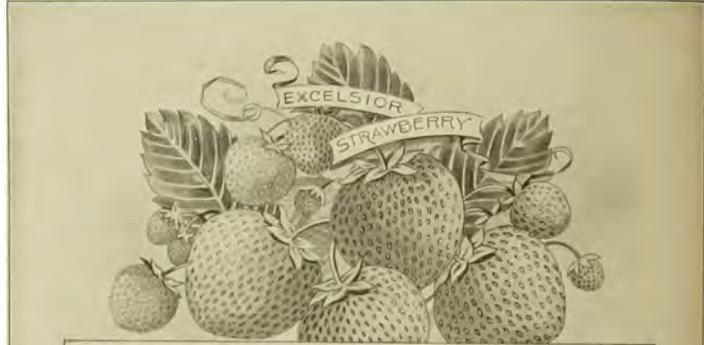
First class, 4 to 6 feet; first class, 3 to 4 feet; first class, 2 to 3 feet; June buds.

APPLE TREES, SMOOTH AND FREE FROM APHIS. . . .

First class extra, 3/4 up, 5 to 7 feet; first class, 3/8 to 3/4, 5 to 6 feet; first class, 3/8 to 3/4, 4 to 5 feet; first class, 3/8 to 3/4, 4 feet.

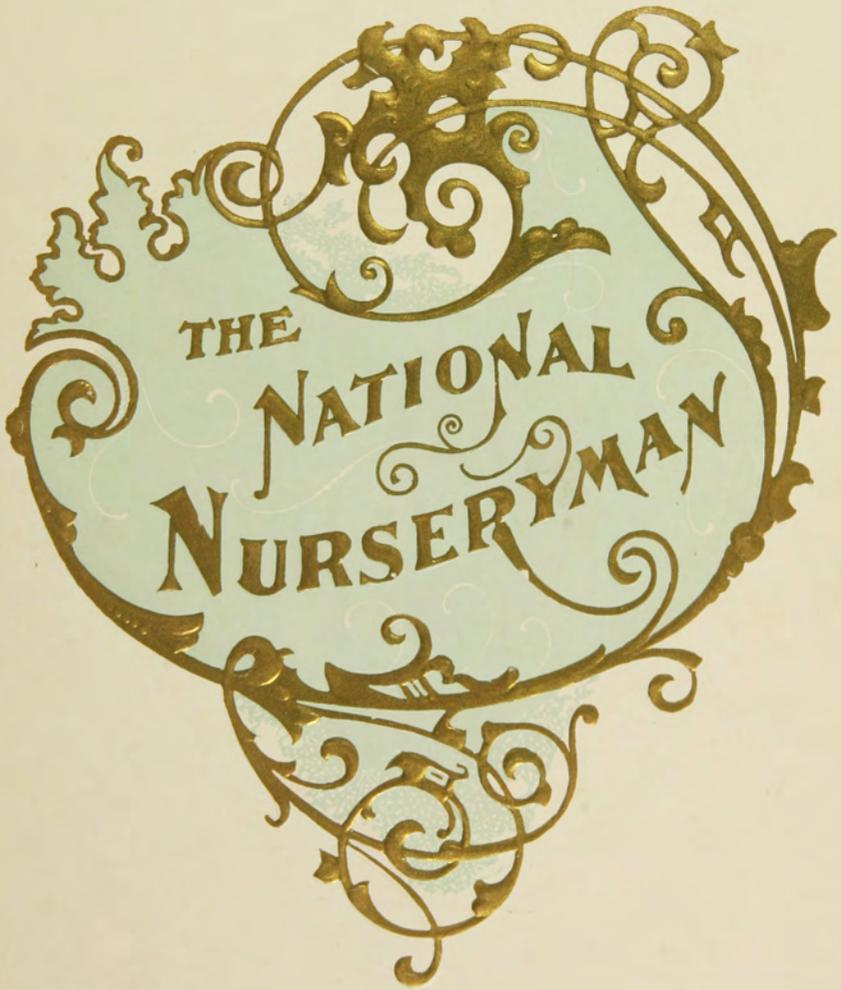
ASPARAGUS ROOTS, ONE YEAR, NO. 1. . . . SEND FOR SAMPLE.

Columbian Mammoth W. Donald's Elmira, Palmetto, Barr's Mammoth, Conover's Colossal.



MILLER'S RED RASPBERRY PLANTS—the Best Red.

Wholesale Catalogue FREE. Send your list of wants at once;



April, 1899.

Nursery Stock

... IN ...

COLD



STORAGE



WE have 31,000 ground surface square feet of frost proof cellars which will average about ten feet high making a capacity of over 300,000 cubic feet for the storage of

TREES, SHRUBS,

ROSES, Etc.

Anticipating a winter of more than ordinary severity this immense space was crowded to its utmost capacity with

Apple, Pear, Plum, Cherry, Peach,
Small Fruits, Grape Vines, Shrubs and Roses.

Since the freeze the demand for peach has been unprecedented and we have but few more to wholesale, but still have immense stocks of the other items in as bright condition as when dug in the fall.

Under the protecting influence of Lake Erie but little damage was done to nursery stock standing out here, only the tender varieties showing any discoloration. Sixteen below zero was the coldest registered at the Government Signal Station at Cleveland, and it was but two degrees colder here. The vitality of nursery stock has not been impaired in this lake region as it has in the interior away from the protecting influence that a large body of water exerts. Purchasers will serve their best interests and those of their customers by placing their orders with us. Don't forget that we have an immense stock of **Ornamentals** uninjured by the freeze. Those in want of greenhouse plants will please bear in mind that we have forty-four houses filled with **Roses, Palms, Ficus, Ferns, Pandanus, Geraniums** and other things too numerous to mention.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE
**MOUNT
HOPE
NURSERIES,**

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

FOR FALL '98 AND SPRING '99.

- 20,000 Kenyon Red Raspberry.
- 20,000 Turner,
- 300,000 Elm, 1 year.
- 25,000 Silver Maple, 3 to 4 ft.,
- 75,000 Berberry, 1, 2 and 3 years old,
- 5,000 Picea Pungens, transplanted, 18 to 24 in.
- 10,000 " " " " 12 to 18 in.
- 25,000 " " " " 8 to 12 in.
- 50,000 " " " seedlings, 2 years, 2 to 4 in.
- 50,000 Ponderosa Pine, " " 4 to 6 in.
- 1,000 Paeony, Double Rose.
- 1,000 Paeony, Double Chinese.
- 500 P. L. Birch, 5 to 6 ft.
- 20,000 American and European Mt. Ash, transplanted, 4, 5, 6 and 4 to 5 ft.
- 10,000 Horse Chestnut, transplanted, 3 and 4 ft.

♣ **GARDNER & SON, Osage, Iowa.**

APPLE SEEDLINGS FOR SALE.

- | | | |
|---------------------|---|--|
| Nebraska Grown. | } | 150,000 No. 1 Straight $\frac{3}{8}$ and all up. |
| | | 200,000 No. 2 " " $\frac{1}{2}$ to $\frac{3}{4}$. |
| Immediate Shipment. | } | 20,000 No. 1 Branched $\frac{1}{2}$ in. and up. |
| | | 100,000 No. 1 " " $\frac{1}{8}$ to $\frac{1}{2}$ in. |
| | | 150,000 No. 3 Straight and Branched. |

Also a large line of General Stock including Apple, Cherry, Pear, Plum, Small Fruits, Ornamentals, Etc.

ADDRESS D. S. LAKE, SHENANDOAH, IOWA.

FRUIT PLANTS Vredenburg &
Company,
AND NURSERY SUPPLIES. ROCHESTER, N. Y.

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KNOX NURSERIES.

(ESTABLISHED 1861.)

We offer for Spring 1899 shipment Apple Trees, largely Ben Davis, Jonathan, G. Golden and Wealthy. Also a fine lot of 2 year Cherry Trees, and a nice lot of Elberta Peach Trees, Ohio and Egyptian Raspberry Tips. Large stock of Strawberry Plants, Clyde, Gardner, Brandywine, Gandy and Lovetts. Have a bargain in 3 year Cherry trees for some one. Send us a list of your wants.

Connected by Telephone.

H. M. Simpson & Sons, Vincennes, Ind.

PRICES LOW—QUALITY HIGH.

PEACH TREES—No. 1 $\frac{3}{8}$ 4 to 6 feet. No. 2 $\frac{1}{2}$ 3 to 4 feet.

APPLE TREES—2 years $\frac{1}{2}$ and up; nice stock.

MILLER RED RASPBERRY.

QUINCES—2 to 5 feet.

TULIP TREES—5 to 15 feet. Handsome stock.

WEST JERSEY NURSERY CO.,

ESTABLISHED 1873.

BRIDGETON, N. J.

SURPLUS PEACH

A FEW CAR-LOADS IN GOOD ASSORTMENT,



MOSTLY 1-2 to 9-16 INCH
4 to 5 FEET HIGH,

INCLUDING

**10,000
ELBERTA**

PRICES RIGHT.
BOXING FREE.
JUNE PAYMENT.

No Healthier Stock in the State.

Certificate Tacked on Every Box, will go Anywhere.

Immediate Shipment or Until May 1st.

ONCE A PATRON. ALWAYS A PATRON.

Address **J. G. PATTERSON & SONS,**
STEWARTSTOWN, PA.

When writing to Advertisers mention The National Nurseryman.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"A nation's growth from sea to sea stirs in his heart who plants a tree."—H. C. Bunner.

VOL. VII.

ROCHESTER, N. Y., APRIL, 1899.

No. 3.

SHIPPING REGULATIONS.

Provisions of Additional Laws and Proposed Laws Regulating Inspection and Transportation of Nursery Stock—Twenty. Two States Now Have Scale Laws—Scale Bills Are Pending in Four State Legislatures—The New Bills.

Since the issue by the NATIONAL NURSERYMAN of the pamphlet containing the scale laws of nineteen states of the Union and the Canadian laws, the State of Georgia has passed a law on the subject, the regulations of which were published in the January and February issues of this journal. Indiana has passed a law, and scale bills have been introduced in five other states, viz.: Massachusetts, Illinois, Minnesota, Montana and Kansas. The last named bill failed of passage. The provisions of the Kansas and Massachusetts bills were published in the March issue of this journal. The provisions of the Illinois, Minnesota, and Montana bills follow:

There has been passed by the Montana legislature a bill providing for a state board of horticulture to consist of the governor, ex-officio, and a commissioner from each of five districts into which the state is divided. The board may appoint a secretary and hold public meetings with horticultural societies. Regulations regarding fruit pests and diseases are to be printed and circulated. An inspector of fruit pests is to be appointed in each of the five districts, whose duty it shall be to enforce the regulations of the board in nurseries, orchards and packing houses. It is the duty of every person or corporation selling or delivering any nursery stock in the state to notify the inspector of the district at least five days before the delivery, giving date and name of nursery or railroad station where the delivery is to be made, and the inspector is to inspect the stock, granting a certificate if it is free from pests or disease, and ordering it destroyed if it is not, under penalty of not less than \$25 nor more than \$300. In case of discovery of pests or disease by an owner in his orchard or nursery he must notify the inspector in his district immediately and must treat or destroy the stock at his own expense under a penalty as before named. The inspector may act if the owner refuses.

Any person who for himself or as agent for any other person, corporation or transportation company shall turn over to any other person or corporation any nursery stock not bearing an inspector's certificate shall be deemed guilty of a misdemeanor and subject to a penalty as before named. No person shall be liable to any other person by reason of damage to nursery stock caused by holding such stock to await a certificate. Inspectors shall receive \$5 per day but not to exceed \$300 per year. The secretary of the board is to receive \$ 00 per annum. No compensation is provided for the members of the board. The sum of \$3000 is appropriated for the use of the board the first year; \$3,600 the second year. The board has

adopted rules providing that all foreign nursery stock shall be handled at quarantine points, Dillon, Great Falls, Kalispell, Chinook and Billings. The hydro-cyanic treatment will be used on all carload lots.

ILLINOIS SCALE LAW.

The San Jose scale bill for Illinois makes it the duty of the state entomologist or assistants to inspect all nurseries in the state once each year and grant certificates, when stock is clean, upon payment of expenses. Copies of such certificates must be attached to all stock shipped. Section 2 provides that a nursery or orchard may be inspected at any time and infested stock shall be treated, one-half the expense to be borne by the owner. If an orchard shall be found to have been infested previous to 1899 the treatment is to be without cost to the owner. If the stock must be destroyed, action will be taken without compensation to the owner.

As to nursery stock shipped into Illinois from another state, every package must be plainly labeled with the names of consignor or consignee and a certificate showing that the contents have been inspected by a state or government officer and are free from dangerous insects or diseases. Common carriers must report within twenty-four hours any case where such provisions have not been complied with. The state entomologist may reinspect the stock and treat it as provided for in section 2. A penalty of from \$10 to \$100 is provided for violation of the act and \$6,000 is appropriated to pay salaries and expenses.

At the time of going to press, the bill had passed the Senate and was on third reading in the House.

MINNESOTA SCALE BILL.

President J. M. Underwood of the Jewell Nursery Co., Lake City, Minn., sends us a copy of a substitute for the scale bill first introduced at the present session of the legislature, and calls attention to the elimination of the bond feature of the bill. The new bill is like the one before the Illinois legislature except that in Minnesota the whole cost of treatment is charged to the owner. The Minnesota bill, it is proposed, shall go into effect on June 1st.

The Kansas scale bill failed to become a law; it was passed by the House. The Michigan law has been amended so that the license fee of \$1 for each agent is not required; a license fee of \$5 for the principal is sufficient. New York state has appropriated \$3,000 for the control of the San Jose scale.

Recognizing the special advantage to nurserymen during the packing season of possessing a copy of the San Jose scale laws of the United States and Canada, we have decided to make a special offer for the month of April.

During this month copies of the pamphlet compiled by the NATIONAL NURSERYMAN, giving the scale laws of nineteen states and those of Canada, will be sold for fifteen cents, postpaid. Orders addressed to the National Nurseryman Publishing Company, 305 Cox Bldg., Rochester, N. Y., will receive prompt attention.

AMERICAN POMOLOGICAL SOCIETY.

The executive committee of the American Pomological Society takes pleasure in announcing its acceptance of the Pennsylvania Horticultural Society to hold the twenty-sixth biennial session with that organization in Philadelphia on September 7 and 8, 1899.

The sessions will be held in the beautiful and spacious hall of the Pennsylvania society, which has been tendered for the purpose. Space for exhibits entered in competition for the Wilder medals, to be awarded by the society for fruits of special merit, will also be provided.

Much interest in the coming session has been manifested among horticulturists throughout the country and it is expected that the attendance will be large and representative of our fruit growing interests.

Ten state horticultural societies have already notified the executive committee of the selection of delegates to represent them at the meeting, and a number of others are expected to do so. Questions of special importance to fruit growers will be discussed and a varied and interesting programme is in preparation.

Low railroad rates from all parts of the country are assured, as advantage can be taken of the reduced fares in effect at that time, on account of the Grand Army Encampment.

Further announcement of programme and other arrangements will be made by circulars, which will be mailed to all applicants who desire to be informed in regard to the meeting. All persons interested in fruits and fruit culture are invited to become members of the American Pomological Society, the only requisite being the remittance of biennial membership fee which is two dollars to the treasurer. Officers of the society are: President, C. L. Watrous, Des Moines, Iowa; chairman of executive committee, P. J. Berckmans, Augusta, Ga.; secretary, Wm. A. Taylor, 55 Q St. N. E., Washington, D. C.; treasurer, L. R. Taft, Agricultural College, Mich.

IOWA NURSERYMEN'S WORK.

The committee on experimental stations, of the Iowa Horticultural Society, has fixed on the distribution of stock to the experimental stations of the society this year. The plan is to push plant breeding in Iowa. The purpose is to develop fruit adapted to the soils, climate and conditions of the state. The distribution committee is President Gardner, of Osage; John Craig, of Ames, and Elmer Reeves, of Waverly. Prof. Craig will carry on the general work of plant breeding, and also will conduct experiments at three or more places in the state in spraying to determine the best methods for controlling fungus diseases and insects which are injurious to leaf, plant or fruit. The distribution to the stations was fixed upon as follows:

C. G. Patten, Charles City—"The Crossing of Apples;" C. L. Watrous, Des Moines—"The Crossing of Apples and Pears;" R. P. Speer, Cedar Falls—"The Crossing and Top Grafting of Apples;" P. F. Kinne, Storm Lake—"Top Working Apples;" A. Branson, New Sharon—"The Crossing of Plums, Cherries, and Stone Fruits;" M. J. Wragg, Wauke—"The Crossing of Plums, Cherries and Ornamentals;" J. P. Jackson, Glenwood—"The Crossing of Small Fruits and Peaches."

TRADE GENERALLY APPRECIATES.

J. H. GAGE, FAIRBURY, NEB., March 11, 1899.—"I believe the trade generally appreciates the NATIONAL NURSERYMAN and is thankful it has such an excellent trade paper."

REPLACING MICHIGAN ORCHARDS.

The interest in fruit has been rapidly growing through Eastern and Central Michigan, says a writer in the Michigan Farmer. There are now orchards of peach, plum and pear in localities where ten years ago it was thought useless to attempt raising these fruits on a large scale. Shall we not expect that there will soon be as much interest in the apple, the most valuable of orchard fruits? A representative of a nursery which does a large business in Southern Michigan informed us not long ago that his orders for apple trees the past season were large. A few years ago they amounted to little. Possibly the reaction has set in; it is to be hoped so. Those who set trees venture and may be expected to go at it in the right way. In a few more years we may see thrifty, well-kept orchards in the sections where they have been neglected.

JAPANESE NURSERIES.

In an illustrated address before the Massachusetts Horticultural Society on March 18th, John K. M. L. Farquhar, of Boston, upon his visit to Japan last summer, said:

The greatest horticultural center of the country is Tokyo. Mr. Veitch, of London, in his notes on Japan has stated that the nurseries about Tokyo exceed those of Boskoop, Ghent, the bulb grounds of Holland and the seed grounds of Erfurt and Quedlinburg combined. This is a bold statement; yet, having visited all these places, I am of opinion that it is no exaggeration. Some of the nurserymen carry miscellaneous stocks, while others are specialists.

Some nurseries are devoted to *Cycas revoluta*, which are grown as large specimens, or dwarfed by twisting and tying down the leaves. Many of the plants have small crowns grafted into the lower part of their stems, giving them curious forms; some of them are worth 200 yen.

The morning glory nurseries are particularly interesting. The plants are grown in pots, wall pots or hanging baskets, and the variety of colors and forms is endless. Flowers five inches across are frequent; there are also many double-flowered sorts. The finer sorts are grown only as pot plants; they are not sown in the open ground, as with us.

Some nurseries are devoted to ornamental-leaved maples. In one I found over eighty distinct sorts.

Many travelers are mostly taken with the tree nurseries, where such conifers as *Pinus parvifolia*, *Pinus Thunbergi*, *Thuja obtusa nana* and *Retinospora filifera* are dwarfed and stunted in small pots. Many of the trees seen are said to be three or four hundred years old. Ivies, several varieties of podocarpus and maples are also employed for cultivation. These trees, I think, will never become popular here; the labor of caring for them is too great, and a few weeks of neglect will ruin the work of generations.

The nurseries of Tokyo are enclosed with hedges of *cryptomeria*, *camellia* or bamboo.

Of the many shrubs found in these mountains, *Hydrangea paniculata* was at the time of my visit the most conspicuous, because it was in full bloom. I picked flowers of *Hydrangea verticillata*, *Lycoris squamigera*, *Anemopsis macrophylla*, *Epilobium spicatum*, *Clematis apifolia*, *Campanula punctata*, *Adenophora latifolia*, *Scabiosa japonica*, *Lespedeza bicolor*, *Patrina hispida*, *P. scabiosifolia*, *P. officinalis*, *Salvia japonica*, *Primula japonica*, *Aster scaber*, *Veronica longifolia*, and *Camellia nudiflora*.

As I have said, Japan has given us many beautiful plants, particularly adapted to our climate; the practice of horticulture, however, is generally much behind ours.

Japan will be helpful to us in supplying lilies, irises and pæonies, which on account of climate and cheap labor she can produce advantageously, but I do not believe she will become a serious rival to American or European nurserymen, as has been feared.

Among Growers and Dealers.

James Bingham, Russell, Ky., died last month, aged 56 years. Germany has removed the embargo from American citrus fruits.

William H. Dyer, aged 82 years, died last month at Olneyville, R. I.

It is reported that the Lawson carnation is retailing in Philadelphia at \$9 per dozen.

Four entomologists directed the examination of 409 nurseries in New York state last year.

H. S. Chase, of the Alabama Nursery Co., Huntsville, Ala., recently visited Chicago and St. Louis.

James Vick's Sons, Rochester, N. Y., this year celebrate the fiftieth anniversary of their business.

Professor Bailey is soon to publish a book on the apples and pears of America; Professor Waugh a book on plums.

Newson & Co., Cumberland Nurseries, Nashville, Tenn. report a heavy spring trade in fruit trees and plants in the South.

C. S. Harrison is president, E. F. Stephens, vice-president and A. J. Brown secretary of the Nebraska Park and Forest Association.

Governor Gage of California has approved an appropriation of \$7,500 to introduce parasites to prey upon insects injurious to orchards.

J. Blaauw, Boskoop, Holland, sailed for the United States on March 16, to visit the trade. His address until May 10 will be 45 William St., N. Y.

"Trade with us so far is very good, and we think there will be a pretty good cleaning up of stock this spring," write Albertson & Hobbs, Bridgeport, Ind.

Fire destroyed a barn at the Fruitland Nurseries, P. J. Berckmans & Sons, Augusta, Ga., on February 27. Four horses and eight mules were burned. Loss, \$3,000.

Novelties endorsed by Professor Van Deman are: Japan plums, such as Burbank, Abundance, and Wickson; Campbell's Early grape and Mersereau blackberry.

S. H. Fulton, recently foreman for E. Smith & Sons, Geneva, N. Y., has succeeded Hon. T. T. Lyon as director of the experiment station at South Haven, Mich.

C. Ribsam & Son, Trenton, N. J., announce that a tax assessment of \$1,800 per acre has caused them to withdraw from the nursery business. They have 75 acres in stock.

Professor M. V. Slingerland heartily endorses the comments of this journal in the March issue to the effect that there has been too much legislation on the San Jose scale.

Ellwanger & Barry, Rochester, N. Y., and Thomas Meehan & Sons, Philadelphia, have secured the contract for trees and shrubs at Schenley and Highland parks, Pittsburg.

The Department of State of the United States has invited Professor L. H. Bailey to represent it at the International Horticultural Congress of Instruction in Belgium in June.

The question of planting apple trees is becoming a lively one, says the Rural New Yorker. All over the Eastern states farmers are considering the plan of setting out orchards of red winter apples of good quality.

Ex-President Irving Rouse of the American Association, William Pitkin, secretary of Chase Bros. Co., and W. H. Smith, formerly of Geneva, are members of the executive committee of the Rochester Chamber of Commerce.

J. Woodward Manning who has been associated with his father at the nurseries in Reading for many years, has discontinued his connection with that concern and has established himself as horticultural expert and purchasing agent, with office at Tremont Building, Boston.

A bill just passed by the California legislature, takes from the State Board of Horticulture and gives to the governor the power of appointment of a state horticultural quarantine officer. Alexander Craw, who has held the position eight years, is endorsed for reappointment.

Ex-President J. H. Hale, South Glastonbury, Conn., is quoted as saying of peach trees: "Medium sized trees, three or four feet high, are best to plant, and they should be trees one year old. In fact, no nursery ever delivered a two-year-old tree, though it is claimed that they do."

M. J. Henry, the Mount Pleasant nurseryman, says the Vancouver, B. C., Province, has bought out the entire nursery stock of Henry & Lazenby, of Hatzic. Mr. Lazenby, of the above firm, will devote his attention to fruit growing. He has one of the finest orchards in the Fraser Valley.

J. B. Mitchell, Cresco, Ia., writes under date of March 22: "Last year at this time there was some nursery stock dug here but now we are in the depths of winter, with four or five feet of frost in the ground. This has been another test winter and the Russian apples have scored several points ahead."

Regarding the Dayton Star Nurseries, Dayton, O., the receiver, J. W. McNary, says: "Many customers and friends have kindly inquired concerning the future of this establishment. We take this occasion to say that the Dayton Star Nurseries will be continued. Under the receiver, and doubtless under the reorganization that will follow, the same management will prevail, likewise the same liberal and courteous treatment, strict grading and careful handling of stock that has always characterized this establishment and given so much satisfaction to the trade."

KEROSENE EMULSION IN SPRAYING.

The value of kerosene as a material for spraying has been generally appreciated by horticulturists and others for some time, but the difficulty and uncertainty of preparing and using the various emulsions of kerosene has prevented its general use. The Deming Company of Salem, O., experimented for a machine that would make its own emulsion while in the act of spraying. The result is the Weed knapsack kerosene sprayer, the Success bucket kerosene sprayer and the Peerless barrel kerosene sprayer. The great success of these several machines is due to the fact that the force applied in pumping injects just the amount of kerosene desired into the spray in such a manner as to make a perfect emulsion. The amount of kerosene is easily regulated by an indicator on the top of the kerosene tank which controls the percentage of oil. The Deming Company's illustrated catalogue, containing complete formulas for spraying in addition to their line of pumps and nozzles is sent on application.

SPECIAL INFORMATION VALUABLE.

HENRY WALLIS, WELLSTON, MO., January 26, 1899.—"The special information in the NATIONAL NURSERYMAN is worth many times the price of subscription. All readers should profit from it."

A VETERAN NURSERYMAN.

D. S. Grimes, Denver, Claims to Be the Oldest Nursery Salesman—Recollections of a Tree Missionary to Whose Efforts Are Due Thousands of Orchards that Dot the Western Plains—Nearing His Seventieth Milestone.

D. S. Grimes, Denver, Colo., writes: The claim R. Blair made in an exchange of being the first nursery salesman in this country is seventeen years short of my own personal record.

On February 2, 1829, recognized as ground-hog day all over the land, I commenced the nursery business in old Virginia in partnership with my mother. She was to furnish the capital and I was to do the work. In less than two years, however mother became dissatisfied, claiming that her partner was appropriating to himself both capital and profit. The evidence of my ground-hoggishness was so plain that a dissolution of the firm was the result.

Left without a cent in my pocket, with only the clothes on my back, or drying on the line, the junior partner was placed in the hands of "Aunt Sylva," the old black cook, as the receiver. Our folks being of the Friend Quaker persuasion did not own slaves, but kept Sylva as one of the family. Father was not only a prominent fruit grower, but propagated and grew trees as well. In those days budding was not practiced. Neither was grafting wax used. After inserting the grafts in the tree a ball of soft mud was placed around the graft and tied fast with a rag.

My mother was a natural born florist. No garden in the "Old Dominion" exhibited such a fine array of choice flowers. Belonging to the F. F. V.'s, while visiting in Washington each year she would go to the President's garden to examine the choice things received from foreign lands. The gardener not being allowed to sell plants or seeds she would beg them of him. She would also purchase from David Landreth of Philadelphia the best his seed store could furnish. She never sold to anybody, but would collect and distribute free of charge seeds and plants from her "Garden of Eden" to all who would apply.

My great love for trees, fruits and flowers was inherited from my parents. A year after the nursery firm of mother and son had been dissolved by the arbitrary ruling of the senior member, with unlimited faith in my own ability I determined to engage in business on my own hook. Selecting three corners of a rail fence that enclosed the orchard, I there laid the foundation of my future life. From orchard, nursery and garden father and mother furnished me all the stock wanted to establish, in my mind, one of the largest nurseries on earth.

During my early life father had been a Quaker conductor on the night shift of a horse-car railway line, running from slavery to Canada. The road eventually becoming unsafe for travelers he decided to sell his valuable farm and emigrate over the mountains to the new West. For 98 cents my entire nursery, including all tools, seeds and patronage, was sold to the man who bought the farm. On entering my "teens," the wise period of youth, I thought my knowledge of pomology was surpassed by none. What puzzled me most was, how could it be that such ignorant parents as I had could raise such a smart son; but after the paternal threshing machine had separated the tares from the small crop of good seed, I

realized that my parents' knowledge and experience was far in advance of the usual. They were the originators of Grimes' Golden Pippin.

My father had secured from the government 3,000 acres of heavily timbered land in Western Indiana. A portion of this prospective valuable timber had to be cleared off to raise 15 cent corn. Two or three years in grubbing up the young crop of timber nature had planted for a wiser generation, and the felling and burning in log heaps of the venerable oak, stately poplar, and valuable black walnut, made one "tired." Laying the axe at the root of the tree, with a Dewey plate book I commenced the itinerant life of a tree missionary to preach trees to treeless sinners in the great prairies of Illinois. In those days settlers had begun to venture out a short distance from the sylvan shores of these boundless seas of prairie, whose undulating surface of waving grass represented the ocean in grandeur and limitless proportion.

Since then I have followed the path of the pioneer emigrant through Iowa, Nebraska, Kansas and Colorado. Thousands of orchards that dot the prairies and plains of the great West owe their origin to my ministry as a tree missionary.

I have already passed my sixty-ninth ground-hog birthday. As with all classes of mankind these years have represented both the sunshine and shadow. But I loved the sunshine best, and would seek it even while the wolf was at the door. My life's work, commenced under the morning shadows of the Virginia hills, will eventually end under the evening shadows of the Rocky mountains. I have been a close observer of human nature and experience connected with horticultural matters covering all phases of character. Ten years ago I wrote a series of articles for the Iowa Homestead, under the head of "Fallen Leaves from a Tree Agent's Life." Afterwards they were continued in Colman's Rural World. These papers paid the "fallen leaves" a high compliment. They represented the sunshine and shadow of life as exhibited in my business association with all kinds of people. Although representing the amusing, educational, and sometimes the ludicrous phases of horticultural experience, the aim was to educate and elevate to a higher plane of progress, by seeing themselves as I saw them. Possibly I may have these leaves compiled and printed in book form.

AMERICAN ROSE SOCIETY.

Twenty rosarians assembled in New York City on March 13 and reorganized the American Rose Society which had been inactive for five years. It was decided to hold an exhibition in New York in June. Life membership fee \$50, active membership \$3 per year, associate membership \$1. The following officers were elected: President, William C. Barry, Rochester, N. Y.; vice-president, Benjamin Dorrance, Wilkes-barre, Pa.; secretary, Paul M. Pierson, Scarborough, N. Y.; treasurer, John N. May, Summit, N. J. Executive committee for one year, N. Butterbach, Oceanic, N. J.; Henry A. Siebrecht, New York City; for two years, W. C. Eagan, Chicago, and E. N. Wood, Natick, Mass.; for three years, E. Asmus, West Hoboken, N. J., and E. G. Hill, Richmond, Ind.

HOW TO KEEP POSTED.

Subscribe for or renew your subscription to the NATIONAL NURSERYMAN and join the American Association of Nurserymen of which this is the official journal.

BLACKCAP RASPBERRIES.

We know of but two methods of propagating, namely, by growing from seed and by tipping the end of the new growth. It is only desirable to grow from seed when new varieties are wanted with a hope of improvement. In growing by this method it is very important to select the very best plants obtainable of the two varieties you desire to cross. In selecting them remember that plants have individuality. No two are alike. In all berry plantations of any given variety a few will excel in growth of plant, in hardiness, size and quality of fruit. With all these points in mind go into your berry plantation when fruit begins to ripen, make your selections, mark the hills, make tips, select the strongest of these, plant them in the spring in rich garden soil, give them extra care, cultivate and prune with an eye to perfection. When in bloom cross the flowers of the two varieties, save seed from finest berries and plant in rich soil, and from the seedlings produced select the plants that most nearly satisfy your ideal; then continue on through succeeding generations until you obtain the variety you desire.

The second method, propagation by tips is the one in common practice from which our market is supplied with plants. In following this method secure your plants from a vigorous plantation of pure stock that has received proper care, cultivation and pruning, from some responsible party who knows how to grow, pack and handle good plants. The roots of raspberry tips are so young and tender that a few minutes exposure to the sun, wind or frost will ruin them, or if improperly packed will in a short time spoil from heating. For this reason buy as near home as possible, plant in spring on well drained friable land sufficiently rich to grow eighty bushels of corn per acre, bring it up by well rotted manure thoroughly worked in by frequent plowing and harrowing. Land rolling enough to drain and not steep enough to wash is preferable. Prepare land before planting by deep plowing and thoroughly pulverize with harrow. Mark out rows with one horse plow three or four inches deep, seven feet apart, and set plants three feet apart in row (2074 plants per acre). Keep plants in bucket covered with water and set with garden dibble so the crown of plant will not be more than two inches deep, and the roots as much deeper as they are long, or nearly so, and press the soil firmly to the plant. Cultivate frequently but shallow, keep surface very fine. Remember that every day your land remains with a crust on you lose fifty per cent. of the growth. Pinch out the top bud the first summer when canes are fifteen inches high, the second and succeeding years at two feet. This will cause them to throw out numerous laterals for tipping.

If it be desirable to make all the plants possible, regardless of obtaining fruit, then pinch out the terminal bud of each lateral at twelve or fifteen inches. This will cause a second multiplication of laterals and very much increase the number

of plants. Layering may be done at any time from middle of July on through August. In putting down the tips bury the end of each young growth three to five inches deep; if season is dry, five inches, if wet, three will do. Put them in as near straight as possible in regular order a few inches apart and press the earth firmly down.

If all these directions are carried out carefully you may make from twenty-five to two hundred plants to the hill owing to age of plantation, and the variety, some multiplying much faster than others. The chief object of the propagator should be to grow good strong plants of pure stock that will be worth fifteen dollars per thousand (and cheap at that) rather than to cater to the demand for cheap plants at five dollars per thousand that are too dear at any price. We have bought them at from twenty-five down to five dollars per thousand, and the cheapest by far we ever got were those that cost us twenty-five dollars per thousand. Why? Because they were strong, vigorous plants and perfectly pure; all grew off nicely fruited abundantly and made us money. At present the trade is so demoralized by the sale of low-priced, mean, sickly plants of an endless mixture of varieties that it is almost impossible to buy a thousand good strong, healthy plants free from mixture of any given variety even from the most honest and reliable nurseryman.

N. F. MURRAY.

Oregon, Mo.

IRVING E. SPAULDING.



IRVING E. SPAULDING.

The subject of this sketch is the secretary and treasurer of that enterprising concern, the Spaulding Nursery and Orchard Company, Spaulding, Ill., near Springfield. His father, J. B. Spaulding, president of the company, established the nurseries in 1857. His brother, Frank E. Spaulding, is manager of the sales department, and his brother-in-law, Frank R. Fisher, is vice-president. Mr.

Spaulding is 31 years of age and is one of the best known of the young nurserymen. He holds a responsible position, the business of the company comprising planting of over a million trees, the management of 600 acres, a large wholesale trade, and 300 local agencies.

A FEW SUBSCRIPTIONS STILL DUE.

Is yours one of them? It costs money to produce a first class journal. Many subscriptions at a nominal figure make it possible. Have you contributed your share? The special information presented in the NATIONAL NURSERYMAN cannot be duplicated for twice the price \$1 per year.

INGRAM APPLE—Prof. Van Deman urges the planting of the Ingram apple, especially in the Central and Southern States. It is oblate, conic, angular, yellowish, with distinct red stripes, mixed with dull red; flavor, sub-acid; a late keeper. Tree and fruit resemble Rall's Genet, of which Ingram is a seedling. Commercial orchardists in the West are taking it up.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Annual convention for 1899—At Chicago, Ill., June 11, 15.

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ROCHESTER, N. Y., APRIL, 1899.

THE PROGRAMME.

In the last issue of the NATIONAL NURSERYMAN it was suggested that it was not too early to begin the preparation of the programme for the annual convention of the American Association in Chicago on June 14 and 15. Attention is now called to the fact that the Iowa Horticultural Society, one of the strongest and most active in the country, prepares its programme nine months ahead. That society met in Des Moines in annual convention on December 14. On March 14, three months later, the president, the secretary, and a member of the executive committee, two of the three being nurserymen, met at Des Moines and prepared for next fall's meeting a programme that occupied half a column in the Iowa State Register the next day. On that programme are the names of nineteen nurserymen, most of whom are known wherever nursery stock is grown in this country. They are: C. L. Watrous, F. E.

Pease, W. E. Chapin, Des Moines; H. D. McCoy, Knoxville; W. C. Haviland, Fort Dodge; J. C. Ferris, B. S. Ferris, Hampton; M. E. Hinckley, Marcus; J. B. Mitchell, Cresco; E. N. Taggart, Anderson; Silas Wilson, Atlantic; Henry Schroeder, Sigourney; M. J. Graham, Adel; M. J. Wragg, Waukee; A. F. Colman, Corning; W. H. Lewis, Winterset; C. G. Patten, Charles City; W. O. Willard, Grinnell; Elmer Reeves, Waverly.

The question naturally suggested is: If nineteen nurserymen in a single state are ready to prepare papers for a state convention of horticulturists, ought there not to be at least as many nurserymen in the state of Illinois and the neighboring states of Wisconsin, Minnesota, Iowa, Missouri, Kentucky, Indiana, Ohio and Michigan ready to prepare papers for a national convention of nurserymen? We have referred to states adjoining or near Illinois because it may be thought that the comparison with the Iowa convention should take into consideration the distance traveled in going to a state and a national convention. But states east, west and south will be represented at the convention.

Secretary Seager is at work upon the programme and we are sure that the efforts of all who take prominent part in the Chicago convention next June will be duly appreciated. President Brooke is anxious to make this meeting of especial interest and profit, and it is needless to say that the other officers, committeemen and members generally will be glad to aid in attaining that result.

At the Iowa convention next fall Mr. Watrous has been asked to discuss the management of soils; Mr. McCoy the horticultural demands of the near future; Mr. Hinckley, good old varieties; Mr. Mitchell, the true test of hardiness; Mr. Wilson, the propagation of cherry and plum; Mr. Wragg, the value of Rocky Mountain conifers; Mr. Colman, experimental horticulture; Mr. Pease, landscape gardening; Mr. Willard, shade and ornamental trees.

Among the topics which have been discussed before the American Association of Nurserymen, and upon which there may still be new light, are: Duties of nurserymen in propagating varieties, protecting trees from the sun, nursery experimental plantations, problems of the nurseryman, value of associated effort, the transportation problem, budding and grafting, advertising, educated help in nurseries, labor saving implements, effects of distant removal on trees and plants, higher aims of this Association, suggestions for the improvement of fruits, French nurseries as seen by an American nurseryman, suggestions for the improvement of the nursery business, packing and shipping nursery stock, the nursery outlook, nomenclature, winter protection of nursery stock, new varieties, managing nursery agents, preventing duplicates in mailing lists, nurserymen and the forestry problem, one good way to sell nursery stock, protection to originators, preventing freezing in transit, how to manage nursery employees, exhibitions by nurserymen at fairs, the retail trade, the wholesale trade, duty of the nurseryman to the fruit grower, the value of the annual conventions.

If the suggestions herein contained result in the production of more papers than the convention has time to hear or the official report room to accommodate, the NATIONAL NURSERYMAN is ready to undertake their publication and distribution. It would seem that in view of the large amount of expert opinion available upon these and kindred subjects, the time of the convention should be fully occupied during the two days.

Chairman C. L. Watrous of the executive committee of the American Association favors the presentation of papers or addresses from some of the most noted workers along scientific lines in horticulture, for the Chicago convention. Secretary Seager hopes to secure the attendance of Professor L. A. Bailey of Cornell University. President Brooke promises the attendance of Professor S. J. Hunter of the Kansas State University.

The executive committee of the American Association of Nurserymen has practically decided upon the Chicago Beach Hotel as the place for holding the June convention. A rate of \$2 and upward has been secured. The hotel is one of the finest in Chicago and although some distance from the downtown district, it is within easy reach by means of the fast suburban trains.

ENGLISH FRUIT GROWERS.

A special commissioner under the direction of the *Gardener's Magazine*, of London, spent two years in an investigation of the wasted orchards of England and found tens of thousands of acres of land of excellent quality occupied by apple and pear trees in so deplorable a state of neglect as to render it impossible for them to produce sufficient fruit to pay for the rent of the land. And England pays nearly two million sterling in the purchase of foreign apples and pears.

The remarks of Professor Bailey reported in the *NATIONAL NURSERYMAN*, and widely copied, to the effect that American growers can control the European markets to large extent has led the *Gardener's Magazine* to remark that there is no good reason why British fruit growers should not produce large quantities of fruit and compete with American growers.

But British fruit growers can scarcely hope to do much more than supply their home market with apples and pears; and even this result can only be achieved after wonderful changes from present conditions.

LIMITATIONS OF INSPECTION.

Entomologists who declare for a quarantine and inspection of nursery stock shipped to the United States from a foreign country are respectfully referred to the conclusions of so competent an authority as Dr. John B. Smith, who sums up the whole matter in the statement: "Taking it all in all, I do not believe we have averaged one bad species a year without inspection, and I do not believe we will exceed that even when a rigid quarantine is established. I am quite well aware of what has been done in California, and I have seen the collection of insects that has been kept out. But nobody has seen the collection of insects that has not been kept out and which has yet failed to propagate.

"I believe that inspection is a good thing; it will be apt to make shippers more careful, and we will probably get better and cleaner stock than we would have received otherwise. This advantage is, perhaps, worth all its costs, and yet I cannot help feeling that it will not accomplish what is expected and will soon disappoint those who look upon it as an effective bar against future aggression by undesirable foreigners. * * * * *
* * * Are all our embryo entomologists who are available as inspectors, and those who will obtain appointment from other reasons, trained to recognize such things? I have students

three terms in entomology and I try to teach them all I can about insects, yet I never had a man graduate with me whom I would have dared to appoint as an inspector and I not believe that any institution in this country now turns out any men that I would consider competent, in the regular course for a B. A. or B. S."

There is to be an examination of applicants for the position of nursery inspector in New York state on April 1st. It is extremely doubtful that the men appointed will fill the requirements believed by Dr. Smith to be necessary.

THE QUESTION BOX.

With regard to our suggestion that a question box be provided at the June convention of the American Association, Vice-president Albertson, Bridgeport, Ind., says: "I think such a feature would prove very interesting, and it ought to prove one of the most profitable features of the convention, as certainly it could be made one of the most instructive."

We have already published President Brooke's cordial endorsement of the plan.

In response to our request some of our readers have suggested the following questions which have been referred to the secretary of the Association:

Which is the best protection for nursery stock against freezing in transit, wet or dry packing?

Is the continuous cutting of buds and scions from nursery trees detrimental to the fertility of the tree?

Would not a uniform standard of measurements designating the different grades of stock be beneficial to the trade; such standard to apply to measurement only and not to quality of the stock. If so, should not this organization adopt the standard?

Should the proposed application of copyright laws to new varieties be endorsed by this Association?

What success has attended the plan of wintering stock packed in boxes ready for shipment?

With regard to roses in cold storage, are they packed in moss same as grape vines, currants, gooseberries, etc.? Will they stand as close packing and do they require light?

Is it wise for nurserymen to send out surplus lists and advertise in trade papers, giving quantities they have to offer?

Is not the practice of sending priced catalogues broadcast, and advertising wholesale prices to the consumer, going to drive the nursery agents out of business and thereby lessen the quantity of nursery stock used, and increase the cost and detail of doing the work?

Is it probable that the fumigation of nursery stock will become general?

ORNAMENTAL STOCK.

There have been added lately to the literature relating to trees and plants for ornamental purposes several important works. One of these is the annual report of the Tree Planting and Fountain Society of Brooklyn, N. Y. The work of this society is like that of the New York Tree Planting Society to which reference was made in the December issue of this journal. The report is a volume of 132 pages replete with information to tax-payers regarding the desirability of trees in city streets together with details concerning varieties, the planting, and general care of such trees. A. A. Low is president, Paul Leicester Ford vice-president, and Lewis Collins secretary of the Brooklyn society. The secretary states that as the result of the society's efforts the people have given more attention to arboriculture, and nurserymen are preparing better stock, not

only in quality, but also in kinds, to meet the demand for better trees.

The report is of especial interest to nurserymen in that it outlines subjects to be observed or avoided. It is suggested that trees for city streets should possess endurance as to foliage, toughness to withstand high winds, slender, upright habit of growth, elasticity, cleanliness, longevity, a medium leafing period, a natural form suited to certain requirements, moderate shade, recuperative power, small leaves.

Aside from the immense advantage of the work of such a society to a community, it is of direct benefit to the nursery trade. Its high plane creates a demand for the best the nurseryman can produce. The Brooklyn Tree Planting Society, organized in 1882 has attained a national reputation. Its influence has been shown in the organization of similar societies elsewhere.

CANADA FREE FROM SCALE.

Replying to queries as to whether there is San Jose scale in Canada, L. Woolverton, editor of the Canadian Horticulturist, says :

On investigation it was found that a few lots of the nursery stock imported during the last five years were infested with scale, and some of it had been handled by Canadian nurserymen. Careful searching enabled the inspector, George E. Fisher, of Burlington, to trace this stock to the orchards in which it was planted, and his work is being continued on into the year 1899, for the purpose of utterly destroying such trees. Our nurserymen are all wide awake to the danger, and have had their nurseries carefully inspected; and so far as we know every Canadian nursery at the time is free from this scale.

NEW FAST MAIL ON THE WABASH.

One of the most complete and handsome trains west-bound out of Buffalo was put in operation by the Wabash Railroad Company for the first time Sunday, March 19th. It will be known as the St. Louis, Kansas City Fast Mail, and, as General-Agent Robert F. Kelley describes it, is "a corker." Up to date there has never been a mail line west, out of Buffalo, and this forms the link in the new through service from the East.

This train will be made up of mail cars, baggage, chair coaches and sleepers, through to Kansas City, by way of St. Louis. It will be made up in Buffalo, leaving at 8:30 in the evening, arriving in Chicago 10:55 a. m. and St. Louis at 2 o'clock p. m. the following day. A twenty minute stop will be made in St. Louis, and then this handsome train will speed away to Kansas City, where it will arrive at 9:45 in the evening. The distance from Buffalo to Kansas City is a trifle over 1,100 miles, and the run will be made in twenty-five hours and fifteen minutes, or an average of nearly forty-four miles an hour, not counting necessary stops.

In Buffalo the through mail from the East will be taken on, and landed in Kansas City in time to make connections with the far West and South.

Returning, the new mail train will leave Kansas City at 6:15 p. m. and will take the Hannibal and Decatur route of the Wabash, reaching Buffalo at 8 p. m. the following day, and New York City early the next morning.

This new mail route, the initial step in the Wabash scheme to more closely connect the Queen City of the Lakes with the great cities of the West which are the termini of this prosperous system, is but another indication of the enterprise which marks its management. The infant of two years is rapidly demonstrating its power to its more staid and older neighbors and rivals, and those who sneered at its pretensions when first it entered the field in Buffalo as a bidder for the western traffic, both passenger and freight, now are willing to concede its strength, wonder at its phenomenal growth and admire its energy.

In Nursery Rows.

APPLES FOR COLD CLIMATES.—F. A. Waugh, of Vermont, recommends the following varieties of apples where hardness is the principle consideration : Yellow Transparent, Red Astrakan, Longfield, Oldenburg, Fameuse, McIntosh, Walthey, Scott, Winter, Pewaukee, Arctic.

SMALL FRUITS.—F. H. Hall in a report on tests of berries at the Geneva, N. Y., experiment station says that in the stiff clay loam of the station plats, Stahelin, Anlo, Omega and Sample strawberries gave good results. Palmer and Pioneer blackcaps led in amount of early yield. Of the red raspberries, Cline, Pomona and Marlboro produced most early fruit. London, Royal Church and Kenyon were among the best mid-season berries; Talbot the best late berry. Of blackberries, Minnewaski, New Rochelle and Dorchester gave the best results.

STRAWBERRY-RASPBERRY.—"It seems to me that the Strawberry-Raspberry is of greater value as an ornamental than as a pomological introduction," says W. E. Britton in American Gardening. "Apparently it possesses all the hardness and vigor of our native brambles, some of which are now used in landscape work; it is quite different from any of them and fully as attractive. Though it has not yet been tested sufficiently to warrant extensive planting, it survives a temperature of several degrees below zero, and I should expect, from observations, that it would thrive on dry and rather poor soils. On account of its numerous suckers and dense foliage it may be of value for covering banks, and waste places. The beauty, hardness, and vigor of this plant will probably ensure it a place in ornamental gardening."

CHESTNUT CULTURE.—Chestnut culture is one of the newer horticultural industries of the United States, says G. Harold Powell in American Gardening. But if an indication of the future importance can be judged from the present interest in it, commercial chestnut growing is destined to take a prominent part in American fruit culture as soon as its merits are more thoroughly appreciated. The Japanese chestnuts have been sent out under such names as Japan Giant, Japan Mammoth, and Japan Sweet, but these names have no varietal significance. They mean Japanese seedlings, as used by most nurserymen. But chestnut are as variable as apple seedlings, and a single variety can be perpetuated only by grafting and budding. It is time that these general names for the cultivated chestnuts be discarded, and that seedling trees be sold as seedlings, and distinct varieties under varietal names. No systematic attempt has been made to improve the American chestnut. The nuts are smaller than either the European or the Japanese varieties, but none of the foreign chestnuts can compare with the native nuts in sweetness or in delicate texture. No two of the American chestnut trees bear fruit exactly alike. They differ in size, in flavor, and in bearing tendencies. So large are some of the nuts that a few have been selected and propagated as distinct varieties. There are great possibilities in the American chestnut. It awaits the skillful manipulation of a careful plant breeder.

INCREASING FRUITFULNESS.—"Let us assume," says E. Stiles, Austin Tex., "that forty years is the life of the peach. The old Red Cheeked Melocoton must be at least 100 years old. It has lived once and a half as long as it should have lived. What has kept it alive so long? Whence has it obtained its vigor? Every time it has been budded upon the young tree in the nursery row new strength from the young life of the stock has been imparted to it, and although the scion may have been taken from the oldest tree in the orchard, which was making a growth of one or two inches per annum, the newly imparted life causes it to start out and grow lustily. If the stock can impart the vigor of its young life to the twig from the aged tree, is it unreasonable to expect that the twig should impart part of its senility to the young stock? If it cannot and does not, then this grafted tree should reach, under favorable circumstances, the assumed life limit of forty years. But it does not. In forty years or less the tree is dead. A ratio has been drawn by nature between the new life of the stock and the old life of the scion. Is there any way of modifying this effect? If we take a bud from the vigorous shoot which comes from the first year's growth of the bud of the Melocoton on the young seedling stock of last year and insert it in the young stock of this year's growth, and repeat the process, we may in time get back some of the pristine vigor of the Melocoton. We believe if this principle were applied to all nursery propagation, the vigor and fruitfulness of apples, peaches, pears, plums, grapes, etc., would be much better maintained."

AS TO NOVELTIES.

Without Them Progress in Varieties is Impossible, Says Professor Bailey—The Tendency is to Go Too Far in the Reduction of Varieties—Cause of Increase in Competition—The Growth of General-Purpose Nursery Stock—Single Ideals.

In his bulletin on "Impressions of Our Fruit-Growing Industries" Professor L. H. Bailey says:

There is a decided tendency in this country to limit closely the number of varieties of any fruit when setting a plantation. Some of the most successful fruitgrowers would limit the varieties of apple, pear, or strawberry to three or four. Yet, as a matter of fact, the really good varieties of any fruit are usually numbered by scores, sometimes by hundreds, and valuable novelties are always being introduced. Here, then, is a conflict. If the advice of fruitgrowers is to be followed, it would seem that the introduction of novelties is unnecessary; and yet without novelties progress in varieties is impossible.

It is true that varieties should be few in most plantations, but the reason is that most American fruitgrowers are raising fruits for the general or open markets; and in these markets, uniformity of product is almost imperative. But if it is fatal to grow many varieties when the world's markets are in view, it may be equally unsatisfactory to grow very few varieties when special or personal markets are in view.

I believe that the tendency is to go too far in the reduction of varieties. We are reducing fruitgrowing to a single ideal and are thereby increasing the competition in that direction. There are varieties for different uses, different soils, and different geographical regions; and a variety which fails in every region but one, may still be worth introducing. It is the commonest mistake to recommend a variety for any region merely because it thrives in some other region. Because Ben Davis is eminently successful in the mid-continental region is no reason for supposing that it will be equally good in New York; in fact it is a presumption against its thriving equally well in New York, for a variety rarely does equally well everywhere. A fruitgrower in western New York asked me if I would advise him to plant Arkansas apples. I told him no, but I advised him to test them.

A variety which is suited only to the general market is most profitable in that region in which it thrives best. It is doubtful, for instance, if the New York grower can compete long in Kieffer pears with growers in the middle and southern states, and it is certain that those regions cannot compete with New York in Bartlett and Seckels. Wherever a fruit reaches its highest development, there it should be grown; and local varieties are often best adapted to local and personal market.

The nurseries grow fruit trees to supply the demand for general-purpose varieties, and as a consequence they tend to reduce varieties and make them uniform over the whole country. Many of the fine dessert varieties cannot be obtained at nurseries. With the refinement of our horticulture more varieties will be grown. The more fully the horticulture of any country is developed, the more perfectly are the various localities and needs supplied. In this direction we have much to learn from Europe, for one is there impressed with the great numbers of varieties which are actually known and grown. But in Europe the fruits are grown for local and personal markets; here we

grow for the world's markets, and varieties must therefore be few in comparison.

Since the selection of varieties is a question of locality and of the personal ideals of the grower, it follows that those lists of varieties are most valuable, other things being equal, which are made by the most local and circumscribed societies.

Recent Publications.

The annual report of the Tree Planting and Fountain Society of Brooklyn, N. Y., for 1898, can be obtained of the secretary, Lewis Collins, 177 Remsen street, Brooklyn.

The thirty-second annual report of the Ohio State Horticultural Society, for 1898, has been issued by the secretary, W. W. Farnsworth, Waterville. It contains a large amount of practical information based on the experience of the noted horticulturists, nurserymen and scientists of Ohio.

"Trade of the Philippine Islands," is a recent bulletin by Chief Hitchcock, U. S. section of foreign markets, Washington, D. C.; "Spraying for Profit," has been issued by Prof. H. E. Weed, Griffin, Ga.; Columbus, O., Horticultural Society Journal for December, 1898; Bulletin of the N. Y. State Museum, by State Entomologist Felt on injurious and other insects.

Professor T. D. A. Cockerell, New Mexico Experiment Station has published a bulletin on the codling moth in that territory; J. M. Stedman, Missouri Station, the fringed wing apple-bud moth, a new orchard pest; C. L. Marlatt, Washington, D. C., the peach twig borer; M. V. Slingerland, N. Y. Cornell Station, the quince curculio; F. H. Hall and V. M. Lowe, N. Y. Geneva Station, raspberry saw-fly and grape vine flea beetle.

Attractive catalogues have been issued by P. J. Berckmans Co., Augusta, Ga., describing fruit and ornamental trees, roses, greenhouse and bedding plants. Ellwanger & Barry, Rochester, have issued a neat little leaflet quoting an article from the New York Evening Post on the advantages of the ampelosis in covering unsightly walls; also the beauties of Japan clematis. Chase Brothers Co., Rochester, issue this spring a novel catalogue consisting wholly of colored plates of fruits offered.

"Landscape Gardening" is the title of a useful volume by Professor Samuel T. Maynard, of the Massachusetts Agricultural College and Fruit Growers Association. It is addressed particularly to home makers. The author describes in plain language the kinds of trees and shrubs best adapted to varying conditions of home ornamentation and by the use of many illustrations shows clearly the effects that may be produced for and against an artistic arrangement. He has divided the subject into two parts: Ornamenting new homes; renovating and improving old homes. An entire chapter is devoted to the description of ornamental trees and plants. Insects and diseases receive attention. The book is of special interest to nurserymen. 12mo. pp. 388, figures 165, including full-page half-tones, cloth, \$1.50. New York: JOHN WILEY & SONS.

Number 6 of Vol. X, of the Experiment Station Record, summarizes a report by Professor J. A. Balmer, of Washington state, on damage to fruit trees by the severe freeze of Nov. 1898, which is of interest in view of the cold weather of last February. He says the damage was greatest where the land was lowest in the Walla Walla, Snake river and Yakima valleys and the Palouse country. Of trees under apparently the same conditions, one may have been severely affected while another of the same variety 25 feet distant escaped uninjured. Napoleon cherry proved to be very tender. Of popular varieties of apples, Yellow Newton, Esopus, Yellow Bellflower and Fall Pippin proved most tender. The hardier varieties are Ben Davis, Fameuse, Red June, Twenty Ounce, Blue Pearmain, Jefferis, Red Astrakan, Yellow Transparent, Limber Twig. Seedling peaches proved much harder than budded trees. Late summer irrigation and cultivation proved injurious.

In Common Council.

Editor NATIONAL NURSERYMAN :

I herein enclose subscription for another year. California, to the great majority of the people of the East, is an interesting and fascinating country; but more especially is it so to all persons interested in agricultural and horticultural pursuits. They see such possibilities; they see the wonders that can be accomplished in a few years.

I have been here but seven years, and yet I have trees of my own planting that when planted in May, 1892, were scarcely bigger than a knitting needle and not over six inches high. Now they stand erect and rear their heads in the air more than sixty feet; these are the Eucalyptus, a wonderful grower, imported from Australia to this country. As a timber, it is of but little use; as a wood, it makes a clean sweet fire and giving a little more heat than cottonwood; but being so rapid a grower, and the fact that it can be cut every five years, makes it a valuable wood for this section.

So much has been said of the glorious California climate, that it has come almost to be ridiculed. No matter how good a thing may be, it is possible to talk it and sing its praises until people tire of it; and yet, California climate is no myth. I think it is all that has ever been claimed for it. During the years I have been here, it is safe to say that the time lost by our men in consequence of bad weather will not exceed one week to the year. Each day is filled with work to do. We are now plowing, grading, fluming and getting ready for turning the water over the land and planting. There seems to be no stopping place.

We at times find ourselves lost, and have to stop and think before we can fix the season in our minds. Winter is supposed to be the rainy season here. This is true in one sense; it is the season when we expect and when we should have rain, but it is far from being rainy as understood by many who have never been here. The average rainfall for the past eighteen years here in Southern California has been ten inches and a half; the heaviest fall was in '84, twenty-two inches and three-fourths; the lightest fall was in '83, a fraction under three inches. If we could feel sure of getting eight to twelve inches each year, we should feel pretty well and consider ourselves as being numbered with the chosen few. You will thus perceive from this, that it cannot rain very hard continually for three months in the year. The rainfall is never so abundant, at best, to lay an embargo on outdoor labor for more than a few days during the whole winter. Irrigation is necessary for the growing of all fruits and vegetables, and water is king.

In buying property here, the important item to be considered is water. I am speaking of Southern California. In the northern part of this state, they have a greater rainfall and the great bulk of their fruit and other products is grown without irrigation. Dry land here, not under irrigation, commands but a small price. Thousands of acres lie around in every direction; the rent of such land is a dollar an acre; on such land, our grain and hay are grown; barley and wheat hay which constitutes the bulk of hay fed to horses. If the rain is short, then the hay crop is light and price rules high; it is now worth from \$20 to \$25. If we should get liberal rains during the next sixty days (say three inches) there will be a large and abundant hay crop cut in May and the price will drop to six or seven dollars a ton.

Thus you see that dry farming is a hard business; if the crop is abundant, the price is low; if high, the farmer has but little to sell. With irrigation, the husbandman can count with almost mathematical certainty on the coming of his crop. I often think, in the years to come, that irrigation in the East will cut quite a little figure. Of course, it will not pay there to go to large expense; but there are thousands of acres of land in every state where irrigation can be practiced inexpensively, and during a decade, would give back many dollars for each one expended.

Riverside is the great orange centre of the world. Nowhere else can such extensive plantings of the orange tree be found. Here, one can drive hundreds of miles in continuous orange groves on either side. About one-third of the oranges from California are shipped from here. The crop this year is below the average. The output of this place will likely run between 3,500 and 4,000 cars. Lemons now bid fair to prove a paying investment. A new industry started some four or five years ago and located thirty miles to the south of this place is the growing of celery. The product this year will be in the neighborhood of 700 cars; it is shipped largely to Chicago and cities this side. New industries are continually springing up.

California, some day, will be an empire in itself. By this statement, I do not mean that California is all there is of this great country, nor the greater part of it; it is but a small part of the great whole; but it is a marvellous little spot of the great world between the Sierra Nevada and the Pacific ocean that some day will give a good account of itself and have a history of its own.

Riverside, Cal., Feb. 4, 1899.

E. A. CHASE.

THE NURSERY SITUATION.

Editor NATIONAL NURSERYMAN :

After five years of hard struggling, through a financial crisis, with short demands and low prices for all lines of nursery stock, we are now brought to face the great loss of peach, pear, quince and other more tender stock by the present severe winter. Though we have lost quite heavily, yet there may be some good results from this loss that we have so far overlooked. We have had a lasting lesson taught us in our experience of the past winter, one that should not be forgotten in a life time, and that is dig the peach trees and lay them down and cover them root and branch in the fall, any time before the ground freezes, covering the top of the ground with a good layer, six inches, of stable manure. This I consider better than cellaring and any nurseryman can do this at small expense and in this case the trees will be safe. We hope severe cold weather has destroyed many of the insect pests. There is no question that nurserymen will have more or less trouble with customers in deliveries this spring owing to the fact that many inexperienced growers will be discouraged from the loss of trees the past winter.

A question to come before the next meeting of the American Association of Nurserymen is to create some measure to prevent nurserymen from sending wholesale price lists to retail buyers, also to prevent sending surplus and wholesale lists in the open mail.

S. H. LINTON.

Marceline, Mo., March 20, 1899.

Long and Short.

Special prices on small fruit plants will be quoted by Slaymaker & Son, Dover, Del.

Hiram T. Jones, Elizabeth, N. J., offers Myrobalan and pear stocks in large quantity.

Evergreen and forest tree seedlings are a specialty with R. Douglas' Sons, Waukegan, Ill.

W. B. Cole, Painesville, O., quotes elsewhere in this issue a list of fruit stock for the spring trade.

Fruit and ornamental stock in varied assortment is ready for the spring trade at Rakestraw & Pyle's, Willowdale, Pa.

A few carloads of surplus peach in good assortment can be had of S. G. Patterson & Sons, Stewartstown, Pa., including 10,000 Elberta.

Peach, apple and Japan plum trees, quinces, tulip trees, Miller red raspberries can be had of the West Jersey Nursery Co., Bridgeton, N. J.

Jackson & Perkins Co., Newark, N. Y., present in another column a list of ornamental stock upon which they will quote specially low prices.

E. Moody & Sons, Lockport, N. Y., quote varieties of apples, pears, cherries, plums, peaches, quinces and small fruits; also ornamentals.

Hon. O. F. Williams, United States Consul at Manila, Philippine Islands, writes: "The Imperial gardens at Tokio, Japan, are the finest seen, and said to be the most attractive in the East. These were years ago stocked from the great nurseries of Ellwanger & Barry, of the Flower City."

Strawberry plants in the greatest variety are grown by J. G. Harrison & Sons, Berlin, Md. They are fresh dug when ordered and free from aphids. Prices are extremely low. A fine lot of asparagus roots, Only a few thousand peach trees left. The stock includes Baldwin, Mammoth B. Twig, Grimes Golden, Winesap, Ben Davis and Maiden's Blush apple; also 500 cherries.

Nursery stock in cold storage is the specialty with the Storrs & Harrison Co., Painesville, O., who have 31,000 ground surface feet of frost proof cellars, ten feet in height, which were crowded with fruit and ornamental stock. Only a few more peach remain to wholesale, but they have immense stocks of other trees, sm all fruits, shrubs and roses. Forty-four greenhouses are filled with stock.

REPLACING FROZEN TREES.

A despatch from Ludington, Mich., to the Allegan Gazette says:

The fruit tree man is more popular in Mason county to-day than is the iceman in midsummer. Representatives of all the leading nurseries are here and farmers are buying many thousands of young trees, mostly peach. Monday over 14,000 trees were sold to Mason county fruit growers. Ten cents per tree in large or small lots is the cash price steadily held for young trees by the most reliable dealers. Many growers are slowly to cut down their trees, but they are beginning to realize that it is the only thing to do. Thousand of trees have already been cut. Some farmers will set out new trees among the old ones, holding fast to the belief that the trees may not be injured. Other are cutting their trees away at the snow line and will let them sprout

HAS BEEN VERY VALUABLE.

J. G. PATTERSON & SON, STEWARTSTOWN, Pa., January 26, 1899. —"Enclosed find \$1. for which please send us your good paper for another year. It has been very valuable in the past and we hope it may prosper."

AS THE DRIVE WHEEL TO THE ENGINE.

A. M. SNYDER, WEST LIBERTY, O. —"Enclosed find \$1 for renewal to NATIONAL NURSERYMAN for one year. Of course I cannot think of getting along without the NATIONAL NURSERYMAN as it surely is to the nursery industry what the drive wheel is to the engine."

HEAVY DEMAND FOR PEACH.

The result of the freeze of February has been to cause a heavy demand for peach trees. The Storrs & Harrison Co., Painesville, O., say: "The demand for peach has been unprecedented since the freeze. We have but a few more to wholesale."

The experience of this firm in the use of frost proof cellars proves the great value of these adjuncts to the nursery business. Anticipating a winter of more than ordinary severity, their cellars with a capacity of 300,000 cubic feet were crowded with fruit and ornamental stock and this has come into lively demand this spring. Other large dealers have the same experience.

The fifth annual meeting of the Massachusetts Fruit Growers Association was held in Worcester, March 8-9. J. W. Manning, of Boston, argued in favor of the San Jose scale bill now before the legislature. The following officers were elected: President, George Cruikshanks, Fitchburg; vice-president, Herbert Mead, Lunenburg; secretary, Professor Samuel T. Maynard, Amherst; treasurer, Ethan Brooks, W. Springfield.

Leading Items Upon which we are prepared to quote Special Low Prices

ROSES.

Strong, selected stock of the best possible size, well-rooted, well-branched, healthy and vigorous. In all but a few of the less vigorous varieties our plants of this grade will run two feet and often three feet in height.

RAMBLERS.

2000 Pink Rambler (Euphrosyne).
700 White Rambler (Thalia).
800 Yellow Rambler (Agalia).

We are the only firm in this country who secured stock of Yellow Ramblers in 1896, and therefore the only ones who can now furnish home-grown, two-year-old plants in any considerable quantity.

Lord Penzance's Sweet Briars.

220 Anne of Geierstein crimson.
130 Catherine Seyton, pink.
600 Lady Penzance (b) copper color.
600 Lord Penzance (b) acrole.
100 Lucy Bertram, crimson.
20 Meg Merrilees, crimson.
40 Rose Bradwardine, rose.

GENERAL LIST.

500 Alfred Colomb, (b) crimson.
200 Baltimore Belle, white.
150 Caprice, silver.
100 Carmine Pillar, rosy carmine.
200 Caroline de Sensel, flesh color.
150 Cl. Jules Margottin, carmine-rose.
100 Cl. Victor Verdier, (b-c) bright rose.
400 Coquette des Alps, bluish white.
500 Coq. des Blancches, creamy white.
350 Empress of China, pink.
3000 Gen. Jacquemont, (b-c), crimson.
130 John Hoppah, (b-c) rose.
300 Jules Margottin, rose.
2000 La France, silvery rose.
200 La Reine, pink.
800 Marchioness of Lorne, bright red.
50 Marchioness of Downshire, pink.
350 Mme. Georges Brant, (b) white.
3000 Mme. Plantier, white.
85 Marg. de St. Amande, (b), rose.
1500 Magna Charta, pink.
275 Mrs. De Bray, pink.
500 Mrs. John Laing, (b) pink.
1500 Paul Neyron, pink.
150 Rugosa Alba, white.
240 Rugosa Rubra, red.
100 Victor Verdier, (b-c), rose.

Holland Grown Tree Roses.

We have received an exceptionally fine importation of Tree Roses this season. They are fine, straight, well-rooted, well-wooded plants that will please the most critical.

Colors: Crimson, Pink, Red, White.

CLEMATIS.

For several years past we have been the largest growers of Clematis in this country, if not indeed in the world. We

write for complete lists of unbold stock containing low offers on the above and on Currants, Gooseberries, Blackberries, Apples, Quinces, Plums, Peaches, Cherries, Etc., Etc.

Jackson & Perkins Co., (Wholesale Only.) Newark, New York.

have for this season a fine lot of strong, thrifty, field-grown plants well grown, well-ripened tops and plenty of heavy roots.

No. 1 GRADE.

The plants offered under this grade consist of the very finest and strongest to be selected from our entire stock. They are all two years old and fully as strong as imported plants, but having the immense advantage over the latter of being acclimated to the climate and soil of this country, which enables them to live and thrive where the imported plants are almost certain to fail.

1500 Henryly, white.
1000 Jackmanii, purple.
400 Langunosa Candida, white.
1000 Mme. Ed. Andre, crimson.
500 Mme. Baron Veillard, pink.
600 Panicola, white.
2000 Maroona, lavender.

ORNAMENTAL SHRUBS.

500 Azalea Mollis, mixed colors. (Fine, healthy plants with 15 to 25 buds.)
200 Azalea Mollis, separate colors. (Red, dark-red, white, yellow, etc. These are grafted plants of the finest named varieties; in good, healthy condition and with from 12 to 25 buds.)
200 Azalea Pontica (Ghent Azaleas). (Pink, red, dark-red, white, yellow, etc. Fine plants 14 to 18 inches high, with 12 to 15 buds.)
600 Hydrangea F. G., tree-shape, 3/4 to 4/5 ft. XXX.
800 Snowball, Japan, 2-3 ft.
600 " " tree-shape, 3-4 ft.
300 Tree Pincny, Banksii, pink.
450 Xanthococcus Sordifolius 12-24 in.

This is a very rare and beautiful shrub from Central China. In April or May it is literally covered with long racemes of white flowers, copper colored at the base of petals. It flowers very abundantly, and is one of the handsomest of shrubs.

ORNAMENTAL TREES.

275 Elm, American, 7-8 ft.
100 Eucalyptus Europaea, 5-7 ft.
250 " " 8-10 ft.
100 Linden, American, 8-10 ft.
85 " European, 8-10 ft.
70 Magnolia Soulangiana, 2 1/2 to 3 ft.
350 " Speciosa, 4 1/2 ft.
800 Maple, Norway, 8-10 ft.
400 " Silver, 10-12 ft.
100 " " 8-10 ft.
100 " Sugar, 10-12 ft.
100 " " 8-10 ft.
200 Mt. Ash, Oak Leafed, 7-9 ft.
400 " " " 4 1/2 ft.
400 Mulberry, Teas' Weeping.
400 Willow, Kilmarnock, 2-yr. heads.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
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FRUITLAND NURSERIES

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

10,000 Keiffer Pears—Extra good Stock—Boxes at Cost.

2 years, 5 feet and up, branched.
2 years, 4 to 4½, branched. Get our prices.

10,000 Standard Pears.

5,000 Everbearing Peach Trees—3 and 5 feet.

Special offer to close out stock.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

100,000 Amoor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel budded upon Manetti, 18-24 inches.
Two Acres in Canada.

Biota Aurea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

Greenhouse Department.

100,000 Palms—An especially fine lot of Lathanas, Phoenix, and Kentias.

Ficus, Decorative Plan's, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the *quickest and surest*.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS.

But also a COMPLETE GENERAL ASSORTMENT OF TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.
IMPORTED FRENCH PEARS

MAHALER, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, ALBERTSON & HOBBS,

BRIDGEPORT, MARION CO., INDIANA.

When writing to Advertisers mention The National Nurseryman.

THE

Geneva Nursery

Established in 1846.

Headquarters for : :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of : :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS—Ponticum, Catawbiense, Named Hybrids.

PAEONIAS—Large Assortment, Named Varieties.

DAHLIAS—New Caclus, Large Flowering, Pompon.

full Assortment in : :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists. Fall trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

PEACH TREES at BAIRD'S Nurseries for the 1000 or CAR LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely.

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

“NICKS” The Queen of Grapes. The new Concord of the 20th Century.

Conquers the land on its merits. Silver Medal at Omaha Exposition. Sold under seal and contract only.

HENRY WALLIS, Proprietor, WELLSTON, St. Louis Co., Mo.

RED CEDAR NURSERY;

F. H. BRUNING, Proprietor.

Offers for Spring trade 1,000,000 Platte Valley Red Cedar, grown from seed. Send for Catalogue and mention paper

F. H. BRUNING, KENT, IOWA

SURPLUS STOCK

Standard and Dwarf Pears, Plums, Sweet Cherries and Currants. All sizes and grades in large supply and great assortment. Also a full line of Grape Vines and general nursery stock. Send list of wants for lowest prices.

Lewis Roesch, Fredonia, N. Y.

When writing to Advertisers mention The National Nurseryman.

W. T. HOOD & CO.,
Old Dominion Nurseries
 RICHMOND, VA.

Will have a full stock for the trade of fall of '98 and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals
 500 bushels of natural Peach Pits crop of '97

WANTED—To sell an interest in the Old Dominion Nurseries to a thorough practical nurseryman
 W T. HOOD.

Phoenix Nursery Co., Established 1852.
 600 Acres.
 13 Greenhouses.
 Nurserymen and Florists.
 Successors to SIDNEY TUTTLE & CO.
 Eastern agents for Rosney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.
 Send list of wants for prices.
P. O. BOX 625. BLOOMINGTON, ILL.

FOR SALE. An opportunity to engage in the Nursery business in Colorado. The oldest established Nursery in Colorado is for sale on very liberal terms. Owners have other business interests. No great amount of capital required. This is an opportunity of a lifetime. For full particulars, address,
 Post Office Box 264, Canon City, Colo.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces, Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple, Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
 SPRINGFIELD, NEW JERSEY.
 SURPLUS OF
 PEACH, PLUM, CURRANTS,
 POPLARS AND SHADE TREES,
 PRIVET, SHRUBBERY, EVERGREENS, ROSES.

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WE HAVE 500,000 APPLE ROOT GRAFTS READY FOR SHIPMENT.

Send for revised list showing numbers and varieties unsold to date.

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These are fine and will make fine trees at two years old.

Grafts can be shipped on one day's notice. *Be quick* with your order before assortment is broken.

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Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.
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FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

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10,000 Peach Trees,
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Also a good assortment of standard and dwarf pears, quinces and small fruits. Send me your list of wants.

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Coreopsis lanceolata, Clematis Davidiana, Dielytras, Day Lilies, Eulalia, Funkia Alba, Hibiscus, Crimson Eye, Hemerocallis Flava, Hollyhocks, Hardy Pinks, Iris, Phlox, Rudbeckia, Golden Glow, Paeonies, Yucca.

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Amaryllis, Callas, Caladiums, Cannas, Gladiolus, Lilies, Maderia Vines, Tuberoses.

Also a fine lot of Deutzia Double White and Pride of Rochester, 3 to 4 feet. Forsythia Fortunii, 3 to 4 feet, Spirea Prunifolia, fall plant, 3 feet, and Honey-suckle, Hall's Japan.

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Hardy Azaleas, Japanese Maples, Magnolias, (LIVING GUARANTEED.)

Rare Evergreens, other Trees, new Shrubs, Hedge Plants.

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Certificated freedom from scale.

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PEACH TREES.

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Elberta, Biglens, Crawford, and 30 other leading sorts, by single 100, or bulk in car lots. Asparagus Roots. Large quantity Barr's and Moore's X-bred, Raspberry Plants, Marlboro, Golden Queen, Gregg, &c. Norway Spruce, bushy, 3 ft., 4 ft., 5 ft., to 7 ft. Am. Arbor Vitæ, bushy, 3 ft., 4 ft., 5 ft. Norway Maples, transp., 2 and 3 ft., 8 to 9, and 10 ft. Carolina Poplars, 6 ft. to 25 ft., 1/4 inch to 5 inch. Cal. White Birch, 12 to 14 ft. Cal. Privet, 1 and 2 years; fine plants.

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Specialty—SMALL EVERGREENS.

Especially fine Stock, Arbor Vitæ, Juniper, Pines, Pungens, Spruce, &c.

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We Offer at Rates that will secure your Order:

400 SPIREA VAN HOUTTEI, 2 ft.
 2,000 QUINCE—Meeches, Champion and Orange; extra size.
 20,000 PLUMS—2 yr.; Lombard, Shippers, Gull, Pond, Abundance, etc.
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For colored plate, testimonials and price address the originators.

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We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

Strawberry Plants.

MILLIONS OF THEM.

The Largest Stock of Carrie, Earliest, Excelsior and Clyde, in the United States.

Prices the lowest. Also a large stock of Raspberries, Blackberries, Currants and Gooseberries.

Be sure to get my prices before buying elsewhere. All stock certificated and guaranteed true to name. List free.

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Plain, Painted, Printed, Notched, Bored, Copper Wired, Iron Wired, Nursery Stakes. Send for Samples and Prices.

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Just the tree for city planting—Thrives where others fail—Resists smoke and gas as the salamander does fire. 75,000 of them, beautiful trees 6 to 8, 8 to 10, 10 to 12 and 12 to 15 feet. Immense stock of all other Shade Trees, Shrubs and Roses. Hundreds of thousands of Fruit Trees, Small Fruits, Grape Vines, Plants, Seeds. Valuable Catalogue free. Correspondence solicited. Write us your wants if you would procure the best at bottom prices.

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Evergreen and Forest Tree Seedlings.



ORNAMENTAL TREES,
SHRUBS, Etc.

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Norway Maples, Sugar Maples, and American Arbor Vitae in suitable sizes for planting in Nursery rows. Correspondence solicited.

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One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

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Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

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OTTAWA, KANSAS,

Offer to the trade a large and complete assortment of

NURSERY STOCK.



APPLE,
PEAR, Standard and Dwarf,
CHERRY,
PLUMS, Japan and European,
PEACH,
APRICOT.



Gooseberries, Grape Vines, Currants,
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18 inches to 3 feet.
Ornamental Trees, Shrubs and Vines.

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OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphia, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of Fruit Tree Stocks; all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

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For Price List apply to

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HARDY LOW-BUDDED ROSES. *At Lower Prices than ever before Offered.*

Tree Roses, Azaleas, Rhododendrons, Clematis, Hydrangea Paniculata Grandiflora, Snowballs, &c., from

THE BOSKOOP HOLLAND NURSERY ASSOCIATION.

Send an estimate of your wants for March or April importation, stating quantity.

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The Largest Stock of other First-Class Grape Vines. Extra Fine Stock of Gooseberries, Currants, Blackberries, &c. Let us Know your Wants.

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D. HILL, Evergreen Specialist,
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OBTAİN *List and prices of our immense stock of HIGH GRADE ORNAMENTAL TREES AND SHRUBS,*

And thus secure unsurpassed service in filling your orders. You will never have cause to regret it.

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MUST BE SOLD TO CLEAR GROUND

A large and very complete line of HOME GROWN ROSES, both Std. and Dwf. 100 varieties. Ornamental Trees and Shrubs, California Privet, all grades. Currants and Gooseberries, large stock. Special quotations.

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Prunes (20,000)—Very heavy—extra fine—must be sold.

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Std. and Dwf. Pears—2 year old, extra fine.
25,000 Peaches as fine as ever grew, in three grades.

We expect to make an extra push on all of this stock the coming season, and will soon issue our Trade List with a schedule of prices that will surprise you. In the meantime we solicit any correspondence that you would wish to make regarding the above stock. Address—

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Surplus Stock of STD. and DWF. PEARS, CHERRIES,
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Raspberries, Blackberries, Gooseberries, Roses—fine grade of stock. Write for prices with list of wants.

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A Compilation of the Acts Passed by Nineteen States of the Union,
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The only thoroughly up-to-date compilation of these laws, arranged with special reference to the needs of the Nurserymen. A necessity in every nursery office in these days of restrictive legislation. Gives full information regarding certificates to be attached to stock, inspection, penalties, etc.

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 Gen'l Variety

CHERRIES { Richmond,
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 English Morello,
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 General Variety.



PLUMS { Wickson,
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 General Variety.

PEACHES { Triumph,
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**FOR PARKS
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 Capilar.

Also a General Line of Nursery Stock.

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Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

200,000 Peach Trees, | 100,000 Blackberry,
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Eldorado, Maxwell and Lucretia Blackberries.

**MILLER, LOUDON and TRIUMPH,
 COLUMBIAN . . . GREENSBORO and EMMA,**

Raspberries.

and a full
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Wickson, Red June and Giant **Peaches**
PLUMS. . . . AND OTHER FRUIT.

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 Our Catalogue will save you money.

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*Standard and Dwarf Pears,
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Sweet and Sour Cherries,
Quinces, Apples, Peaches,
Maples, Ash, Hydrangeas,
Roses, Evergreens
and Small Fruits.*



Headquarters for new varieties of fruit.
Submit a list of wants and get our price.

New!

Plums * * * * Peaches * * * *
Empire, Wickson "Japan," Fitzgerald, Triumph.

SPECIAL attention is called to my
Fine Large Stock of

**NORWAY
AND**

**SUGAR MAPLES,
MAGNOLIA ACUMINATA
AND TRIPETALA,**

OSAGE ORANGE,
One and two years.

AMERICAN ARBOR VITAE,

IRISH JUNIPERS

**AND
NORWAY SPRUCE.**

Also a full line of Nursery Stock.



Please address

GEORGE ACHELIS,
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For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitæ, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and GOOSEBERRIES extensively grown. Better stock never grew.

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The Great Rock Island Route

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Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

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the country.

should write the undersigned for rates, folders and literature.

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Jno. Sebastian, G.P.A.,

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Strawberry Plants.

Fresh Dug when Ordered. No Cellared Stock—Clean Grown on New Land,
and Free from Aphis

PRICE IS EXTREMELY LOW.

Aroma [per],
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Bedar Wood [per],
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Cyclone [per],
Darling [per],

Delaware [per],
Dayton [per],
Excelsior [per],
Enormous [per],
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Gandy Belle [per],
Gandy [per],
Greenville [imp],
Glen Mary [per],
H. & H.,
Hall's Favorite [per],
Haverland [imp],
Hoffman [per],
Holland [per],



Hersey [per],
Howell's [per],
Hunn,
Imp'd Parker Earle [per],
Jesse [per],
Kansas Prolific [per],
Lady Thompson [per],
Lovett [per],
Marshall [per],
Magoon,
Margaret [per],
Mitchel's Early [per],
Morgan's Favorite [per],
Meek's Early [per],
Nick Ohmer [per],
Ocean City [per],
Pride of Cumberland [per],
Paris King,
Ruby [per],
Reid's Prolific [per],
Ridgeway [per],
Rio [per],
Seaford, or Lloyd [imp],
Star [per],
Splendid [imp],
Saunders [per],
Sharpless [per],
Sunnyside [imp],
Staples [per],
Tennessee Prolific [per],
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Plants Tied 25 in Bunch at Dozen Rates; 50 at 100 Rate.

ASPARAGUS ROOTS.

Columbian Mammoth White, Donald's Elmira, Palmetto, Barr's Mammoth, Conover's Colossal.

SEND FOR SAMPLE

PEACH TREES.

Only a few thousand left, principally 2 to 3 ft., 3 to 4 ft., and June Budded.

APPLE TREES.

Baldwin, Mammoth B. Twig, Grimes' Golden, 5 to 6 ft. 3-4.

Also in 5-8 Grade we have Baldwin, M B. Twig, Grimes' Golden, Wine Sap, Ben Davis, Maiden's Blush.

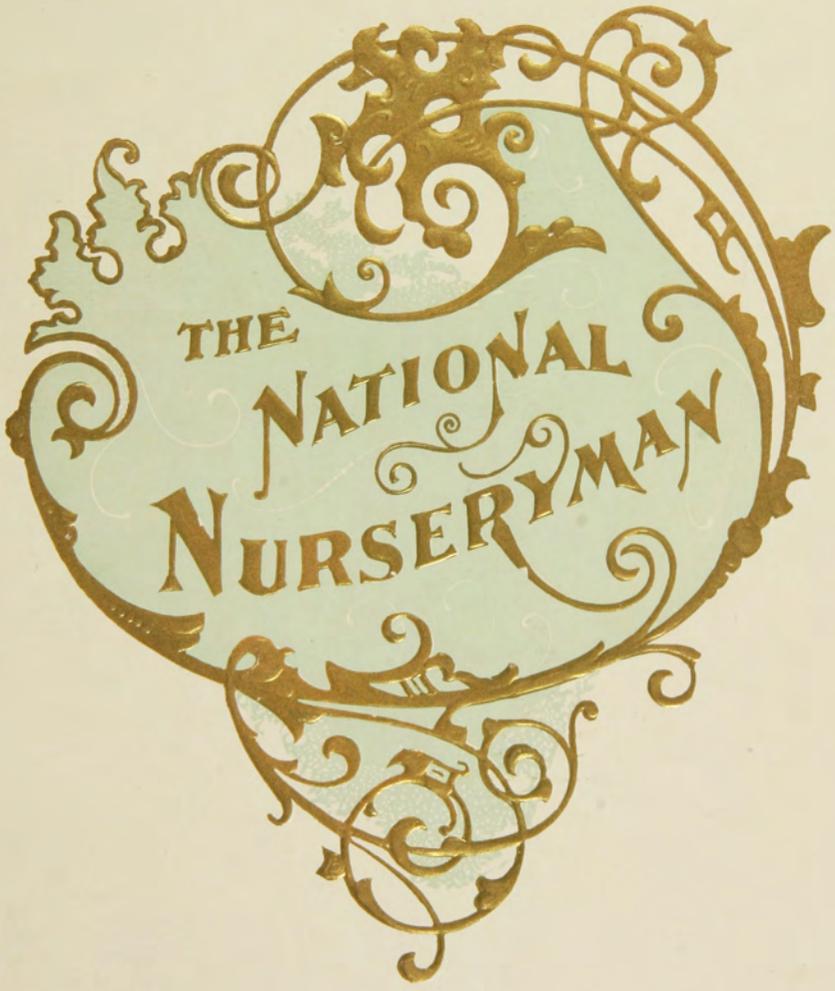
In one year Trees we have a general list.

FIVE HUNDRED CHERRY.

J. G. HARRISON & SONS,

SEND LIST OF WANTS.

BERLIN, MD.



May, 1899.

Nursery Stock

... IN ...

COLD



STORAGE



WE have 31,000 ground surface square feet of frost proof cellars which will average about ten feet high making a capacity of over 300,000 cubic feet for the storage of

**TREES, SHRUBS,
ROSES, Etc.**

Anticipating a winter of more than ordinary severity this immense space was crowded to its utmost capacity with

**Apple, Pear, Plum, Cherry, Peach,
Small Fruits, Grape Vines, Shrubs and Roses.**

Since the freeze the demand for peach has been unprecedented and we have but few more to wholesale, but still have immense stocks of the other items in as bright condition as when dug in the fall.

Under the protecting influence of Lake Erie but little damage was done to nursery stock standing out here, only the tender varieties showing any discoloration. Sixteen below zero was the coldest registered at the Government Signal Station at Cleveland, and it was but two degrees colder here. The vitality of nursery stock has not been impaired in this lake region as it has in the interior away from the protecting influence that a large body of water exerts. Purchasers will serve their best interests and those of their customers by placing their orders with us. Don't forget that we have an immense stock of **Ornamentals** uninjured by the freeze. Those in want of greenhouse plants will please bear in mind that we have forty-four houses filled with **Roses, Palms, Ficus, Ferns, Pandanus, Geraniums** and other things too numerous to mention.



THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE
**MOUNT
 .. HOPE ..
 NURSERIES,**
 ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

KNOX NURSERIES.

(ESTABLISHED 1851.)

We offer for Spring 1899 shipment Apple Trees, largely **Ben Davis, Jonathan, G. Golden and Wealthy.** Also a fine lot of 2 year **Cherry Trees**, and a nice lot of **Eiberta Peach Trees, Ohio and Egyptian Raspberry Tips.** Large stock of **Strawberry Plants.** Clyde, Gardner, Brandywine, Gandy and Lovetts. Have a bargain in 3 year Cherry trees for some one. Send us a list of your wants.

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H. M. Simpson & Sons, Vincennes, Ind.

APPLE SEEDLINGS FOR SALE.

Nebraska Grown.	}	150,000 No. 1 Straight $\frac{3}{8}$ and all up.
		200,000 No. 2 " " $\frac{3}{8}$ to $\frac{1}{2}$.
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		100,600 No. 1 " " $\frac{3}{8}$ to $\frac{1}{2}$ in.
Immediate Shipment.		150,000 No. 3 Straight and Branched.

Also a large line of General Stock including Apple, Cherry, Pear, Plum, Small Fruits, Ornamentals, Etc.

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FRUIT PLANTS **Vredenburg &
 Company,**

AND NURSERY SUPPLIES. ROCHESTER, N. Y.

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FOR 1899-1900

Everybody Says that Prices will be Higher

the coming season, but because we believe that "a bird in the hand is worth two in the bush," and because of our extra heavy stocks we will take early orders for Roses and Clematis (as well as for certain varieties of many other lines) at lower prices than we expect to ask later on.

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The Famous J. & P., own-root Roses; unequalled in grade and quality. We shall have the coming season the largest stock of field-grown Roses that we ever produced and, from present prospects, one of the very finest stocks. Special low rates will be offered on contract orders placed early in the season and the advantage of getting a complete assortment is secured.

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Our usual good stocks of
**CLIMBING PLANTS, FLOWERING SHRUBS,
 ORNAMENTAL TREES, HERBACEOUS PLANTS,
 PEARS, PEACHES, PLUMS, QUINCES,
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Jackson & Perkins Co., (Wholesale Only.) Newark, New York.

TRADE



MARK.

**Japanese Nursery Stock,
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Trade List free on application.

Orders are booked now for Fall and Spring delivery. Prices f. o. b. New York, duty paid.

**SUZUKI & IIDA,
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NURSERIES:

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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"We want more varieties of every native fruit now cultivated."—Professor L. H. Bailey.

VOL. VII.

ROCHESTER, N. Y., MAY, 1899.

No. 4.

SPRING SALES.

Marked Increase in the Genesee Valley and Throughout the Eastern States—Heavy Demand for Peach—Light Call for Strawberries—Short Plantings Again—Higher Prices on All Stock in the Fall Are Expected.

ROCHESTER, N. Y.—Irving Rouse: "We have had our usual spring trade. The season opened rather late and the continuous cold weather will result in later orders, we think, than usual. Packing is later by two weeks than last year. Prices have generally been much more satisfactory than the last two seasons and the outlook for better prices in the future is very encouraging.

"There has been less stock planted this spring than usual, as has been the case for the last two years. The previous short plantings will begin to come in market next fall and we imagine that a great many nurserymen will be surprised at the comparatively small quantity of stock fit for market as compared to former years. This is especially true in apple, pear and cherry."

ROCHESTER, N. Y.—Brown Brothers Co.: "From what we can learn through conversation with a good many nurserymen, we believe the spring trade has been quite satisfactory all around; that is, as to volume. Of course, it is too early yet to know how collections will be. We believe that wholesale prices will be still higher the coming year."

DANSVILLE, N. Y., April 17.—James M. Kennedy: "Business at this point is larger in volume, both wholesale and retail, than a year ago. About all the wholesale growers have completed their spring shipments, and commenced planting, while the retailers have only commenced billing out. The demand for nursery stock has been good; the prices about the same as last fall except on sour cherry, apple and Keiffer pear, which brought good prices. It will be safe to say there will be no surplus stock to carry over.

"Collections have been unusually good the past year. The prospects for next fall and spring, as far as can be judged, are very encouraging. Some large orders have been booked for next fall's delivery at good prices, which goes to show that this year will be the beginning of prosperity in the nursery business. No nursery stock has been injured by the past winter owing to our trees maturing well last fall. Dansville will continue to be one of the largest nursery centers in the United States, as the usual amount of nursery stock will be planted here this spring."

NEWARK, N. Y., April 17.—Jackson & Perkins Co.: "From present prospects we shall sell out closer this spring than we have ever before. There seems to be an enormous demand for some kinds of stock and nearly everything is going off in pretty good shape. We think prospects are much brighter than they have been for some time past."

BRIDGETON, N. J., April 14.—Stanton B. Cole, proprietor West Jersey Nur. Co.: "Replying to your request, will say that so far trade this spring has been better than for the past three years with us. We now think we shall close out nearly all stock; very little good stock to go on the brush pile when the season closes. Apples and peaches have been especially active and in good demand. So far in the retail trade I can see scarcely any improvement in collections.

"We will make about our usual plantings; we grow heavier peaches, apples and plums than any other fruit trees, and Miller Red and Loudon raspberry; some surplus of Miller plants yet, and they have winter killed considerably while the Loudon are fresh and sound to the tips."

BERLIN, Md., April 12.—J. G. Harrison & Sons: "Our spring sales have been very satisfactory, in the peach tree line especially, and we are pretty well cleaned up, except on some of the small grades. The demand for asparagus has been very good, better than we have known for a number of years; but we regret to say that the strawberry trade has not been satisfactory at all. Owing to the low price last season of fruit there has been a very light demand for plants. However, at this writing we are digging about one hundred thousand plants per day. We prepared last season for a heavy trade in plants and have been greatly disappointed as we have 60 acres in plant beds and they are in first class condition yet, probably all the better for the little darkies as they will get to pick the red strawberries in June.

"You will remember last fall we stated through your journal that there would be an increase in price in peach before spring and we simply took this from the amount of inquiries we had for car-load lots, and we are pleased to say that there has been a marked increase in price of peach; yet most of our trees were sold in the fall when the prices were not so good."

WESLEY P. O., Md., April 12.—Wm. M. Peters' Sons: "This spring trade has been all we could ask for, so far as the sale of peach, asparagus, apple and general line of nursery stock is concerned. Strawberries up to present date have not come up to last season. This we attribute to the crop of last season, being a failure generally in prices received for the fruit. The crop was heavy and the prices obtained were so low that it has discouraged heavy planting the present season. This, in our opinion, means a brighter prospect for another season.

"So far as collections are concerned, a little too early to say; but we think the prospect is favorable to prompt payment for the bulk of stock sold. We are not by any means through delivering and shipping yet, owing to the backwardness of the season, which is at least 30 days behind last spring.

"There has been an excellent demand for peach trees. We have turned down orders that would have aggregated not less than 200,000. This unusual demand we attribute in part to the severe winter, injuring the peach in many localities so bad-

ly that they were not salable. Ours went through in first-class shape. Our only trouble was we had not enough of them.

"Our plant for this season, which was budded last August, represents more than one million and at present time buds are showing no effects of the winter. It looks as though they were going to start with very small percentage of loss. We have every reason to believe that we shall have the largest stock of peach to put on the market this fall and next spring to be found anywhere. If any one doubts it we are ready to pay expenses of coming and seeing the stock. Our planting apples last spring and this spring represents 200,000; other stock in smaller quantities. Strawberry plants about 30 acres, asparagus probably six to eight acres.

"Our opinion of the future prospects for the nurseryman is much more encouraging than it has been for several years back, and hope to see prices advance generally. We have been in correspondence with many prominent fruit growers in different states, and the general impression is that many peach orchards have been so badly injured that they will have to come out and be replaced with young trees. And it does not seem to be confined entirely to peach; but plum, cherry and pear. Apples seem to have stood the winter blasts better than anything else so far as we have been informed. In our county orchards have not been injured, but there are so few that it does not cut much of a figure. When the fruit comes off we are going to have some peaches, apples and pears, a full crop, if late frosts do not catch them in bloom."

BALTIMORE, April 20.—Franklin Davis Nursery Co.: "We have had a very heavy trade this spring and are still very busy. The season has been backward and on this account many of our customers have delayed sending in their orders to the last minute. Prices are better on many items than for years and naturally we feel very much encouraged. Our plantings this spring will be about as usual."

GERMANTOWN, PHILADELPHIA, Pa., April 12.—Thomas Meehan & Sons: "It is too early to determine what may be the results of the present spring's business. We are in the midst of our shipping season, and we expect numerous large orders before the season closes. Our spring opened up fairly well and early, and we have had quite good weather up to the present time. Nights have been cool with more or less frost, retarding the growth of the plants, and we do not think at this date stock has advanced as much as is usual at this time of the year. We should have at least two good weeks of shipping.

"Prices on ornamental stock are quite low, in fact they are too low, and in our estimation they are much lower than the occasion requires. We are selling large quantities of stock at fair prices, and though we find our prices cut under to a more or less extent, we have no difficulty in selling our goods at our present rates. By the time the season is over we think many nurserymen who are selling at such low rates now will be very short on some items, and will possibly have to buy at higher rates to fill their orders."

FREDONIA, N. Y., April 25.—George S. Josselyn: "We are now about finishing the largest year's business we have ever done. Almost everything in salable stock of all grades is sold and our cellars are almost empty. Prices have not been what they used to be but very much better than for two or three years past. Most late buyers have not been able to procure the class of stock desired and have been obliged to take what grades they could get."

Among Growers and Dealers.

The Colorado Nursery Co. has constructed a storage cellar 26x40 at Loveland, Col.

S. M. Emery, Bozeman, is one of the members of the Montana Board of Horticulture.

The Minnesota Horticulturist announces that the Minnesota scale bill was killed in the House.

Emil A. Holter has purchased the interest of J. W. Feldman in the Gate City Nursery, Canton, S. D.

One of the buildings at Peirson Brothers' Nurseries, Waterloo, N. Y., was destroyed by fire on April 18.

M. H. Cremer is president and W. W. Litley manager of the Zumbro Valley Nursery Co., Mazeppa, Minn.

The office of Selover & Atwood, Geneva, N. Y., was destroyed by fire on April 6th. Insurance \$1,000.

Fire caused damage to the amount of \$7,000 at the nurseries of Nichols & Lorton, Davenport, Ia., on March 31st.

Hoopes, Brother & Thomas and George Achilles, West Chester, Pa., have increased employees' wages 10 per cent.

Th: Rocky Mountain Nursery, Canon City, Col., at one time owned by Dal Dewesse, has been sold to S. H. Atwater.

State Inspector Trine has inspected 240 nurseries in Michigan. He found San Jose scale in 22; in 18 of these the pest is believed to have been exterminated.

Henry Wallis, Wellston, Mo., is president of the St. Louis County Horticultural Society just formed. H. C. Irish, of the Missouri Botanical Garden, is secretary.

P. J. A. Berckmans, Jr., of the Fruitland Nurseries, Augusta, Ga., on April 12 at Freehold, N. J., married Miss Bedle, a niece of ex-Governor Bedle of that state.

The House of Representatives of Pennsylvania has passed a bill "to prevent the spread of contagious diseases known as yellows, black knot, peach rosette and pear blight among orchard and nursery trees."

Professor F. A. Waugh of the Vermont Experiment station at Burlington, calls attention to the apple-tree canker affecting trunks and branches, especially in old orchards. He advises pruning and spraying with Bordeaux mixture.

Dr. S. A. Knapp, who was sent by the United States Department of Agriculture to visit China and Japan, to procure desirable trees and seeds, has returned. He procured a variety of Japanese pear said to be blight proof; also varieties of plum, persimmon and camphor tree.

F. W. Watson, Topeka, Kas., writes: "Collections so far have been good. Planting is rather late. We think there will be about the usual plant here of apple grafts and apple seed. A little short on cherry. There is no surplus stock to speak of in any line. The prospect was never brighter for the nurserymen of the West."

On March 19th the Wabash Railroad Company added to its already excellent service out of Buffalo a new fast mail train, leaving Buffalo at 8.30 p. m. arriving at St. Louis at 2 p. m., Kansas City 9.45 p. m.; also Chicago at 10.55 a. m. the next day. This gives the patrons of the road three daily vestibuled trains from Buffalo to St. Louis, Kansas City and Omaha.

TREES TO BUENOS AYRES.

The following letter to Ellwanger & Barry was received last month:

NEW YORK, April 10, 1899.

MESSERS. ELLWANGER & BARRY, Rochester, N. Y.

GENTLEMEN—Our friend in Buenos Ayres, to whom we shipped last winter a package of trees, packed by your good selves, has just advised us of their safe arrival and also advised us that in spite of the vexatious delays we had here, before shipment, in consequence of the necessity of securing numerous certificates with large seals, and in spite of a delay of over two weeks in the custom house at Buenos Ayres, after the arrival of the package there, the trees were all planted and that each and every one of them at the time he wrote us was doing well. He asks us to write "to thank the nurserymen for the skill and care they displayed in packing the trees so carefully, as they are very highly prized by me." We are glad to communicate this.

Yours very truly,

TURLE & SKIDMORE.

The trees above referred to were packed in several small bales and shipped in boxes and forwarded by steamship as far as possible, after which the bales were taken from the boxes and transported the remainder of the distance on the backs of mules.

NURSERYMEN IN CUBA.

Fred G. Withoft, of Dayton, O., president of the Ohio Fruit Land Co., piloted a party of nurserymen and fruit growers to Cuba and Porto Rico during the early spring. Regarding the trip Mr. Withoft says:

To a traveler from the temperate zone, who enters the semitropics in midwinter, the transition is almost like a dream of fairyland; from snow and ice to blazing, relentless sunshine; from furs and blankets to the thinnest of cotton fabrics and constant perspiration; from the howling of wintry blasts to the rattle of summer seas, the lazy flutter of fans, and the melody of native birds.

Cuba nearly always basks in the sunlight, and so we envy her; yet a glance into her bare streets, lacking in shade, save for the many gay awnings, and here and there a park; with narrow walks bordering a roadway scarce broad enough for two single vehicles to pass, make us draw back, and blinking, seek some friendly oasis of green. None in sight, however, save, perhaps, a stunted, crooked-trunked native tree; but if we penetrate into the open central court of one of these houses of Spanish architecture we may find some fine palms, a fountain, blooming plants, and all one could desire, save, perhaps, green grass, for the court is paved.

The houses, too, are very interesting; although the exterior appearance of many of them is dilapidated, the stucco having dropped off in great patches, yet when one enters often marble steps lead upward, and brass and iron fretwork meet the eye in unexpected places. Colonades of white columns, even though defaced and marred, still possess a dignified beauty, and one occasionally sees tiled floors in gay mosaics.

Every Cuban city of size has its plaza, where are the driveways of the wealthy, and the promenades of the middle class, and the lounging places of the poor, who are everywhere, indeed. Here are some trees, but none of those grand old majestics we love and with which we are familiar; sometimes, as in the suburbs outside Havana, one sees an avenue of

those most beautiful royal palms, which lend themselves so readily to the beautifying of the landscape. Beyond the confines of the city, out where the eyes are gladdened by the free, bold stretch of open country, the full luxuriance of tropical growth delights the sightseer. Here are the cocoanut, date and royal palms, the pineapple plantation stretching widely, and the banana tree, which is really only a plant grown to tree size, having no real bark, whose luscious fruit hangs temptingly before us, and whose broad green leaves are used by the city baker in which to wrap and bake his loaves of bread. Roses and bulbous blooms quite familiar to the northerner here yield their sweetness to the suburban dweller all the year round; fruits in abundance offer to the winter tourist a refreshing contrast to the high-priced products found in our city markets, which, having been picked and shipped while yet unripe, possess less of the luscious sweetness and mellow flavor which renders Cuban fruit so perfect. The street stalls present a gay and attractive appearance, filled with oranges and lemons, pine apples and bananas, grape fruit, guava, figs and melons.

Nurseries are needed in the West Indies to supply the demand for trees to replace those destroyed during the war.

PLANT NOMENCLATURE.

At the present time, says Meehan's Monthly, the only dictionary of the plants of the world, with their synonyms down date is the Index Kewensis; Britton and Brown, and others cited are excellent authorities. They are undoubtedly correct in their position that many of the names they propose to be adopted should have been adopted; but they have a hard task in trying to upset the accepted nomenclature of the whole world, throwing everything into confusion, and utterly demoralizing general literature, because some generations ago somebody blundered. In every other affair of life, even to the collection of an honest debt, there is a period when it becomes outlawed. The justification is, that by the failure of the creditor to collect in time, too many innocent interests become involved. In like manner there can be no reason why thousands should be made to suffer by a change in plant names, because credit for the original was suffered to sleep for a century.

ALABAMA REQUIREMENTS.

Acting Entomologist F. S. Earle has addressed the Alabama nurserymen as follows:

I shall expect all who apply to me for nursery certificates to comply with the following requirements:

First—I shall expect to be furnished with a record of all stock purchased and brought onto the premises during the year, including budding and grafting wood, the source whence it was obtained and the fumigation or other precautions that have been taken with it.

Second—That a rapid and complete system of crop rotation shall be established, and that all blocks of trees from which stock is to be sold shall be dug and completely disposed of by the end of the second year. If for any reason it is desired to keep stock for more than two years, or where rows of stock trees for grafting wood or trial orchards are planted, it must be on separate premises well removed from the regular nursery stock that is grown for sale.

Third—All such old stock, stock trees or trial orchards, and all shrubbery, roses and ornamental trees, etc., about buildings must be sprayed thoroughly at least once every winter, either with the mechanical kerosene and water mixed of a strength of at least 30 per cent. kerosene, with a kerosene emulsion of the same strength, or with whale oil soap solution of a strength of 2 lbs. to the gallon.

IN THE CENTRAL STATES.

*Shipping Delayed By a Backward Season in the North and West—
Higher Prices on Apple and Cherry—Old Stock Cleaned
Up—Inclination to Plant a Little Stronger—Some
Damage to Stock By Cold Weather.*

BRIDGEPORT, Ind., April 12.—Albertson & Hobbs: "It is a little early yet to make much of a report on spring sales as the season, especially in the North and West has been exceedingly backward, and it is only this week that we have been getting shipping instructions from there, so are busy filling their orders, though we have been packing and shipping for this is now the fifth week, and in that time not a day when we could not safely handle stock at least half the time, and but few days when could not work the entire day.

"So far the season has been very favorable with us, though a little disagreeable on account of rain and snow, but it remaining so cool has given us a longer shipping season than usual. Weather is warming up very rapidly now, and guess spring is here, and shipping season will soon have to be closed.

"Sales have been very good, and most kinds of stock have been sold out pretty close, though a light surplus in some varieties, pear, cherry, plum and apple. Demand for peach far beyond the supply. As to planting, do not think it will vary much from that of last year.

"Too early to make any report on collections. Present prices of apple and cherry especially very much better than a year ago, but as to prospective prices it is a little early to predict, though we see no reason why they should go lower, but hope to see a material advance. This will, of course, be governed by the season, farm crops and general conditions."

VINCENNES, Ind., April 12.—H. M. Simpson & Sons: "Spring trade has been very satisfactory and the indications are for an unusual large trade for next fall. All the old stock is or will be cleared up this spring and the prices for fall we think will be satisfactory to wholesale nurserymen. If we have a good apple crop and a reasonable prices there will be a large amount of apple trees planted the coming fall. We think nurserymen have a better outlook than they have had for years.

"Local nurserymen have let their stock run down the last few years and their plant will be small this spring and I think the wholesale nurserymen will make their usual planting. Have a fine prospect for a large crop of apples, cherries and Damson plums, also strawberries and Snyder blackberries and some varieties of raspberries."

DUNDEE, Ill., April 12.—D. Hill: "Up to this date orders for spring's business are much larger than they have been since 1893; inquiries never were better. Season, however, is not the most favorable. No snow here during the winter; ground was frozen four to five feet deep, coming out very slow. At this writing we are only able to take up small seedlings. We made our first shipment to-day. As far as I can learn these conditions prevail throughout the Northwestern states in general. Stock has come through the winter very good with the exception of cedars, spruces and arbor vites, which have winter-scalded some."

OSAGE, Ia., April 20.—Gardner & Son: "Spring sales have been very satisfactory with us, both in amount of sales and also in collections, as far as we have delivered to date. Season

very late and much stock to go yet. Reports come to us from Southern Iowa, Northern Missouri and other points in the Middle West, of the great damage to young stock which was standing in nursery. Some report entire blocks of apple and plum root-killed from the effects of the severe cold of February last. We are located 18 miles from the Minnesota line and after digging large blocks of apple and plum which have stood in nursery, we have found no trace of injury except a few discolored twigs on some of the tender varieties. No injury to roots whatever.

"It looks to us as if northern grown stock will be at a premium in the near future. Our plant this spring will be considerably heavier on all lines, than ever before."

KINSEY, O., April 20.—W. N. Kinsey: "Our spring sales have been very good, and at this writing it looks as though there would be very little salable stock left over, with the exception, perhaps, of currants, gooseberries, some varieties of ornamental stock, and evergreens. Of these things we believe there will be a surplus remaining.

"Prices, excepting on apple, cherry and peach are little changed from one year ago, and rule pretty low. The present prices on apple and cherry cannot be complained of, although there is very little in apple at less than prices ruling this spring.

"The indication is to plant a little stronger than last season, especially on fruit tree stocks. Collections with us are better than one year ago."

IN THE WEST.

GENEVA, Neb., April 13.—Youngers & Co.: "It is most too early to make even an approximate estimate of the spring's sales. The spring opened with us at least a month later than ordinary. Packing commenced in earnest only four days ago, and yet in the last four days we have moved more stock than we ever did in the same length of time before. We believe that there will be less stock sold this spring than last, owing to the late season, but the prices realized are much more satisfactory. We believe that nearly all the nursery stock will be run out this spring. There would have been a very large shortage had the season been as ordinary.

"As we said before, it is too early to give even an intelligent estimate of what the stock will be for another season, as in certain localities the young stock is seriously damaged. We must know the results of that damage before we can estimate the stock. Of this we are certain, however, there will be a shortage in cherries and European plums and probably in pears and apples. The planting in the West will be about an average in apples and plums, but will be considerably short in cherries; in other stock about as usual."

SALT LAKE CITY, Utah, April 15.—Pioneer Nurseries Company: "Spring sales with us—and we think with all the nurseries here—have been very good. We think every one has sold all salable stock. Prices are much too low, however, and anything but satisfactory. The usual amount of stock is being planted, but we see no prospect of better prices."

TOPEKA, Kan., April 17.—F. W. Watson & Co.: "Spring sales have been good—the best we have had for a good many years. Weather has been very cold, making it difficult to handle stock. Season has been a little shorter than usual, but we have handled more stock, and at better prices, than at any time during the past six years.

FUMIGATING STOCK.

Details of the Use of Hydrocyanic Gas in the Nursery—In Maryland Exact Amounts for Each Fumigating House Are Weighed at the Experiment Station—No Injury to Dormant Trees and Shrubs—Outdoor Fumigating.

The managing editor of the Rural New Yorker has been at the nursery J. G. Harrison & Sons, Berlin, Md., to see how hydrocyanic gas is used in fighting the San Jose scale and he writes entertainingly of his visit. There were two large fumigating rooms, he says. They are large enough to hold a wagon loaded with trees. They are double-boarded, for it is necessary to have them absolutely air-tight. The doors are also double-boarded, and fastened with movable cleats, so that they can be tightly closed. One of the rooms contained 10,000 peach trees. The process of fumigation was as follows:

The room was tightly closed with the exception of one small door. They then brought a large earthen jar containing a quantity of water, and set it inside the door. From a jug containing sulphuric acid, a quantity was measured out into a glass flask, and poured into the water which, evidently, began to heat up. A package of a white substance wrapped in a yellow paper was then taken out of a box. The man with the package held it over the jar, opened the paper, took a long breath and dropped paper and all. He rushed out and shut the door. After half an hour the door was opened and the room was aired for fifteen minutes before any one was allowed to enter.

State Entomologist Johnson explained that the amount of cyanide of potash used depends upon the size of the room. Every fumigating house in the state has been accurately measured and the exact amount of cyanide of potash needed is weighed at the experiment station and sent in packages to the nurserymen. This is important because in generating the gas it is necessary to have it of just the right strength to kill all insects and at the same time to avoid injury to buds or roots. After many experiments the right proportion for safety and effectiveness has been ascertained.

"We decided to use one-fourth of a gramme of cyanide for each cubic foot of air space," said Professor Johnson. "For example, if we had a room containing 200 cubic feet of space, we use 50 grammes of cyanide at each charge. There are 28.35 grammes in an ounce. This amount of pure cyanide is needed to fill that space with gas. We use 50 per cent. greater weight of acid than of cyanide, and 50 per cent. more of water than of acid. For example, if two ounces of cyanide are used, we use three ounces of acid and $4\frac{1}{2}$ of water. In this way we regulate the amount of gas with scientific accuracy, and get far better and more uniform results than would be the case if the weighing and measuring were left to others. I superintended the building of every fumigating room in the state, and we have exact measurements of all of them.

"If this gas is properly generated and handled; it will destroy every scale upon the tree, whether there be 1 or 10,000. In 1897 we treated young trees of pear, peach, plum, cherry and apple. They were literally covered with the scale when we put them into the fumigating house. We set them where we could watch them every week. Not a living insect has been observed on those trees since. They were alive with the scale before we fumigated them, and they have now been growing for two

seasons. We duplicated these tests in the spring of 1898, with the same results. We also took several badly infested trees, and placed them on the floor at the bottom of 5,000 nursery trees in one house. These were watched closely during 1898, and not a single insect developed. We are now absolutely certain that this terrible gas will kill every insect, if by chance they should be upon a tree. You may state positively that, when properly generated and applied, no breathing thing can escape from this gas.

"You cannot possibly injure the roots of any kind of fruit trees with this gas. The chemicals would have to be used about eight times the standard strength, to affect them in any way. At the strength we now use the gas, trees should never be left in the house for less than half an hour. You may safely leave them for hours, or even over night, without any injurious effect. Trees can also be fumigated two or even three times, without being injured, although once is sufficient. The gas would injure the buds after they have started. The gas should be used on nursery stock only when the trees are dormant, either in the fall or spring. This can be accomplished readily, as nurserymen do not as a rule handle their trees after the buds begin to unfold. Most nursery stock is dug, fumigated and heeled in where it can be conveniently packed later.

"My outdoor fumigating is done mostly in the fall and winter. After the function of the foliage has been performed, and just before the leaves fall is a good time. In this case, the leaves are scorched on bright, sunshiny days, but the burning does no harm to the trees, as the leaves are nearly ready to fall anyway. We usually begin our outdoor work about the middle of September. We have also done some fumigating in March."

Foreign Notes.

There were exported from the United States and Canada to England, during 1898-99, 1,100,000 barrels of apples; in 1897-98, 715,000 barrels. The largest consumers were London, Liverpool and Manchester.

The area in New South Wales suitable for the production of grapes for wines of all kinds is practically unlimited. Half a million phylloxera resistant varieties for use as stocks in the planting of new vineyards have been sent to Australia from France.

The schedule of the international horticultural exhibition at Mount St. Amand, Ghent, which opened on April 30, comprises 868 classes. Prizes to the amount of 40,000 francs are offered, besides 98 gold and 148 other medals, including medals from the king and queen.

The new temperate house at Kew botanical gardens has just been completed. It is by far the largest plant structure in the world, says the Gardeners' Chronicle. Its length is 582 feet, its greatest width 138 feet, height of grand center 60 feet, height of wings 38 feet, ground area nearly two acres. The cost of the structure was \$300,000.

A correspondent of the Gardeners' Chronicle, London, writing from Erfurt, Germany, gives the following details regarding the wages paid to gardeners in that city: "At one of the largest and richest nurseries in this important town of Erfurt, the workmen (not improvers) receive 10 to 15 marks weekly (a mark is about equal to 24c.). Only the best workmen receive as much as 16s. weekly (about \$3.60), and a man twenty-five years of age, with a family, will only receive 11s. 8d. (\$2.80) weekly to commence, and his wages will increase at the rate of 8d. (16c.) weekly. Then the average weekly money earned by these poor fellows is 13s. 6d. (about \$3.25). Improvers are paid at the rate of 44s. (about \$10.70) monthly, rising yearly at the rate of 8s. (72c.) monthly."

ROOT PRUNING AGAIN.

Results of Tests of the Stringfellow Theory In a Northern Climate
 —Wide Difference in Varieties—Peach, Pear and Apple
 Trees, Closely Root Pruned, Made Fine Growth
 —The Treatment Not Favorable to Cherry.

In our earlier days we were taught that it was one of the essential requirements to success in transplanting trees to save all of the roots possible so that the feeding capacity of the tree might not be lessened more than was absolutely necessary, says Professor James Troop, of Indiana, in American Agriculturist. The subject of plant physiology was but little understood. The ability of the plant to form new tissues where needed and to adapt itself to surrounding conditions generally had not been studied to any great extent. Soon after Mr. Stringfellow of Texas made public his theories concerning close root pruning, a few years ago, a number of experiments were immediately set in motion with the view of testing the truth or falsity of these theories, which, in some respects, were in direct conflict with the teachings of Downing and other noted horticulturists. The results of some of these experiments have already been published, but the most of them have been carried on in the South where the conditions are different from those in the North. In a recent illustrated bulletin from the Georgia experiment station the subject is set forth in considerable detail, giving the results of a series of experiments, mostly with the peach, which cannot help being very useful to the Southern fruit growers at least.

In order to test this question for a more northern climate I began some experiments in the spring of 1896 by securing from the nursery four trees, as uniform in growth as possible, of each of the following specimens and varieties: German prune, Early Richmond cherry, Flemish Beauty pear (standard), Duchess pear (dwarf), St. John peach and Orange quince. Two trees each of these varieties were pruned so that not more than an inch or two of the roots remained and the tops were cut back as shown in the illustrations. The other two were planted as they came from the nursery, except all ragged, broken ends of the roots were cut off. The trees were photographed before planting and again after they had grown a single season. The result of this experiment showed a wide difference in the ability of different varieties to adapt themselves to this severe method of pruning. For example, the peach began to throw out its feeding roots almost immediately, and while two of the trees died from other causes, the one that remained made a magnificent top and root system as well.

The dwarf pear made perhaps the finest root growth of any. Starting in the spring with nothing but a bare stub, at the end of the season there was a complete mass of fine feeding roots, which would have been able, another season, to push the top along at a rapid rate. The standard pear made a fairly good growth, as did also the German prune, but the Early Richmond cherries did not seem to take kindly to the harsh treatment, and one of them died, while the other barely made enough roots to sustain life. The quince made no growth at all, which was probably due to other causes than the close pruning.

It will be seen that these trees were all set out in the spring. I am of the opinion that the results would have been more favorable to the system of pruning if they had been set out in

the fall, as the cut surfaces would then have had time to form the callus and be ready to send out their roots as soon as spring opened. In the autumn of 1896, two dozen Wealthy apple trees, three years old, were prepared in a similar manner by close pruning each alternate tree. After growing two seasons these were taken up, and in almost every case a fine root system was found on the closely pruned trees; in fact, more of the fine, feeding roots than were found upon the others.

There is one point, however, which Mr. Stringfellow claims to be in favor of his close pruned trees, the truth of which was not demonstrated by my experiments. He claims that a close pruned tree will send its roots down deep, almost perpendicular, into the subsoil and so anchor the tree more firmly to its place, while the tree not pruned will have most of its roots near the surface. My experiments show that nature asserts herself here as well as elsewhere. Some trees are naturally deep-rooted, while others are shallow, and it makes but very little difference so far as that is concerned, whether they are close pruned or not. It depends more upon the nature of the variety than upon the pruning.

NOVA SCOTIA ORCHARDS.

A combination of a good price and a fair yield has served to reawaken the interest in orcharding which the extremely low apple prices of 1896 had slightly checked, says a correspondent of the Country Gentleman, and the prospect is that the coming spring will witness the largest increase in the acreage of orchards ever seen in the province. Not only will the orchardists in the Annapolis Valley add to their plantations, but men in other and less favored parts of the province are realizing the fact that orchards offer a source of cash revenue not to be equalled by the same extent of land devoted to any other crop. In Pictou county, for example, which heretofore has not gone extensively into any fruit except plums, the farmers are taking an active part in the growing of apples, and the whole districts may be found where almost every farmer is planning to set from 50 to 500 apple trees the coming season.

The high price of nursery stock, caused by the increased demand and by the law prohibiting the importation of nursery stock from the United States, will doubtless prevent many from setting as many trees as they otherwise would; but the general sentiment seems to be that even at \$15 to \$25 per hundred (the price of apple trees here in Nova Scotia), there is money in apple orchards.

Long and Short.

A nursery established eighteen years ago, at Marcus, Ia., is for rent.

A first class foreman who understands handling trees is wanted by J. G. Harrison & Sons, Berlin, Md.

Japanese nursery stock, seeds, etc., may be procured of Suzuki & Iida, 11 Broadway, N. Y. Their nurseries are at Yokohama, Japan.

French nursery stocks, specially grown for the American trade, may be obtained of E. T. Dickinson & Co., 1 Broadway, New York. Fruit tree seedlings and ornamentals; pear and crab-apple seed.

Present prices are lower than fall prices will probably be, and the Jackson & Perkins Co., Newark, N. Y., who claim to be the largest growers of clematis in the world, offer special inducements in this line of stock; also roses, and a general line of nursery stock.

THE SCALE IN CANADA.

Rigid Inspection of all Orchards in Which Have Been Planted Trees Imported from the United States During the Last Five Years—Section Added to the Canadian Scale Law—Mr. Fishers's Work.

What is being done in Canada in regard to the San Jose scale may be learned from the following statements in the Canadian Horticulturist :

"As has already been stated, this country has narrowly escaped the general introduction of this terrible insect from American nurseries. Before we were aware of the danger several large lots of trees were imported and distributed, that were affected by this tiny insect. In 1896 an orchard near the border, belonging to a member of our Association, Charles Thonger, was found to be infested, and immediately our executive called upon both the Provincial and the Dominion ministers of agriculture to send competent men to examine and report.

"A large number of fruit growers, accompanied by Dr. Fletcher of Ottawa and Professor Panton of Guelph, proceeded to Mr. Thonger's farm, and found the report only too true, and that a large number of his pear and peach trees were infested. Strong resolutions were made, and sent to the ministers of agriculture, and as a result, every tree imported from the United States during the last five years is being carefully located and examined, and if there be any trace of scale it is utterly destroyed.

"The superintendent of this work is George E. Fisher, of Burlington, a man who never allows difficulties to hinder him, and who is sparing no labor or expense, to make it sure that Ontario is clean of the ugly insect. The San Jose Scale Act of 1898 is well known, and this is still being amended by the addition of the following sub-section :

(a) If, in the case of an orchard or collection of plants, the inspector finds scale on plants located in several different parts of the orchard or collection, and decides that it is advisable in the public interest to destroy all the plants in such orchard or in any parts thereof and so reports to the minister, the minister may direct that an examination or inspection shall be made by an additional inspector, and upon their advice in writing he may direct that all the plants in such orchard or such collection of plants, or in such part or parts thereof shall be destroyed without requiring that every plant in the said orchard or collection shall be first examined.

3. The owner or proprietor of any nursery shall not send out or permit any plant to be removed from his nursery without the same being first fumigated by hydrocyanic acid gas in accordance with regulations prescribed by order of the lieutenant-governor in council.

4. No person shall sell or dispose of or offer for sale any plant obtained, taken, or sent out from a nursery unless the said plant has previously been fumigated in accordance with these regulations.

5. In case the inspector finds scale in any nursery and so reports to the minister, the minister may thereupon inform, by writing, the owner or proprietor or manager of said nursery of the existence of scale in his nursery, and the owner or proprietor or manager of said nursery shall not thereafter permit any plant or tree to be removed from the said nursery until the inspector reports to the minister that it is safe in the public interest to permit the said nursery stock to be removed after fumigation.

"This measure is extreme, but coupled with the Dominion Act, totally excluding all American nursery stock, is calculated to save our country from an invasion of this insect and make it perfectly safe for our readers to purchase freely Canadian stock from our Canadian nurseries."

Obituary.

George Savage, of Rochester, N. Y., who for fifteen years had been in charge of the Kimball collection of orchids, died April 16, aged 54 years. He was wellknown among orchidologists. He originated several varieties of cypripediums.

Charles Naudin, director of the experimental garden at the villa Thuret, at Antilles, France, died March 19, aged 84 years. He was one of the most distinguished botanists of modern times, working in the departments of systematic botany, hybridization, experimental cultivation and the acclimatization and distribution of economic plants. He studied with great care the orders of Cucurbitaceæ and Melastomaceæ and was the associate of Lindley, Brongniart, Decaisne, Thuret and Van Mueller.

J. C. Plumb, a veteran nurseryman of Wisconsin, died at Milton, Wis., March 19, aged 70 years. For 54 years he was a nurseryman, residing in Madison until 1867, when he moved to Milton and, with his son, Malon J. Plumb, established the Green Hill Nursery. At one time their planting amounted to 325,000 trees. He was mainly instrumental in organizing the Wisconsin Horticultural Society, was its first secretary, and had been its vice-president. He managed the Wisconsin exhibits at the Centennial and New Orleans expositions, was an acknowledged authority on Wisconsin fruits and originated Plumb's Cider apple.

Edward S. Rogers, the wellknown grape hybridizer, died at Peabody, Mass., March 29, aged 73 years. He was born in Salem, Mass., June 28, 1826. He was educated for a merchant, but for fifteen years he devoted his time to the improvement of the grape. To him belongs the credit of first artificially hybridizing the grape. That was in 1848. He received for these efforts the only gold medal awarded by the Massachusetts Horticultural Society in this line. He produced the Rogers hybrids by hybridizing the Mammoth, one of the best and earliest of the wild species of New England, with the foreign Black Hamburg and Chasselas. All the numbers between 4 and 14 inclusive were of Chasselas and Mammoth parentage and all the others Black Hamburg and Mammoth. There were 45 in all.

Charles S. Curtice, of Portland, N. Y., died at Atlanta, Ga., on February 1, aged 42 years. Mr. Curtice last summer went South and became interested in grape growing, being at the time of his death vice-president and general manager of the East Alabama Vineyard company at Fruithurst, Ala. He was ill throughout last fall, but, contrary to the advice of his physician, continued at work. An operation for liver trouble was performed on January 26th and he did not rally. The remains were brought North and interred in Sunnyside cemetery, at Rose Mills, N. Y., the funeral services being conducted by Dunkirk Commandery, K. T. His widow and a son fourteen years of age survive. Mr. Curtice was one of the most popular men in the nursery business. He was well known throughout the grape belt and especially among the nurserymen of Western New York whom he often visited. His first nursery experience was gained with George A. Stone of Rochester, N. Y. In 1880 he began business for himself, growing exclusively grape vines and small fruit plants. The business rapidly increased and in 1891 he organized the C. S. Curtice Company with a paid-up capital of \$40,000. He held a majority of the stock. A large business was built up, the annual planting amounting to 100 acres. By his death, says a local paper, Fruithurst loses a warm friend and one who will be greatly missed.

CONTINUE TO BE HIGHLY PLEASSED.

G. H. MILLER & SON, ROME, GA., Jan. 26. 1899.—"Enclosed find \$1 for subscription for the NATIONAL NURSERYMAN for the year of '99. We continue to be highly pleased with your journal, in fact cannot get along without it."

NURSERYMEN SHOULD HAVE IT.

N. F. MURRAY, President Missouri State Horticultural Society, Oregon, Mo.—"Enclosed please find \$1 to pay for NATIONAL NURSERYMAN. I would not be without it for five times the cost. All nurserymen and tree dealers should have it."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

SUBSCRIPTION RATES.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1899—At Chicago, Ill., June 11, 15.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., MAY, 1899.

THE SEASON'S TRADE.

Another spring shipping season has come and gone and throughout the country the nurserymen are turning to their accounts and considering the prospects for collections.

The season's trade has been in many ways more satisfactory than has that of several seasons in the past. While prices on ornamental stock were much lower than they should be in comparison with other stock, it was the belief of those fully competent to judge that nurserymen who had been selling at especially low rates would be short on some items and might have to buy at higher rates.

As to volume the spring trade has been very satisfactory. From east and west come reports of a lively shipping season, although somewhat backward in starting. Prices on fruit tree stock have generally been much more satisfactory than during the last two seasons and the outlook for better prices is very

encouraging. There has been a heavy demand for peach trees, owing doubtless to the severe weather of February, which made necessary replanting of many orchards. The stock of apple, pear, and cherry fit for market next fall promises to be comparatively small, and higher prices on these items are looked for at once. In the West there is no surplus of stock to speak of in any line and the prospect for the nurserymen of that section of the country was never brighter. The growing season, farm crops and general conditions have much to do, of course, with the results generally. While in some localities there is an inclination to plant a little stronger, the average will remain about the same.

In some sections young nursery stock has been seriously damaged. It is the belief in the West that there will be a shortage in cherries and European plums as well as pears and apples.

USE OF HYDROCYANIC GAS.

In September, 1897, the NATIONAL NURSERYMAN published Professor W. G. Johnson's detailed statement of the need of a fumigatorium at the nursery and directions for its construction and use. In November of the same year Professor William B. Alwood's directions for the use of cyanide of potash were given. In view of the present renewed interest in the subject we publish in this issue an extract from the report of Managing Editor H. W. Collingwood of the Rural New Yorker upon his visit to the fumigatorium of J. G. Harrison & Sons, Berlin, Md.

The subject might well be the basis for discussion at the Chicago convention of the American Association next month. Two years ago Professor Johnson said in the NATIONAL NURSERYMAN: "I believe the day is near at hand when every nurseryman in this country will find a fumigatorium as necessary a part of his equipment as seeds, buds and grafts"

The Rural New Yorker says: "We are satisfied that before long all nurserymen will be obliged by public sentiment, if not by law, to guarantee their stock as fumigated. They would do well to get in ahead of the crowd."

The position of the NATIONAL NURSERYMAN at present is not to declare, as have the authorities quoted, that this is a needed adjunct of the nursery business; but to suggest that if the subject is to be discussed by entomologists, and by the agricultural press, as was the subject of legislation for San Jose scale, the nurserymen should be posted from the start with regard to the topic.

INJUSTICE TO IMPORTERS.

In the list of re-appraisements filed by the Board of General Appraisers, March 23, valuations on various nursery stocks from Orleans, France, Mahaleb cherry; quince and pear stock from Angers, France; manetti stock from Orleans, and bulbs from Lisse, Holland, were all more or less advanced. Re-appraisements on nursery stock from various French growers, by the Board of General Appraisers, during the first week of April, resulted in substantial increased valuations on thuyas, altheas, aucubas, catalpas, clematis, magnolias, hydrangeas, Mahaleb cherry, quince and pear stock, manetti stock, Berberis Thunbergii, apples, Ginkgo biloba, Clematis viticella, betula, Myrobalan pear, abies, buxus, wistaria, acer.

Upon this subject Jackson & Perkins Co., Newark, N. Y., write: "The appraiser at the New York Custom House

advanced in valuation to a very considerable extent, several articles from one of our own importations and entirely without cause. We have learned that several other importers have had similar difficulty and action is being taken to prevent the repetition of such injustice. We would suggest, therefore, that if any other nurserymen who have had such troubles will communicate with us, perhaps some concerted action could be arranged that would be of mutual benefit."

THE PROGRAMME.

Secretary Seager, of the American Association of Nurserymen, is busily engaged in the preparation of a programme for the Chicago convention next month. It was hoped that Professor L. H. Bailey would speak at the convention, but he cannot attend. The following is a partial list of the addresses:

President Brooke—Annual address.

Professor S. J. Hunter, State University of Kansas—"Our Insect Friends: What They are Doing for Us."

S. M. Emery, Bozeman, Mont.—"The Real Attitude of Our State Board of Horticulture."

N. W. Hale, Knoxville, Tenn.—"The Nursery Business in the South."

Hon. N. H. Albaugh—"Effect of Cold Weather on Nursery Stock and How to Protect It."

Addresses by Prof. Goff, of Wisconsin, and C. L. Watrous, of Iowa.

The convention will open on June 14, at the Chicago Beach hotel. Reduced railroad rates have been secured. The secretary has issued a circular of information. Members are urged to attend the convention, contribute to the question box any questions on the practical work of the trade and participate freely in the discussion.

EXTRA HARDY FRUITS.

In his American notes in the *Gardeners' Chronicle*, of London, Eng., Professor F. A. Waugh, of Vermont, says:

The destructive winter will doubtless revive interest in the search for extra hardy varieties of fruits. This hunt has been going on in this country with waxing and waning zeal for a quarter of a century or more. No more interesting or instructive piece of horticultural history could be mentioned. Thousands of horticulturists, spread over a territory of 600 miles wide and 2000 miles long, have been striving by every means in their power towards one end. That end is the production or discovery of fruits (especially apples) which shall withstand the severe winters of Canada and the Northern States. It seems to me that there has never been an experiment in plant breeding and acclimatisation attempted on such a tremendous scale. To a great degree the efforts have been successful, and apple-culture has moved forward many miles upon the northern frontier in the last two decades. The work still goes on. There is not space here to give any account of it; but a few of its features have been the Russian expeditions of Charles Gibb, Professor Budd, and Professor Hansen; the extensive importations of Ellwanger & Barry, S. D. Willard, A. C. Tuttle, the Department of Agriculture; the intensely interesting breeding experiments of Peter Gideon and others, and especially the fortuitous discovery of hardy native seedlings. The man who would collect the facts could make a good book on this subject, one valuable as history, and valuable to horticulture.

WHY THEY SUCCEEDED.

One of the most progressive of nursery firms is that of J. G. Patterson & Son, Stewartstown, Pa. They have advertised persistently and judiciously in the nurseryman's trade journal, and now at the close of a successful season they write as follows:

STEWARTSTOWN, Pa., April 22, 1899.

NATIONAL NURSERYMAN PUBLISHING CO., Rochester, N. Y.

GENTLEMEN:—Please find enclosed draft in payment for our advertisement in the NATIONAL NURSERYMAN. We have had a very successful season, and we attribute great part to your journal. All salable stock cleaned up, with excellent prospects for fall of 1899.

Yours truly,
J. G. PATTERSON & SON.

The advertising columns of the NATIONAL NURSERYMAN compose an index of the leading nursery firms of the country. Continued and unsolicited commendatory letters prove that this journal is appreciated, is often referred to and is preserved. Its interests are identical with those of the trade. Its prosperity depends upon the prosperity of the nursery trade, and the publishers will do all in their power to advance trade interests. The circulation is confined to the trade, and every copy of every issue counts. Have you renewed your subscription?

AMERICAN APPLE CONSUMERS' LEAGUE.

A very practical suggestion for increasing the demand for apples is made in the *Rural New Yorker's Hope Farm notes*:

I find so many places where good apples are never served that it occurs to me that apple growers ought to organize an Apple Eaters' League. Let's pledge ourselves to call for apples in some form whenever we eat a meal at a public table. Organize your friends, and see if we can't get millions of people to keep calling for apples! Demand them either raw, baked, or in sauce, pudding or pie. If the proprietor doesn't serve them, tell him he is a back number—"or words to that effect." Make the heaviest run on raw apples, for that will encourage the use of the best varieties. Just make yourself an agent for the advancement of American apples.

The object of the American Apple Consumers' League is to encourage the consumption of American fruit by Americans. All are eligible to membership. There are no dues. The league should have a million members at once.

The current issue of the *Experiment Station Record* has a bulletin by Professor F. M. Webster, which calls attention to the odor of the San Jose scale. When the air is quiet, he says, it is often possible to detect the presence of a badly infested tree at a distance of a yard or more. This being the case the civil service examination for inspectors under state inspection laws should include a test for olfactories.

There was introduced in the Massachusetts legislature this year an act providing for the annual election of a tree warden in each town, who shall have full control of all public shade trees except those in care of park commissioners, and shall prescribe such reasonable regulations for the care and preservation of such trees as he may deem expedient, and enforce these regulations by fines and forfeitures. Towns are authorized to appropriate money to be expended by the tree warden in planting shade trees on the highways or on adjoining land, with the written consent of the owner. This is another of the many measures which will increase the demand for trees.

In Nursery Rows.

WINTER BUDDING—Regarding winter budding in the South, Professor R. H. Price of the Texas Experiment Station says: "The method as used at the station consists in cutting a slip of bark with some wood attached down the tree about one inch, leaving it attached at the lower end. About half this slip is then cut off, leaving the other half still attached to the tree. Cut off the bud, leaving some wood also attached to it to prevent injury, and then carefully place it between the slip and tree, so that it will fit nicely, and the cambium of the bud and tree come in contact. Tie tightly with some good material, such as raffia. In five or six days the buds will be found to have nipped firmly. Treat them as though budded in the usual way."

METHODS OF TREE PLANTING.—Professor F. W. Card of the Nebraska Experiment Station, writing of results of experiments in planting in his state, says: "Several methods of root pruning were tried, which varied from cutting the roots back to only one or two inches in length to leaving them wholly untrimmed, just as received from the nursery. These experiments indicate that all healthy roots which are found on a tree as shipped from the nursery should be left there in planting. The results upon this point are more emphatic than upon any other question embraced in the experiments. There appeared to be no advantage in making a fresh, clean cut at the ends of sound roots. The conclusions drawn from the experiments on top pruning are unfavorable to cutting back apple trees severely at planting time. Those left entirely unpruned or with the branches shortened about one-half did better than those pruned to a cane or grown as a whip in the nursery."

HYBRIDIZING ORANGES—Regarding this work Professor H. E. Van Deman says in Rural New Yorker: Some of the reports concerning the work of the experts of the United States Department of Agriculture may be somewhat exaggerated or misstated, but some very interesting and promising hybrids have been secured between the tender, sweet oranges and the hardy but bitter-fruited species; just what will come of them no one knows, but they may lead to something very valuable. There are great variations in the different types of peaches, and why may there not be equally great ones among oranges? We know that there are types of peaches from China that flourish in Florida but will not survive the winters of Georgia, and that the peaches that endure the winters of Iowa will not bear a peach in Florida; yet they are all peaches, and good ones, too. The variations and gradations of the Citrus fruits are so numerous and so closely allied, that it is impossible to tell whether certain trees bear oranges or lemons, and the same is true of others that resemble both lemons and limes, oranges and pomegranates; yet they are neither. There is no class of fruits with which I am acquainted that that is so capable of variation, within certain limits, as the Citrus genus, but it is not wise to make extravagant and speculative statements that may mislead the general public into planting expensive novelties in this line.

OWATONNA TRIAL STATION—J. S. Harris, La Crescent, Minn., reporting on a visit to the Owatonna, Minn., trial station, conducted by E. H. S. Dart, who has had fifty years experience in orcharding in Wisconsin and Minnesota, and who is well known by reason of his advocacy of the girdling of trees, says: "The object of the station is: First, to conduct experiments in the originating of new or seedling varieties of the tree fruits, with the view of securing varieties of sufficient hardiness to endure this northwestern climate and of a quality that will make them worthy of cultivation in quantities sufficient to supply the wants of our rapidly increasing population. Second, to give all of the varieties recently imported from Russia a fair, thorough and impartial trial, as fast as trees and scions of these varieties can be secured. Third, to gather in and test such American varieties as are reputed hardy, and all seedlings of northwestern origin that do or have shown evidence of hardiness and of producing a good quality of fruit. Fourth, so to conduct experiments in propagation, cultivation, pruning, etc., in order to secure the best results and establish safe rules to govern the propagation and planting of trees in this state. In the growing of seedlings a record is made of the variety from which seed is taken. As soon as wood can be grown a few grafts are made from each of the seedlings that in vigor or otherwise show evidence of value and

planted in nursery rows and given good cultivation, there to stand until they fruit, unless they show unmistakable evidence of being of no value; or, in some cases, trees that are most promising are planted in trial orchard before the variety has fruited. The same method is also pursued with Russian varieties and seedlings of good repute." Wyman Elliott, Minneapolis, says: "To attempt any concise description of the many varieties under trial would be impossible. There have been collected from ten states and originated on this place over 1,000 varieties of grafts and seedlings. The method of propagation has been by short piece root, top-grafting and root cuttings. On inquiry we learned that the superintendent had not discovered that the method of propagation influences hardiness of the trees. In conclusion, my individual thought is that the efforts being put forth along experimental lines at the Owatonna tree station will prove helpful and instructive to our horticulturists and should be continued, provided detailed reports are prepared, printed and distributed by bulletin and the press."

Recent Publications.

Among recent publications received are: Proceedings of Western New York Horticultural Society, Secretary John Hall, Rochester, N. Y.; annual reports of the Tree Planting and Fountain Society of Brooklyn, N. Y., for 1896, 1897 and 1898, and Bulletin No. 1, of the same society, Secretary Lewis Collins, Brooklyn; annual report Columbus Horticultural Society, Secretary John F. Cunningham, Columbus, O.; twelfth annual report of the Interstate Commerce Commission, 1898, Secretary Edward A. Moseley; Geneva, N. Y., Experiment Station, bulletin on two apple pests, by F. H. Hall and V. H. Lowe; Ithaca, N. Y., Station, bulletin on peach leaf curl by B. M. Duggar; new spraying devices, B. T. Galloway, U. S. Dept. Agriculture; "Some Insects Injurious to Garden and Orchard Crops," F. H. Chittenden, assistant entomologist, U. S. Department Agriculture.

The Yearbook of the U. S. Department of Agriculture for 1898 is now in press and will be ready for distribution early in May. It is a volume of 768 pages and is divided into three parts. The first part, as usual, consists of the annual report of the secretary of agriculture for the fiscal year 1898, and covers the operations of the department for that year. The second part embraces miscellaneous papers, prepared, with few exceptions, by the chiefs of bureaus, divisions, and offices of the department. The third part is the appendix. Special attention has been given to this part of the volume with a view to increasing its scope and usefulness, and an effort has been made to give the appendix the character of an agricultural directory. In addition to the usual department directory and the directory of colleges and experiment stations, there have been included lists of the principal officials having charge of agriculture in the several states; of managers of farmers' institutes; of national and state dairy officials; of the several associations of cattle, horse, sheep and swine breeders with their secretaries; of state veterinarians and state health officers; of the forestry officers of the different states and of the state forestry associations; of the officers of horticultural and kindred societies, state granges, etc. The editor, George William Hill, calls attention to the great difficulty of securing such information, and suggests that its publication in an edition of 500,000 copies for distribution among the farmers of the country should make it worth while for the many officials interested to supply the necessary data for the presentation of this information in the yearbook. If possible it should be in the hands of the editor by January 31 of each year.

VERY SATISFACTORY.

W. P. BRINTON, CHRISTIANA, PA., April 15—"We enclose \$1 for renewal of subscription to NATIONAL NURSERYMAN. The journal is very satisfactory to us."

I doubt if it is possible to do too much advertising, so long as the business is capable of developing, and so long as the advertising bills can be paid.—Printer's Ink.

FOR DISCUSSION AT CHICAGO.

T. S. Hubbard, Fredonia, N. Y., asks the following questions which might properly come out of the question box at the Chicago convention next month :

How can nurserymen manage to prevent overproduction and consequent demoralization of prices ?

Have we reason to expect the next ten years will develop anything like as great demand for fruit trees, grape vines, currants and gooseberries as the past twenty years ?

What are the best and most economical methods of fertilizing our lands in the East for production of fruit trees ?

INDIANA SCALE LAW.

The new Indiana scale law provides for the inspection of all nurseries in the state each year between June 1 and October 1 by the state entomologist or his assistants and a certificate shall be issued when stock is free from San Jose scale or other injurious insect or fungus. This certificate must be attached to all stock shipped or delivered. The state entomologist shall receive \$2.50 per day for inspection, together with traveling expenses. If owners of infested stock do not treat or destroy it they shall be subject to a fine of from \$10 to \$25.

Every package of trees, shrubs, vines, plants or other nursery stock shipped into Indiana from another state shall be plainly labeled on the outside with the name of the consignee and a certificate signed by a state or government inspector, showing that the contents have been examined by him and that, to the best of his knowledge and belief, such stock is free from San Jose scale or other destructive insect or fungus enemies. In case nursery stock from outside of the state is received without such certificate the agent of the transportation company or other person carrying the stock is to notify the state entomologist under penalty of \$25 to \$100 for not doing so, and such stock shall be examined by the state entomologist who may pass it if it is free from scale or fungus ; otherwise the stock is to be destroyed.

NEW YORK APPLE BARRELS.

The following is the new law for New York State regarding apple barrels ; the Eastern and Western New York Horticultural Societies and the National Apple Shippers' Association endorsing it fully :

Barrels of apples, quinces, pears and potatoes.—A barrel of apples, pears, quinces and potatoes shall represent a quantity equal to 100 quarts of grain or dry measure. A barrel of apples shall be of the following dimensions : Head diameter, 17½ inches ; length of stave, 28½ inches ; bulge, not less than 6½ inches, outside measurement. Every person buying or selling apples, pears, quinces or potatoes [such articles] in this state by the barrel shall be understood as referring to the quantity or size of the barrel specified in this section ; but when potatoes are sold by weight, the quantity constituting a barrel shall be 174 pounds. No person shall make, or cause to be made, barrels holding less than the quantity herein specified, knowing or having reason to believe that the same are to be used for the sale of apples, quinces, pears or potatoes, unless such barrel is plainly marked on the outside thereof with the words "short barrel" in letters of not less than one inch in height. No person in this state shall use barrels hereafter made for the sale of such articles of a size less than the size specified in this section. Every person violating any provision of this section shall forfeit to the people of the state a sum of \$5 for every barrel put up, made or used in violation of such provision.

Secretary L. A. Goodman of the Missouri Horticultural Society, says :

The effect of the severe cold will be shown by the dying of trees, both apple and peach, for several years to come. It is quite probable that one-fourth of the trees of the older orchards will ultimately be destroyed through the injury done to them this last winter by cold.

Everything in
SMALL FRUIT PLANTS.

W. N. SCARFF, New Carlisle, O.

Catalogue and Price List ..Free.

Willowdale Nurseries

We offer for the spring trade a general assortment of Peach, in different sizes, carefully graded, and at low prices. Plums, European and Asiatic. Standard Pears, including Keffler which we can supply in caliper from ¼ inch to 1½ inch. First class Apple, mostly Wealthy, Wagener, Winesap, Stark, R. I. Greening, Northern Spy, King, Ewalt, Ben Davis, Baldwin. Currants and Gooseberries, extra fine at bargains. English Walnuts, in sizes from 4 to 9 ft., smooth and straight. Osage Orange, as fine as can be grown, both two year and one year, at very low prices. A general assortment of Ornamentals, both in Deciduous and Evergreen trees, many of which can be supplied in extra sizes.

Norway Maples, Sugar Maples, and American Arbor Vitæ in suitable sizes for planting in Nursery rows. Correspondence solicited.

RAKESTRAW & PYLE, Willowdale, Pa.

E. T. DICKINSON & CO., CHATENAY SEINE, FRANCE
Growers and Exporters, **FRENCH NURSERY STOCKS,**
has to offer, **Fruit Tree Seedlings and Ornamentals.**

Pear, Apple, Plum and Cherry, and Angers Quince Cuttings.
All grown specially for the American trade.

PEAR AND CRAB APPLE SEED.

The most complete assortment of Ornamental Stocks. Trees and Shrubs.
Orders solicited and booked now at low rates.

E. T. DICKINSON & CO., 1 Broadway, NEW YORK.

THE AMERICAN FLORIST COMPANY'S

DIRECTORY FOR 1899,

Is now ready, revised and corrected to date, with 1836 names of new concerns. This book, issued every year at great expense, contains the names and addresses of all the Florists, Nurserymen and Seed Merchants in the United States and Canada. **Price, \$2.00.**

AMERICAN FLORIST COMPANY, Chicago, Ill., U. S. A.



When writing to Advertisers mention The National Nurseryman.

L. A. BERCKMANS.
P. J. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
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FRUITLAND NURSERIES

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

10,000 Keiffer Pears—Extra good Stock—Boxes at Cost.

2 years, 5 feet and up, branched.
2 years, 4 to 4½, branched. Get our prices.

10,000 Standard Pears.

5,000 Everbearing Peach Trees—3 and 5 feet.

Special offer to close out stock.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

100,000 Amor Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.
10,000 Roses—Field grown; including 5,000 Marechal Niel budded upon Manetti, 18-24 inches.
Two Acres in Canna.

Biota Aurea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

Greenhouse Department.

100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.
Flous, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECI-ALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the quickest and surest.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS.

But also a COMPLETE GENERAL ASSORTMENT OF TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS. IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, ALBERTSON & HOBBS,

BRIDGEPORT, MARION CO., INDIANA.

When writing to Advertisers mention The National Nurseryman.

THE Geneva Nursery

Established in 1846.

Headquarters for : :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of : :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.

PÆONIAS Large Assortment, Named Varieties.

DAHLIAS—New Cactus, Large Flowering, Ponpon.

full Assortment in : :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists. Full trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

PEACH TREES at BAIRD'S Nurseries by the 1000 or CAR LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely.

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

“NICKS” The Queen of Grapes. The new Concord of the 30th Century.

Conquers the land on its merits. Silver Medal at Omaha Exposition. Sold under seal and contract only.

HENRY WALLIS, Proprietor. WELLSTON, St. Louis Co., Mo.

PIONEER NURSERIES CO. ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

Eastern Agents, PIONEER NURSERIES COMPANY, PHOENIX NURSERY CO., Salt Lake City, Utah. Bloomington, Ills.

We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

When writing to Advertisers mention The National Nurseryman.

W. T. HOOD & CO., Old Dominion Nurseries

RICHMOND, VA.

Will have a full stock for the trade of fall of '98
and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals,
500 bushels of natural Peach Pits crop of '97.

WANTED—To sell an interest in the Old Dominion Nurseries to
a thorough practical nurseryman.
W. T. HOOD.

Phoenix Nursery Co., Established 1852.
600 Acres.
13 Greenhouses.
Nurserymen and Florists.
SUCCESSORS TO
SIDNEY TUTTLE & CO.
Eastern agents for Rossney Pear, the best and handsomest pear yet intro-
duced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4
ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea
and Ever-blooming Roses, all on own roots. Correspondence solicited.
Send list of wants for prices.
P. O. BOX 625. BLOOMINGTON, ILL.

PEIRSON BROS.,

WATERLOO, N. Y.

Surplus Stock of STD. and DWF. PEARS, CHERRIES,
PLUMS, PEACHES, STD. APPLES, MEDIUM GRADE.

Raspberries, Blackberries, Gooseberries, Roses—fine grade of
stock. Write for prices with list of wants.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
SPRINGFIELD, NEW JERSEY.
SURPLUS OF

PEACH, PLUM, CURRANT,
POPLARS and SHADE TREES,
PRIVET, SHRUBBERY, EVERGREENS, ROSES.

HEADQUARTERS FOR NURSERY STOCK.

Baltimore and Richmond Nurseries, BALTIMORE, MD.

FRANKLIN DAVIS NURSERY CO.

50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.
LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
Evergreens,
Shrubs,

Strawberries,
Nut Trees,
Japan Pear Seedlings,
Gooseberries,
Roses,
Raffa,
General Supplies,
&c., &c.,
&c.

Be Quick!

WE HAVE 500,000 APPLE
ROOT GRAFTS READY
FOR SHIPMENT.

Send for revised list showing numbers and varieties
unsold to date.

WE HAVE ALSO 50,000
KIEFFER PEAR GRAFTS—
ON No. 1 IMPORTED
ROOTS.

These are fine and will make fine trees at two
years old.

Grafts can be shipped on one day's notice. *Be
quick* with your order before assortment is broken.

F. W. WATSON & CO.,
TOPEKA, KANSAS.

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SNOWHILL NURSERIES.

Must be Sold to Clear the Land.

300,000 Peach Trees—One year from bud, in four grades.

20,000 Japan Plums—One year old.

20,000 Grape Vines—Two and three years old.

100,000 Asparagus Roots—Two and three years old

Three Million Strawberry Plants.

Favor us with your list of wants. Our prices will surprise you.
Descriptive catalogue if requested.

W. M. PETERS SONS,

WESLEY, MD.

When writing to Advertisers mention The National Nurseryman.

The Syracuse Nurseries

...THE WORDEN SECKEL PEAR...

One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

SMITHS & POWELL COMPANY,
SYRACUSE, N. Y.

Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

GRAPE

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.
T. S. HUBBARD CO.,
FREDONIA, N. Y.

ALL OLD AND NEW VARIETIES. Immense Stock, Warranted True QUALITY UNSURPASSED. A fine stock of Campbell's Early vines at low rates.

VINES

Send list of wants for prices.

100,000 MYROBOLAN, No. 1,
100,000 PEAR, - - " 2,

in perfect condition and ready for immediate shipment. Write for particulars.

HIRAM T. JONES, - - Union County Nurseries,
ELIZABETH, N. J.

The Sparta Nurseries have to offer their usual stock of dry baled Moss, both bul and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry included. Ask for prices and terms.
Z. K. JEWETT & CO., Sparta, Wis.

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Office N. W. Cor. 11th and Walnut, KANSAS CITY, MO.
PROPRIETORS OF THE

LEES SUMMIT NURSERIES.

A full line of stock for wholesale and retail. Correspondence solicited.
The only practical Box Clamp in use at low price.

[ESTABLISHED 1876]

ALLEN L. WOOD,

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EXTRA FINE PLANTS

At Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,
RASPBERRIES, BLACK-
BERRIES, Etc.
In the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

CHARLES DETRICHE, Senior,

ANGERS, FRANCE,

Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.

Sole Representatives for the United States.

Mr. Detriché would be glad to receive any horticultural catalogues or papers.
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NURSERY FOR RENT.

Eighteen years established. Two miles from depot, town of a thousand people. Rich farming country, orchards and small fruits. Will lease for five or eight years on favorable terms to the right man. Just the chance for a young man who is short on capital, but long on industry and energy.

Reason for renting, must move my family to a school town. Write for particulars.

THE NURSERY, Marcus, Iowa.

Honey Locust Hedge, Most Ornamental for Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - HAVANA, ILLS.

Ornamental LARGE SMALL TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSERYMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices. TOMAH, WIS.



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Offers Unexcelled Service to the WEST.

4 Daily Vestibuled Trains, BUFFALO to CHICAGO.

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**FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
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Full information regarding rates, etc., cheerfully given.
...Address, _____

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BREWER & STANNARD

OTTAWA, KANSAS,

Offer to the trade a large and complete assortment of

NURSERY STOCK.

APPLE,

PEAR, Standard and Dwarf,

CHERRY,

PLUMS, Japan and European,

PEACH,

APRICOT.

Gooseberries, Grape Vines, Currants,
Raspberries, Blackberries, Apple Seedlings,
Forest Seedlings, and Osage Hedge Evergreens,
18 inches to 3 feet.
Ornamental Trees, Shrubs and Vines.

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar
and Norway Maples, Carolina and Lombardy
Poplars, Horse Chestnuts, American White
Ash, Cut-Leaved Birch, Purpled Leaved Beech,
Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New Ameri-
can Willow, Camperdown Elm, Tea's Weep-
ing Mulberry, Siberian and American Arbor
Vitæ, Norway Spruce, and a great variety of
Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and
GOOSEBERRIES extensively grown. Better
stock never grew.

NELSON BOGUE

BATAVIA NURSERIES,

BATAVIA, N. Y.

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ESTABLISHED 1780

ANDRE LEROY NURSERIES,

Braut & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing
will enable them to supply for the Fall 1890 and Spring 1900, large
quantities of first-class, well-graded FRUIT SEEDLINGS at lowest
market prices, also a fine and complete variety of ORNAMENTALS,
ROSES, SHRUBS, Etc. Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105-107 Hudson St., NEW YORK.

Rate, including all shipping charges from Angers to F. O. B. New York,
given on application.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucretia Blackberries.

MILLER, LOUDON and
COLUMBIAN . . .

TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS. . . .

AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.
Our Catalogue will save you money.

MYER & SON,

BRIDGEVILLE, DELAWARE.

From Anywhere East

To Everywhere West

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of _____

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman
Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California,
the North Pacific Coast or to the

Great Convention cities throughout
the country.

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G.E.P.A.,

Jno. Sebastian, G.P.A.,

305 Broadway, NEW YORK.

CHICAGO, ILL.

When writing to Advertisers mention The National Nurseryman.

We Want a First-Class Foreman who Understands Handling Trees.

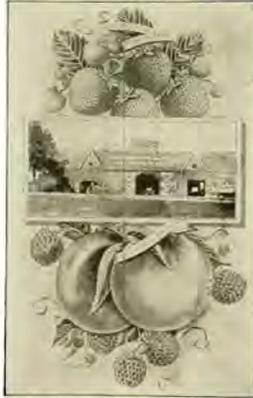
Strawberry Plants.

Fresh Dug when Ordered. No Cellared Stock—Clean Grown on New Land, and Free from Aphis.

PRICE IS EXTREMELY LOW

Aroma [per],
Berlin [imp],
Bedar Wood [per],
Barton's Eclipse [per],
Bubach [imp],
Bismark [per],
Brandywine [per],
Brunette [per],
Crescent [per],
Clyde [per],
Carrie [imp],
Capt. Jack [per],
Cobden Queen [imp],
Clarence [per],
Columbian [per],
Cumberland [per],
Cyclone [per],
Darling [per].

Delaware [per],
Dayton [per],
Exceisor [per],
Enormous [per],
Eleanor [per],
Enhance [per],
Evans [per],
Giant [per],
Gardner [per],
Gandy Belle [per],
Gandy [per],
Greenville [imp],
Glen Mary [per],
H. & H.,
Hall's Favorite [per],
Haverland [imp],
Hoffman [per],
Holland [per].



Hersey [per],
Howell's [per],
Hunn,
Imp'd Parker Earle [per],
Jesse [per],
Kansas Prolific [per],
Lady Thompson [per],
Lovett [per],
Marshall [per],
Magoon,
Margaret [per],
Mitchel's Early [per],
Morgan's Favorite [per],
Meek's Early [per],
Nick Ohmer, [per],
Ocean City [per],
Pride of Cumberland [per],
Paris King,
Ituby [per],
Reid's Prolific [per],
Ridgeway [per],
Rio [per],
Seaford, or Lloyd [imp],
Star [per],
Splendid [imp],
Saunders [per],
Sharpless [per],
Sunnyside [imp],
Staples [per],
Tennessee Prolific [per],
Up to Date [per],
Young's E. Sunrise [per],
Wm. Belt [per],
Warfield [imp],
Wilson [per],
Woolverton [per].

Plants Tied 25 in Bunch at Dozen Rates; 50 at 100 Rate.

ASPARAGUS ROOTS.

Columbian Mammoth White, Donald's Elmira, Palmetto, Barr's Mammoth, Conover's Colossal.

SEND FOR SAMPLE.

PEACH TREES.

Only a few thousand left, principally 2 to 3 ft., 3 to 4 ft., and June Budded.

APPLE TREES.

Baldwin, Mammoth B. Twig, Grimes' Golden, 5 to 6 ft. 3-4.

Also in 5-8 Grade we have Baldwin, M. B. Twig, Grimes' Golden, Wine Sap, Ben Davis, Maiden's Blush.

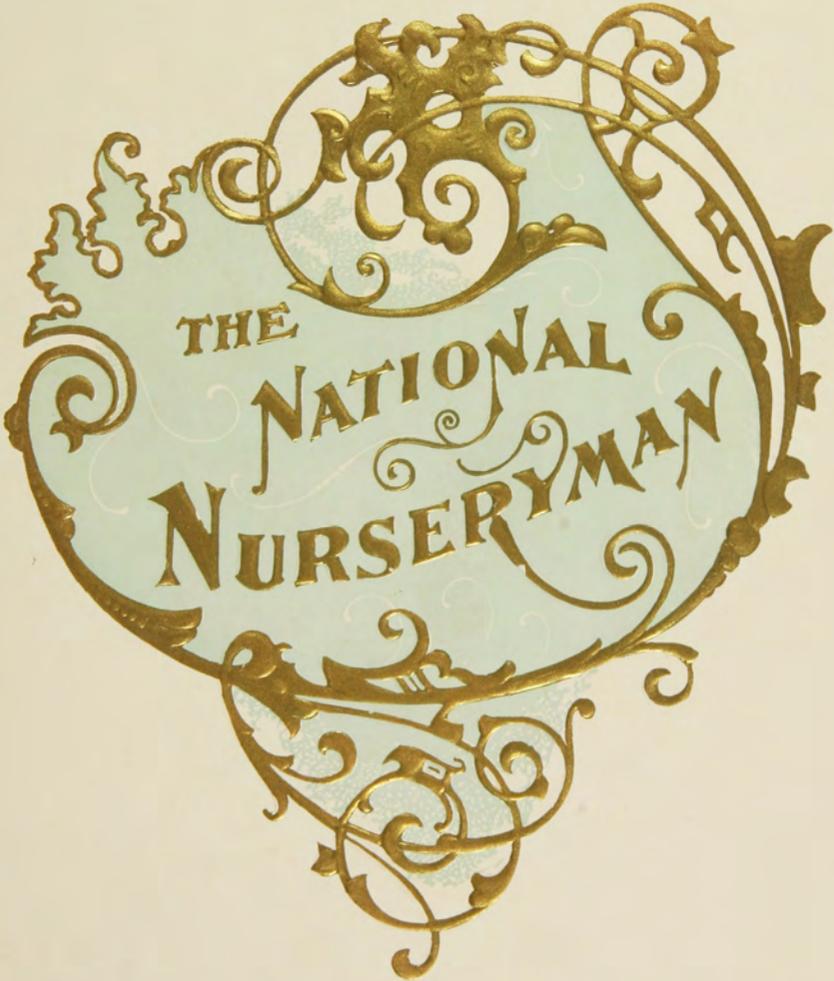
In one year Trees we have a general list.

FIVE HUNDRED CHERRY.

J. G. HARRISON & SONS,

BERLIN, MD.

SEND LIST OF WANTS.



THE
NATIONAL
NURSERYMAN

June, 1899.

The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES,

Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.

Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphid, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

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FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Without novelties progress in varieties is impossible."—Professor L. H. Bailey.

Vol. VII.

ROCHESTER, N. Y., JUNE, 1899.

No. 5.

SITUATION IN THE WEST.

President Brooke Reviews Conditions—Spirit of Trade Firm—Stock More Nearly Exhausted Than for Years—Prices Have Advanced One Hundred Per Cent.—Still Going Up—Effect of the Winter Almost Closed Out Some Nurseries.

President Brooke of the American Association of Nurserymen and of the Western Association of Wholesale Nurserymen has reviewed the prosperous conditions in the West for the NATIONAL NURSERYMAN as follows:

Editor NATIONAL NURSERYMAN:

The season, contrary to the expectation of "the oldest citizen," came in unusually late—a full month behind. This reduced the demand quite a good deal. Trade, however, came well into May. Some trees were sold as late as the 13th inst. This is especially true of apple. The situation was not very encouraging in the latter part of the winter owing to the very severe weather, yet the outcome has been better than even the most sanguine could expect.

The spirit of the trade has been firm, though somewhat wavering at first. It grew more steady as the season advanced. The stock is more nearly exhausted in the West than it has been for years, in my judgment. The effect of the winter has been almost to close out some of the smaller nurseries and greatly curtail the stock of the larger ones.

Prices have advanced more than 100 per cent. on almost all lines since a year ago, and I predict that they have not touched the top yet. The next few years will see the reaction from the effects of a hard winter, and will give us several of the most prosperous years of a decade. It seems to me to be in the air, and I hope the good times may visit all of the fraternity.

A. L. BROOKE.

N. Topeka, Kan., May 15, 1899.

FLORIDA HORTICULTURISTS.

Stephen Powers, secretary of the Florida Horticultural Society, writing to the Country Gentleman, says: After a second winter of "United States weather," the country may have a little curiosity to hear from Florida, and Florida now makes answer. On May 2-5, the State Horticultural Society held its 12th annual session in Jacksonville, with an actual attendance of about 175 and a paid-up membership of 352, living in eighteen states and six foreign countries. Fully ninety per cent. of these are northern men, and practically all are orange growers—that is, we are raising orange trees. Even here in Jacksonville we have the roots left.

There is not in all the annals of horticulture a record of a more gallant struggle than that of the Florida orange growers.

The uncomplaining patience with which they, the second time and with some the third time within five years, address themselves to the task of restoring their ruined or mutilated trees is a splendid illustration of American courage, energy and genius. And they will win, too, if not entirely in the old latitudes, at least by dropping a little lower down the peninsula.

The recital of experience by practical growers as to protection of the trees was intensely interesting and complete. I can only mention the principal methods and devices employed. First, all agree on the value and efficacy of banking with earth, the higher up the better, but it should be done late in fall after all growth has ceased and hardened, and only with pure, clean, dry sand. All humus or vegetable matter should be excluded, if possible, as that has a tendency to smother, scald or sour the bark, especially young bark. Cylinders, barrels, boxes or cribs were used to hold the sand up three or four feet high. The difficulty in banking is that the best habit of growth is found to be a low tree branching from the ground, and after the tree acquires some size it is almost impossible to erect a bank around it.

All kinds of structures were erected over the trees; sheds from a few square rods to twenty acres in extent, from fourteen to twenty-five feet high. They were covered with tents heated with kerosene lamps or small sheet iron heaters; with galvanized wire and Spanish moss, with palmetto thatch, with strawboard, boards, slats (half shade or tight) nailed together into panels or woven with wire. The groves were "fired" with open pine fires, in strings across the north and west sides, or all through the grove, one in every square, or every fourth square, etc. Coke and soft coal in baskets or small heaters were tried.

It is too early to decide yet which is the best of these many methods. The slat shed for those who have the means to spare, and the tent with a small heater for those less able, seem to be most in favor.

STARTING A NURSERY.

A young man asks whether I would advise him to buy a lot of root grafts and start a nursery says Samuel Miller, Bluffton, Mo. It depends upon one thing; that is, if he is in a region where tree agents never enter, it may be a paying business. But if the neighborhood has been canvassed, I would advise him to let this business alone. A few years ago great piles of No. 1 trees were burned here, because not sold. Yet all around tree agents furnished trees at double the price I would have charged for the same kind of trees. I did not attribute this to lack of friendship for, or confidence in me, but simply because the agent could persuade them to buy trees, even if they did not need them. That is why I quit raising trees for awhile.

EFFECT OF GRAFTING.

The Scion Sometimes Influences the Stock—Often the Stock Affects the Scion—Examples in Dwarfing, Color and Flavor of Fruit, Maturity, Adaptation to Soil and Climate—Advantage may be Taken of the Facts.

When a stock and a scion are united by any method of graftage—including all the different ways of budding—the general rule is that the two parts continue to grow in their usual way, showing their original characters unchanged, says the Country Gentleman. Thus in an orchard containing 1000 trees of Baldwins grown from budded plants, there are probably 1000 different combinations of stock and scion. That is, the 1000 seedling apples which furnished the original stocks for budding were probably all different, yet the 1000 mature trees of Baldwin in the orchard rows show no distinguishable differences, and the fruit from one tree cannot be told from the fruit of another. What is more remarkable, the trees all come into blossom on the same day (barring influences of soil and exposure), and the fruit all ripens at the same time.

Nevertheless this general rule is not without exceptions. Sometimes the scion exercises some visible influence on the stock, and oftener still the stock has some effect on the scion. The most noted cases in the former category relate to the transference of the character of variegation. Darwin mentions several such instances. The variegated jessamine when budded on the common kind sometimes causes the stock itself to produce variegated leaves. The same thing occurs with oleander. Darwin speaks of similar cases with ash trees and abutilon plants. Variegation is looked upon by some, however, as a sort of a disease; and, taking the view, one would feel that the cases cited above are examples of transference of disease by inoculation rather than legitimate effects of graftage on normal plants. It is safe to say that for all practical purposes, the influence of the scion on the stock may be totally disregarded.

The influence of the stock on the scion is more often visible. There are several fairly well known cases, some of which are partially understood by horticulturists. The most important effects of stock on scion are the following:

1. Dwarfing—If the stock is a much slower grower than the scion, it may reduce the whole tree in size. Pears grafted on quince and common apples grafted on the dwarf Paradise stocks are the most common instances. In certain cases, especially in top-grafting old trees, the slower growing character of the stock does not seem to have so much effect in dwarfing the top. Common varieties of the apple, like Yellow Transparent, King, or Fameuse, when grafted into crab tops are not visibly dwarfed. Instead, they "overgrow" the stock. Frequently they become so top heavy as to break down of their own weight combined with stress of wind and fruit crop.

2. Color of Fruit—The stock sometimes modifies the color of the fruit borne on the scion. Two cases have recently come to the attention of the writer. In the first, McIntosh was grafted on Siberian crab with the result of making the fruit much richer, red and darker colored. The trees from which the scions were taken grew directly beside the crab trees in which the grafts were set, so there could have been no mistake in the observation. In the second case Rhode Island Greening was grafted on Talman Sweet with the result of making the Greenings lighter color.

3. Flavor of Fruit—Likewise the flavor is sometimes affected. In both cases cited above this was true. The Greening on the sweet apple tree was said to have a sweetish taste. The McIntosh on the crab stock had a more sprightly acid flavor. The latter case was thoroughly investigated by the present writer. Cases of this sort are not rare; but results of this sort are not sufficiently pronounced to be worth working for.

4. Maturity—The season of maturity is occasionally modified. The McIntosh apples on the crab stocks kept a full month longer than those from the next row growing on common apple stocks. Bailey cites the case of twenty-ounce apples, which ripened earlier when worked on Early Harvest; also of Winter Nelis pear, which ripened earlier when grown on Flemish Beauty stocks than when grown on Bloodgood.

5. Adaptation to Climate—It has been found in Iowa, Quebec, Vermont and other semi-arctic countries that comparatively tender varieties of apple, like Greening, King and Baldwin, can be grown from one to two hundred miles further north when top-grafted on such "iron-clads" as Hiberna, Duchess, or even on Talman. A limited experience seems to show, on the other hand, that certain European varieties of the pear can be grown further south when worked on such hybrid stocks as Le Conte, Garber and Kieffer.

6. Adaptation to Soil—Plums for light, sandy lands should be worked on peach; for very low, wet lands in the South, they may be worked on Chickasaw stocks; for heavy, cold soils in the North, Americana stocks are best. Peaches for heavy land are best worked on plum. *Vitis Monticola*, a wild grape from the limestone lands of Southwest Texas, is worthless for fruit, but is a valuable stock for other grapes on lime soils. Many other instances might be given.

These are the principal modifications of the scion due to graftage. It will be seen that most of them are not common or well marked. In a few cases, like adaptation to soil or climate, or in dwarfing trees, our knowledge of the subject is sufficient to enable us to take advantage of the facts. In other points, such as modification of color, flavor, maturity, etc., we can not be sufficiently sure of a desired result to justify us in trying to accomplish it by specially designed combinations of stock and scion.

GROWING APPLE SEEDLINGS.

Upon this topic R. H. Buttermore, of Lake City, Minn., says in the *Minnesota Horticulturist*: "My experience is somewhat limited in comparison with those extensive nurserymen who plant apple seeds by the bushel. Apple seeds should be selected from hardy apples that were grown in Minnesota or in other northern states; otherwise my observation is that the seedlings will be delicate and subject to blight, too tender for root grafts or for grafting upon. I have planted seeds from apples that had been grown down East, and when up some of them blighted, and the next winter terminated the existence of most of them. The practice of planting them, I believe, is the chief reason that we have so much blight and so many un-matured trees in the late fall, causing the black heart and other fatal diseases.

"It is not bushels of seeds that we should plant (because we get them easily in eastern states) and get them to grow long enough for dollars and cents—but our aim should be to per-

severe in the best known means to secure hardy, delightful fruit.

"I have noticed a great many sprouts coming up in the spring around the trunk of some of my apple trees, evidently from the grafted stock, and before the next fall they would all be blighted to the ground. The same occurs every year; it seems to me that the original stock were from eastern grown seeds.

"About preserving apple seeds for planting the next spring. Some have adopted different modes. Some think it better to put them in damp dirt in a cool cellar; others store them in the house; others put them in the ground when they are fresh and use care not to let them dry before or after planting. I believe the last plan is the best. The most successful mode of preserving apple seeds is of great importance, and I would suggest that Prof. S. B. Green would please give us his experience on the above topic.

"As for planting apple seeds I believe there is no mystery about it. The most satisfactory way, it seems to me, is to put them in the ground as soon as it will work well in spring. Plant them three-fourths of an inch deep, in rows about three feet apart and thick enough in the row so that if some of them fail they may be still thick enough. In dry weather they should be moistened with lukewarm water by pouring it in a little trench about half a foot from the seed drill. It should be done after sunset."

GOOD ADVICE TO PLANTERS.

S. W. Chambers, writing to the Michigan Farmer says:

"The consumption of fruit increases in this country every year, and people are learning to buy fruit now as a food instead of a luxury. There is little chance of the industry of raising fruit for market being overdone, for this demand more than keeps pace with the supply. The nursery business has increased enormously also in recent years. In 1890 there were in the nurseries of this country 37,000,000 pear trees, 240,000,000 apple, 38,000,000 cherry and 49,000,000 peach trees. Most of these trees would in the ordinary course of events be in bearing to-day, and at that time when the nursery statistics were supplied it was supposed that these trees would swamp the markets with their fruits. But the fact is that there are not enough trees to-day in bearing to supply the demand. In the first place account is not taken of the great number that die. A good percentage of the trees from the nurseries perish after being planted out through neglect and ignorance of their need. It is estimated that from one cause and another at least one-fourth of the trees die before they reach maturity, leaving only three-fourths which actually come into bearing.

"Then the great number which are killed off after they have reached maturity. In a winter like the past millions of fruit trees have been killed throughout the country, decimating the number to produce fruit the coming summer very materially. When one considers these statistics the dread of a great fruit overflow does not seem so near at hand. One cannot judge the probable outlook of the fruit industry by counting the number of trees set out every year, and then multiplying them by the average product of a full bearing tree.

"The planting of more fruit trees each year should be the policy of every farmer. Close planting for all fruits is de-

sirable, which will bring the largest yield from an acre when young. Old trees are not in favor to-day. When they begin to fall off in their production it is time to replace them with new blood. When the trees in this orchard touch each other they can be thinned out if necessary by removing every other tree in the row. Interlacing of the branches should not be allowed. Trim back rather than permit this."

MISSOURI AS A FRUIT STATE.

Missouri is plainly within the central portion of the great fruit region of the Middle West, says Professor H. E. Van Deman. And, let me say, without any feeling akin to flattery, that there is perhaps no other state in the Union which is so universally adapted to orcharding. There may be, and probably are, some portions of other states which have better natural advantages for orchard purposes, but, taken as a whole, what state can do, or has done, better on the same area, or even as well? Facts speak for themselves. In 1897 the fruit crop of Missouri put into the pockets of those who grew it over \$19,000,000, and the principal part of it was paid for apples and peaches. It was almost like so much water sold off the farms for so much clean cash; for when we compare fruit with other farm crops, it is found to be nearly all water. Had it not been for the apple crop that year in Missouri and adjoining states there would have been very little for home use in the East, and our export trade in fresh fruit would have been almost nothing.

In Nursery Rows.

HYBRIDIZING.—*Pyrus communis*, the pear, and *Pyrus Sinensis*, the Sand pear, are distinct species, says Meehan's Monthly, yet the seed from the Sand pear growing near the Bartlett variety of the common pear produced the Kieffer. It is conceded to be a hybrid, though this has never been demonstrated. It is not improbable that the apple and pear might hybridize, and it is surprising that no actual test has been made. Guess work, such as comes from planting trees side by side, is unworthy of true science.

CLOSE ROOT-PRUNING.—Commenting on the recent experiments of Professor Troop, of Indiana, on close root-pruning, Meehan's Monthly says: "It must be evident to all who grow wise with years that the true philosophy of success in tree planting is not yet perfectly understood. It is not uncommon to see trees furnished with what the planter regards a magnificent mass of roots, and planted with the utmost care and skill, prove astounding failures. Indeed, deaths among well rooted trees are often in greater proportion than trees that have what might be termed very poor roots. Why should this be? This question derives more importance from statements made by responsible parties that fruit trees with the roots severely pruned are more successful than trees with the ordinary supply. Old planters shrug their shoulders at this, and well they may. Still, it is proper to see what there may be in the novel suggestions. There is one thing we may remember in all this; that is, until the old roots throw out the new white fibers they are of no manner of use to the transplanted tree. This being granted, it is a fair question whether pruning roots will or will not favor the desirable new white fibers. Continued experiments may result in great practical value."

JOURNAL IS WORTH THE PRICE.

H. E. MERRILL, GENEVA, N. Y., May 16, 1899: "Enclosed find \$1 for another year's subscription. The journal is worth it."

THE PEACH OUTLOOK.

Roland Morrill Thinks Ten Years May Elapse Before Effect of February Freeze Will Be Overcome—Looks for Serious Shortage—May Be Short Crop of Natural Pits for Nurserymen Next Fall.

Ex-President Roland Morrill, of the Michigan Horticultural Society, writing to the Rural New Yorker regarding the peach outlook, says :

In the immediate vicinity of Benton Harbor, our peach trees escaped injury except occasionally young trees in low, damp pockets. In such locations, there are a few doubtful trees, while within five rods, on land six or eight feet higher, there are a few live fruit buds and no dead wood. Still higher, say twenty feet, there is a fair crop of live buds. Taken altogether, we shall, probably, have a fair crop of peaches, and there is no apparent injury to other fruits ; but within twenty-five miles conditions change, and there are many dead trees and only a few live buds in most favorable locations. This brings a most puzzling condition to many fruit growers—part of an orchard dead, part alive.

The question arises, How badly can a tree be injured, and live? It is a new experience for most of our growers. The consensus of opinion is that a damaged tree should be cut back and trimmed severely, to balance the trying conditions imposed on the sap circulation, and give the tree a chance to recuperate by not allowing a surplus of buds to exhaust the tree and its ability to repair damages. My own opinion is that, by next August, fully one-half the peach trees in Michigan will be dead or worthless, and a large per cent. of pears, plums, and quinces will be found to be dead or seriously injured. The same condition exists in all states south of us as far as Southern Georgia, and as far west as Kansas. There is a strong demand for trees at advanced prices, and I look for a serious shortage in trees for next season's trade, as in many nursery sections there was not enough snow to cover the dormant buds, and they cannot stand 20 to 35 degrees below zero. There may, also, be a short crop of natural pits for nurserymen next fall, and unless there is fair supply of the '98 crop carried over, plantings may be curtailed. On the whole, it looks to me as though it might be 8 to 10 years before there is so large an acreage of live peach orchards of bearing age in the United States as there was in 1898.

THE APPLE OUTLOOK.

Indications now point to a good to liberal apple crop, taking the country at large, says the American Agriculturist : It is a far cry from the blossoming period of late April and early May to full fruition of October harvest, yet the situation the middle of May is indicative of a good yield, providing orchardists can successfully battle insect and fungous pests. Preliminary but extensive investigation just completed by American Agriculturist in the principal apple growing sections of the country, and in the Canadian provinces brings out the fact of a favorable start, whatever may be developed later. The severity of the past winter, which hurt peach orchards so badly, evidently caused no material damage to apples, while the spring was sufficiently free from severe changes in temperature to enable orchards to reach the blooming period in a

normal condition. Our correspondents, including many leading orchardists and specialists of the country, report that outside of two or three important sections, trees have bloomed well, presaging an excellent set of fruit and a favorable start in this important crop.

Our returns emphasize the importance, as frequently brought out in these columns the last two or three years, of western orchards in making up the commercial crop of apples. In Western Missouri and Northwestern Arkansas, where apple growing has received great impetus recently, a large and increasing number of young orchards are coming in bearing and prospects are brilliant for the '99 crop. In portions of the Mississippi valley, including Northeastern Missouri and Western Illinois, growers are prosecuting an intelligent campaign against the various pests, and this is true of Southwestern Iowa, Eastern Kansas and Nebraska and the promising apple orchard sections of Wisconsin and other western states. Present prospects are favorable in Michigan, Indiana and Ohio. In the few sections of the Middle South where apples are grown, present outlook is for a good crop. In the very important apple belt of New York and New England, however, the section long at the forefront in producing marketable surplus, the present outlook is relatively less favorable than further west, although there is a fair prospect of a liberal yield in the aggregate. A notable feature is the scant bloom of Baldwins in the heavy orchard section of Central and Western New York ; in many parts of the territory named Baldwins show a bloom of only 25 to 50 per cent., and there is also occasional like complaint of Spitz. Apple bloom in Massachusetts seems to be somewhat lighter than a year ago, but promising in Northern New England, and orchards in a healthy condition in the lower Canadian provinces where trees do not bloom until early June.

BUSINESS IN THE NORTHWEST.

A. Holaday, Scappoose, Oregon, writes : " Trade has been very good this year out this way, and prospects for future are good."

M. J. Henry, Vancouver, B. C., writes : " Business has been best I ever had. We have been rushed for the last two months and we are still shipping out trees to-day."

FORCING POTTED FRUITS.

Professor Bailey's reminiscences of his recent trip to Europe are reported by a member of the Lazy Club in American Gardening. The houses of Thomas Rivers & Son, Sawbridgeworth, England, were a magnificent sight in the fruiting season. This firm is the most expert grower of potted fruits in the world. Trees are on sale at the Rivers Nursery from two to thirty years old. Some of the oldest and rarest sell for \$100 to \$200 a piece. In Europe, and also in America, these potted fruits are really not forced because they are brought on only a few weeks earlier than the out-of-door crop. The Cornell Experiment Station is now studying the actual winter forcing of potted fruits. Here the trees are in chestnut boxes instead of pots. Most of them will be forced for the first time next winter.

Professor Bailey has always busied himself more or less chasing down our cultivated plants to their ancestral types. During his recent trip abroad he was pleased to run across a new facility for tracing plant evolution—the art galleries of the Old World. Plant life has always been a favorite study with artists, and their faithful reproductions from century to century give us excellent points on the evolution of garden plants.

In Common Council.

Editor NATIONAL NURSERYMAN :

After our cold winter we gave up all hopes of peaches and turned our attention to saving the trees. We sawed off all large limbs and followed with shears cutting out the small ones. A part of our orchard was only sawed. Among the latter is a tree that has been set four years, and borne full the three last years. It attracted no attention, as most other trees had done the same. The fruit is of medium size, light color, long and inclined to be flat; ripens with or before Mt. Rose, and is a free-stone of good quality.

You may imagine my surprise on going to the tree yesterday to find every limb upon the tree covered with bloom. Whether this is a new peach that is not affected by 30° below zero or some well-known variety affected by an unknown cause, time alone will tell. It was planted for a budded tree, stands in an exposed spot, and is surrounded by Crosby and Champion and Crawford, which do not average a bloom to the tree.

W. CUTTER & SON.

Junction City, Kan., May 1, 1899.

CONSERVATIVE PLANTING COUNSELED.

Editor NATIONAL NURSERYMAN :

Enclosed find \$1 to renew our subscription. As to our aid and support you can rely on it, as your journal is the only one that just seems to fill the wants of the trade. Stock in the West is well cleaned up. Brush piles were the exception, instead of a regular feature. We judge from present indications that there will be a sharp advance over last season's prices, which are sure to be maintained for three to four years, or until production is again above the demand. One would think after the experience of the past years that growers would have the good sense to keep on middle ground rather than to rush in and plant every stock they can buy and immediately force prices down again.

A. C. GRIESA & BRO.

Lawrence, Kas., May 8, 1899.

FIELD FOR A GOOD FOREMAN.

Editor NATIONAL NURSERYMAN :

We are pleased to say that from the amount of inquiry we have had from our advertisement the last month asking for a foreman, we are surely convinced that your paper circulates with the nursery people. While we have always tried to give employment to our home people, we are anxious to secure a first-class man who is thoroughly familiar with the handling of peach trees principally. We would like our grading to be done a little more correct and we would prefer a man from New York state who has had a thorough training in this line. While each of our firm take a good share of the work for the past year, by increasing our growing of peach, apple and pear we find it necessary that we have a first-class man to assist us.

Our budded list of peach the last season aggregated 1,038,022 and our planting last fall was over sixty acres, which should give us at least a million and a half of peach this season. Our planting of pear was a hundred thousand grafts and a little more than fifty thousand seedlings. We have not been growing apple in large quantities before, but for the past two years we have planted more than 200,000. Our planting of asparagus roots this season is more than

twenty acres and of strawberries sixty acres. While the strawberry plant business is conducted on a separate farm from the other work by G. A. Harrison, the assistance we need is in the tree line, and I hope that applicants for the position will take into consideration just what we have before us, as most of us know that the nursery business is no easy life, for it means long days and sometimes a good part of the night.

J. G. HARRISON & SONS.

Berlin, Md., May 16, 1899.

OUTLOOK FOR GRAPEVINES.

Editor NATIONAL NURSERYMAN :

Previous to the past season, for three or four years, there has been an overstock of grapevines, and prices ruled much below the cost of production. Many buyers, no doubt, have inferred that first-class vines of varieties like Concord, Niagara, etc., could be profitably grown and sold at \$6 or \$7 per M for one year and \$9 or \$10 per M for two year, but such prices have driven many out of the business and caused serious losses to all propagators. The grade of vines we supply cannot in an average season be grown or sold at any such figures, except at loss, consequently propagation has been checked and the surplus stock worked off, so that, although 1899 was an unusually favorable season for growth, the stock of salable vines in the country has been cleaned out very closely, and there are not sufficient of two year vines growing to produce two-thirds the number that were sold the past season. For one year stock about the average number of cuttings have been planted, but not nearly as many as in former years. For the coming year prices of two year grapevines must rule higher than in the year just closed. While price of one year will largely depend upon the season, yet we think they must be higher than last fall, and on most varieties as high or higher than this spring.

The year just closed with us has been a successful and profitable one, our sales being 35 per cent. to 50 per cent. larger than in either of the three preceeding years; nearly all varieties are sold out closely. Collections are fully as good as last year.

Letters from Iowa, Wisconsin, Northern Missouri and other portions of the West report a large proportion of the grapevines as well as peaches as having been killed the past winter, which will cause an unusual demand for replacing them. On the whole we consider the outlook very hopeful.

T. S. HUBBARD.

Fredonia, N. Y., May 19, 1899.

AGENTS' OUTFITS.

Editor NATIONAL NURSERYMAN :

I am at this time and have been for several years past a subscriber to the NATIONAL NURSERYMAN. I cannot get along without it. I have several times noticed that correspondence of interest to nurserymen is solicited.

As you no doubt are aware the retail nurserymen to conduct their business require the services of large forces of canvassing agents. Now I am sure that the nurserymen make a great mistake in not requiring the agent to make a small deposit, say \$1, as a guarantee of good faith. This plan has long been followed by book, silverware, clothing and other concerns employing agents, and why should not the nurserymen do the same?

The nurserymen will get hold of a lot of names of parties interested in agency business and will mail their circulars stat-

ing terms, etc., and informing them also that all they have to do is to fill out the application blank and remail and on receipt of same the agent's outfit will go forward. It will take but a few minutes to fill out the application sheet and a 2c postage stamp to mail it to the nurseryman. The agent will say: "Well, I will send for an outfit; it will not cost anything." In this way, I am sure, a large number of outfits, sent out by nurserymen, fall into the hands of men who made application through mere curiosity, having no honest intention of engaging in the work. After the agent has the outfit in his hands the nurseryman very often finds it a hard matter to get his property back, all requests being ignored until the nurseryman threatens to make trouble, and even then many outfits are lost.

The nurseryman not only loses the outfit, but the expense of sending it out, time, postage, etc. Now, I say this can be checked if all the nurserymen will come together and require the agent to make a small deposit with his application. Let the nurserymen explain in the circulars they send out that the "outfit is free," that they make no charge for the plate book and other supplies, but as each outfit costs several dollars, to protect themselves against many who would impose on them by sending for the outfit with no intention of working, but merely out of idle curiosity, as a guarantee of good faith on the part of every applicant, require them, aside from filling out the application sheet and giving references, to pay, merely as a temporary deposit, \$1, explaining to the applicant that the \$1 he agrees to pay does not begin to pay the cost of the outfit to the nurseryman, but insures them that he means business. The \$1 to be refunded as soon as orders sent in amount to \$15. Let it be understood that the outfit is not sold, but that a small charge is made as a guarantee that applicant will either use or return it.

Book, clothing, and other concerns who required cash deposits of their agents ten years ago are doing so to-day—the plan must be all right. If a man really wants work he is willing to pay \$1 to get it. Any man who would not be willing to pay the \$1 would not mean business and the nurserymen would be "money in pocket" to let this class severely alone. In following this plan the nurserymen would probably receive fewer applications, but those applications would come from workers. This subject ought to be brought up for discussion at the Chicago convention of the American Association next month.

Chicago, May 15, 1899.

PETER F. WILLIAMS.

IMPORTS OF A YEAR.

Plants, trees, etc., and natural flowers to the value of \$32,658 were imported during the last fiscal year. Of this amount those reaching New York, N. Y., represent \$29,461; San Francisco, Cal., \$1,822, and Buffalo Creek, N. Y., \$1,062. Of the total amount there came from Germany a value of \$288; The United Kingdom, \$13,396; Bermuda, \$14,161; Dominion of Canada, \$1,081; Colombia, \$1,316; Japan, \$429; Turkey in Asia, \$116; and Hawaiian Islands, \$1,393.

AS LONG AS HE IS IN THE BUSINESS.

M. J. HENRY, VANCOUVER, B. C.: "I enclose \$1 in payment of my subscription another year. I shall want your paper as long as I continue in business."

Foreign Notes.

Nursery employees in the Woking, England, district have been granted a reduction in the number of hours of labor, viz: from 5.30 to 4 p. m.

Pierpont Morgan has taken the \$30,000 Mrs. Lawson carnation to Dover House, Roehampton, England. It is stated across the water that the cuttings have been selling in America for \$50 and \$60 apiece.

From Holland and Belgium, fruit prospects are reported good; Spain has unfortunately suffered from late frosts; Austro-Hungary has recovered from the heavy storms at the end of March, and but little damage done. All continental and English farmers are alike complaining of the miserable prices at present obtained for wheat.

It is proposed to form a new company at Brussels, having for its principal objects the production and preparation of economic and other plants suitable for cultivation in the colonies, and the introduction into Europe of new and beautiful ornamental leaved and flowering plants. The company is to be formed with a capital of 2,400,000 francs by the amalgamation of the establishment of L'Horticulture Internationale, Park Leopold; the establishment of Messrs. Lucian Linden & Co., at Moortbeke, famous for its orchids; and the large establishment founded at Linthout, near Brussels, for the propagation, in large quantities, of economic plants.

Members of the Royal Horticultural Society, London, are considering the advisability of sending a collector to the Altai mountains, between Mongolia and Siberia, to collect some of the rare and interesting plants there. The great continent of North America, says Gardeners' Chronicle, we may well leave to our cousins, they are not likely to overlook anything that is good; Russia will doubtless monopolize Central Asia and Manchuria; but there are, omitting purposely strictly tropical and semi-tropical districts, vast areas in China, Nepal, Thibet, Upper Burmah, Assam, parts of Asia Minor, Greece, Macedonia, and even in the Danubian provinces of Europe, from which supplies might certainly be obtained. The Gardeners' Magazine opposes the project, and advocates study of commercial horticulture instead.

George Gordon, V. M. H., editor of the Gardeners' Magazine, recently lectured before the Royal Horticultural Society upon "Experimental Horticulture." He cited the fact that in America and on the Continent many experiment stations had been established, while in England there were too few. He suggested: "To bring the experimental plots belonging to county councils into union, to formulate the experiments to be conducted on them, and to collate and prepare the results for publication, must of necessity be the work of some central body; and I submit that it is work in which the Royal Horticultural Society might engage with advantage to itself and to the whole horticultural community. The society would, I believe, be perfectly willing to undertake the work, if the county councils would only consent to be guided thereby."

EVERY NURSERYMAN SHOULD HAVE IT.

HART PIONEER NURSERIES, FORT SCOTT, KAN.: "We enclose exchange for \$1 in payment of our subscription for another year. At the nominal price which you ask for the journal no nurseryman in the country should remain off your subscription list."

PROFESSOR MALLY HONORED.

Professor Frederick W. Mally, just appointed state entomologist of Texas, graduated from the Iowa Agricultural College, Ames, Iowa, in 1887. He returned the next spring to take up post graduate work, which was completed, and a degree was granted from that institution in 1889. Before completing this course he was appointed assistant to Dr. S. A. Forbes, the eminent state entomologist of Illinois. The early and collegiate training in entomology was under the able instruction and supervision of Professor Herbert Osborn, at that time professor of entomology and zoology at the Iowa college, but who now occupies a similar position in the University of Ohio.

He had been assistant entomologist in Illinois less than a year when he was called to Washington to accept the position of United States entomologist, and was assigned to special field work for the southern states, taking up first the boll worm of cotton. On this insect pest of cotton he has two bulletins published by the United States Department of Agriculture, and which can be had upon application to the secretary. They are numbered bulletins 24 and 29, respectively. At the close of this investigation he went to Texas to engage in business pursuits and apply his scientific training in a practical way, as well as to follow his profession as a scientist. He first went to Hulen, Texas, in 1893, in the capacity of manager of the Galveston Nursery and Orchard Company. While founding this large scheme for the development of Texas coast horticulture, he kept in close touch with the progress being made in his profession, and enlarged his scientific knowledge by a most important practical training, which gave him a material advantage over all competitors, and of which the state will have the immediate benefit. Last year he became full proprietor of the extensive company which he had managed for several years.

AZALEAS IN BELGIUM.

The newly-founded nurseries of F. Sander & Co., at St. Andre, just outside one of the old gates of Bruges, are referred to by the Gardeners' Chronicle in an article describing the large blocks of contiguous houses, some with party walls, and some without any, that were filled to their utmost capacity with palms, dracænas, azaleas, and orchids chiefly. Much of the stock of plants then existing in the houses has gone to fill the insatiable demand for plants all over the Continent and in America, and yet the houses are as well filled as then. Roughly speaking, *Azalea indica* are arranged at the present time in the contiguous houses, of which mention is made, covering five acres of land, cheaply built, light and commodious, with just the requisite heating apparatus, but without any superfluities.

Presently the entire stock of azaleas will be planted out in narrow beds, with brick curbing, with two feet alleys between, filled with the renowned Belgian leaf mould. As but comparatively few azaleas are cultivated in pots in the Belgian nurseries, either under glass or growing in the open ground, the labor of transferring this immense number of plants is greatly facilitated. The trade in azaleas is but in its commencement, and new houses for harboring great numbers are being constructed. Messrs. Sander are not satisfied with cultivating varieties raised by others, but they go largely into the business of raising new ones, and consider themselves extremely fortunate if one in 5,000 turns out to be a better thing than and existing variety. It is needless to say that all that do not reach this standard are consigned to the rubbish heap as soon as they have bloomed.

As showing the manner in which every available space is used in this remarkable nursery, beds for the germination of palm seeds occupy the spaces under the stages and lateral brick pits in all the houses in which palms are grown, as well as in many others.



PROFESSOR FREDERICK W. MALLY.

At the Texas Farmers' Congress last July Professor Frederick W. Mally, Hulen, Tex., now state entomologist, delivered an exhaustive address upon the value of agricultural education.

"It may be different in other localities," says Clarence Wedge, Albert Lea, Minn., "but in Northern Iowa and Southern Minnesota they order just about what is offered them, and will accept what is delivered if the labels suit and the trees are straight and pretty. Out upon such shallow-headed nonsense! Let us quit talking about the ignorance of the Cuban and the Filipino and come nearer home."

TREES ON SANDY LAND.

Professor Van Deman says in Rural New Yorker:

There are some excellent nurseries on sandy land, but the land is kept rich by manuring. It would be very unwise to endeavor to grow nursery trees on poor sandy land, but if the soil is in condition to grow a good crop of corn, it would, probably, be very suitable for trees. The apple does not thrive so well on sandy land as on clay, but the peach and plum seem to do better. Some of the best orchards of these two fruits in the country, both North and South, are on sandy soils. The pear is about as well suited to sandy as to clay soils. Trees grown in sandy soil that is rich are likely to have more fibrous roots than those grown in stiff clay. I have often transplanted trees from sandy soil into that which was quite stiff with clay and had them do very well. My experience would lead me to believe that it does not matter whether nursery trees are grown in either sandy or clay soil, or into which they are transplanted, provided they are thrifty, stocky trees. It is wonderful what variations of climate and soil the orchard fruits named will endure, and how they will flourish, too, if they are healthy to begin with, and are then well cared for.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

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President, A. L. Brooke, N. Topeka, Kan.; vice-president, E. Albertson, Bridgeport, Ind.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Annual convention for 1899—At Chicago, Ill., June 14, 15.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., JUNE, 1899.

WILL MEET YOU IN CHICAGO.

This expression has been heard frequently during the last two months, but not as frequently as it should be heard. The attendance at the annual conventions of the American Association ought to be double what it is. If the eastern nurserymen think recent conventions have been held too far westward, this year is the time for them to meet their western brethren half way. To the westerner St. Louis and Omaha are not far west; but Chicago is a central point for all. This is a good convention city.

Special rates have been secured at the Chicago Beach Hotel, one of the finest in the city. In addition to the programme as announced in this journal and in the secretary's circular, there will be a paper by Professor Taft, of Michigan, on the control of insects. Orlando Harrison, Berlin, Md., will describe the method of fumigating nursery stock in Maryland. P. S. Peterson & Son have extended an invitation to the nur-

seriesmen attending the convention to make an excursion to their extensive nursery at Rose Hill. The programme will be willingly extended to make place for a paper upon any subject of interest and value to the members. A voluntary paper or discussion will be just as acceptable as if it appeared on the advance programme.

Of the question box, the free use of which we have advocated, an exchange says, referring to the Western New York Society's annual meeting this year:

"Under the vigorous chairmanship of Mr. S. D. Willard, the business of the meeting was carried through with the utmost promptness and dispatch. Mr. Willard determined that the question-box, which is often made use of only as a sort of fill-gap, should receive greater recognition, and at every available opportunity he was to be seen diving into its depths. It is certainly one of the most instructive features at meetings of this kind, personally interesting a large number of the members, and acting as a relief to the strain imposed by listening to some of the more scientific addresses."

TO DISCUSS PRICES.

A meeting of the growers of nursery stock will probably be held in Chicago previous to the convention of the American Association to discuss the question of prices.

Indications are that the effect of the cold weather of last February, widespread and marked, will be to cause a sharp advance in the prices of nursery stock. It is probable that the supply of pear has been cut down to a remarkable extent. An experienced grower said a few days ago that in his opinion prices on pear will jump to \$250 per thousand and that prices on other stock will advance rapidly. While it is not expected that the prices can be controlled, it is thought to be mutually advantageous to meet and discuss the situation.

SOME CONVENTION TOPICS.

Aside from the programme and the question box, the buying and selling and the renewal of acquaintances, there are matters connected with the American Association that should be discussed in Chicago.

Care should be taken that the enthusiasm for the interests of one section of the country does not detract from the benefits to which members from another section may be entitled. Certainly it is to the interests of the western members that the eastern members attend the annual conventions. Prominent eastern members have been disappointed in some of the results of concessions asked of them and granted by them. The interest in the Association manifested by eastern members is likely to be adversely affected if they are repeatedly called upon to undergo the expenditure of time and money incident to a long convention trip. A careful computation shows that three-fifths of those who support the Association are located east of the western boundary of the state of Ohio. Indianapolis, St. Louis, Omaha and Chicago have been meeting places lately. Cleveland and Detroit and the Thousand Islands were suggested last June but Chicago was selected. As we have said before the conventions of the next few years should not be further west than Chicago. The interest of the eastern members in the Association should not be allowed to drop too low.

It is expected that a report on the finances of the Association will explain definitely what has been done in the Whitney matter. The Association has bills of long standing unpaid and these should be paid at the earliest opportunity.

It would seem to be advisable that the question of the programme for the twenty-fifth annual convention in 1900, the silver anniversary of the Association, be discussed at the Chicago convention.

NURSERYMAN AS ENTOMOLOGIST.

We take pleasure in announcing that Professor Frederick W. Mally, of Hulen, Texas, has been elected state entomologist of Texas and professor of entomology in the Agricultural and Mechanical College. This, we believe, is the first time a nurseryman has been selected for such a position. Professor Mally is proprietor of the Galveston Nursery and Orchard Company. He was assistant U. S. Entomologist when Dr. C. V. Riley was entomologist and Dr. L. O. Howard first assistant at Washington, D. C. Professor Mally has contributed some valued articles to the NATIONAL NURSERYMAN. He is well fitted by study and experience for his new position. His nursery experience, moreover, should equip him in an especial degree for the work of inspector.

FUMIGATION IN CANADA.

The Canadian Horticulturist gives the regulations regarding the fumigation of nursery stock in Canada and says:

"Fumigation is the order of the day for nurserymen, who find it an expensive and troublesome undertaking. It seems quite unnecessary too in cases where never a single scale has been discovered. We believe the law will prove in many instances a dead letter, for the inspector comes along only to inspect the fumigator and does not remain to see that the work is done."

Following are the regulations regarding nursery stock just issued by the Canadian Department of Agriculture:

1. Fumigation must be carried on in a box, room, compartment, or house suitable for the purpose, which must be air-tight and capable of rapid ventilation. The owner or proprietor will notify the minister as soon as preparation for fumigation is complete. The minister will thereupon order an inspection of the fumigation appliances. No fumigation under the act is to be carried on until such inspection has been made and a satisfactory report sent to the minister.

2. The inspector, after examining and measuring the box or house, or other compartment in which fumigation is to be carried on, will prescribe the amounts of material to be used for every fumigation, and the instructions as to the same must be carefully followed out. The inspector may, if thought advisable, supply the material for each fumigation in weighed packages.

3. The fumigation house (which shall include all apparatus or appliances used in the fumigation, such as generators, etc.) is to be subject to the orders of the minister on the recommendation of the inspector. Subject to the approval of the inspector the fumigation house may be on other lots than those on which the nursery stock is growing.

4. The fumigation is to be by hydrocyanic acid gas produced according to the instructions of the inspector, and from such formulas as he prescribes for the purpose.

5. The fumigation is to be continued for a period of not less than forty-five minutes. After the expiration of this time or longer, and when fumigation is complete, the house is to be thoroughly ventilated for fifteen minutes at least.

INDIANA INSPECTION LAW.

The Purdue University Agricultural Experiment Station has issued a circular giving the new Indiana insect law, as published in this journal, and concluding as follows: "The law has been in force since March 1, 1899, but, owing to the lateness of the season when the state entomologist was appointed, it was impossible for him to inspect all nursery stock in the state before the spring shipments began; and as the law requires the nurseries to be inspected between June 1 and October 1, he has allowed some shipments to go out uninspected. After June 1 the law will be strictly enforced."

Section 9 requires all nursery stock shipped into Indiana from another state to be accompanied by a certificate signed by a state or government entomologist, and section 10 makes it the duty of the agent of any railroad, steamboat or express company, or other carrier, receiving packages of nursery stock from other states, which are not accompanied by a certificate signed by a state or government entomologist, to report the fact at once to the state entomologist, who shall examine the same, at the expense of said transportation company. Failure to so report on the part of the agent of the transportation company, subjects him to a fine of not less than \$25 and not more than \$100 and costs.

MISSOURI INSECT LAW.

The legislature of Missouri has passed a law creating a fruit experiment station in Southern Missouri. The manager and inspector is given power to inspect any trees in the state and direct their treatment or destruction in case they are infested with insects or disease.

Obituary.

Dr. A. W. Chapman died at Apalachicola, Florida, April 6th, aged 90 years. He was the oldest of the American botanists. He was the last survivor of the generation of Torrey, Gray, Engelman, etc. He is best known for his *Flora of the Southern States*, published originally in 1860, with the co-operation of Professor Eaton as regards the ferns.

Malcolm Dunn, who for 28 years had been one of the leading spirits of Scottish horticulture, died May 11th at Dalkeith, Scotland, aged 61 years. He was a member of the fruit committee of the Royal Horticultural Society.

"As a pomologist," says the *Gardeners' Chronicle*, "he had an extensive knowledge of varieties; and the correctness of the nursery fruit catalogues of the present day is largely due to his advice, and to the prominent part he took in assisting at and in the promotion of the several fruit conferences of the last twenty-five years. His labours in connection with the Scottish Arboricultural Society, of which he became a member twenty-five years ago, were soon made evident in his strenuous efforts to make it a powerful factor in advancing the science of forestry, formerly much neglected. He was an enthusiastic supporter of the scheme for a forestry school for Scotland. He was on the council of the Royal Caledonian Horticultural Society; and his services to the Scottish Horticultural Association are well known. The last named association was instituted in Edinburgh in 1877, and Mr. Dunn filled the office of president for the first five years. Mr. Dunn was elected a Veitch Medallist in 1896, when the other persons so recognized were F. W. Burbidge, H. L. de Vilmorin, and Professor Sargent; and he was the recipient of the Niel prize in horticulture. His reputation as a gardener led also to his nomination by the Royal Horticultural Society as a Victoria Medallist. His death forms the first break in the ranks of that august body, and it will be by no means easy to fill his place."

Among Growers and Dealers.

C. L. Watrous has given trees to Des Moines College.

J. J. Harrison, Painesville, O., was in Rochester and Dansville last month.

C. W. Whitman, of Fairfield, Neb., reports that he lost nearly 50,000 trees in his nursery rows last winter.

Mrs. E. E. Theilman, wife of the proprietor of the Lake Shore Nurseries, Erie, Pa., died May 13th, aged 26 years.

Nurseries have been started by N. R. Reynolds at Luverne, Minn.; F. M. White, at Homer, Ill., and W. A. Garrett at Leon, Ia.

Nicholas H. Ohmer has been elected president of the Montgomery County, Ohio, Horticultural Society for the thirty-first time.

Silas Wilson, of Atlantic, Ia., has an orchard of 3,000 Domestic plum trees, mostly Tatge. Mr. Wilson was in the Genesee Valley last month.

Irving Jaquay & Co., Benton Harbor, Mich., heartily endorse the question box proposed by the NATIONAL NURSERYMAN for the Chicago convention.

Vice-President E. Albertson of the American Association visited Thomas Meehan & Sons, Hoopes Brother & Thomas and New York city parties last month.

J. A. Gage has removed his business from Fairbury, Neb., to Beatrice, Neb., where he secures better soil, better shipping facilities and generally improved conditions.

The Chase Nursery Co., of Riverside, Cal., has received from Florida 10,000 trees of the citron of commerce to be grown to demonstrate that it will prove profitable in California.

Byron O. Clark, nurseryman, of San Bernardino county, Cal., who went to Hawaii to instruct the natives and who became secretary of agriculture there, resigned his office on May 1st.

Charles Loechner representing Suzuki & Iida, 11 Broadway, New York, and 3 Nakamura, Yokohama, Japan, called on nurserymen and seedsmen in Western New York en route to the West last month.

The summer meeting of the Indiana Horticultural Society will be held at Rome City, Ind., August 9-10, with the Noble County Horticultural Society. J. C. Kimmel is president; J. C. Grossman, vice-president, of the county society. C. M. Hobbs, Bridgeport, Ind., is president of the state society.

W. F. Heikes, manager of the Huntsville Wholesale Nurseries, on June 1st closed the Chicago office of that concern, 1610 Unity building, and repaired to Huntsville, Ala., with the intention of hereafter conducting the business of the company from the nursery at that point and without representation in Chicago. The nursery started in a small way last season at Benton Harbor, Mich., will be continued, as will the one at Biloxi, Miss.

The Greensboro (N. C.) Observer says of the Pomona Hill Nurseries: "The J. Van Lindley Nursery Company is the firm name of the Pomona Hill Nurseries. The J. Van Lindley Nurseries were established in 1866, two miles south of Pomona, and in 1860 Mr. Van Lindley moved to the present place. He associated with him his son, Paul C. Lindley, W. C. Boren and

G. S. Boren (the latter having been his clerks for years), and J. R. M. Baxter, who has been his foreman for twenty years. The sales of trees, plants and flowers from the nurseries last year amounted to over \$60,000."

THE CONVENTION TRIP.

Much of the pleasure of the convention trip is derived from going in parties. This method, too, is conducive to a larger attendance, for often a nurseryman who intends to go allows a minor matter to deter him at the last moment, when, if he had promised to form one of a party, he would be more apt to get there.

Two of the best roads running into Chicago are the Wabash and the Rock Island, the former for those from the East and the Southwest; the latter for those from the West, Northwest and Southwest. The Wabash has four daily vestibuled trains from Buffalo to Chicago, with free reclining chairs, Wagner sleeping cars and Wabash dining cars. Unexcelled service to the West is offered at lower rates than some of the other roads. The Wabash is the shortest route between Buffalo and Chicago. The 10:05 a. m. train on the West Shore from Rochester, 2 p. m. from Buffalo, via the Wabash, enable Genesee Valley nurserymen to reach Chicago at 7:13 o'clock on the morning of the first convention day, affording ample time to prepare for the first session of the convention at 11 a. m. The 8:30 p. m. Wabash train, the fast mail, out of Buffalo arrives in Chicago at 10:55 a. m. An Illinois Central suburban express train will take the nurseryman to the Chicago Beach Hotel in ten minutes. The Continental Limited train, leaving Rochester at 10:05 p. m., arrives in Chicago at 3 p. m. the next day. On all except the fast mail the fare is \$2 less each way than that on the Lake Shore and Michigan Southern.

Each of the roads mentioned has authorized a rate of a fare and one-third to the Chicago convention. General Passenger Agent Sebastian of the Chicago, Rock Island and Pacific Railway Co., writes:

"For the nurserymen's convention at Chicago, June 14th and 15th, our line has authorized rate of fare and one-third on certificate plan from all stations; tickets to be purchased at full rates June 10th to 14th inclusive, receipt taken by purchasers, which will enable them to obtain one-third rate returning, June 15th to 19th inclusive, provided certificate on receipt is filled out by secretary and countersigned by joint agent. Our line reaches many points in the West—Peoria, St. Paul, Omaha, St. Joseph, Atchison, Leavenworth, Kansas City, Denver, Colorado Springs, Pueblo and Fort Worth, with numerous large intermediate cities. Running time of trains may be obtained from folders at any station."

The great cities of the West, Northwest and Southwest are reached quickly and comfortably in Pullman sleepers and free reclining chair cars. The special rates to the convention should attract a large number.

A rate of \$2 per day has been secured at the Chicago Beach Hotel, the headquarters of the convention. The hotel grounds cover eight acres, and there are one thousand feet of broad verandas at the water's edge.

CAN'T DO WITHOUT IT.

L. G. GREEN & SON CO., PERRY, O.: "We enclose \$1 for renewal of subscription. Can't do without it."

From Various Points.

The mid-summer meeting of the Oregon Horticultural Society will be held at Salem, June 9-10.

The annual meeting of the American Seed Trade Association will be held at the St. Clair Hotel, Cincinnati, June 13-15.

Apple growers of East Tennessee are planting early apples, such varieties as Early Harvest, Red Astrachan, etc., for the early northern market.

Belgium has placed restrictions upon the importation of fresh fruit, living plants, and parts of living plants from the United States on account of the San Jose scale.

From present indications it is entirely probable that much of the mountain land within a radius of 200 miles of Chattanooga will hereafter be turned to valuable account in the production of fruits.

The American Society of Landscape Architects has been organized with J. C. Olmsted of Boston as president; Samuel Parsons, Jr., vice-president; Daniel W. Langton of New York, secretary, and C. W. Laurier, treasurer.

F. W. Taylor, who was superintendent of agriculture and horticulture at the Omaha Exposition, has just been named as director of exhibits and concessions of the Pan-American Exposition to be held at Buffalo in 1901. He assumed his duties June 1st.

M. B. White, inspector at Stockton, Cal., reports that during April he admitted one hundred and fifty-five trees to that city and that most of these had been affected with San Jose scale, but they had been dipped and the scale killed before the trees reached Stockton.

Besides exhausting nearly all the nursery stock produced in the Pacific Northwest, Mr. McGill of the Oregon Wholesale Nursery Co., states in the Oregonian that eight car loads, including 100,000 apple trees were shipped from the eastern states. However this was distributed nearly all over the coast and as far east as Montana.

The U. S. treasury department has decided that Christmas trees, which certain collectors have been admitting free of duty, under paragraph 700 of the act of July 1897, as "other woods not specially provided for," are dutiable at 10 per cent. ad valorem as "unenumerated, unmanufactured articles under the provisions of section 6 of the tariff act."

President W. C. Barry of the American Rose Society is enthusiastic over the arrangements in prospect for the two shows that the society will hold in 1900. At the executive committee meeting in New York, in April, the preponderance of opinion was for two shows next year, the first to be held in the middle of the lenten season for roses grown under glass; the second in June for roses grown out-of-doors. For both shows Mr. Barry will appoint committees of experts.

During the two years State Horticulturist J. E. Baker, of Washington, has been in office 600,000 fruit trees, nearly one-quarter of the total number in the state, have been set out. His report shows that there are 2,414,626 fruit trees in the state, and of that number 1,410,194 are in the counties east of the Cascade Range and 1,004,432 in the counties west of the Cascades. Mr. Baker's estimate of the value of the fruit crop of the state is between \$750,000 and \$1,000,000 annually.

"I believe there is a better opening to-day for young men, here in New England, than anywhere else in the United

States," says A. A. Halladay of Bellows Falls, Vt. "There are plenty of these so-called abandoned farms which can be bought for almost nothing, that if planted to winter apples and properly cared for, would, in ten years, more than pay for the farm and all other expenses of trees, cultivating, etc. Good winter apples always bring a good price, and can be sold on the trees to buyers who furnish barrels and do their own gathering."

A California fruit grower tells, in the Redlands Citrograph, how he came to use nails in budding his trees. His ball of budding twine ran very small just as he finished some small trees and began on some large ones. It occurred to him to nail the twig [he seems to have used 3-bud scions instead of single buds] at the point where the scion was sloped to fit the T-shaped incision in the bark. He used a slender wire nail and then applied grafting wax to the cut and the tip of the twig. The results of this method are yet to be seen, but expert budders think it should be successful.—Country Gentleman

Professor Van Deman says of the navel orange: During the Civil war, a woman who had been sojourning in Brazil, told William Saunders, Washington, D. C., that she knew of an orange at Bahia, Brazil, that exceeded any other variety she had ever tasted or heard of. He sent there and had twelve trees propagated by budding, and sent to him in 1870. They all grew, and some of them are yet bearing fruit in the orange house at Washington. None of the original trees was sent out to the public, but all were kept there and used as stock from which to propagate by budding. Many young trees were budded from them, and sent to Florida and California.

Through the purchase of the Oteri and Macheuca Fruit Importing Companies, of New Orleans, on April 19, the recently organized fruit trust has secured almost a complete monopoly of the tropical fruit business of the United States. With the exception of a few scattering concerns still on the outside, the new corporation controls the fruit imported into the United States from the Republics of Belize, Guatemala, Honduras, Nicaragua, Costa Rica and Colombia; also the fruit business of San Domingo and Jamaica, while Cuban interests, as yet undeveloped, are also controlled. By this latest deal the trust adds numerous banana plantations and warehouses and a fleet of ten steamers to its interests.

AN APPLE THAT DOESN'T DECAY.

A communication from Vandalia, Mo., to Colman's Rural World says:

R. A. Barnes, who lives near Middletown, Mo., has on his farm an apple tree the fruit of which has become a study to those interested in fruit and fruit-growing. Mr. Barnes had on exhibition in Vandalia an apple which he picked from the tree during the fall of 1897, and which still retains a remarkable degree of preservation without artificial means. The apple is described as similar to a russet in size and color, and yet with distinguishing characteristics which show it to be of an entirely new variety.

The tree came, unnamed, from an Illinois nursery. Mr. Barnes thinks his discovery will net him a fortune. He has consulted prominent fruit men at Louisville, Mo., and all professed ignorance as to the apple's variety. The next meeting of the Missouri Fruit Growers' Association will be asked to inquire into the peculiarities of the apple.

CUSTOM HOUSE ABUSES.

Importers Have Experienced Delays and Losses—Frederick W. Kelsey, of New York, Proposes Remedial Measures—Prompt Examination for all Nursery Stock—Assistance in Determining the Fair Market Value.

The delays and losses of nursery material at the custom house in New York appear to call for prompt and effective remedy. These losses are distributed and fall upon people in the trade all over the country, and in addition to the large expenses incident to the nursery business become an onerous burden, as unjust as it is unnecessary. There is no tangible or valid reason why perishable nursery and plant material should not be promptly passed at all custom houses of the country. The excuses given for the vexatious and costly delays the past year have little foundation in fact. With competent and efficient customs service, and care in the making of invoices and marking of cases for import, all this material could be cleared and passed promptly, as it has been under previous tariff laws.

Many of the remedies proposed are utopian and impracticable. Reforms in administration are not usually accomplished by "throwing bricks." In many cases, as in this instance, the system may be at fault as much or possibly more than individuals. Again, many of those who are now loudest in their complaints are themselves largely responsible in having injected into the present tariff legislation and administration every possible obstacle to importations, including an attempted prohibitory rate of duty on all nursery productions.

It is not surprising that many in the government service should continue this spirit, and consider it their patriotic and official duty to cause all the delay, cost and loss possible, in the execution of the law created under such conditions.

The simplest remedy for the uses and abuses in question will be found the most effective:

FIRST. By co-operation with the treasury department and the collector of customs secure a modification of the present order so that *all* nursery stock, plants, bulbs, etc., will be subject to *wharf examination* immediately on the discharge of a steamer's cargo.

SECOND. Assist as far as may be the appraiser's department in determining a fair market value, for such material as may be open to questionable valuation, as provided by law.

THIRD. Have all invoices made out in detail, specifying the marks, contents and prices of each case, and each case marked accordingly and stamped with the name of the country whence it was shipped.

These changes would promptly remove many of the causes that have led to trouble and loss heretofore, and would in a great measure obviate future delays and loss at all custom houses.

Another radical improvement might be accomplished were the appointments for this branch of the customs service made for reasons of competency and special fitness. With men thus selected in the appraising and examining departments much of the confusion, alleged discrimination and injustice incident to passing nursery material would immediately disappear.

Some features of the administrative portion of the Tariff Act as applied to the Board of General Appraisers would if

properly amended, also lessen the chances of needless loss on nursery stock. Arbitrary provisions of that law intended no doubt to *prevent* injustice, in practical execution frequently result in exactly the reserve condition, and such marked injustice as to demand modification at the next session of Congress.

Should those identified with the nursery and plant interests of the country, and the horticultural press take up this subject on the right lines I believe that practically all the evils complained of that have been in so many instances the past year the occasion of such heavy losses, can be promptly and permanently corrected.

FREDERICK W. KELSEY.

New York, May 29, 1899.

Long and Short.

Printed tree labels in all styles can be had of Benjamin Chase, Derry, N. H.

D. H. Patty, Geneva, N. Y., has standard and dwarf pears, plums, Kilmarnock willows, etc.

One year trees and dormant buds of Burbank's new plums may be had in the fall of W. A. Watson & Co., Normal, Ill.

The West Jersey Nursery Co., Brighton, N. J., have 40 kinds of Japan plums, 50 kinds of apples, 70 kinds of peach.

An attractive announcement is made by J. G. Harrison & Sons, Berlin, Md., in this issue. They make a specialty of fruit buds.

In another column is the surplus list of George Peters & Co., Troy, O. Apple seedlings and other stocks in usual supply.

Apple seedlings for the fall of 1899 and winter of 1900 may be engaged at special prices now of F. W. Watson & Co., Topeka, Kan.

Frederick W. Kelsey, 160 Broadway, New York city, is sole agent for this country for the stocks grown by Colombe Brothers, Ussy, France.

French fruit tree stocks in great variety are offered by P. Sebire & Sons, Ussy, France, through the American agents C. C. Abel & Co., P. O. Box 920, New York.

The Griffing Brothers Co., Macclenny, Fla., have over one million fruit trees and rose bushes for fall and spring delivery; freight prepaid to Philadelphia on all northern and eastern shipments.

W. M. Peters & Sons, Berlin, Md., have a budded list of peach trees representing more than a million; eight acres in asparagus plants; 30 acres in strawberry plants, representing over seventy varieties.

August Rhotert, 6 Barclay St., New York, is sole agent for Louis Leroy's nurseries, Angers, France, grower and wholesale exporter of fruit, forest and ornamental stock. He will sail for Europe, June 29.

J. A. Gage, Beatrice, Neb., formerly at Fairbury, Neb., have apple and forest tree seedlings, Black Locust, Honey Locust, Mulberry, Osage Orange, Soft Maple, etc. Mr. Gage secures better land and shipping facilities in his new location.

No healthier, harder or more thrifty nursery stock than that of the Painesville, Ohio, Nurseries is grown. The Storrs & Harrison Co. has an immense stock of fruit and ornamental trees, small fruits, nut trees, grape vines, shrubs, forty acres in roses on own roots and budded, the largest stock of large Carolina poplars for fall trade, hardy herbaceous plants, climbing vines, bulbs, forty-four greenhouses, large stock of weeping trees, peach trees guaranteed free from any borers, scale, yellows or aphids, large blocks of standard and dwarf pears, plum, cherry, apple, etc.

WELL PLEASED WITH IT.

E. E. THEILMAN, ERIE, PA.: "Enclosed please find \$1 for renewal of your journal. I am very well pleased with it."

C. C. MURPHY, LAWRENCE, KAN.: "Enclosed attached find \$1 to renew subscription to the NATIONAL NURSERYMAN. We watch for its appearance and would be disappointed not to get it every month."

HYBRID PLUMS.

A bulletin of much interest has been issued by Professor F. A. Waugh, horticulturist at the Vermont Experiment Station, on the subject of hybrid plums. This factor, says the author, is of immediate interest to the science of horticulture and promises to be of very great consequence to the practical business of plum growing. Descriptive and historical notes are given of fifty varieties of plums supposed to be of hybrid origin. Doubtless a few of these are not hybrids. Among cultivated plums intermediateness of character is the best test of hybridity. The pedigree record, while not to be ignored, is seldom reliable. All species of plums may be crossed. The Japanese plums cross with the Chickasaws and the Hortulanans with especial ease. The Domesticas and Americanas cross with other groups with greater difficulty. Plums also cross with various cherries, peaches and apricots. Each species has a peculiar value in plum breeding and certain combinations are more promising than others.

The hybrid plums are likely to be eventually of great importance in fruit growing. Their introduction promises to make an epoch in plum culture. Many of the varieties already produced are very promising, but none has yet been tested widely enough to warrant its general recommendation. Professor Waugh solicits the aid of all horticulturists, as this is only the beginning of the history of hybrid plums.

HORTICULTURE IN THE SCHOOLS.

Professor Hansen of South Dakota says: "About horticulture in the public schools, I will say that while the United States is ahead of the world in almost all things, there is one thing in which we are fifty years behind Europe. Four years ago I visited some of the leading horticultural schools in Germany, and in some of those I happened to be present over a week where a class of school-masters were taking a course in horticulture. They had attended a two weeks' course in the spring and had now come back for a two weeks' course to finish up. They told me all about the German system. Connected with every German school-house is a small orchard, nursery and garden. School children from seven to eight years old are taught how to graft and how to take care of trees, and all the details of horticulture are taught along with the A, B, C. It has been the work of Dr. Stoll of Silesia, and it has been carried on for the past fifty years, and to a large extent it has been broadened each year. It is now found in all the schools of Germany and other countries of Europe. If we should adopt European methods in this line, we might find many problems worked out for us. In this matter of teaching horticulture in the schools, we are far behind the nations of Europe."

At the annual banquet of gardeners, florists and agriculturists at the Missouri Botanical Garden, St. Louis, G. B. Lamm, a prominent horticulturist of Missouri, detailing what had been done toward an introduction of the study of horticulture in the schools, said:

I am convinced that the science and art of horticulture will charm the practical minds of our boys and girls and hold them to their studies instead of driving them away from school. When a beautifully illustrated hand book of horticultural knowledge for Missouri schools is

once placed in the hands of our youth, we will have met one of the greatest needs of our age.

No one man can write such a book. It is the product of the amateur, the florist, the botanist, the gardener, the naturalist, the scientist, fruit-grower, nurseryman, farmer and teacher. The Missouri State Horticultural Society has undertaken the task of collecting and embodying this desired information. It commits to type annually the results reached by its educational committee. It invites every lover of childhood, home and country to become interested in this, the most helpful and far-reaching of all the society's past undertakings. A copy of the last list of one hundred questions relative to this matter is here to be distributed to every gentleman present at this banquet. It is the fifth list of questions and outlines the seventh year's work.

Recent Publications.

Among publications recently received are: Experiment Station Record, Vol. X., No. 9; Massachusetts Horticultural Society transactions for 1898, part I.; Kansas Station Bulletin on cold storage of fruit.

The forty-first annual report of the Missouri State Horticultural Society has been compiled and issued by the secretary, L. A. Goodman, Westport, Mo. It is one of the most valuable of the reports that come to our desk. A volume of 420 pages, substantially bound and well indexed, it contains a great amount of information for the horticulturist and nurseryman.

Those of our readers who are interested in orchids and who have not procured the lists of hybrids prepared by George Hansen, landscape architect, Scenic Tract, Berkeley, Cal., have missed a valuable fund of information. The list published November 15, 1895, gives enumeration and classification of all hybrids of orchids published up to October 15, 1895. The volume gives a review of the work accomplished and inferences for future work; the character of the flowers of orchids; list of people concerned in the raising of orchid hybrids; references and abbreviations made use of; orchids raised from seed of their own kind; remarks respecting the genera and species employed in raising hybrids; synonymy, key and list of hybrids, Pp. 245. First Supplement, Pp. 12. Second Supplement, issued May, 1897, and bringing list down to April 1, 1897, Pp. 77. Mr. Hansen is in connection with yearly circulars with 750 orchid growers and in correspondence with all the leading orchidologists. He is the author also of "Where the Big Trees Grow," and the distributor of exsiccatae of the flora of the Sequoia Gigantea region, 1,500 numbers represented in the herbaria in 16 foreign cities and in Boston, Washington, St. Louis, Stanford and San Francisco.

"HOW TO KNOW THE FERNS," is the title of a most interesting and valuable book by Frances Theodora Parsons. Six years ago this lady, then Mrs. William Starr Dana, published a guide to the names, haunts and habits of the common wild flowers under the title "How to Know the Wild Flowers." The two books are companion volumes. "How to Know the Ferns" has been appropriately and accurately illustrated by Marion Satterlee and Alice Josephine Smith. "It seems strange" says the author "that the abundance of ferns everywhere has not aroused more curiosity as to names, haunts and habit. Add to this abundance the incentive to their study afforded by the fact that owing to the comparatively small number of species, we can familiarize ourselves with a large proportion of our native ferns during a single summer, and it is still more surprising that so few efforts have been made to bring them within easy reach of the public." With the exception of a single volume there was no book with sufficient text and illustrations within the reach of the brains and purse of the average fern-lover, until this book of Mrs. Parsons appeared. In view of the singular grace and charm of the fern tribe, this lack of fern literature is surprising. In a preface and a chapter on ferns as a hobby, the author arouses a deep interest in her subject and then passes into the consideration of the following topics in succeeding chapters: When and where to find ferns, explanation of terms, fertilization development and fructification of ferns, notable fern families, how to use the book, guide, fern descriptions, index to Latin and English names and technical terms. Pp. XIV-215; 12 mo., \$1.50. New York: CHARLES SCRIBNER'S SONS.

SATSUMA PLUM STOCK.

Answering a query in Rural New Yorker, Professor Van Deman says:

The Marianna plum is very generally used as a stock for the plum. The stocks are grown in the South from the cuttings, as they root there very rapidly, and will not do so in the North. The seeds of the Myrobalan (which is a species of plum from Europe, and of which the Marianna is a variety) are also used to grow for plum stocks. I have lately heard that the Satsuma plum, which is one of the Japan varieties, makes a most excellent stock for the plum and peach, too. If this is true, and it will grow from cuttings, then we have a very valuable thing that we did not before suppose we had. I do not see why the seedlings of any of the Japan plums might not be good for plum, and perhaps, peach stocks, too. The trouble would be to get the seeds out of the fruit without losing the pulp; for they are nearly all clings, except Ogen. Cherry stocks must be of two kinds. The sour cherries should be budded on Mahaleb seedlings. The Hearts and other rank growing kinds of the sweet class should be worked on Mazzard stocks. This is necessary because of the diverse natures of the two classes. The stock and scion or bud must be reasonably congenial if the best results are to follow.

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**COLOMBE BROS.,
USSY, FRANCE,**

Offer this season Fruit and Ornamental Stocks in large and small quantities, well graded and at lowest prices. Send lists and order now and secure full assortments and sizes wanted.

FRED'K W. KELSEY,

Sole Agent for the U. S. and Canada, No. 150 Broadway; New York.

WE SHALL OFFER IN FALL

One Year Trees and Dormant Buds

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...BURBANK'S NEW PLUMS.

America, Bartlett, Climax,
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**W. A. WATSON & CO.
NORMAL, ILL.**

Apple, Peach and Japan Plum Trees.

Louden and Miller Red Raspberry.

BUDS IN SEASON.

40 kinds Japan Plums. 50 kinds Apple. 70 kinds Peach.

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STANTON B. COLE, - Bridgeton, N. J.

Over One Million
FRUIT TREES AND ROSE BUSHES

FOR FALL AND SPRING DELIVERY.

Freight Prepaid to Philadelphia on all Northern and Eastern Shipments.

250,000 Peach Trees ready for June budding. If you are short on any variety of Peach or anything you want on Peach stock we will be pleased to bud a lot for you; can make trees 3 to 4 and 4 to 5 feet for spring delivery.

Japan Plums in all the leading and new varieties, Burbank's Novelties, America, Apple and Chalco Plums grown in large quantities. Strong field grown **Grafted Roses, Teas and Hybrids.**

We also propagate a general line of nursery stock of all the leading and standard varieties adapted to the Southern States, **Peaches, Plums, Pears, Japan Persimmons, Mulberries, Figs, Muscadine Grapes, etc. etc.**, and a complete stock of **Hardy Ornamentals.**

Satsuma Orange and Kumquats on Citrus Trifoliata Stock, one of our specialties. Prices on application.

We expect to be at the Chicago Convention.

POMONA NURSERIES. THE GRIFFING BROS. CO.
Macclenny, Fla.

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**Apple Seedlings, Forest Tree Seedlings, Black Locust
Honey Locust, Mulberry, Osage Orange,
Soft Maple, Ash, Elm, Catalpa, Box Elder.**

In removing to this place we get better land, better shipping facilities, much lower freight rates to eastern points, and will be better prepared than ever to serve our customers.

Address, **J. A. GAGE,**

Formerly at Fairbury, Neb. **BEATRICE, NEB.**

FRUIT PLATES **Vredenburg &
Company,**

AND NURSERY SUPPLIES. ROCHESTER, N. Y.

Everything in
SMALL FRUIT PLANTS.

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Catalogue and Price List ..Free..

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**Customers for Standard and Dwarf Pears, Plums,
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Special low prices given on carload lots. Do not place your order before getting my prices.

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N. B.—Should be pleased to see you at Chicago in June and quote you prices there.

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If a NURSERYMAN can be materially lightened by the use of

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Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

10,000 Keiffer Pears—Extra good Stock—Boxes at Cost.

2 years, 5 feet and up, branched.
2 years, 4 to 4½, branched. Get our prices.

10,000 Standard Pears.

5,000 Everbearing Peach Trees—3 and 5 feet.

Special offer to close out stock.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

100,000 Amour Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel budded upon Manetti, 18-24 inches.
Two Acres in Cassia.

Biota Aurea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

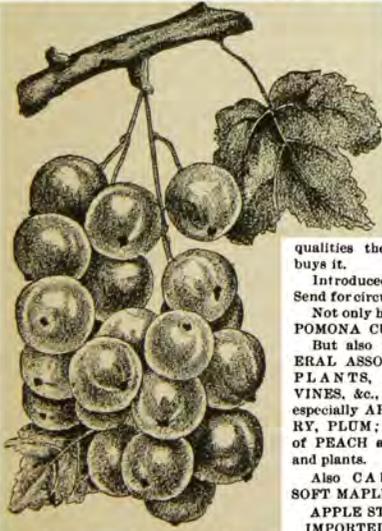
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100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.

Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

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These being the qualities the planter is after, he buys it.

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Not only have we a good stock of POMONA CURRANTS.

But also a COMPLETE GENERAL ASSORTMENT OF TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

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SHRUBS—Upright, Climbing and Standard.

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RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.

PÆONIAS Large Assortment, Named Varieties.

DAHLIAS—New Cactus. Large Flowering, Ponpon.

Full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
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We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

PEACH TREES at BAIRD'S Nurseries by the 1000 or CAR LOAD.

We grow trees for quality rather than quantity. Our customers say they give good satisfaction. If you want good trees, true to name, lower than such stock can be grown at a profit, write us how many and varieties wanted. We shall not continue this sort of business indefinitely.

ALSO

Peach and Japan Plum Buds in large assortment.

Send list for prices to

D. BAIRD & SON, BAIRD, N. J.

“NICKS” The Queen of Grapes.
The new Concord of the 20th Century.

Conquers the land on its merits. Silver Medal at Omaha Exposition. Sold under seal and contract only.

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ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

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For colored plate, testimonials and price address the originators.

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Gooseberries, Grape Vines, Currants,
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Eldorado, Maxwell and Lucretia Blackberries.

MILLER, LOUDON and
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TRIUMPH,
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Wickson, Red June and Giant

Peaches

PLUMS. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond
with us.
Our Catalogue will save you money.

MYER & SON,

BRIDGEVILLE, DELAWARE.

E. T. DICKINSON & CO., CHATENAY SEINE,
FRANCE.
Growers and Exporters,
has to offer, FRENCH NURSEKY STOCKS,
Fruit Tree Seedlings and Ornamentals.

Pear, Apple, Plum and Cherry, and Angers Quince Cuttings.
All grown specially for the American trade.

PEAR AND CRAB APPLE SEED.

The most complete assortment of Ornamental Stocks, Trees and Shrubs.
Orders solicited and booked, now at low rates.

E. T. DICKINSON & CO., 1 Broadway, NEW YORK.

THE AMERICAN FLORIST COMPANY'S

DIRECTORY FOR 1899,

Is now ready, revised and corrected to date, with 1336 names of new concerns. This book, issued every year at great expense, contains the names and addresses of all the Florists, Nurserymen and Seed Merchants in the United States and Canada. Price, \$2.00.

AMERICAN FLORIST COMPANY, Chicago, Ill., U. S. A.



When writing to advertisers mention The National Nurseryman.

W. T. HOOD & CO.,
Old Dominion Nurseries
 RICHMOND, VA.

Will have a full stock for the trade of fall of '98
 and spring of '99 of

Apple, Peach, Standard Pear, Cherry and Ornamentals.
 500 bushels of natural Peach Pits crop of '97.

WANTED—To sell an interest in the Old Dominion Nurseries to
 a thorough practical nurseryman. **W. T. HOOD.**

Phoenix Nursery Co., Established 1852.
 600 Acres.
 13 Greenhouses.
Nurserymen and Florists.

Eastern agents for Rosney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft., and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.

Send list of wants for prices.
P. O. BOX 625. BLOOMINGTON, ILL.

P. Sebire & Sons, Nurserymen,
 USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myro-
 bolian Plum, Bahaleb and Mazzard Cherry, Angers, Quince, Small
 Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest
 stock in the country. Prices very low. Packing secured. Send for quotations
 before placing your orders elsewhere. Catalogue free. Agents for
 U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
 Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
 Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
 SPRINGFIELD, NEW JERSEY.
 SURPLUS OF

PEACH, PLUM, CURRANTS,
 POPLARS AND SHADE TREES,
 PRIVET, SHRUBBERY, EVERGREENS, ROSES.

HEADQUARTERS FOR NURSERY STOCK.

Baltimore and Richmond Nurseries,
 BALTIMORE, MD.

FRANKLIN DAVIS NURSERY CO.

50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.
 LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple,
 Peach,
 Standard Pears,
 Plum,
 Apricots,
 Grapes,
 Shade Trees,
 Evergreens,
 Shrubs,

Strawberries,
 Nut Trees,
 Japan Pear Seedlings,
 Gooseberries,
 Roses,
 Raffia,
 General Supplies,
 &c., &c.,
 &c.

**APPLE
 SEEDLINGS**

FOR THE

Fall of 1899 and Winter
 of 1900.

Will make special prices on large
 early orders.

ALL GRADES.

F. W. WATSON & Co.,
 TOPEKA, KAN.

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Snowhill Nurseries.

W. M. PETERS & SONS, Proprietors.

P. O. WESLEY, WORCESTER COUNTY, MD.

Telegraph Office, Berlin, Md.

**Our Budded List of PEACH TREES Represents more
 than a Million.**

Information as to varieties, quality, grade and price, cheerfully
 given. Your personal inspection invited.

EIGHT ACRES IN ASPARAGUS PLANTS,
 One and two year old.

Donald's Elmira, Columbia Mammoth White,
 Barr's Mammoth Palmetto, Conover Colossal.

30 Acres in Strawberry Plants, representing over seventy varieties.

PEACH BUDS.

In any quantity, cut from strictly healthy trees. Send us a list of
 your wants. Will make a special price on same.

Trade List and Descriptive Catalogue mailed free.

W. M. PETERS & SONS.

When writing to Advertisers mention The National Nurseryman.

The Syracuse Nurseries

...THE WORDEN SECKEL PEAR...

One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

SMITHS & POWELL COMPANY,
SYRACUSE, N. Y.

Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees; Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

GRAPE

ALL OLD AND NEW VARIETIES.
Immense Stock, Warranted True
QUALITY UNSURPASSED.
A fine stock of Campbell's Early
vines at low rates.

Send list of wants for prices.

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER.
Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.
T. S. HUBBARD CO.,
FREDONIA, N. Y.

VINES

100,000 MYROBOLAN, No. 1,
100,000 PEAR, - - " 2,

in perfect condition and ready for immediate shipment. Write for particulars.

HIRAM T. JONES, - - Union County Nurseries,
ELIZABETH, N. J.

The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both burlap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry
Z. K. JEWETT & CO., Sparta, Wis.
Included. Ask for prices and terms.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut, - - KANSAS CITY, MO.
PROPRIETORS OF THE

LEES SUMMIT NURSERIES.

A full line of stock for wholesale and retail. Correspondence solicited.
The only practical Box Clamp in use at low price.

[ESTABLISHED 1876]

ALLEN L. WOOD,
Rochester, N. Y.

**EXTRA FINE
PLANTS** At . . .
Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES.
RASPBERRIES, BLACK-
BERRIES, Etc.
In the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

CHARLES DETRICHE, Senior,
ANGERS, FRANCE,

**Grower and Exporter of Fruit Tree Stocks, Forest
Trees and Ornamentals.**

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.

Sole Representatives for the United States.

Mr. Detriché would be glad to receive any horticultural catalogues or papers.
When writing to advertisers mention The National Nurseryman.

NURSERY FOR RENT.

Eighteen years established. Two miles from depot, town of a thousand people. Rich farming country, orchards and small fruits. Will lease for five or eight years on favorable terms to the right man. Just the chance for a young man who is short on capital, but long on industry and energy.

Reason for renting, must move my family to a school town. Write for particulars.

THE NURSERY, Marcus, Iowa.

Honey Locust Hedge, Most Ornamental for Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - - HAVANA, ILLS.

Ornamental LARGE TREES SMALL TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue
and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSERYMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices. TOMAH, WIS.



Wabash R. R.

Offers Unexcelled Service
to the _____ WEST.

4 Daily Vestibuled Trains,
BUFFALO — to — CHICAGO.

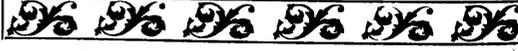
3 Daily Vestibuled Trains,
_____ BUFFALO to _____
ST. LOUIS, KANSAS CITY and OMAHA.

**FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.**

Full information regarding rates, etc., cheerfully given.
...Address, _____

C. S. CRANE, G. P. & T. A.,
St. Louis, Mo.

JAMES GASS, R. F. KELLEY,
N. Y. S. P. A., G. A. P. D.,
287 Main, Buffalo, N. Y. 287 Main, Buffalo, N. Y.



When writing to Advertisers mention The National Nurseryman.



Demonstrated to be the most comfortable and pleasant residential hotel the year around in the city.

Surrounded by Lake Michigan.

A thousand feet of broad veranda swept by cooling breezes.

SEND FOR SOUVENIR BOOKLET

Headquarters

of the American Association of Nurserymen, 24th Annual Convention, June 14th and 15th, '99,

The Chicago Beach

GEO. B. ROSS, Manager.

On the Lake Shore, Fronting Fifty-First Street Boulevard, Chicago.



Rates, \$2.00 per Day and Upwards.

Ten minutes from the heart of the business and amusement center.

A seaside resort combined with all the advantages of a great city.

Equally desirable for resident, transient and tourist.

SEND FOR SOUVENIR BOOKLET

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens,

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitæ, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and GOOSEBERRIES extensively grown. Better stock never grew.

NELSON BOGUE

BATAVIA NURSERIES,

BATAVIA, N. Y.

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From Anywhere **East**

To Everywhere **West**

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of _____

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

Great Convention cities throughout the country;

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G. E. P. A.,

305 Broadway, NEW YORK.

Jno. Sebastian, G. P. A.,

CHICAGO, ILL.

When writing to Advertisers mention The National Nurseryman.

J. G. HARRISON.

ORLANDO HARRISON.

GEORGE A. HARRISON.

BUDS | BUDS | BUDS

Of the Famous New Peaches, Carman, Waddell, Mathews Beauty, Haulderbaum, Francis, Beauty (b), Delaware, Emma, Klondike and Denton.

Prices are very Low and Buds will be Cut by Competent Men.

OUR BUDDED LIST IS 1,038,022.

General List of Varieties

PEACH

- Alexander
- Amsden June
- Barnard's Early
- Bilyeu's L. Oct.
- Bokara No. 3
- Brandywine
- Bray's Rareripe
- Crawford Late
- Crawford Early
- Cone't So. Early
- Champion
- Chair's Choice
- Crosbey
- Connecticut
- Chinese Cling
- Elberta
- Early Rivers
- Early Heath
- Early Michigan

APPLE BUDS

List of Varieties

- Baldwin
- Ben Davis
- Bellflower
- Early Harvest
- Early Strawberry
- Early Colton
- Fallwater
- Grimes Golden
- Gravenstine
- G. G. Pippin
- Haines
- King Thompkinson
- Limber Twig
- Maiden's Blush
- Mammoth Black Twig
- Northern Spy
- North West'n Greening
- Paragon
- Red Astrachan
- Rome Beauty
- Rhode Island Greening
- Stark
- Smith's Cider
- Summer King
- Summer Rambo
- Winter Rambo
- Wine Sap
- Wealthy
- Yellow Transparent
- York Imperial

CRAB

- Hyslop
- Transcendent

General List of Varieties

PEACH

- Fox Seedling
- Foster
- Fitzgerald
- Ford's Late White
- Francis
- Geary's Holdon
- Greensboro
- Gold Drop
- Globe
- Hill's Chili
- Hale's Early
- Kalamazoo
- Lemon Free
- Lewis
- Lorentz
- Levey's Late
- Moore's Favorite
- Magnum Bonum
- McIntoch
- Morris White
- Mt. Rose
- New Prolific
- Old Mixon Cling
- Old Mixon Free
- Reeves Favorite
- Stephen's R. R.
- Smock
- Salway
- Snow's Orange
- Stump the World
- Sneed
- Triumph
- Troth's Early
- Wonderful
- Wheatland
- Wager
- Willett
- Walkers's Var. Free
- Wilkin's Cling
- White Heath Cling
- Water Loo
- Yellow St. John

PLUMS

- Abundance
- Burbank
- Berkman
- Chabott
- German Prune
- Hale
- Normand
- Ogon
- Red June
- Satsuma
- Shipper's Pride
- Tag
- Wickson
- Willard
- Wild Goose
- Shropshire Damson



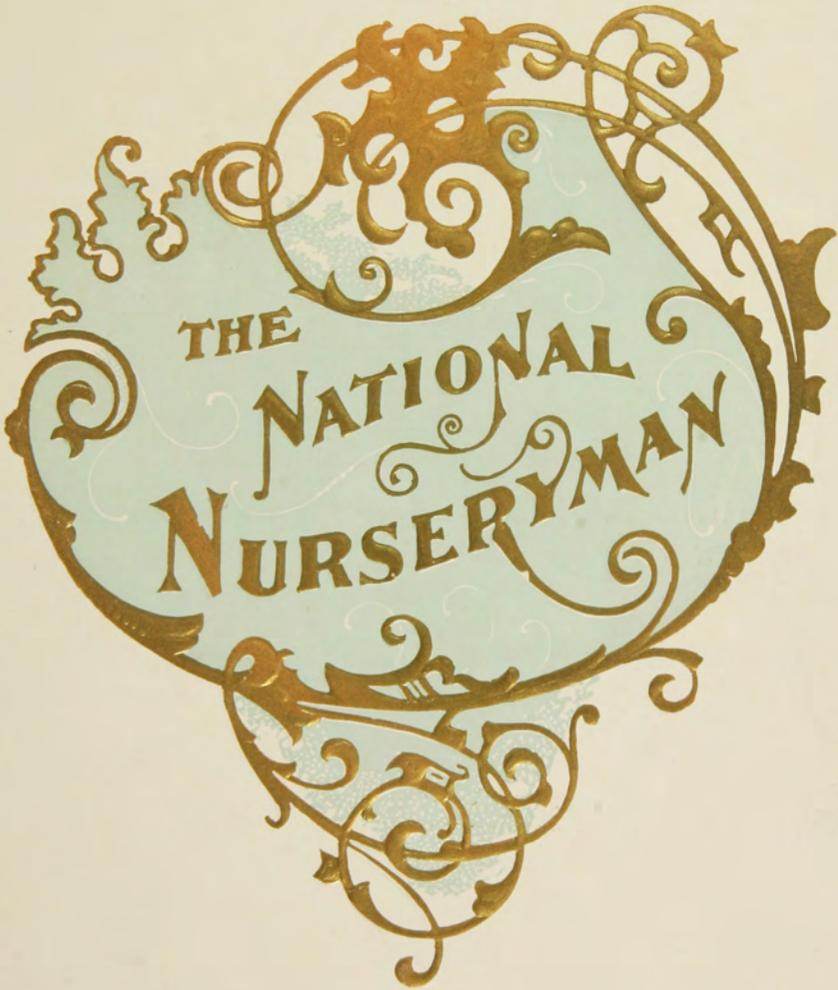
We want your list of wants and prices will be quoted promptly on what you may need.

READY TO CONTRACT FOR JUNE BUDDING.

Our planting of Peach Seed last Fall was about 60 Acres, and there should be about a million and a half Seedlings all on land that was never before in peach. We have yet to see as large a block of budded Trees and Seedlings elsewhere.

WANTED A FOREMAN.

Will be represented at Nurserymen's Convention at Chicago by **ORLANDO HARRISON.**



July, 1899.

L. A. BERCKMANS,
P. J. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS,
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

10,000 Keiffer Pears—Extra good Stock—Boxes at Cost.

2 years, 5 feet and up, branched.
2 years, 4 to 4½, branched. Get our prices.

10,000 Standard Pears.

5,000 Everbearing Peach Trees—3 and 5 feet.

Special offer to close out stock.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Ornamental Department.

100,000 Amour Privet—Unsurpassed as an evergreen hedge plant.
50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel budded upon Magetti, 18-24 inches.
Two Acres in Canua.

Biota urea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

Greenhouse Department.

100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.
Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECIALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the quickest and surest.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS,

But also a COMPLETE GENERAL ASSORTMENT OF TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.
IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITS to offer.

Address, ALBERTSON & HOBBS,

BRIDGEPORT, MARION CO., INDIANA.

When writing to Advertisers mention The National Nurseryman.

THE

Geneva Nursery

Established in 1846.

Headquarters for : :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of : :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS—Ponticum, Catawbiense, Named Hybrids.

PÆONIAS—Large Assortment, Named Varieties.

DAHLIAS—New Cactus, Large Flowering, Pompon.

full Assortment in : :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
GOOSEBERRIES, RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

Apple, Peach and Japan Plum Trees.

Louden and Miller Red Raspberry.

BUDS IN SEASON.

40 kinds Japan Plums. 50 kinds Apple. 70 kinds Peach.

WEST JERSEY NURSERY CO.

STANTON B. COLE, - Bridgeton, N. J.

HALE PLUM BUDS,

GROWN AT GENEVA, N. Y.

Write for Lowest Prices.

WHITING NURSERY CO.,

457 Blue Hill Ave., BOSTON, MASS.

PIONEER NURSERIES CO. ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

Eastern Agents, PIONEER NURSERIES COMPANY,
PHOENIX NURSERY CO., Salt Lake City, Utah.
Bloomington, Ills.

We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

When writing to Advertisers mention The National Nurseryman

The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES,

Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.

Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphids, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

Headquarters for Ornamental Trees and Shrubs

Will have the largest and finest stock of large **Carolina Poplars** for the coming fall trade which we ever offered. This is the tree for quick growth and to resist the smoke and gas in village, town and city.

Weeping Trees—Especially heavy in **Teas' Weeping Mulberry, Kilmarnock, Wisconsin, Babylonia and New American Weeping Willows, Camperdown Elm, Mountain and European Weeping Ash,** and a good stock of other weeping trees. Fine stock of high top **Rose Acacia.**

Roses, Roses, Roses—Forty acres in nursery rows, own roots and budded. None better. Greatly superior to the imported.

Greenhouse Department

Consists of **Forty-four** houses filled with **Roses, Palms, Ferns, Ficus,** and other things too numerous to mention.

Holland Bulbs—Have large lots contracted with best growers that cannot fail to please customers.

Personal inspection and correspondence solicited.

TRADE LISTS AND CATALOGUES FREE.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE _____
MOUNT
•• HOPE ••
NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

LOUIS LEROY'S
NURSERIES
 Established 1795.)
ANGERS, (M. & L.) FRANCE.
 GROWER AND WHOLESALE EXPORTER OF
FRUIT, FOREST and ORNAMENTAL STOCK
 Camellias, Clematis, Coniferæ, Lilaos, Magnolias, Rhododendrons, Roses, Shrubs, Etc.
 Prices, catalogues and all other information can be obtained by addressing
AUG. RHOTERT,
SOLE AGENT,
26 Barclay Street, (P. O. Box 2250) New York.

KNOX NURSERIES.
 (ESTABLISHED 1851.)

We offer for Spring 1899 shipment Apple Trees, largely **Ben Davis, Jonathan, G. Golden and Wealthy.** Also a fine lot of 2 year **Cherry Trees**, and a nice lot of **Elberta Peach Trees, Ohio and Egyptian Raspberry Tips.** Large stock of **Strawberry Plants.** Clyde, Gardner, Brandywine, Gandy and Lovetts. Have a bargain in 3 year Cherry trees for some one. Send us a list of your wants.

Connected by Telephone.

H. M. Simpson & Sons, Vincennes, Ind.

FOR 1899-1900

Everybody Says that Prices will be Higher

the coming season, but because we believe that "a bird in the hand is worth two in the bush," and because of our extra heavy stocks we will take early orders for Roses and Clematis (as well as for certain varieties of many other lines) at lower prices than we expect to ask later on.

ROSES

The Famous J. & P., own-root Roses; unequalled in grade and quality. We shall have the coming season the largest stock of field-grown Roses that we ever produced and, from present prospects, one of the very finest stocks. Special low rates will be offered on contract orders placed early in the season and the advantage of getting a complete assortment is secured.

CLEMATIS

J. & P., home-grown, field-grown Clematis are as strong as imported plants and much superior to them in the fact that they are acclimated to the conditions of this country. They have a way of living and growing not always met with in the cultivation of this lovely vine. We are the largest growers of clematis in the world, our annual propagation being not less than 200,000 plants. We have for this season a good assortment of all the leading varieties. Our usual good stocks of

CLIMBING PLANTS, FLOWERING SHRUBS,
 ORNAMENTAL TREES, HERBACEOUS PLANTS,
 PEARS, PEACHES, PLUMS, QUINCES,
 CURRANTS, GOOSEBERRIES.

Jackson & Perkins Co., (Wholesale only.) Newark, New York.

TRADE MARK.



Japanese Nursery Stock,
SEEDS, Etc.

Trade List free on application.
 Orders are booked now for Fall and Spring delivery. Prices f. o. b. New York, duty paid.

SUZUKI & IIDA,
BROADWAY, New York.

NURSERIES:
3 Nakamura, YOKOHAMA, Japan.

When writing to Advertisers mention The National Nurseryman.

**W. T. HOOD & CO.,
Old Dominion Nurseries,
RICHMOND, VA.**

We offer for Fall 1899, and Spring 1900,

Apple and Peach

As fine stock as can be grown, and a very full line of
General Nursery Stock, Fruit and Ornamentals.

200,000 Peach Seedlings from Beds of Natural Seed.

NATURAL PEACH PITS.

We hope to have pits to offer in October, Crop of 1899.

Phoenix Nursery Co., Established 1852.
600 Acres.
13 Greenhouses.
SUCCESSORS TO
SIDNEY TUTTLE & CO. **Nurserymen and Florists.**

Eastern agents for **Rosney Pear**, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.

Send list of wants for prices.
P. O. BOX 625.

BLOOMINGTON, ILL.

P. Sebire & Sons, Nurserymen,

USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myro-bolan Plum, Mahaleb and Mazzard Cherry, Angers, Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
SPRINGFIELD, NEW JERSEY.
SURPLUS OF

PEACH, PLUM, CURRANTS,

POPLARS and SHADE TREES,

PRIVET, SHRUBBERY, EVERGREENS, ROSES.

HEADQUARTERS FOR NURSERY STOCK.

Baltimore and Richmond Nurseries,
BALTIMORE, MD.

FRANKLIN DAVIS NURSERY CO.

50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.

LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
Evergreens,
Shrubs,

Strawberries,
Nut Trees,
Japan Pear Seedlings,
Gooseberries,
Roses,
Rama,
General Supplies,
&c., &c.,
&c.

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SEEDLINGS**

FOR THE

Fall of 1899 and Winter
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Will make special prices on large
early orders.

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One and two year old.

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AMERICAN ASSOCIATION OF NURSERYMEN,
CHICAGO BEACH HOTEL, JUNE, 1899.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"There is great need for the development of our native plum flora."—Bailey.

VOL. VII.

ROCHESTER, N. Y., JULY, 1899.

No. 6.

THE CONVENTION.

PROCEEDINGS OF THE TWENTY-FOURTH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF NURSERYMEN.

Unusually Large Attendance and General Good Feeling—Reports on Financial and Legislative Affairs—Canadian Exclusion Act and Retaliation—Question Box Provokes Lively Discussion—Reports of Secretary and Treasurer—List of Those Present—President's Address—The Exhibits.

The twenty-fourth annual convention of the American Association of Nurserymen was held at the Chicago Beach Hotel, Chicago, June 14th and 15th. There was an unusually large attendance and a feeling of confidence in a continued improvement of business. So well pleased were the members with the location that it was unanimously agreed to go to Chicago again next year.

Immediately upon assembling in the convention hall President Brooke delivered his annual address, prefacing his remarks with words of congratulation for the Association and its executive committee upon the splendid arrangements for the convention.

MEMBERS PRESENT.

The following names were on the register of the Chicago Beach Hotel when the convention opened:

George Achelis, West Chester, Pa.; N. H. Albaugh, Phoneton, O. E. Albertson, Bridgeport, Ind.; H. Augustine, Normal, Ill.

Arthur Bryant, Guy A. Bryant, Princeton, Ill.; R. J. Bagley, New Haven, Mo.; Peter Bolander, Phoneton, O.; L. G. Bragg, Kalamazoo, Mich.; W. W. Baird, Humboldt, Tenn.; L. C. Bobbink, Rutherford, N. J.; E. Brewer, Ottawa, Kan.; A. J. Brown, Geneva, Neb.; R. H. Blair, Kansas City, Mo.; A. L. Brooke, N. Topeka, Kan.; Nelson Bogue, Batavia, N. Y.

D. C. Converse, R. J. Coe, Fort Atkinson, Wis.; Charles F. Chase, H. S. Chase, H. B. Chase, R. C. Chase, Huntsville, Ala.; Lewis Chase, Rochester, N. Y.; John C. Chase, Derry, N. H.; A. L. Causse, New York City; Professor John Craig, Ames, Ia.; Frank Custer, Normal, Ill.; Central Michigan Nurseries, Kalamazoo, Mich.

E. T. Dickinson, Paris and New York City; J. H. Dayton, Painesville, O.; Joseph Davis, Baltimore, Md.; John F. Donaldson, Warsaw, Ky.; Thomas H. Douglas, Waukegan, Ill.; F. N. Downer, Bowling Green, Ky.

S. H. Fulton, South Haven, Mich.; S. R. Fergus, Phoneton, O.; William Fell, Hexham, England; Marsden B. Fox, Rochester, N. Y. A. H. Griese, Lawrence, Kan.; Charles E. Greening, Monroe, Mich.; T. E. Griese, Lawrence, Kas.; W. D. Griffing, Macclenny, Fla.

H. W. Henry, La Porte, Ind.; W. L. Hart, Fredonia, N. Y.; Orlando Harrison, Berlin, Md.; W. T. Hood, Richmond, Va.; J. J. Harrison, Painesville, O.; Theodore S. Hubbard, Fredonia, N. Y.; D. H. Henry, Geneva, N. Y.; N. W. Hale, Knoxville, Tenn.; J. Hill, St. James, Minn.; D. Hill, Dundee, Ill.; Joseph Heintz, Jacksonville, Ill. James Hartshorn, Joliet, Ill.; J. C. Hale, Winchester, Tenn.; J. W. Hill, Des Moines, Ia.; W. H. Hartman, Dansville, N. Y.; W. F. Heikes, Huntsville, Ala.

C. A. Ilgenfritz, Monroe, Mich. Hiram T. Jones, Elizabeth, N. J.; George S. Josselyn, Fredonia, N. Y.; Irving Jaquay, Benton Harbor, Mich.; J. Jenkins, Winona, O. Gustav Klarner, Quincy, Ill.; E. W. Kirkpatrick, McKinney, Tex.; John Klehm, Arlington Heights, Neb.; David Knight, Sawyer, Mich.; W. H. Kauffman, Stratford, Ia.; J. W. Killien, New York City. R. D. Luetchford, Rochester, N. Y.; Samuel Lorton, Davenport, Ia.; D. S. Lake, A. F. Lake, R. S. Lake, Shenandoah, Ia.

Charles J. Maloy, Rochester, N. Y.; J. E. Murphy, Humboldt, Tenn.; C. W. McNair, Dansville, N. Y.; Thomas B. Meehan, Germantown, Pa.; J. B. Morey, Dansville, N. Y.; E. G. Mendenhall, Kinmundy, Ill.; Jacob W. Manning, Benjamin F. Manning, Reading, Mass.; Edward C. Morris, Chicago.

A. W. Newson, Nashville, Tenn. P. Ouwerkerk, Jersey City, N. J.; Ralph T. Olcott, Rochester, N. Y. F. S. Phoenix, Bloomington, Ill.; Charles M. Peters, Snow Hill, Md.; D. H. Patty, Geneva, N. Y.; A. M. Pearsall, Monroe, Mich.; Alexander Pullen, Milford, Del.; W. J. Peters, Troy, O.; G. E. Prater, Jr., Pawpaw, Mich.; J. J. Pinney, Sturgeon Bay, Wis.; William A. Peterson, Chicago.

Irving Rouse, Rochester, N. Y.; W. C. Reed, Vincennes, Ind.; E. A. Riehl, Alton, Ill.; William Rossney, Bloomington, Ill.

Harry D. Simpson, Vincennes, Ind.; J. H. Skinner, N. Topeka, Kan.; Irving Spaulding, Spaulding, Ill.; F. H. Stannard, Ottawa, Kan.; E. F. Stephens, Crete, Neb.; Robert C. Stoehr, Dayton, O.; E. M. Sherman, Charles City, Ia.; W. P. Stark, Louisiana, Mo.; J. W. Schuette, St. Louis, Mo.; George C. Seager, Edward J. Seager, Rochester, N. Y.; G. W. Sallee, St. Louis, Mo.; F. G. Salkeld, Perry, O.; Theodore J. Smith, Geneva, N. Y.; Edgar Saunders, Chicago.

Professor L. R. Taft, Agricultural College, Mich.; E. R. Taylor, L. R. Taylor, Topeka, Kan.

John C. Ure, Chicago, Ill.; Robert C. Uecke, Harvard, Ill. J. Van Lindley, Pomona, N. C.

F. W. Watson, Topeka, Kan.; William A. Weber, Nursery, Mo.; N. C. Wright, Wauke, Ia.; A. E. Windsor, Havana, Ill.; Silas Wilson, Atlantic, Ia.; C. L. Watrous, Des Moines, Ia.; W. M. Wirt, George G. Wirt, Alpha, Ill.; A. L. Wood, Rochester, N. Y.; E. S. Welch, Shenandoah, Ia.; George W. Whitney, Yankton, S. D.; A. Willis, Ottawa, Kan.; Frank A. Weber, Nursery, Mo.; Henry Wallis, Wellston, Mo.

Peter Youngers, Geneva, Neb.; C. L. Yates, Rochester, N. Y.

PRESIDENT'S ADDRESS.

President Brooke's address follows:

Gentlemen of the American Association of Nurserymen:

Since we last met in the city of Omaha only one short year ago, our country has made more history than for ten years of her immediate past. Her flag has been gloriously born to the isles of the seas. The Yankee from Vermont and the son of the South has thrilled the patriotic soul by their deeds of heroism, and even the young man from far-off Kansas, un schooled to arms, has performed such brave deeds of valor that as a reward Uncle Sam has touched his shoulder with the star of the brigadier. The year is now a part of our history dear to us all. We are met this year in this great and mighty city of the lakes, inspired by her grandeur, ready to bow at her feet and learn the lesson of prosperity from the Queen of the empire of the west. From the associated wisdom and energies of this people let us learn a lesson and unite our own resources for the good of the individual. The nurseryman, naturally a lover of nature and always a patriotic citizen, knows no East, no West, no North, no South—but is always ready to aid his brother from whatever point of the compass he may hail.

This is truly an age of conventions. Every enterprise has its organization to further its interests. This association dear to us all and growing dearer, was first organized mainly for its social advantages. Those who organized this annual convention builded better than they knew. To this social privilege - and I grant it is a delightful privilege—is being added from year to year a department which looks after the business of the general nursery public. To properly organize and conduct this business requires the associated effort of this convention.

I wish, at this time, to especially call your attention to the important questions of transportation of nursery stock: The present system of handling imported stock in custom houses in New York, and our relations with our neighbors on the north. Three years ago in this city a committee on transportation was appointed for the first time. The work of this committee, though quietly done and without any expense to this association, has resulted in much good to the shippers of nursery stock. The western classification committee is composed of about seventy-five members. Mr. J. T. Ripley, a very worthy gentleman of this city, is its chairman. This committee establishes the rules and classifies the rates for all freight west of the Mississippi. The official classification governs east of the river.

The rules of the western classification need some revising to suit the conveniences of the shipper and still be just to the railroad. Among these are the following: Reducing trees from bales of 100 pounds to original package to be shipped at same rate as 100-pound bales. 2. To establish a rate for trees in bulk of less than car-load, say something like 4,000 or 5,000 pounds up to half car weight. 3. I am informed only recently that the railroads have abrogated the rule allowing the stoppage of cars in transit by the payment \$5.00.

As chairman of your committee on transportation I had arranged a meeting with Chairman Ripley of the western classification at their meeting in St. Louis on May 2nd of this year, but owing to the pressure of business it was impossible to get a representative number of your committee together at that time to attend the meeting; however, Mr. Ripley has kindly granted a hearing at their next meeting on November 2nd of this year. I wish to recommend to this convention that the committee to be appointed by my successor be authorized to be at this meeting and that they be voted means to defray all expense in attending the same, but that they be allowed no per diem.

The present system of inspecting imported stock in custom house at New York surely demands attention at the hands of this convention. I recommend that either a special committee be appointed to look after this matter, or that the committee on tariff be instructed to do so. I am not fully posted as to whether there has been any recent modification of the Canada exclusion law which prohibits the shipping of nursery stock from the United States into the former country. I very respectfully desire to refer this matter to you for your consideration and discussion.

I wish to direct your attention, also, again to the method of advertising to the trade by catalogue or circular price list. This method is a very legitimate one, but one which is very often abused. This is not a new subject, but one which comes up at every meeting of this association. It is so important, however, that I trust you will pardon me for pressing the subject most earnestly upon you. It is, perhaps, not within your power to stop the abuse of this by any act of yours while assembled here. It is simply a question of honor, gentlemen, and business integrity! It is a violation of the most sacred rules of the science of business for a nurseryman to give both to me and to a planter the same prices on the same grade of stock. If a grower of stock in the East wishes me to assist him to distribute his surplus, it is a grave violation of business etiquette for him to give to me and my customer the same prices for the same stock. It is simply "gorilla warfare" on business for me, in the West, to make to the nurseryman, the dealer, and the planter in another part of the country one price instead of three. I bring this matter before you, not because I have any plan to recommend for your consideration, but rather to bring this subject to your attention and to press the same upon you for discussion. It is well, no doubt, for us continually to school ourselves on every feature of our business, for by so doing we not only strengthen our own ideas, but help our fellow men.

The past winter was one that will be referred to by the oldest inhabitant as the coldest on record. It was especially unfriendly to the nurseryman. The effect has been to reduce the surplus stock gener-

ally and thus add a stimulant to already advancing prices. Along with other industries our business seems to have touched a very healthy period, and I believe, gentlemen, that I can safely predict for you a sharp advance in prices of almost all lines of trade, and that you are about to enter upon a few years, at least, of encouragement to the long waiting nurseryman. Let me say to you, also, that the duration of these prosperous years depends largely upon us whether we will grow for the market what it will bear, or whether we will try to do two years' business in one. You may depend upon it that the market will stay with us if we will considerately protect it ourselves.

Finally, gentlemen, not having had the opportunity of thanking you for the honor of presiding over your deliberations I now desire to thank you for this honor which, I assure you, was unsought, but highly appreciated upon my part. I ask your indulgence for any mistakes I am liable to make, and I now declare this convention ready for business.

Upon motion of Silas Wilson a committee to consider the recommendations of the president was appointed. President Brooke named the following as such committee: Silas Wilson Ia.; A. Willis, Kan.; N. W. Hale, Tenn.; T. S. Hubbard, New York; W. J. Peters, O.

SECRETARY'S REPORT.

Secretary Seager reported that he had received in membership fees \$690, about the same amount as last year. For advertising in the annual report, \$149.50, had been received, and for advertising in badge book, \$325.47; total receipts, \$1,164.97. The secretary stated that when he was elected to the office at the convention in 1893 the Association had \$1,383 on hand. Since then there had been special expenses as for instance \$839.24 for legislative committee work. It was understood, he said, that the amount of the Association's fund in the Whitney estate was \$1,491, and that this amount with interest was secured. Secretary Seager said he had turned over to Treasurer Yates \$1,153.61, and that he was "shy" \$11.36 for exchange on checks.

TREASURER'S REPORT.

Treasurer C. L. Yates presented the following report:

RECEIPTS.		
From Secretary Seager.....		\$1,690.81
DISBURSEMENTS.		
June 17. Emma Jacobson.....		\$ 50.00
" 17. Whitehead & Hoag Co.....		60.00
" 18. Union and Advertiser Co.....		159.07
July 18. N. H. Albaugh.....		48.00
" 18. C. L. Watrous.....		23.34
" 18. C. L. Watrous.....		96.30
" 18. Silas Wilson.....		101.20
" 19. Geo. C. Seager.....		63.65
Oct. 1. Union and Advertiser Co.....		176.40
1899.		
Mch. 22. Central Passenger Association.....		7.00
" 22. Western ".....		7.00
May 24. George C. Seager.....		323.00
June 12. Union and Advertiser Co.....		201.76
" 12. Whitehead & Hoag Co.....		28.40
Balance.....		345.19
		<u>\$1,690.81</u>

Both reports were referred to an auditing committee composed of Samuel Lorton, Ia., J. H. Dayton, O., and Irving Rouse, New York.

P. S. Peterson extended an invitation to the nurserymen to visit the Peterson nurseries at Rose Hill.

Nelson Bogue, Batavia, N. Y., presented a communication from the management of the Pan American Exposition of Buffalo inviting an exhibit of trees and shrubs at the exposi-

tion. The following resolution was presented and laid on the table until afternoon :

Resolved, That the kind invitation of the chairman of committee on horticulture, R. K. Smithers, and the director of exhibits, F. W. Taylor, of the Pan-American exhibition be accepted and that the president of the Association appoint a committee of three to act as an advisory committee in conjunction with the sub-committee on horticulture of the Pan-American Exposition.

Mr. Albaugh: "This nurserymen's meeting has been increasing in interest and we have a splendid meeting here to-day. You will notice that this is the 24th annual meeting. I have attended twenty-one meetings. If another member has such a record, I would like to see his hand. No hands up? I guess this Ohio kid is the only one. This is my forty-second year in the nursery business at one stand, can any one else say the same?"

(Up stood Jacob W. Manning of Reading, Mass., who has seen forty-five years in the business at the same stand.)

"We have met in a good many places. I have frozen at Niagara Falls and melted at Detroit. I have ransacked the Mississippi and the Missouri. I suggest the desirability of considering Chicago as the place for the next convention."

The following committee on programme was appointed, after which the convention adjourned until afternoon: C. L. Watrous, Ia.; Ralph T. Olcott, New York; E. Albertson, Ind.

VICE-PRESIDENTS.

At the opening of Wednesday afternoon's session the following vice-presidents for the states were elected:

Alabama, Robt. Chase; Arkansas, T. Wing; Colorado, George J. Spear; California, Thomas B. Bolander; Connecticut, J. H. Hale; Delaware, Alexander Pullen; Florida, W. D. Griffing; Georgia, R. C. Berckmans; Idaho, S. S. Lewis; Illinois, F. S. Phoenix; Indiana, W. S. Reed; Kansas, A. Willis; Kentucky, F. M. Downs; Louisiana, L. T. Sanders; Maine, Herbert A. Jackson; Maryland, Joseph Davis; Massachusetts, J. W. Manning; Michigan, C. E. Greening; Minnesota, J. Cole Doughty; Mississippi, Dr. A. T. McKay; Missouri, Frank A. Wheeler; Montana, S. M. Emery; Nebraska, Peter Youngers; New Haven, J. C. Chase; New Jersey, P. Ouwerkerk; New York, D. H. Henry; North Carolina, J. Van Lindley; Ohio, J. H. Dayton; Pennsylvania, Thomas B. Meehan; South Dakota, G. H. Whiting; Tennessee, J. E. Murphy; Texas, E. W. Kirkpatrick; Utah, J. H. Goodhue; Vermont, D. J. Camps; Virginia, W. T. Hood; Washington, C. L. Whitney; West Virginia, G. P. Miller; Wisconsin, C. Edwards.

The resolution relating to the Pan-American Exposition in Buffalo, offered by Mr. Bogue, was adopted.

THE WHITNEY CLAIM.

President Brooke called upon Mr. Watrous to report on the Association's claim on the Whitney estate, at Franklin Grove, Ill. Mr. Watrous reported that the conditions are as follows:

"The Association had for many years as its treasurer, A. R. Whitney. His health failed and his son, N. A. Whitney, was elected treasurer. The father died and the money of the Association was locked up in the estate which is wholly in land, 270 acres. The son has no property of his own, at least not nearly enough to make good the amount of the Association's fund, some fourteen hundred dollars. The last information I had from the administrator of the estate, who is the husband of a daughter of the decedent and is therefore an heir and an interested party, is to the effect that we cannot expect to obtain our money until the estate is settled. Our claim is secured by a full legal assignment of the distributory share of N. A. Whitney, and we shall get our money first when the estate is divided.

"The administrator is Mr. Crawford, a wealthy man and one

of large business experience. We cannot expect him to sell the property until he can get what he thinks is a right price.

"Now we have two courses: We may go to law over the matter, or we may seek to make terms for the purchase of the claim by the administrator or some one else. I am personally acquainted with the advisory lawyer of the estate. He will do all in his power to help us. But I am thoroughly satisfied that it would be worse than a waste of money to sue the administrator or Mr. Whitney. We may wait for a settlement or we may make the best terms we can in an assignment of the claim. If we need the money now, we can send some one to Franklin Grove to negotiate. I believe the administrator has two years' time from the date of his appointment in which to effect a settlement. The claim carries six per cent. interest."

Irving Rouse, of New York, suggested that as the Association is not in pressing need of the money, and as the claim is well secured it would be well to await a settlement of the estate and get the benefit of the interest. The amount due one of the protective societies by Mr. Whitney has been paid. It was much smaller than that due the Association. The claim of the Association was referred to the executive committee with power to act.

President Brooke read a communication from U. S. Pomologist, G. B. Brackett, stating that the space for a nursery exhibit at the Paris Exposition would be restricted and suggesting that photographs of nursery stock be sent to him at Washington to be forwarded to Paris. These should be sent not later than October 1, 1899. It is also suggested that an exhibit be made of American fruits of the crops of 1899 and 1900, fresh or manufactured.

CLASSIFICATION OF STOCK.

In presenting the report on the president's address Silas Wilson, of Iowa, called attention to the urgent need of a re-arrangement of the classification of nursery stock. He said that he had found that grape vines, cuttings and hedge plants billed as such are rated as first-class freight, whereas stock billed as trees and shrubs are favored. Mr. Bissell, of Maryland, said that his firm imported eleven boxes of trees and one of plants from Japan, and because of peculiarities in classification he paid \$96 more for freight from San Francisco than was necessary. President Brooke cited a case where an agent told him the minimum carload weight had been increased to 24,000 pounds. He investigated and finally was able to show the agent that the minimum had not been changed from 20,000 pounds. President Brooke urged the importance of looking into these matters and not accepting the statements of railway officials.

Following is the report of the committee on the president's recommendations:

Your committee, to which was referred the president's address, has had the same under consideration, and would respectfully submit the following for your consideration:

Regarding the classification of nursery stock to include grape vines, cuttings, seedlings, etc., all in same classification as trees and shrubbery.

We would recommend further that our committee use its best efforts to secure this classification by all forwarding companies.

We recommend that the suggestions of the president on the tariff question be referred to a special committee for its consideration for such action as it may deem proper.

Your committee would recommend a continuation of the same committee on transportation.

In relation to the distribution of price lists, catalogues and circulars

to dealers and planters we consider this a subject of very great importance and suggest its full discussion and such action as this association may deem advisable.

ELECTION OF OFFICERS.

The vice-presidents reported the following nominations for the officers of the Association for the ensuing year:

President—Wilson J. Peters, Troy, O.

Vice-President—D. S. Lake, Shenandoah, Ia.

Secretary—George C. Seager, Rochester, N. Y.

Treasurer—C. L. Yates, Rochester, N. Y.

Executive Committee—Irving Rouse, Rochester, N. Y.; C. L. Watrous, Des Moines, Ia.; E. Albertson, Bridgeport, Ind.

PLACE OF MEETING.

The report was adopted unanimously. The vice-presidents, through Thomas B. Meehan, of Pennsylvania, recommended that the convention of 1900 be held in Chicago and at the Chicago Beach Hotel. The report highly complimented the hotel manager on the splendid accommodations and complete service afforded, and so enthusiastic and unanimous was the vote that when it was called, every member jumped to his feet instantly, the president calling for a rising vote.

A communication from the manager of the Chicago Beach Hotel, George B. Ross, was read by the president. Mr. Ross extended an invitation to the Association to hold its next convention there and offered the same liberal rates. He said he had been gratified to hear the many expressions of approval, by the members, of the service rendered at the hotel and he promised equal care and attention next year. Mr. Ross' communication was received with applause.

Professor S. J. Hunter of the State University, Lawrence, Kan., read a paper on "The Nurseryman and the Entomologist," an extract from which will appear later.

QUESTION BOX OPENED.

At this point the question box was opened and the first discussion of the convention ensued. William A. Peterson, Chicago, asked: "In Illinois the nursery stock is taxed as personal property. Is this universal? Is this just?"

Peter Youngers, Geneva, Neb.: "We are asked to pay taxes on nursery stock in nursery rows and also in cellars."

N. H. Albaugh, Phoneton, O.: "There was a proposition to do that in Ohio, but we overruled it. We showed very plainly the injustice of taxing the stock before we ourselves got anything for it and then taxing what money we finally got out of it. Nursery stock ought to range in this respect with wheat and oats and corn."

Silas Wilson, Atlantic, Ia.: "In our state nursery stock is classed as realty, whether severed from the ground or not."

President Brooke: "In Kansas nursery stock escapes taxation, so that we have money to pay our taxes on the land."

Mr. Peterson: "In Illinois this is a very live issue."

A. Willis, Ottawa, Kan.: "I think it is right that nursery stock should be taxed; but wheat and corn and other crops should be taxed. It is not right if some crops are exempted."

C. L. Watrous, Des Moines, Ia.: "This is not a subject for a national organization to handle. It is a matter for the individual states. This Association could do nothing about it. The subject could properly come before the state horticultural societies."

At the opening of the Thursday morning session at 10 o'clock, President Brooke announced the following committees:

On Pan-American Exposition—Nelson Bogue, New York; Peter Youngers, Nebraska; Thomas B. Meehan, Pennsylvania.

On Exhibits—Hiram T. Jones, New Jersey; Joseph Davis, Maryland, J. H. Skinner, Kansas.

Papers were read by Professor L. R. Taft, of Ingham, Mich., on "State Control of Insects and Diseases"; by N. W. Hale, Knoxville, Tenn., on "The Nursery Business in the South," and by Orlando Harrison, Berlin, Md., on "Why We Fumigate."

PRACTICAL INFORMATION WANTED.

The question box was again opened and again it provoked a lively discussion, the second discussion of the convention. "How effective is fumigation as applied to nursery stock?" was the question.

Mr. Kirkpatrick, McKinney, Tex.: "I had hoped some one would bring us a sample of the San Jose scale and of plants injured by it, so that by this time we could appreciate the danger, grasp the situation and learn something. We hear a great deal about the pest, but at least in our country we do not see any results. We read of the gypsy moth and its disastrous work in Massachusetts where it promised to drive the human race off the face of the earth. But when we come here we do not find any one who will say, 'I have the San Jose scale in my stock. Here is a sample. Take warning.'

"Now, we have not seen this scale. We do have laws and we have officers who go forth to execute the laws; but we see nothing. I want to see and hear of more actual work in the field at our conventions. Let a man stand up here and say, 'I have it,' or 'My neighbor has it.'

"We are hammering along year after year on this subject of San Jose scale. We are paying the expenses for its suppression. But have we got the scale? If we have we want to know it at once. If not we want to know we have not. Mr. Alwood at the St. Louis convention turned on me and said, 'I am very sorry you have the scale in Texas.' But I have traveled all over Texas and I cannot find it, nor can I find anyone who has found it.

"Bring the scales along and spread them out before me and show me characteristics so I may say which is the scale to fear. They tell us there are thousands of them and that it is difficult to tell which is the true San Jose scale. We want knowledge we can apply; science we can take home with us. We want to know what progress is being made; whether the enactment of laws is beneficial; whether the scale laws have made it possible to ship trees and plants with less friction and annoyance, or whether they have made it more difficult to import and export stock; whether the scale laws are not a real detriment."

A voice: "They have been a detriment."

"We want to know," continued Mr. Kirkpatrick, "whether San Jose scale agitation in the United States has not led Canada and Germany to enact laws affecting nursery stock; whether it will not seriously injure business if we go on enacting scale laws. We like to hear long spun out papers by college professors. We like to read them at home better than we like to hear them read here. We want practical discussion here. I am willing to travel to any state in the Union to see the scale. By the way, California has dismissed the San Jose scale as almost a myth. They have now ignored it. Are we to take it up now and go through the same long mill of experience?" [Applause.]

Mr. Hubbard, Fredonia, N. Y.: "In talking with entomologists I find that the San Jose scale is not considered by

many as anything nearly as serious as it has been depicted. It is a fair question whether there are not natural enemies that will suppress it."

Mr. Bissell, Maryland: "Professor Johnson, of Maryland, has published a large amount of data on this subject. There is a great deal of literature upon it. I don't see how any intelligent nurseryman can be ignorant of the danger from the San Jose scale, after hearing what Professors Johnson, Alwood and Bailey have to say about it. I have talked with Virginia orchardists who have been seriously affected by the scale. I think the agitation has done a world of good. We know how to treat and control it. I know many nurserymen who are fumigating all their stock. We have found that in very many cases we cannot grow fruit without spraying."

Mr. Van Lindley, N. C.: "I don't think the entomologists have said too much about the scale. One nursery in Georgia was destroyed by the San Jose scale and several orchards have been devastated. I am not surprised at a Texan who has not seen it. I know the scale and what it has done."

Henry Wallis, Mo.: "The scale may not be as serious as it is called, but I believe it is necessary to watch it."

N. W. Hale, Tenn.: "Our Association struck the keynote in this matter at the St. Louis convention when it recommended the passage of a national law for the transportation of nursery stock between the states. The states should make short, simple and effective laws. We can't be too careful. I think a certificate is an excellent thing. Inspectors should have the right by state enactment to take charge of orchards. I would like to see a uniform law."

Mr. Greening, Mich.: "I will concur in what Mr. Hale has said. In Michigan we have had some experience with the scale, both in nurseries and orchards. I must emphatically say that Professor Taft's paper, read before us, is based upon facts and not upon theories. We at first thought the Michigan inspection laws were too stringent, but we changed our minds. The laws are complicated, but the state should inform the nurserymen of the provisions."

LEGISLATIVE COMMITTEE'S REPORT.

Mr. Rouse, of New York, called for the report of the legislative committee on the scale.

Mr. Watrous, chairman of the committee, said: "A year ago last winter the committee went to Washington and appeared before the house and senate committees and the committee of agriculture. We secured a favorable report from the house committee, and all was in fine order for what we desired with a prospect of getting it within sixty days. But a little circumstance in Havana harbor occurred and congress went into business of attending to Spaniards and Filipinos instead of San Jose scale.

"The situation is thus: Last winter chairman spent stamps in correspondence regarding the drafting of a bill. The result was to show that there was no use to talk about congress in the short session considering the subject. But all said that if we came before the next congress making the same showing we might get what we reasonably asked. The committee has not much progress to report. We laid foundation for what is desired. We ask further time. What we want will entail little expense."

Mr. Hubbard: "I move that the committee be continued."

President Brooke: "It would not be courtesy to the incoming president who has the appointment of the standing

committees. I cannot, therefore, entertain the motion. It would be proper to move that a committee on legislation continue the work referred to."

CANADA'S SURPLUS STOCK.

Mr. Rouse: "In the East, and throughout the United States, for that matter, it is commonly thought that when the Canadian exclusion act was passed, the damage was done. But that is not the case. There is more to come. The Canadians are as active as are any of our people. When they found that they had the Canadian market to themselves they proceeded to buy and plant. It is safe to say that more stock was planted last year than in the ten previous years combined. A local nursery paid \$20 per 1,000 for 5,000 apple seeds. We are hoping that for the next two or three years we shall have a good nursery business. But Canada will be overstocked and there is not the slightest doubt that Canadian nurserymen will send their surplus stock to the states. Thus they will not only keep out our stock by the exclusion act, but they will swamp us by surplus of stock. And these conditions will not affect the Eastern nurserymen alone, for the Canadians are planting millions of apple. The national inspection bill, awaiting action by congress, contains a clause barring out all nursery stock about which there is any doubt. Right there is our chance to retaliate, and we ought to seize the opportunity. Within the last sixty days one of the largest Canadian nurseries burned a large amount of stock on account of the San Jose scale. Secretary Wilson of the United States Department of Agriculture is not the kind of a man to stand in the way of the strict enforcement of the provision to which I refer. We have the opportunity to keep out of this country the surplus Canadian stock and we should not miss it."

Mr. Manning, Mass.: "There has been an attempt to enact a scale law in Massachusetts. It was opposed by a member of the house who thought the scale a myth. The city forester of Boston has searched diligently for the scale but cannot find it. The bill was defeated."

RETALIATION FAVORED.

Mr. Windsor, Ill.: "I concur with Mr. Rouse. The Canadian exclusion act hit me pretty hard. The Canadians are going to have an over-production of nursery stock. I believe in retaliation when they work such schemes. We should let them burn some of their stock."

The report of the committee on the president's address was made a special order for 2:30 p. m.

CHERRY STOCKS.

The question box was reopened. "Has the cold weather demonstrated that Mahaleb stocks are more hardy than Mazzard?" was asked.

Mr. Wilson, Ia.: "I have a large cherry orchard planted five years; in full bearing. There are alternate rows of trees budded on stock of each kind running north and south. The trees have been killed in streaks running northeast and southwest. I could see no difference as to stock. Where the grass was well up around the roots the damage by the cold weather was not so great. I believe in the theory advanced in Captain Watrous' paper, that an excess of rain is more a cause of injury than an excess of freezing."

Mr. Watrous, Ia.: "I have an orchard of English Morello on Mazzard in one row, and in the next row are Mahaleb stocks. In the latter one-third of the trees are dead. Within fifty yards are rows of Mazzard and Mahaleb. The row of

Mazzard is nearly destroyed, while the row of Mahaleb has nearly recovered from the effects of the cold. At Des Moines the Mahaleb endured the cold much better than did the Mazzard this year."

HEDGE PLANTS.

"What is the most practical hedge for farm purposes and what for park and cemetery purposes?" was asked.

Mr. Windsor, Ill.: "In Central Illinois, for twenty years, the Osage orange has been regarded as the most practical farm hedge. There is the disadvantage that when it is allowed to overgrow it develops into a hedge of trees. But even then it has been of great use, as it has broken the wind and saved wheat crops. It has been found to make the most durable fence posts—more durable than red cedar. It is now an article of merchandise in lumber yards and is shipped by the carload. North of the belt for Osage Orange the honey locust has been used successfully, especially in Wisconsin and Canada. I shipped annually six to eight carloads to those sections until my trade was cut off by the Canadian exclusion act."

Mr. Harrison: "The farmer does not want a hedge fence if he is in the neighborhood of the scale, for it is a harboring place for the pest."

Mr. Albaugh: "Anything that is practical is successful. I have four miles of Osage orange which has to be trimmed twice a year. I believe that the only practical farm hedge is a barbed wire fence."

NURSERY COMBINATION.

"Is a national combination of nursery interests advisable?" was asked.

J. H. Dayton, Ohio: "If I could be secretary and treasurer, it would be; otherwise not."

Mr. Hubbard: "If I could sell out for double the value and then start in again in opposition, it would be advisable."

TREASURER'S BOND.

At the opening of the Thursday afternoon session President Brooke suggested that the Association pay the cost of an indemnity bond given by the treasurer under a resolution adopted by the Association.

Mr. Watrous: "To whom would such a bond run in the absence of incorporation?"

President Brooke: "I suppose to the officers of the Association."

Mr. VanLindley: "I move the Association pay the cost of such a bond, the amount to be fixed by the executive committee." Carried.

Mr. Hale: "Could we get the bond if the surety company knew that the Association was paying for it?"

President Brooke: "Yes."

Mr. Watrous: "I move that the Association constitute the chairman of the executive committee the custodian of the funds of the Association and that the bond of the treasurer run to the chairman of the executive committee." Carried.

CUSTOM HOUSE AFFAIRS.

The special order of the report of the committee on the president's address was taken up and Chairman Wilson of that committee said: "The committee thought it was asking rather too much of the tariff committee to impose upon it the extra work in connection with custom house affairs, so it recommends the appointment of a special committee of three to look into the matter of the importation of nursery stock."

President Brooke named the following as such special committee, the members being Eastern men: Thomas B. Meehan, Penn.; J. J. Harrison, Ohio; Theodore Smith, New York.

STANDING COMMITTEES.

President Brooke announced that the president-elect, Mr. Peters, had asked him to state that all the standing committees would remain as they were last year.

A paper was read by Professor E. S. Goff of the State University, Madison, Wis., on "Root Killing of Nursery Trees."

PRAISE FOR THE HOTEL.

Chairman Willis of the committee on resolutions reported strongly in favor of the excellent accommodations provided the members of the Association by George B. Ross, manager of the Chicago Beach Hotel and by all the hotel employees, the kindness and courtesy of whom was especially mentioned. The report expressed the thanks of the Association to the proprietor, Mr. Ross, and instructed the secretary of the Association to make a record of this expression and to present to the proprietor a copy of these resolutions. The report was adopted unanimously and vociferously.

President Brooke then briefly congratulated the Association upon the success of its twenty-fourth annual convention and thanked the members for their consideration for him during the time he had presided over their deliberations.

At 3.45 p. m. the convention adjourned until next June.

THE EXHIBITS:

Chairman Jones of the committee on exhibits noted the following: Chicago Carnation Co., carnations; Rochester Lithographing Co., represented by M. B. Fox, plates; P. S. Peterson & Son, Chicago, herbaceous pæonies; J. Austin Shaw, representing several firms; D. B. Long, Buffalo, catalogue designs; D. W. Rich, Atlantic, Ia., Wallace new red raspberry; Dayton Fruit Tree Label Co., Dayton, O., R. C. Stoehr, representative, fruit tree labels; John D. Abel, rapid fruit tree budder; Hiram T. Jones, Elizabeth, N. J., Japanese maple; Benjamin Chase, Derry, N. H., represented by John C. Chase, fruit tree labels; Joseph Heinl, Jacksonville, Ill., junipers and amaryllis; Stecher Lithographing Co., Rochester, plates.

PROTECTIVE ASSOCIATIONS.

The American Nurserymen's Protective Association met at the Chicago Beach hotel June 14. Over 40 members were present. It was one of the largest meetings the association has held. Seven new members were admitted. The following officers were elected: President, C. L. Watrous; vice-president, Samuel Lorton; secretary, Thomas B. Meehan; treasurer, Wilson J. Peters; executive committee, C. L. Watrous, C. H. Perkins, W. J. Peters.

The Nurserymen's Mutual Protective Association met at the Chicago Beach hotel, June 14. There was a good attendance and matters of special interest to the members were discussed. Five new members were added. The following officers were elected: President, N. H. Albaugh; vice-president, William C. Barry; secretary and treasurer, George C. Seager; executive committee, E. Albertson, Irving Rouse, F. H. Stannard.

It is proposed that the two associations unite, as their objects are identical.

CONVENTION NOTES.

What every one said: The Chicago Beach hotel is all right.

The badge book listed 395 members of the Association. About 150 attended the convention.

From over the sea came William Fell, Hexham, England, and E. T. Dickinson, Chatenay, France.

Invitations to hold the next convention at Niagara Falls or at Saratoga Springs were received by the secretary.

R. C. Berckmans, Augusta, Ga., was detained at home by fever contracted during his service in the United States army in Cuba.

More questions and discussions and less long and formal papers are what is needed to enliven the sessions of the annual conventions.

Henry Wallis, Wellston, Mo., was enthusiastic over the Hicks grape. His samples of wine made from this grape were pronounced excellent.

Hon. A. L. Brooke made a good presiding officer. The business of the convention was handled with despatch and in a parliamentary manner.

The Association honored the Eastern men by making Irving Rouse chairman of the executive committee and custodian of the funds of the Association.

It is proposed that appropriate silver badges be prepared for the next convention which will be the twenty-fifth anniversary of the organization of the Association.

Examine the proceedings and note that the only discussion of the convention resulted from the operation of the question box which was proposed by the NATIONAL NURSERYMAN.

One of the jolliest of the older members of the Association is Alexander Pullen, Milford, Del. He has a smile and a pleasant word for every one and now and then a good story.

D. Hill, Dundee, Ill., invited the members of the American Association to visit his 100-acre patch of evergreens, offering transportation. His nurseries are but 40 miles from Chicago.

My, O My valley was hard hit when Jacob W. Manning of Massachusetts popped up to answer the challenge of the sage of Phoneton, regarding long service in the nursery business in one place.

A special effort should be made by all who attend next year's convention to aid by every means in their power in procuring a sufficient number of railroad certificates to insure the rate of one fare and a third.

The blank page in the badge book for memoranda was a good thing, but there ought to have been more of it. A dozen blank pages in the badge book would cost little or nothing and would be very convenient for the members.

Several prominent members from the West told the eastern members that they would vote in favor of an eastern city for the next convention if the latter desired it; but the eastern men readily fell in with the suggestion that the Chicago Beach hotel be the place.

"I'm one of those Chases," said a member of the Alabama Nursery Co., introducing himself to a member of the Association. Besides the four Chase's, Herbert S., Charles F., Henry B. and Robert C. of that Chase company, there were present Lewis Chase of Rochester, the R. G. Chase Co. of Geneva and John C. Chase of Derry, N. H.

There was no party made up to visit the nurseries of P. S. Peterson & Son, at Rose Hill, because it was thought the Association had too much business of importance to transact. It was found that nearly an entire day's time would be required to make the trip. It was suggested, however, that those who wished to see the nurseries could do so on Friday the day following the close of the convention.

ACROSS THE DIVIDE.

Impressions of a Trip Over the Desert Which Separates the Fertile Eastern and Central Western States From the Great Fruit Country of the Pacific Coast—Almost Limitless Waste of Land to Be Reclaimed—Irrigation In Its Infancy.

While some of those who attended the Chicago convention took time to pay brief visits to nurseries near Chicago, or to others on their way to their homes, a representative of this journal sought acquaintance with the arid plains of the great West and the attractions of the mountains in the heart of Colorado. The achievements of modern railroading make possible such a trip within the limits of the brief respite from daily duties that is allowed in the routine of the nineteenth century. Boarding the Rocky Mountain Limited on the Chicago, Rock Island and Pacific railroad the tourist was speedily transferred from Chicago to Kansas City, thence across Kansas and the arid plains of Colorado to Denver. How thoroughly are the comforts of modern traveling appreciated on such a trip. The solid vestibuled trains of the Rock Island, provided with all the comforts of a traveling hotel, make such a long trip a pleasure. All the officials of this road, from General Passenger Agent Sebastian down, spare no effort to insure the comfort of the passengers from beginning to end of their journey. The nurseryman seeking recreation and rest could not do better than to spend three or four weeks in the Rockies. He may leave Chicago on the Rock Island at 10 p. m. and awake the second morning in either Denver, Colorado Springs or Pueblo. Then he is within easy reach of any point of interest in the mountains, on the Denver and Rio Grande or the Colorado Midland railroad. Leadville, Cripple Creek, Creede, Silverton and other noted mining towns are within a day's journey, and few hour's ride takes him to Manitou Springs and Pike's Peak.

This is a mining rather than a fruit country, yet irrigation is doing much for Colorado and in the fertile valleys considerable fruit is grown. Encouragement for the extension of horticulture in the state is found in the well-equipped nurseries of Edward Hubbard, at Boulder; DeWeese & Dye and the Jewett Nursery, at Canon City; the Rocky Mountain Nursery and Colorado Nursery Co., at Denver; G. J. Carpenter and the Grand Valley Nursery and Orchard Co., at Fruita; George J. Spear, at Greeley; Edward Sharpe at Montrose and J. N. Bartels & Co., at Pueblo.

Returning, one may leave either Denver, Colorado Springs or Pueblo on the limited express train which runs every night on the Rock Island, spend the next day in a Pullman coach, in a thoroughly equipped library and buffet car and in a dining car, the service of which is unsurpassed and at rates which are far more attractive than are those of diners east of the Mississippi, and arrive at Chicago the next morning in time to connect with any train in any direction out of that great railroad center of the West.

The scenery afforded by such a trip is unsurpassed in this country and is but seldom equalled abroad. It includes a ride through the royal gorge of the Arkansas, over the famous Marshall pass, across the continental divide, through the Black canon of the Gunnison, Eagle River canon, the canon of the Grande and Tennessee pass.

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The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Wilson J. Peters, Troy, O.; vice-president, D. S. Lake, Shenandoah, Ia.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—Irving Rouse, Rochester, N. Y.; C. L. Watrous, Des Moines, Ia.; E. Albertson, Bridgeport, Ind.

Committee on Transportation—Wilson J. Peters, ex-officio, chairman; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; A. L. Brooke, N. Topeka, Kan.; Robert C. Berckmans, Augusta, Ga.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Thomas B. Meehan, Germantown, Pa.

Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1900—Chicago Beach Hotel, June 13-14.

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THE CHICAGO CONVENTION.

There was no talk of biennial conventions of the American Association of Nurserymen at the recent gathering at Chicago. On the contrary, so large was the attendance, so enthusiastic were the members and so satisfactory the hotel and convention hall accommodations, that, as one man, the members rose to their feet and said: "We will come back here in June, 1900."

There was, however, a demand for a change in the form of programme. "We do not want more than three papers to be read before the convention," said the president to the writer "The most of the sessions should be devoted to business and discussion. The members do not want to listen to the reading of several long papers. The question box is a good thing. It has proved the one thing at this convention to provoke discussion."

Four months ago the NATIONAL NURSERYMAN suggested the importance of providing the right kind of a programme,

and ventured the assertion that a programme that would draw out discussion, put the members on their feet and arouse activity during the sessions, would do more than any other thing to increase the attendance, and with increased attendance will come an increased balance in the treasury, railroad certificates without trouble and other desired conditions.

Reference to the proceedings will show that the question box caused the only discussion of the convention. Not a single paper that was presented provoked any discussion. The very appropriate questions sent in to the NATIONAL NURSERYMAN, and published in the April and May issues, were inadvertently left behind by the secretary, but he promises to look out for this feature of the programme next year.

There was evidence of a generally stronger market for nursery stock. Comparatively few sales were made as the nurserymen evinced a disposition to await developments. They felt assured that prices would at least be no lower later on. The surplus of stock in the states is believed to be small.

The greatest satisfaction with the hotel accommodations was frequently expressed, and resolutions thanking Manager Ross for his courtesy and efforts in behalf of the members were adopted promptly and unanimously in the convention. At no time in its history has the American Association been quite so well entertained.

SOUTHERN NURSERY ASSOCIATION.

The Southern Nursery Association was formed at Chicago during the convention of the American Association. For some time it has been thought desirable to have in the South such an association as the Western Wholesalers or the Eastern Nurserymen's Association.

N. W. Hale, Knoxville, Tenn., is enthusiastic over the possibilities of the South, as evidenced by his address published in this issue. A number of nurserymen from the South met at the Chicago Beach hotel, June 14, for the purpose of organizing an association. N. W. Hale presided. It was decided to call the organization the Southern Nursery Association. The membership will include nurserymen east of the Mississippi river and south of the Ohio river.

The following officers were elected: President, N. W. Hale, Knoxville, Tenn.; vice-president, W. D. Griffing, Macclenny, Fla.; secretary and treasurer, Amos Newson, Nashville, Tenn. A committee was appointed to draft a constitution and by-laws and to report at a meeting of the association to be held at Chattanooga, Tenn., on the first Wednesday in August.

NATURAL ENEMY OF THE SCALE.

Inasmuch as the San Jose scale was one of the principal topics at the Chicago convention, though one in which comparatively little interest has been taken of late, it is of interest to note what E. Dwight Sanderson, an entomologist of Maryland, says in American Gardening:

The value of our common lady-bird beetles as destroyers of injurious plant lice and scale insects is not appreciated as it should be, for very frequently they are killed by persons who think them injurious.

Besides the little orange or red beetles, spotted with black, which are ordinarily known as "lady-bird" or "lady-bugs," there are a number of forms included in this family of beetles, the coccinellidæ, which

are colored exactly opposite to the others, being of a brilliant black, marked with yellow or red. Most of these latter forms feed on scale insects, while those with the black spots live mostly on plant lice.

Never has the true worth of these insects been better shown than by the persistent way in which they have met the invasion of the San Jose scale. For a time it seemed as if the fruit grower was to be obliged to do battle with this pest single handed, but old Mother Nature always comes to his assistance in such cases after a time, and this instance was no exception. Hardly had the San Jose scale commenced to get a start in the East, before it was attacked both by internal parasites and the predaceous lady-bird beetles. Of the latter, but two specimens are commonly found on scale infested trees in the East.

Even more efficient are the little black beetles known as *Pentilia misella*.

STATE CONTROL OF INSECTS.

Prof. L. R. Taft, of the Agricultural College, Michigan, read a paper at the Chicago convention on "State Control of Insects and Diseases," in which he gave a history of all legislation had in Michigan relating to insects and diseases that infest fruit trees. Michigan now has on her statute books three such laws, the first being what is known as the "yellows law," providing for a commission for inspecting orchards and enforcing the absolute destruction of all infested trees. This law has proved very efficacious and many valuable orchards have been saved through its agency. A second law, known as the Michigan Spraying law, was passed for the purpose of securing prompt and effective treatment for any insect and disease, and was especially aimed against the San Jose scale and canker worm. The third law is the nursery and orchard inspection law, providing for a state inspector of nurseries.

WINTERING STOCK.

N. H. Albaugh, commenting upon the effect of the cold weather upon nursery stock, said at the Chicago convention: "The problem is, how to protect for spring sale marketable stock when fall comes on. Peach and dwarf pear stock must be protected. The nurseryman who does not do this must be deemed shiftless. In the first place dormant buds must be prepared for winter. Ridges should be plowed up on each side of the rows so as to form a hollow around the roots in which the snow may lodge. Some cover the trees at the roots with earth, but there is danger in this if there should happen to be a wet winter. Avoid late cultivation and let the stock mature as early as possible in the fall.

"A storage house is essential, and I have learned much by experience, regarding the manner of construction. I would never make it below the surface of the ground. There is more danger of dampness collecting in it if you dig down at all. Then again it is harder to put stock in and to take it out. You cannot drive a full load into a cellar. A space 30x100 feet should be selected and it should be covered a foot thick with gravel. Then build up your stone walls several feet and side up with matched lumber, putting in a paper lining. Leave an air space and then put more paper under the inside wall. Building paper should also be placed under the roof. At first we used saw-dust between the double walls, but we found that it settled down, got wet, and rotted the frame work and that it was worse than useless. Such a storage house will hold 35,000 peach trees. We found that heeling in the stock caused premature sprouting in spite of all precautions. We learned

that cording up the stock was the only satisfactory way. You must be very careful that no moss gets upon the tops or bodies of the trees, and the moss used must not be too wet. Ordinary moss will not do to rig up trees in the storage house. We spread out the moss to dry, but it was caught in the rain and we found it more convenient to buy dry baled moss and wet it from a sprinkling can as we wanted it. Begin at the bottom of the pile with dry moss. Push it well around the roots. Leave a space two feet wide next to the wall. Place the tops of the trees together with the roots out. Leave a passage way four feet wide between the corded trees. As you get near the top of the pile the moss may be more moist, but great care must be taken to keep the tops and trunks of the trees bare. The varieties are piled separately and an order can be filled without delay. Last year we put in a wood stove to be used in long protracted zero weather. A little heat goes a great ways in such a house. The cost of such a house is \$600. No nurseryman who raises a considerable amount of stock in the central states ought to think of continuing in the nursery business without some kind of a protection house."

AMERICAN SEED TRADE ASSOCIATION.

The seventeenth annual convention of the American Seed Trade Association was held in Cincinnati, June 13th. Forty-five members were present. Resolutions protesting against the free distribution of seeds by the government were adopted. Alexander Rodgers, of Chicago, was elected president; S. F. Willard, Wethersfield, Conn., secretary.

Among Growers and Dealers.

Growers are urging the placing of orders early, declaring that there will be an advance of from 10 per cent. to 100 per cent. in prices before fall shipments commence.

C. C. Elwell, Waterloo, N. Y., has disposed of his interests in the Empire State Nursery Co., which will be continued under the management of Frank Pierson, who has been for some time closing up the Canada office of Pierson Brothers. Mr. Elwell desires to locate in Rochester, N. Y.

A single carload of California fruit, mostly cherries, with some apricots, etc., shipped from Suisun in C. F. X. car 19,426 on May 11, sold in New York for over \$4,500 gross. This car will net the growers in California, after deducting freight, refrigeration, and other expenses, about \$4,000.

Luke Brothers Company early in May dissolved their relations with A. D. Pratt, who for the past two years has managed their Rochester office. This change does not in any way affect the standing of the company, financially or otherwise, and they will continue, as heretofore, to do business from Montreal, Chicago, and Rochester. The office last named is under the management of E. M. Luke.

PROOF THAT THEY LIKE IT.

J. O. KELLY & SONS, Jeff, Ala., June 12, 1899.—"Enclosed find check for \$1, for which please send the NATIONAL NURSERYMAN one year. The journal meets with our approval. We are perfectly willing to pay the dollar for it, and we think that is about the best way to ell whether a man likes a thing or not."

WILSON J. PETERS.

Herewith is presented a portrait and sketch of the new president of the American Association of Nurserymen. Mr. Peters has long been one of the most prominent members of the Association. He is popular, affable, and thoroughly posted as to his business. He has been a member of the executive committee of the American Association and he is treasurer and a member of the executive committee of the American Nurserymen's Protective Association.

Wilson J. Peters was born in Adams County, Pennsylvania, August 9, 1849. Nineteen years later, with his father, George Peters, he moved to Ohio, and they engaged in the nursery business at New Carlisle, under the firm name of George Peters & Son. About eight years later they removed to Troy, Ohio, where they continued in business until the father's death in 1883, since which time the business has been carried on by the two sons, Wilson J. and Norris B. Peters, under the name of George Peters & Co.

George Peters & Co., in partnership with J. H. Skinner, also have a nursery of some three hundred acres at Topeka, Kans., known as the Capital Nurseries, Peters & Skinner, proprietors. The land devoted to the business in Ohio amounts to over 700 acres.

In 1872 Mr. Peters married Miss Jennie Foresman. To them were born two children, a daughter, dying in infancy, and a son, now a young man.

IN THE SOUTH.

N. W. Hale, Knoxville, Tenn., entertained the members of the American Association at Chicago with a description of the advantages of the South from a nurseryman's point of view.

"There are thirteen states in the South," said he, "which may be considered in connection with the nursery business. In this area are 118,150 square miles and a population of 25,000,000. We have all kinds of climate and soil, except the northern climate, and we got a little of that last winter. We grow all kinds of fruits that can be grown in the United States, all kinds of vegetables, over one-half the cotton that is produced on the face of the earth, all the rice grown in the United States, all the sugar cane and a large proportion of the nuts grown in this country. We have in this territory all kinds of natural resources, gold, silver, marble and timber. We think we have the best part of the United States. Besides, it is a new country. The old dream of the plantation has passed away. The old idleness has given place to industry upon all sides. This result has been reached out of sheer necessity. Those who have hung idly about the green plantations have been forced to go to work. The people as a whole are happy. It is true that a little trouble now and then occurs between the colored people and the white people. But in

this not over one to five per cent. of the population is represented.

"I mention all these things to show that the field is open to the nursery business. It is a peculiar field. I doubt that a northern nursery firm sending solicitors through the South would accomplish much, but that firm would do well to start a nursery in the South. We are not green with envy. You of the North send good men to talk up the business in the South and we take the orders. By reason of the climate we can sell trees twelve months in the year. We can deliver during six months, from October 15th to April 15th. We can grow trees as well as in any part of the country. Our season is from two to three weeks earlier and lasts some time longer than does that in the North. There is a larger period of growth. We can do a business of \$65,000 to \$100,000 without packing houses, although of course it is better to have them. I think this is a considerable item.



WILSON J. PETERS.

"In all this southern area there are not as many first class retail nurseries of standard integrity as there are in Rochester, N. Y. Yet we do have some. The Chase boys have one and Brother Heikes has one. They do not effect us much for they wholesale mostly. The field is ripe. The nursery business in the South is in its infancy. All previous prejudices and conditions have forever passed away. There is no country more loyal to the flag than is the South, and we have proven it lately. [Applause.] There are no people more anxious to encourage manufacturing, mining, immigration and business generally. If all the year around you would enjoy magnolia blooms and hear the nightingale morning and night, instead of going West or staying North, come South. I speak particularly of the country of which Knoxville, Tenn., is the hub.

"We need in the South a Southern Nursery Association which has just been organized. We need more uniform methods of doing business. We have unnatural and unusual delay in shipment of stock. We have a minimum car weight of 24,000 pounds when it ought to be 20,000. We have high rates of tariff. The railroads are enterprising. They encourage large orchards, manufacturing and agricultural pursuits and all that promises freight. I believe that if we were properly organized we would get all the concessions we need. We need more live men like the Chases and Mr. Heikes. If you want health, business, pleasure, Eastern Tennessee is a fine field for you. If you want to get a foretaste of Heaven come to eastern Tennessee and become acclimatized."

EMPLOYEES LIKE TO READ IT.

CUMBERLAND NURSERIES, HENRY S RUPP & SONS, SHIREMADSTOWN, Pa., June 12, 1899 — "Find enclosed \$1 for the NATIONAL NURSERYMAN for one year. We could not very well get along without it. Even our employees are wild for the paper, and have it among themselves as something of a treat."

HOW TO FUMIGATE.

Explained by Orlando Harrison of Berlin, Md.—Certainty of Effects—The Question of Injury—Warning That Rules Must Be Observed Closely—Much Yet to Be Learned Regarding Fumigation—Process Is Expensive.

Orlando Harrison, of Berlin, Md., read the following paper at the Chicago convention:

Why do we fumigate and what we are fumigating for? Not because the enemy is here but generating gas for fear he may enter. Up to this date, there has never been found a single case of San Jose scale in our county. Probably there is not another state in the Union that has been as thoroughly hand-picked from orchard to orchard as Maryland, and hundreds of cases have been found. Our state entomologist, Professor W. G. Johnson, has done a great work throughout the state. You have doubtless read all about it and were it not for the good management in which this work has been done it would have been an entire failure to have attempted it. The amount this investigation has saved the fruit grower is beyond estimation, although it is expensive for the nurseryman to begin with. But one dollar spent in this way may save the fruit grower thousands.

The object of the fumigation first was to prevent the spread of the dangerous San Jose scale and we are willing to do this to keep the fruit grower from fumigating and uprooting trees after they had been set only for a few years. A part of the best orchards in the state, where this was not discovered in its infancy, were totally destroyed. If there be thorough fumigation, the black aphid, which sometimes winters over on the roots of the trees, will be killed and we will have no complaint of the young trees being killed by the aphid in the early spring after being set in the orchards.

The next point is how we fumigate. We have two large rooms built especially for this purpose, 13 x 16 x 10 feet; sheathed and double coated with cyclone building paper large double doors to admit a wagon, built on the same style as refrigerator car doors. Movable cleats are used at the bottom, to be sure they are perfectly tight and one window and one small door, yet I consider a refrigerator car or a furniture car, paper-lined, equally as good for the purpose. After the trees are put in, the room is closed tight except the small door where we place a snuff jar inside and pour in water 40 ounces sulphuric acid 27 ounces, potassium cyanide 18¾ ounces. The door is quickly closed tight for 30 minutes. At the expiration of this time the doors are thrown open, but no one is allowed to enter the room for at least ten minutes and by that time the deadly gas has escaped sufficiently to allow one to enter safely. It may be well that different sizes of rooms be built, as in our large rooms it would cost the same to fumigate one bundle of trees as it would a thousand. Our entomologist tells us that from experiments tried he gets best results when he uses 25 grains, little less than an ounce of potassium cyanide, 1¾ ounces by measure of sulphuric acid, best grade commercial 1¾ ounces water for every 100 cubic feet of space enclosed, yet this amount can be used for every 75 feet if desired, but not necessarily.

The question may present itself to some one's mind, "Are we sure that this gas will kill insects?" There is no question about it. If the gas is properly generated and handled it will

destroy every living creature you put in the room and if you wish to test the strength of the gas, before fumigating throw in a cat, rat or any other worthless creature and note the result, which will be instant death. We have never known a single failure, and we have cautioned our men to be very particular about handling this, as one must remember that potassium cyanide is one of the most deadly poisons known, and that there is nothing more destructive to animal life than the inhalation of hydrocyanic acid gas, and one should never get careless in handling this deadly poison. Unless rules are strictly observed life is in danger. After the fumigation is over, in emptying the refuse from the jar, great care should be taken in covering same, as if left open in the reach of any kind of fowl the result would be the same as with the cat in the other experiment. We throw this on the compost heap and utilize it for fertilizer purposes.

Can we fumigate without injury to trees? We can, most assuredly, if trees are in perfectly dormant condition and they might be allowed to remain in the room for hours and even over night without injurious effect at the strength we now use the gas; but if the trees are allowed to be fumigated two or three times we find that the roots will be affected or dried out. Our entomologist says that it will take about eight times the standard strength to injure the trees in any way. June-budded trees will not stand fumigation as do the one-year trees, as they grow later and start out earlier and are not as well matured as the one-year trees, hence there has been serious damage done by fumigating them. Trees can only be successfully fumigated late in the fall and winter after the leaves have fallen and I consider it a risk in late spring as there are some varieties that push bud much earlier than others and one is taking a great risk just at the time the bud has swollen. I don't think fumigation can be done in large cellars successfully to use gas strong enough to be effective where there are different kinds of fruit trees packed damp, as some will doubtless have swollen buds.

The question now arises, are we working intelligently? My candid belief is that fumigation where it is necessary is the nurseryman's duty to the fruit grower and no one should ever complain of the extra cost of same. But if the whole country gets on its feet and says that every tree must be fumigated that is grown, we will have more complaint about the first of June when it comes pay day than the nurserymen have ever heard of. While there will be some benefited there will be numbers of cases where there will be losses of trees by fumigation unless there is a perfect system, and some experimenting along this line done a little more thorough before the whole thing leaps at once.

Is it expensive? Yes; handling trees at a season when one hour is worth more than two in the summer is surely no encouragement during the packing season to add any extra labor that can be avoided. The ingredients are bought from our state officials at wholesale. It is not necessary that we buy from them, but it is a matter of convenience to the nurserymen. To fumigate one of our rooms the cost is 40 cents for ingredients each time and we oftentimes have to fumigate a half dozen times a day or more, but usually arrange for dinner hour and night for this purpose so far as possible. We are willing to fumigate and expect to continue if necessary, but we hope the time is near when our fumigating rooms can be used for grafting houses or some other purpose that there might be

In Common Council.

some revenue from the use of same and not an extra expense. After the trees have been grown, pruned and graded, they must stand that severe test of potassium cyanide before they are planted the world over to grow luscious fruit. We are sincere when we say the extra handling and expense of the deadly poison is more than the nurserymen will ever appreciate. If we fumigate, shall we not be rewarded? If so, in what way?

We were among the first to take the step of fumigation and are not at this time making any kick against what it costs and we have given the law our hearty support, believing at the same time that under the circumstances it is a wise precaution, although we find that there is considerable more to be learned about fumigation than we have learned as yet and our advice would be, "Go slow and sure."

NURSERYMAN AND ENTOMOLOGIST.

In his paper on "The Nurseryman and the Entomologist" Professor S. J. Hunter, of the University of Kansas, said:

Sometimes both nurserymen and entomologist are given to taking a dark view of the picture. When the unnatural increase of the insect enemy reduces the season's profit, some are wont to recall the good old times when none of these pests existed. They forget that in those times there were no orchards and the apple industry was represented by a few seedling trees growing about the pioneer's log cabin. Some inimical forms which in the past have arisen to cause grave fears are no longer a source of anxiety; they have passed their meridians. Other forms arise in great numbers, a prey to parasites, which having devoured their own source of existence, succumb and the host increases; so that the alternate struggle proceeds. While this warfare has been going on in the United States, we have been advancing until we are producing more and better fruits than any other country in the world.

Long and Short.

The Grimsby Nursery, Grimsby, Ontario, is for sale.

Benjamin Chase, Derry, N. H., is rushed with orders for tree labels.

A general line of nursery stock can be had of Brewer & Stannard, Ottawa, Kan.

The Dayton Fruit Tree Label Co., Dayton, O., is reaping a harvest sown at Chicago.

The Whiting Nursery Co., Boston, Mass., offer Hale plum buds grown at Geneva.

Ornamental and fruit stock in great variety at Ellwanger & Barry's, Rochester, N. Y.

J. Rice & Sons, Geneva, N. Y., offer a general line of nursery stock at reasonable prices and guarantee satisfaction.

The Storrs and Harrison Co., Painesville, O., are headquarters for anything in the nursery line. All wants may be supplied there.

The demand for cherry is bound to be brisk. Thomas Meehan & Sons, Germantown, Pa., offer a good supply of Mazzard and Mahaleb stocks and seeds.

Apple and peach, as fine stock as can be grown, are offered by W. T. Hood & Co., Baltimore, Md. They have 300,000 peach seedlings, from buds of natural seed.

Japan plums are a specialty with the Griffing Brothers Co., Macclenny, Fla.; also peaches, persimmons, pecans, mulberries, figs, roses, etc. Freight prepaid to Philadelphia on northern and eastern shipments.

An attractive list of buds of the famous new peaches and the standard varieties is presented on another page by J. G. Harrison & Sons, Berlin, Md.; also apples and plums. This firm is making a specialty of the Delaware peach.

Editor NATIONAL NURSERYMAN:

Having had a pleasant time at Chicago, meeting old friends and making new acquaintances, I left Chicago Friday noon with Mr. Peters of Snow Hill, Md., Mr. Harrison of Berlin, Md., and Joseph Davis of Baltimore, Md., to visit several of the large nurseries on our way home. Our first visit was to Monroe, Mich., and we spent Saturday looking over the grounds of I. E. Ilgenfritz & Sons and Greening Brothers. The Messrs. Ilgenfritz met us at the hotel early Saturday morning with a fine team and drove us over their nurseries, which took until noon, and after giving us a fine dinner showed us through their offices and packing grounds and large cellars, and then Mr. Ilgenfritz drove us up to the Greening Brothers nursery, and Mr. Greening got in with us and showed us over their nurseries and through their offices and cellars.

I think I can say for our party that it was a day of pleasure spent in seeing fine nursery stock and with very little effect from damage by the cold winter. We found everything cultivated and hardly a weed to be seen. It looked as though each firm was trying to see which could grow the finest stock.

We left Monroe on Saturday evening, going to Painesville, Ohio, spending Monday at the Storrs & Harrison Company's there, and the L. Green & Son Co. at Perry, O. On Monday morning we drove out to the Storrs & Harrison Company's nurseries and Mr. Storrs and one of the Messrs. Harrison showed us around their packing grounds, which included their offices, large cellars, green house and stables. They very kindly gave us all the information about their labor-saving implements, and then drove us around their large plant, which included almost everything one could call for in the nursery line. Their nursery did not look as if they were hurt by the winter. They showed us large stock of trees that could not be any better if they had moulded them, especially a large block of two-year dwarf pear. We found their nurseries very clean, hardly a weed to be found.

After leaving the Storrs & Harrison Company's we drove to the L. Green & Son Company's, and after getting our dinner were shown around their grounds by Fred Green, of the firm. Like the other nurseries they had a fine stock and all trees in fine condition.

After leaving there we went to Fredonia, spent Tuesday morning with three of the leading firms in a pleasant drive through large nurseries of grapes, gooseberries and currants, all in fine condition.

We left Fredonia at 1:30 p. m., starting for our homes, and I can say for myself and the others that we had a very pleasant trip. For the time I spent away from business I think I can put on new energy, and while I did not find some things as I should like to see them on my return, I found a great improvement in the growth of stock.

Baltimore, June 21, 1899.

W. T. HOOD.

ANOTHER CUSTOM HOUSE COMPLAINT.

Editor NATIONAL NURSERYMAN:

I have read with considerable interest the article Mr. Kelsey wrote for your June number about foreign importations and the custom house. It is some consolation to know there are others; I am a loser myself, in a small way, through unnecessary delay at the New York custom house. I do not know

why these delays should occur, but I do know that in my case the delay was altogether unreasonable. A shipment of perishable plants from abroad was held at the custom house for exactly twenty-two days, occasioning a complete loss of nearly twenty thousand young plants, all perishable, and nearly all evergreens that could not well stand such a delay. Of course, when I got the cases, the plants had apparently been unpacked and repacked, and were as dry as dust, though evidently had been as fine plants when started as I ever saw. That was a dead loss to me. I hope something may be done to secure prompt handling at the custom house as it practically bars those far from New York from buying anything abroad, and we are from ten days to two weeks from New York by water.

Yours very truly,

STANLEY H. WATSON.

Benham, Tex., June 12, 1899.

PLUM STOCKS.

Editor NATIONAL NURSERYMAN :

I note on page 60, June issue, what Professor Van Deman has to say on the subject of Japan plum for stocks for both plum and peach. I found to-day one Abundance Japan very badly infested with peach borer and a second tree slightly infested—there were only two. These trees were on Mariana, but planted so deep as to put roots above Mariana. I think peach as good stock, as far as borer is concerned, as Japan plum.

C. H. BIRCH

Covessville, Va., June 22, 1899.

LESSONS FROM THE FREEZE.

Professor Goff, of Wisconsin, in a paper on the damage to stock by the February freeze, said:

Where the ground was bare of snow for several thousand square miles, one, two and three-year-old fruit trees were more or less damaged. The loss was practically complete in many places. Much injured stock has been planted. The weather had not much respect for varieties. Trees on sod fared better than those on bare ground. There are many anomalies not to be explained yet. What are not considered especially hardy trees were found to be least damaged. It was found that roots on crab stock were the hardier. We should confine plum to Americana stocks. Nursery grounds should have a cover crop as, for instance, oats sowed about the middle of August. There should be evergreen windbreaks. The greatest damage results from alternate freezing and thawing.

Should root-injured trees be sold? It is a practical question. The injury to roots is from the tips backward. The results are not much different, whether the roots are frozen off or are clipped off by the digging machine.

Shall the nurseryman who has been cleaned out by freezing weather continue to plant? A Wisconsin nurseryman said this spring that it was the time to plant heavily. I was surprised at first; but I think now that he was right. The demand for nursery stock has not been frozen out. Root-killing, after all, is not so rare.

Obituary.

William Jennings, president of the Jennings Nursery Co., Thomasville, Ga., died May 31st.

James Kelway died at Langport, Somerset, England, May 18th, aged 83 years. He was one of the most prominent horticulturists of England. He was the father of William Kelway, the nurseryman.

From Various Points.

Inspector D. W. Trine, Lansing, Mich., says there are 22 orchards in Michigan in which San Jose scale has been found, but that the scale has not been found in any nurseries of Michigan.

A number of the eastern nurserymen went to the Chicago convention via the Wabash railroad which furnishes excellent service between the East and the West and which has been securing an increasingly large share of the through traffic. Many florists attending the Detroit convention next month will go via the Wabash.

S. D. Willard, Geneva, N. Y., sent us samples on July 3rd of the new Bing cherry. This is a large cherry of excellent quality; flesh sub-acid, juicy and very firm. All the samples measured three inches in circumference. Mr. Willard rightly regards this as an acquisition. He says: "Taking quality, productiveness and time of ripening into consideration it seems to me it has no equal. Some specimens measure three and one-half inches in circumference."

The American Park and Outdoor Art Association met in Detroit June 28-29. An interesting programme was presented and the following officers were elected: President, Charles M. Loring, Minneapolis; vice-presidents, Thomas H. McBride, Iowa City, Ia.; Louis Woolverton, Grimsby, Ont.; John C. Olmsted, Brookline, Mass.; E. J. Parker, Quincy, Ill.; Lewis Johnson, New Orleans; M. L. Moore, Toledo, O.; secretary, Warren A. Manning, Boston, Mass.; O. C. Simonds, Chicago.

IMPORTATION OF NURSERY STOCK.

Through the kindness of Frederick W. Kelsey, New York city, we are enabled to give our readers the requirements by the government regarding the importation of nursery stock.

First:—All cases must be distinctly marked in English letters, with the name of the country whence they are shipped, viz: from England marked "England," from Holland marked "Holland," etc.

Second:—All invoices must specify the contents of each case opposite the marks of each case in invoice.

Third:—The contents of each case should indicate the sizes (age if possible) and price of each size, if more than one size and price in a case. Also whether the plants are named, "of sorts," or seedlings.

Fourth:—Invoices of \$100 (U. S. money) or more in amount must have American Consular's certificate attached to invoice. Each shipment must be covered by separate invoice.

PROFESSOR GOFF'S OPINION.

Professor E. S. Goff, of Madison, Wis., who read a paper at the Chicago convention, says of fumigat on:

In a state like Maryland, or New Jersey, that is thoroughly infested with the San Jose scale, the fumigation of nursery stock is the only safeguard a purchaser can have, but in the Western states where the scale has scarcely been introduced at all, it seems to me unnecessary to require the fumigation of nursery stock. A careful inspection would discover the scale if it were present in any large numbers.

CROP CONDITIONS.

Returns from all districts show that on June 1 there was promise of an apple crop ranging from moderate to large in all the states between the Allegheny and the Rocky mountains, says the American Agriculturist. The spring was cold and backward until about the middle of April, but from that time forward there was no frost experience sufficient to materially damage the bloom, which by reason of the cool spring was late in appearing. The very severe weather of the winter did not materially kill fruit buds, and the absence of spring frosts served to save almost the entire bloom of the year. In New England, always an important apple section, conditions are much as outlined in our report of May 20, apples not blooming especially well in Maine or Massachusetts. A good supply of apples is in prospect in New York state, with the exception of a few varieties, such as Baldwins, but it remains to be seen what the June drop amounts to, here and elsewhere.

At the present time there is promise for more than an average crop in Ohio, Michigan and Illinois, fully an average in Iowa, with possibly a little less promise in Missouri and Wisconsin than earlier. Last year the crop was very short throughout all the West, with the most fruit in the northern part of the territory. This year while there is no complete failure in any section, the best promise is in the more southerly districts.

Recent Publications.

Part I of the transactions of the Massachusetts Horticultural Society for 1898 has been issued by the secretary.

U. S. Department of Agriculture Bulletins: Experiment Station Record, Vol. X, Nos. 9 and 10; Three Insect Enemies of Shade Trees, L. O. Howard.

THE PRUNING BOOK, second edition, by Professor L. H. Bailey, is proving one of the most valuable and popular of the Garden Craft Series, issued by the Macmillans. It is a monograph of the pruning and training of plants as applied to American conditions. The subject is quite exhaustively treated in two parts, the first devoted to the fundamentals and the second to the incidentals. The first twenty pages are devoted to the philosophy of pruning. Then the development of the fruit bud and the healing of the pruning wounds are discussed. Chapter IV is devoted to the principles of pruning. Under the head of incidentals specific advice is given regarding pruning in general and as related to the fruits, shade trees, hedges and ornamental plants. The European practice is described. Chapters VII, VIII and IX are devoted to the pruning and training of the grape vine. Almost any information sought regarding pruning can be found in this latest work of Professor Bailey. Cloth; uniform with other volumes of the Garden Craft Series. Pp. 545. Illustrated. \$1.50. New York: THE MACMILLAN COMPANY.

EVERY NURSERYMAN CAN WELL AFFORD IT.

E. S. WELSH, SHENANDOAH, IA.—I enclose \$1 for the ensuing year's subscription to the NATIONAL NURSERYMAN. I am well pleased with the journal. Every nurseryman can certainly well afford to take it."

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We will also have our usual supply of

Apple Seedlings and other Stocks,

graded up to high standard, for shipment from either Troy, Ohio, or Topeka, Kansas.

Write us for rates before placing your order.

GEO. PETERS & CO.,
TROY, OHIO.

A Demand for Cherry

is found to arise, by reason of scarcity throughout the country—**MAHALEB** or **MAZZARD**? Which shall be used as a stock? This was discussed at Chicago; but whatever the answer there, it may be Hobson's choice, for Mahaleb will again be scarce and Mazzard will have to take its place largely.

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RAFFIA, MANETTI ROSE, NATURAL PEACH,
MYROBOLAN PLUM STOCKS AND SEEDS.

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Seed Department. GERMANTOWN, PA.

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R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut, - - KANSAS CITY, MO.
PROPRIETORS OF THE

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A full line of stock for wholesale and retail. Correspondence solicited.
The only practical Box Clamp in use at low price.

[ESTABLISHED 1876]

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EXTRA FINE
PLANTS

At . . .
Wholesale.

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The Largest Stock of
CURRANTS, GOOSEBERRIES,
RASPBERRIES, BLACK-
BERRIES, Etc.
In the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

CHARLES DETRICHÉ, Senior,

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**Grower and Exporter of Fruit Tree Stocks, Forest
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Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

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Sole Representatives for the United States.

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Canadian Nursery for Sale.

Our entire well assorted stock and good will of business, situated in the best section in Canada. For reliability we have a name second to none. No need to purchase land, same can be leased. Splendid chance for some large firm to open branch in Canada. One of the best fields in America for selling stock. For particulars, address

THE GRIMSBY NURSERY,
GRIMSBY, ONTARIO.

Honey Locust Hedge, Most Ornamental for Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

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Ornamental LARGE SMALL TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue
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what you want. Always in
stock, a nice clean article of dry baled **SPHAGNUM MOSS.** No
delay or freight charges from branch roads. Orders for less than large
car load shipped the first day received.

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Write me for easy terms and prices. **TOMAH, WIS.**

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Offers Unexcelled Service
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4 Daily Vestibuled Trains,
BUFFALO — to — CHICAGO.

3 Daily Vestibuled Trains,
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ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
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Full information regarding rates, etc., cheerfully given.
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Our Printed and Wired Labels are unequaled, but imitated. Being imitated only proves their supremacy.

Only good labels are imitated.

If you have not used our Labels it may pay you to write for samples and prices.

Dayton Fruit Tree Label Company,

DAYTON, OHIO.

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitæ, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, **CURRENTS** and **GOOSEBERRIES** extensively grown. Better stock never grew.

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BATAVIA NURSERIES,

BATAVIA, N. Y.

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BREWER & STANNARD,

OTTAWA, KANS.,

Offers to the Trade a Large and Complete Assortment of

NURSERY STOCK

APPLE,

PEAR, Std. and Dwarf,

CHERRY,

PLUMS, Japan and European

PEACH,

APRICOT,

Gooseberries, Grape Vines, Currants, Raspberries, Blackberries, Apple Seedlings, Forest Seedlings, and Usage Hedge Evergreens, 18 in. to 3 ft.

Ornamental Trees, Shrubs and Vines

From Anywhere East

To Everywhere West

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of _____

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

Great Convention cities throughout the country.

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G. E. P. A.,

Jno. Sebastian, G. P. A.,

305 Broadway, NEW YORK.

CHICAGO, ILL.

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BUDS.

ORLANDO HARRISON.
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GEORGE A. HARRISON.
BUDS.



Peach Trees by the 1,000 or Car Load Lots.

BUDS | BUDS | BUDS

Of the Famous New Peaches, Carman, Waddell, Mathews Beauty, Haulderbaum, Frances, Beauty (b), Delaware, Emma, Klondike and Denton.

Prices are very Low and Buds will be Cut by Competent Men.

General List of Varieties

PEACH

- Alexander
- Amsden June
- Barnard's Early
- Bilyeu's L. Oct.
- Bokara No. 3
- Brandywine
- Bray's Rure-ripe
- Crawford Late
- Crawford Early
- Coue't So Early
- Champion
- Chair's Choice
- Crosbey
- Connecticut
- Chinese Cling
- Elberta
- Early Rivers
- Early Heath
- Early Michigan



General List of Varieties

PEACH

- Fox Seedling
- Poster
- Fitzgerald
- Ford's Late White
- Frances
- Geary's Holdon
- Greensboro
- Gold Drop
- Globe
- Hill's Chili
- Hale's Early
- Kalamazoo
- Lemon Free
- Lewis
- Lorentz
- Levey's Late
- Moore's Favorite
- Magnum Bonum
- McIntosh
- Morris White
- Mt. Rose
- New Prolific
- Old Mixon Cling
- Old Mixon Free
- Reeves Favorite
- Stephen's R. R. Smock

Apple Buds

List of Varieties

- Baldwin
- Ben Davis
- Bellflower
- Early Harvest
- Early Strawberry
- Early Colton
- Fallwater
- Grimes Golden
- Gravenstine
- G. G. Pippin
- Haines
- King Thompkinson
- Limber Twig
- Maiden's Blush
- Mammoth Black Twig
- Northern Spy
- North West'n Greening
- Paragon
- Red A strachan
- Rome Beauty
- Rhode Island Greening
- Stark
- Smith's Cider
- Summer King
- Summer Rambo
- Winter Rambo
- Wine Sap
- Wealthy
- Yellow Transparent
- York Imperial

DELAWARE.

This valuable peach comes from the little Diamond State, which is noted for growing the first fine peach to supply the northern markets, and the growers are of life-time experience, and they know a good peach when they see it. For twenty-five years there has been a vacancy in supplying the market with a large peach to ripen with the earliest and of good shipping qualities. Now, we have in the Delaware a beautiful white peach of good color, bright red on one side and as large as Mountain Rose, ripening with Hale's Early and Troth's Early.

This variety has been thoroughly tested and pronounced by some of the best growers to be a variety distinct from others of the season and is destined to stay. In quality it is the very best and for shipping it ranks first, as it is not like the extra early varieties from the South that do well there but do not do well on the peninsula. This is a variety that will suit the planter in a general way over various sections of the country better than any other of its season that we know of. The tree is a beautiful grower and leaves are long and pointed, and shows every sign of health.

This variety is no longer an experiment but will be planted in some of the largest commercial orchards in the country. Figure out the difference you would make at shipping peaches at the season of Troth's Early if they were of the size and quality of Mountain Rose. Every one interested in peaches should keep an eye on this valuable variety.

- Salway
- Snow's Orange
- Stump the World
- Sneed
- Triumph
- Troth's Early
- Wonderful
- Wheatland
- Wager
- Willett
- Walkers's Var. Free
- Wilkin's Cling
- White Heath Cling
- Water Loo
- Yellow St. John

PLUMS

- Abundance
- Burlbank
- Berckman
- Chabott
- German Prune
- Hale
- Normand
- Ogon
- Red June
- Satsuma
- Shipper's Pride
- Tago
- Wickson
- Willard
- Wild Goose
- Shropshire Damson

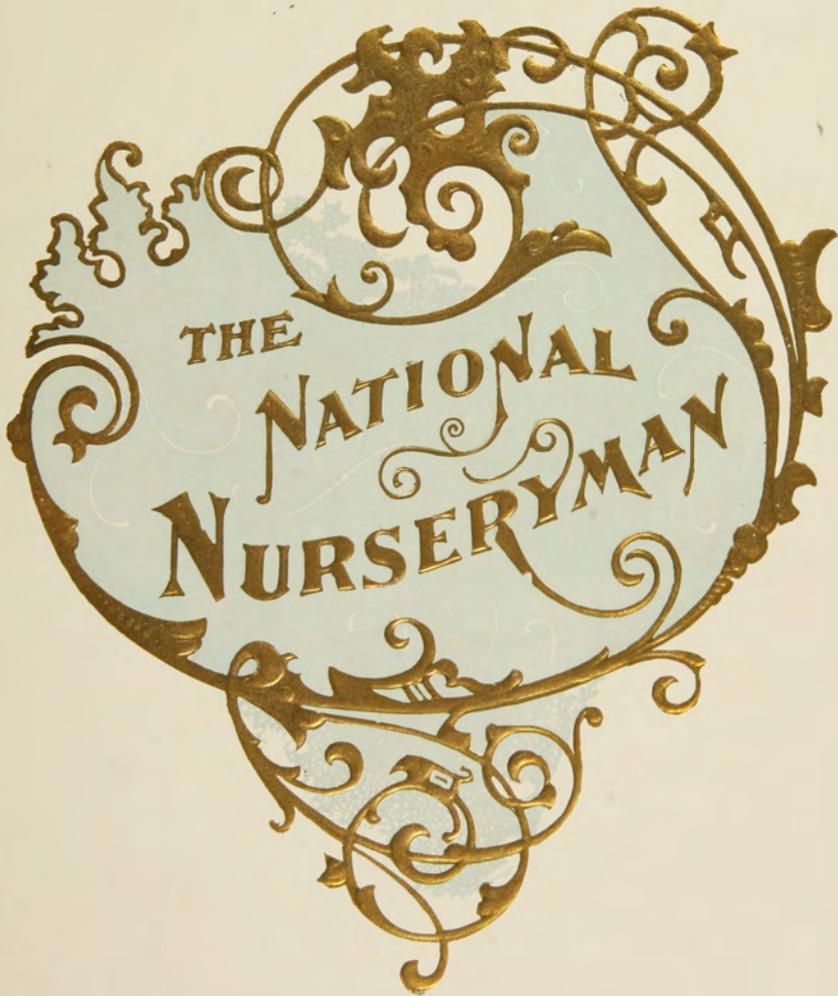
CRAB

- Hyslop
- Transcendent

We want your List of Wants and prices will be quoted promptly on what you may need.

J. G. Harrison & Sons,

BERLIN, MD.



August, 1899.

The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES.

**Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.
Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.**

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphids, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

Headquarters for Ornamental Trees and Shrubs

Will have the largest and finest stock of large **Carolina Poplars** for the coming fall trade which we ever offered. This is the tree for quick growth and to resist the smoke and gas in village, town and city.

Weeping Trees—Especially heavy in **Teas' Weeping Mulberry, Kilmarnock, Wisconsin, Babylonica and New American Weeping Willows, Camperdown Elm, Mountain and European Weeping Ash,** and a good stock of other weeping trees. Fine stock of high top **Rose Acacia.**

Roses, Roses, Roses—Forty acres in nursery rows, own roots and budded. None better. Greatly superior to the imported.

Greenhouse Department.

Consists of **Forty-four** houses filled with **Roses, Palms, Ferns, Ficus,** and other things too numerous to mention.

Holland Bulbs—Have large lots contracted with best growers that cannot fail to please customers.

Personal inspection and correspondence solicited.

TRADE LISTS AND CATALOGUES FREE.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

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**MOUNT
 HOPE
 NURSERIES,**

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

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 Established 1795.
ANGERS, (M. & L.) FRANCE.
 GROWER AND WHOLESALE EXPORTER OF
FRUIT, FOREST and ORNAMENTAL STOCK
 Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.
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 SOLE AGENT,
 26 Barclay Street, (P. O. Box 2250) New York.

KNOX NURSERIES.
 (Established in 1851.)
 We offer to the trade for Fall of 1899 the following No. 1 stock:
APPLE, 2 yr.
 Ben Davis, Jonathan, Grimes, York Imperial, Gano, Wealthy, and a few other leading sorts.
PEACH, 1 yr.
 Heavy on Ellberta, Heath Cling and Champion. Snyder Blackberry, root cuttings.
 Our stock was not injured by the cold winter.
 Correspondence solicited.
 Long distance telephone connection.
H. M. SIMPSON & SONS,
 VINCENNES, IND.

FOR 1899-1900

Everybody Says that Prices will be Higher

the coming season, but because we believe that "a bird in the hand is worth two in the bush," and because of our extra heavy stocks we will take early orders for Roses and Clematis (as well as for certain varieties of many other lines) at lower prices than we expect to ask later on.

ROSES

The Famous J. & P., own-root Roses; unequalled in grade and quality. We shall have the coming season the largest stock of field-grown Roses that we ever produced and, from present prospects, one of the very finest stocks. Special low rates will be offered on contract orders placed early in the season and the advantage of getting a complete assortment is secured.

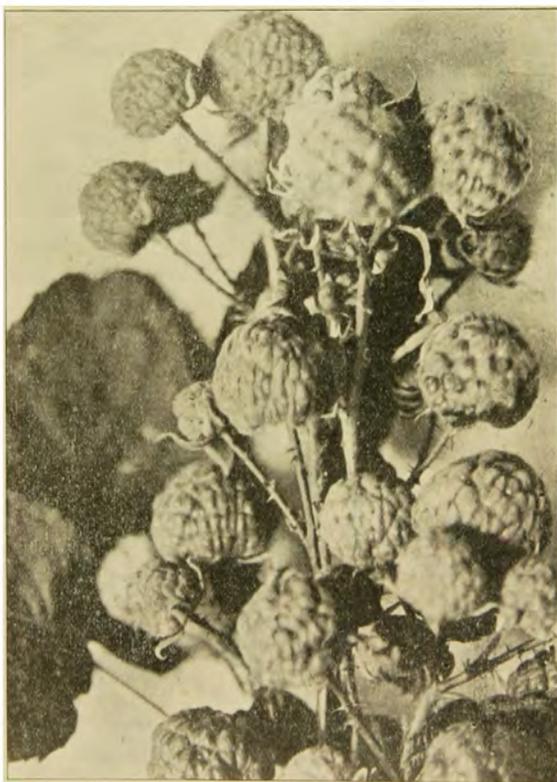
CLEMATIS

J. & P., home-grown, field-grown Clematis are as strong as imported plants and much superior to them in the fact that they are acclimated to the conditions of this country. They have a way of living and growing not always met with in the cultivation of this lovely vine. We are the largest growers of clematis in the world, our annual propagation being not less than 200,000 plants. We have for this season a good assortment of all the leading varieties. Our usual good stocks of

CLIMBING PLANTS, FLOWERING SHRUBS,
 ORNAMENTAL TREES, HERBACEOUS PLANTS,
 PEARS, PEACHES, PLUMS, QUINCES,
 CURRANTS, GOOSEBERRIES.

Jackson & Perkins Co., (Wholesale Only) Newark, New York.

THE OLD AND WELL KNOWN
Morris Nurseries
 Offer a complete stock of the most important varieties of fruit and ornamental trees to dealers and nurserymen. Dealers who do not find it convenient to come to the nursery, can send their orders and have them packed with great care by competent help for a moderate charge.
 ❀
 Specialties for Next Fall and Spring:
 Norway and Silver Maples,
 Irish Junipers,
 Am. Arbor Vitas.
 ❀
GEORGE ACHELIS,
 Chester County. WEST CHESTER, PA.
 When writing to Advertisers mention The National Nurseryman.



CARDINAL RASPBERRY.

INTRODUCED BY A. H. GRIESA, - - LAWRENCE, KAN.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"The trees may be justly numbered among our best friends."—F. Schuyler Mathews.

VOL. VII.

ROCHESTER, N. Y., AUGUST, 1899.

No. 7.

WESTERN WHOLESALERS.

Seventeenth Annual Meeting in Kansas City—The Firms Represented—Supply of Stock Light—Varieties of Apples Unobtainable—Effort to Secure Concessions on Freight Rates—President A. L. Brooke in the Chair—The Officers.

The seventeenth semi-annual meeting of the Western Association of Wholesale Nurserymen was held in Kansas City, July 11. The following members or nursery firms were present: Blair & Kauffman, R. H. Blair & Co., of Kansas City; Brewer & Stannard, of Ottawa, Kan.; A. L. Brooke, North Topeka; Bush & Son & Meissner, Bushberg, Mo.; William Cutter & Son, Junction City, Kan.; A. C. Griesa & Bro., A. H. Griesa, Lawrence, Kan.; W. H. Heikes, Huntsville, Ala.; Holman & Bente, Leavenworth; Jewell Nursery Company, Lake City, Minn.; D. S. Lake, Shenandoah, Ia.; New Haven Nurseries, New Haven, Mo.; Peters & Skinner, Topeka; Schutte & Czarnowski, St. Louis; Stark Bros.' Nursery and Orchard Company, Louisiana, Mo.; L. R. Taylor & Son, Topeka; Sedgwick Nursery Company, Sedgwick, Kan.; E. S. Welsh, Shenandoah, Ia.; Louis Williams, Parsons; A. Willis, Ottawa; Younger & Co., Geneva, Neb.

The executive committee is composed of A. Willis, Peter Younger, Jr., E. S. Welsh, J. L. Bagby, W. F. Heikes.

President A. L. Brooke, of North Topeka, presided. The officers present were: R. H. Blair, of Kansas City, vice-president, and U. B. Pearsall, of Fort Scott, secretary and treasurer. In the afternoon an interchange of views was given on the condition of the nursery stock and the supply. The supply of stock was found to be light, which naturally had a tendency to advance prices. From reliable sources it was learned that the same conditions existed throughout the United States. Some of the leading varieties of apple trees it is found impossible to supply the demand for. Stock in general is in fair condition, but the growth has been somewhat retarded until July 1.

The principal topic under discussion was freight rates. As a result of the discussion the association appointed the following committee on transportation: A. L. Brooke, North Topeka; Peter Younger, Geneva, Neb.; F. L. Schutte, St. Louis. The transportation committee will endeavor to get some relief or modification of certain rules now in force in the Western Freight Association, which it is claimed are operating injuriously. The association adjourned to meet in Kansas City, December 20, 1899.

The twenty-third annual convention of the Georgia State Horticultural Society will be held at Tallulah Falls, Ga., on August 2-3. P. J. Berckmans, Augusta, Ga., president; G. H. Miller, Rome, Ga., secretary.

THE NEW CARDINAL RASPBERRY.

Of this new raspberry, an engraving of which appears as the frontispiece of this issue, the originator, A. H. Griesa, Lawrence, Kan., says:

"For the past few years I have been watching a seedling raspberry on my place, that for vigor and hardiness was far better than any other I ever saw. I had grown one before and sent it to the Geneva station on trial, where one year it was second and the next first in productiveness, as a red kind. But this new comer was so much more impressive of its future worth that I did no more to introduce the other, and later results have proved my conclusions correct.

In this New Cardinal the merits are so pronounced that it requires no critic to see at a glance its superior worth. It is of great growth, with large, wrinkled leaves that are free from any disease or weakness; free from vicious thorns; entirely hardy, summer and winter; of great productiveness; a dark red berry of Columbian or Shaffer style, though better than either in all respects, its color is more like the Loudon; the fruit is quite firm, of good quality, and sells readily in the market at prices above other kinds.

"On July 5 I sent a crate to Denver, Col., and asked the dealer to report on its condition and desirableness in that market. The berries were over ripe, as none had been picked since July 3, at noon, but they went the distance of 600 miles well and got the following report:

DENVER, Col., July 6, 1899.

DEAR SIR—Your berries came to-day. You ask what we think of them in this market. They are all right, a very nice berry. Had they been sent in pint boxes we could have got a good deal more for them. They had settled some, being so heavy; but we sold them for \$4. Our market could use lots of them.

E. J. DAVIES & Co., Succ'rs to B. F. Bowen & Co.

"Samples of fruit on branches and in a box were shown to the nurserymen in convention at Kansas City, Mo., where a committee reported on them as follows:

MR. PRESIDENT—Your committee to examine and report on the New Cardinal raspberry, introduced by A. H. Griesa, would say that they find the new raspberry, originated by A. H. Griesa, and named Cardinal, is of superior vigor, and probably the most productive of all dark red raspberries. It seems especially adapted for canning and market.

We therefore esteem it highly meritorious and would recommend it for trial.

Peter Younger, E. J. Holman, W. P. Stark.—Committee.

"It sold this season in our local market and in Topeka at from \$2.50 to \$3.00 per crate.

"William Brown, our most successful small fruit grower, as a committee on new fruits, at the Douglas County Horticultural Society meeting in August, 1898, reported as follows:

While the Columbian is a grand variety, I regard the New Cardinal (a new variety not yet offered to the general public) as better. I obtained two plants from Mr. Griesa last year upon the condition that I would grow them with other kinds for comparison, and if, after the first

fruiting, I was convinced of their superiority, I was to pay him the introductory price for all plants on hand; if not, I was to return the plants without cost. I was so well satisfied after wintering them that I paid Mr. Griesa \$10 for one plant and now since fruiting them, I am so much more so that I would be glad to pay Mr. Griesa \$10 for the other plant and its products if he will accept it.

"Mr. Browne made the above report and offer without any previous consultation with the owner.

"Since the recent severe weather which has destroyed nearly all raspberries and blackberries throughout the West, this New Cardinal has escaped with slight if any injury, and we are willing to place it on extensive trial throughout the country on very liberal terms."

In Nursery Rows.

WHITE IMPERIAL CURRANT.—Mr. Willard, of Geneva, N. Y., is the introducer of this valuable currant. There is no doubt that the White Imperial excels all currants as a choice table fruit. The fruit is large, in attractive bunches, and mild, yet rich in flavor. Comparison with Fay shows the White Imperial to be far in the lead for table use.

CZAR PLUM.—John Charlton and Sons, Rochester, N. Y., sent us samples of the Czar plum on July 25. They were ripe and proved to be of excellent quality, of good size, round and of dark blue color. In flavor few plums surpass it. It is one of Thomas Rivers' seedlings and is a very early variety; indeed we know of no other quite so early. Samples of Abundance sent at the same time showed a marked contrast, the Abundance being still small, hard and green. The Willards were about as green as the Abundance.

DIKEMAN CHERRY.—In the September, 1898, issue of the NATIONAL NURSERYMAN appeared an engraving of this cherry, introduced by S. D. Willard, Geneva, N. Y. Samples received from Mr. Willard the middle of last month bear out to the last degree the many statements in its favor. The fruit is black, very firm, of good sweet flavor and good size. It is of Bigarreau type and very productive. It is the best late cherry and a most excellent shipper. Coming later even than the Californias, it is already a favorite with the commission men.

WILSON PLANTS WANTED.—Do you know of any party that raises Wilson strawberry plants to sell, asks a correspondent in Country Gentleman. I want to set 500, and I cannot get them. The strawberry growers have left them behind and brought out new varieties, but have not improved in quality or quantity. The Wilson properly cultivated has the best flavor and will bear transportation better than any other I have ever raised, and I have tried a large part of the newer kinds. With the right cultivation, Wilsons are large enough, and no other kind I ever tried would yield as much fruit.

DEWEY CLING PEACH.—H. W. Jenkins, Boonville, Mo., is receiving many testimonials in praise of this peach which he has fruited for three seasons. Following is his description: "In shape, nearly round, no swollen point. Color, nearly pure white, occasionally one with a slight coloring of small dots of red. Skin thin and very smooth—never saw a specimen with any black or shriveled sides. Flesh clear white through to the seed, very juicy and sweet; seed very small. A peach that will meet the wants of the most exacting fancier of White Cling peaches and wants a beautiful peach, either in the basket or in the can. The tree is hardy, productive, and vigorous—a fine grower in the nursery row; ripens about September 15th.

ICEBERG BLACKBERRY.—Samples received from Jackson & Perkins Co., Newark, N. J., July 26 were damaged considerably in shipment, being overripe when picked. However, from the few that were firm, it could be seen that it is a most attractive variety for dessert fruit. It has the true blackberry flavor and shape and is novel because of its whiteness. The core is small and soft. Jackson & Perkins Co., say: "A point in which the berry has exceeded our utmost expectations is its hardness. We had an exceedingly severe winter here last winter, the thermometer going 18 to 20 degrees below zero and this intense cold weather continuing for several days at a time. In spite of this our plants of the Iceberg, although they had made very strong rapid growth the previous summer and had many long slender canes six feet

or more tall, were not frozen back more than two or three inches at the very tips. They are now simply loaded with fruit, proving the variety to be an exceptionally large heavy cropper.

PRESIDENT WILDER CURRANT.—S. D. Willard, Geneva, N. Y. sent us last month samples of President Wilder currant which he declares the most productive and valuable of all the currants he has fruited. Judging from the heavily-laden branch he sent, this currant is hard to beat on any point. The productiveness is apparent at a glance. The clusters are large and well filled, the fruit juicy and of rich tart flavor. This currant has been tested in the grounds of the Rural New Yorker, and that journal in the issue of July 8th says: "It is later than Fay, Pomona, Red Cross and Filler. The growth is more upright than that of Fay, and it is fully as prolific. The berries are nearly the same size. It is especially valuable for a late succession. Our choice of currants to-day would be the Red Cross for early or main crop and the Wilder for late." Mr. Willard says under date of July 11th: "Yesterday we picked bushes, three years planted, that yielded from six to eight quarts to the bush, heaping full, and the fourteen-year-old girls who did the work earned from \$1 to \$1.25 each on their day's work."

GROWTH OF STOCK IN THE SOUTH.—There is a period every summer in the South when budding becomes uncertain or impossible from drouth. In order to keep the budders at work through this season of tight bark, F. T. Ramsey, Austin, Tex., has run his tree digger very deep under the young seedlings. The idea is that the sub-soiling will enable the water of rains to go deeper and stay longer than it otherwise would, thus extend the budding season further into or perhaps through the drouth. On the theory that a penny saved is a penny earned, Mr. Ramsey has been looking for a less expensive method of cultivation for young nursery stock just up from the seed. He thinks he has found it in the "weeder," such as are made at Zanesville, O., and York, Pa. After cultivating the young seedlings instead of putting in ten men with hoes he puts in one man with a weeder and runs it across the rows. It takes out the weeds, provided they are quite small, and the injury done by the horse and man walking across the rows is imperceptible. When competition is close and prices are low this saving represents considerable profit. This tool cannot be used on budded stock, of course.

Foreign Notes.

Statistics just published by the Board of Agriculture of Great Britain show that there has been a marked decline in recent years in the total area of land under fruit, traceable in many places to the increase in building operations, railway extensions, the formation of open spaces, etc. There is a total acreage of small fruits in England of 63,438. The total acreage of orchards in 1898 in England was: England 220,220; Wales, 3,690; Scotland, 2,149; Isle of Man, 424; Jersey, 1,118; Guernsey, etc., 321.

In 1861 there were in New South Wales, Queensland, South Australia, Victoria, and Western Australia 7,009 acres under vine cultivation; in 1896 the area had become increased to 53,642 acres, the product being 5,606,085 gallons of wine, 7,901 gallons of brandy, 63,665,280 pounds of table grapes, and 2,145,380 pounds of raisins. The grapes grown in New South Wales are equal in size and flavor to the finest grown in Continental Europe, but both their cultivation and production of wine from them remain imperfectly developed as a whole. In 1897 the area under wine cultivation in the colony was 8,061 acres, producing 794,256 gallons of wine, 7,184 gallons of brandy, and 6,462,400 pounds of table grapes. The raisin manufacture is still one of the industries of the future in New South Wales.

LOOKED FOR EACH MONTH.

J. WRAGG & SONS CO., WAUKEE, IA.: "Enclosed you will find our check for \$1 for the NATIONAL NURSERYMAN for the ensuing year. We are lost if it don't come every month."

TOO VALUABLE TO MISS.

CENTRAL MICHIGAN NURSERY COMPANY, KALAMAZOO, MICH.: "The NATIONAL NURSERYMAN is full of too valuable information for us to consider a discontinuance of our subscription. Please find enclosed our check for \$1 to cover our renewal for the coming year."

PLEA FOR CLEAN STOCK.

S. M. Emery's Paper Prepared for the Chicago Convention—Experiences of an Experiment Station Director Who Was Formerly a Nurseryman—Thinks Canada Acted Wisely—He Says That Eternal Vigilance Is the Price of Safety.

S. M. Emery, director of the experiment station at Bozeman, Mont., prepared the following paper for the Chicago convention of the American Association of Nurserymen, under the title: "The Duty of the Nurserymen in Eradicating Fruit Tree Pests."

A year ago in a talk to this august body, you were told that Montana orchards were clean and that please God steps would be taken at the coming session of the legislature to keep them so, if such could be accomplished by legislation. Senate Bill No. 12 being the fourth signed by Governor Smith created a State Board of Horticulture for Montana, consisting of five members with the governor as ex-officio and the sixth member. These board members must be residents of the district they are chosen to represent and cannot under the law be nurserymen or men interested in the sale of nursery stock.

Last November it was my privilege to attend the annual meeting of directors at Washington, D. C. As horticulturist of the Montana Station I was principally interested in the section devoted to horticulture and the sessions were attended very regularly. I may say that their sessions as were yours in Omaha last June, were quite largely devoted to discussions of existing insect pests, legislation pertaining thereto and remedial measures.

INSPECTION METHODS.

I came out of both of these meetings convinced that the whole system of inspection as then enforced over the most of the country was a screaming farce. Men talked of driving out from college duties in the afternoons, crossing a fence, walking down through the nursery rows taking a casual glance at the stock and writing a certificate, which states that apparently the grounds and stock are free from insects or fungus pests. Upon these worthless certificates millions of trees are annually sold and the customers with them, and without doubt these very worthless certificates are placed in evidence as good and sufficient cause for justifying any man in dealing with the firm thus inspected.

You may be sure that the candid opinion of the man who has honestly and conscientiously looked into these matters, is never quoted while the sale is being affected. Under just such laws pests are being disseminated quite as rapidly as it is possible for them to be.

This body, if I may be allowed to express my mind clearly, is not rising to the occasion. There is altogether "too much or too little *Kentuck*" about it (vide address of Hon. H. H. Albaugh in '98, Omaha), depending from the point of view.

Upon the nurserymen of the United States must depend in large part the extirpation of these pests, even as it has been through them so terrible a foothold has been gained. Instead of wasting time in assuming that much of the recent legislation enacted is for the purpose of the prevention of the sale of nursery stock, why not credit the promoters of such legislation with a disposition to improve conditions and to control these terrible pests, for terrible they are, much as their importance has been belittled. For example the San Jose scale introduced

but a little over a decade ago has made its unwelcome entrance into thirty-five states and territories and it is safe to say will soon be in all of them unless the nurserymen arise to the occasion and stamp it out. How may this best be accomplished? In Montana the assumption is taken that every bundle of trees put on the market is pest full and it is on this assumption that our board proceeds. Quarantine stations have been established on the various lines of railway entering the state, as nearly at state lines as it is possible to locate. In two instances, Missoula and Billings, which are prominent junction rail points and the seat of orchard activity it is proposed to make a clearing house for shippers and to there provide needful appliances so that all stock coming there for farther distribution or planting in the immediate territory thereto tributary, can be fumigated with hydro-cyanic. The time is coming, it is near at hand, when the treatment house will be as much a part of the outfit of each prominent energetic nurserymen as is the packing house or the cold storage cellar. It does not, it will not answer to trust to incidental inspection of orchards and nurseries. It must be taken for granted that every tree and plant coming onto a packing ground is infested and that the only safe and proper course to pursue is to subject it after being packed to such a chemical or vaporial bath as will exterminate everything thereon detrimental to the health and well-being of the article. It is so much easier to stand back and damn the other fellow for opening up this pandora's box of insect evils, than it is to right manfully pull your coats and go at it hammer and tongs to exterminate the pests. True, it is, that there are many old orchards which are the breeding grounds of pests and that to handle these is a herculean task, and that if noxious insects are not destroyed therein, new plantings will be speedily destroyed. Very true, but there is no more potent argument than the pocket-book of the individual. You as nurserymen are not banking upon old orchards for an existence. True, there are occasional orchards owned by nurserymen, but your interest is in the new unset orchards, and it is there where your future business prosperity lies, and your best card is to send out only clean stock hereafter.

EARLY EXPERIENCE WITH GALL.

I well remember in '83 going to Geneva to buy goods. I found the stock desired, and while on the packing grounds I noted some singular galls or excrescences upon the roots of some very choice apple stock. I questioned as to what it was and was told that as young trees, the woolly aphid had stung the roots, but that it had not hurt them at all. With the broader experience of after life I could then have known that there was not nearly the gall manifested upon the innocent apple roots that there was in the man who assured me that this was a trifling matter and not to be considered. *Now*, such stock would be classed as double extra suspicious and would not be tolerated under any circumstances. Formerly many trees were planted in the broad West, which had but an ephemeral existence, they were dug, delivered and died, much as the corpse of the man which was lying in state in his coffin prior to the funeral proper. He had not been a bright and shining mark or exemplification of all that was pure and good and holy in his daily work. Unknown to the friends, a wag who knew him well, slipped onto the coffin lid a card bearing the three letters D. D. D. Some one said he did not dream that "Mr. So and So," was a double doctor of divinity. "He

wasn't," said the wag, "that means he is dead, damned and delivered." We charged up the loss to an excess of climate or a lack of moisture, to the inexperience of the planter or the thousand and one excuses for non-thrift of the tree. I now firmly believe that in too many instances the vitality of the tree was sadly impaired by insect pests, prior to its delivery to the customer. A tree is a vital organism and we must recognize it as such, and you as tree producers must awake to the fact that no tree ever possessed too much of vigor and reserve force, that it must be so nurtured and cared for while in the nursery that it will be storing up within its body abundant supply of those elements which are required to start it out on its new cycle of growth, that it's a science to so develop it that in the right season it will be thriving even as the historical green bay tree, that in ample time it will be permitted to enter the best state, or the accumulation period, that when fully matured and not before that it will be so handled that it will reach the planter in the best of condition. Too often it is permitted to be dug and packed when as a matter of fact, every particle of reserve force has been expended in maintaining an existence against the ravages of the myriads of pests which have infested it.

The spray pump has come to stay, the agricultural chemists are advising of the quality of arsenites to be employed to destroy insect life, the entomologists are writing the life histories of the pests which are greatly troubling us and the biologists are giving instruction in the best methods of destruction, but it devolves upon others than these to awaken the profession to the requirements of the case. That the fruit interests of the country are seriously imperiled by the existence of the most dangerous of foes insidious, in that their damage is done before we are aware almost of their existence

Eternal vigilance is the price of safety, is a sad fact not only in the case of republics but of nurseries as well, and we of the trade must take the proper stand in these matters.

NECESSITY FOR KEEPING POSTED.

A recent bulletin was issued from a western state. A local paper in referring to it, remarked that the wisdom of such publications was doubted, that it would not prove to be a good immigration document. Too many people are proceeding on the same lines as to insect and fungus pests, they are afraid of injuring their own or others business by referring to the actual conditions. The same policy would close every church in the land. It's a drastic theology which states that sinners are born to be damned if they do not repent of their sins, and the nursery business is doomed to destruction if the men owning and operating them persist in closing their eyes and ears to the existence of these destructive pests.

A distinguished naturalist claims that if there were no foes devoted to the destruction of the green aphid, a single pair of these minute insects would increase at such a rate that in a decade they would cover the world with a layer of aphides ten feet deep, and it is measurably so with other fruit pests. A few years ago, a German entomologist living in Massachusetts secured from the old country two specimens of the Gypsy moth. They were permitted to escape and to breed and that state has paid out more than a million dollars to exterminate the progeny of these destructive insects and the end is not yet. Large sums of money must yet be spent before the evil is cured.

The system of specialization is carried to such an extent by nurserymen that the product of a single nursery is likely to turn up on the packing grounds of 90 per cent. of the nurseries of the United States. Canada made you wince by excluding bodily all the products of the American nursery, and when I hear men in open convention decrying the necessity of legal action to control these evils I can but think that Canada did only her full duty to her orchards and her nurseries. It may be said that any thorough system of treatment would be prohibitive from the expense thereof. Add the cost to the price of the tree you sell and give the planter absolute assurance and insurance that the stock is clean and free of pests or disease, and you will find him perfectly willing to stand the required expense if by such expenditure he is safe from infesting and infecting other trees that may be doing well for him.

RISE TO THE EMERGENCY.

Look this difficulty squarely in the eye, rise to the emergency, acquaint yourself with the current reliable literature on the subject of insect pests, study the various classes and familiarize yourself with all there is to be learned concerning them, send your boys to agricultural colleges, drill them in chemistry, botany and entomology, and thus place your business on a sound enduring basis, by fitting them to carry on work on scientific lines, instead of the main strength and awkwardness theory on which practically every nursery in the United States has been developed to date.

You owe this much to your country and your family. Who among you has realized sufficient of this world's goods from the profit of a nursery business to warrant you in exterminating the work of a life time and to turn your back on the business forever? If we have no dividends to draw in the future from the sincere gratification which insures to every man who has created a successful business, small indeed will be the reward for exceeding toil. The nurserymen of the United States have it in their hands to effectually put a stop to the pest destruction of nurseries if they go at it in the proper manner and spirit. But a trifle over a century ago the civilized world was thrilled by the announcement that Chicago was burning up; the sweep was a clean one, and yet to-day we need the printed page of history to tell us that this greatest of all modern cities has arisen Phoenix like from the ashes. The fire consumed a few hundred blocks of buildings, numerous stocks of goods, public and private improvements, but did not cremate the business pluck and push of the Chicago business man. That was left to him, the best working capital he ever enjoyed and with it he has forged to the front and has replaced all losses more than a hundred fold, and so with this great menace to the future of a business without whose beneficent results, life would not be worth the living. The same intelligent industry which created a great business supplemented by the aid of science, will stamp out every dangerous insect foe and leave clean nurseries, clean orchards and clean homes.

NO OTHER LIKE IT.

CLAWSON BROTHERS, WINDSOR, ILL: "Enclosed find \$1 to pay for one year's subscription to the NATIONAL NURSERYMAN. The journal fills a vacuum in horticultural literature that no other paper published can fill."

CANNOT AFFORD TO DO WITHOUT IT.

L. A. SOUTHERN & BRO., WASHINGTON, W. VA., July 15, 1899: "You will please find enclosed \$1 to pay for renewal of your valuable journal for another year. We cannot afford to do without it. We wish you and your valuable paper prosperity."

A. H. GRIESA.

Augustus H. Griesa was born in Bielefeld, Prussia, where he lived and grew up and had the advantages of its city school till he came to this country, in 1856, settling at Lima, N. Y., with his parents. The next spring he moved to Naples, N. Y., where he got work in a nursery, and remained there ten years, going to school in winters.

In the spring of 1867 he went as a young man to Lawrence, Kansas, bought a small place, and began the nursery in a small way that has since grown to be the Kansas Home Nursery; increasing its capacity and extending its trade; was married in 1869 to Miss Amelia H. Beebe of Lima, N. Y., who has always been a constant and ever ready helpmeet in every effort.

Aside from growing trees, he has done much experimental work, especially testing the comparative value of fruits and flowers, and fruit for market. His first effort was to get a later grape than those we now have, as all ripened too early to keep well, but no satisfactory kind was grown; then raspberries were tried. He originated the Kansas and has been gratified to know it succeeds so well over so large an area of country. Then the Mele strawberry was a good kind for family use and the Superb apricot was one of over 100 seedlings of the Russian type, and that will take first place in time. The Massachusetts State Horticultural Society awarded it a first class certificate of merit. Color and quality only ruled.

Now he has the New Cardinal raspberry that will add more to the laurels of new fruits than any others.

JULY CROP REPORT.

The crop report of the United States Department of Agriculture shows the following conditions on July 1:

APPLES—There has been a general decline in the condition of apples during the month of June, and there are few important apple states in which the condition is not considerably below the average for the last fifteen years. In New York, Michigan and Missouri it is 18 points below, in Kansas 13, Kentucky 9, Tennessee 7, North Carolina 21, Virginia 10, Iowa 3, Illinois 2, and Maine 48 points below. On the other hand, it is 11 points above the fifteen-year average in Ohio, 5 points above in Pennsylvania, and 5 points above in Indiana.

PEACHES—The department has no previous record of so general a failure of the peach crop as the condition of July 1 foreshadows. There is not a state from one end of the country to the other that is likely to have an average crop, while in many states the indications point to a total failure. Of the 18 having 1,000,000 or more bearing trees at the last federal census, 8 are unlikely to have more than one-tenth of a crop and in 5 others the indications are for less than one-fourth of a crop. In the midst of this gloomy outlook, New York, with indications pointing to rather more than a half crop, and California, with the prospect of something less than three-fourths, seem highly favored.

GRAPES—The condition of other fruits reported upon is in the main

so extremely unfavorable that correspondents seem to have taken peculiar satisfaction in emphasizing the promising outlook for grapes. Careful comparison with the average for the past fifteen years, however, shows that of the 8 states having the largest acreage in bearing vines, New York alone reports an average condition. In Ohio the condition is 2 points below the fifteen-year average, in Virginia and Indiana 7 points below, in North Carolina 1 point, in Kansas 41 points, in California 14 points, and in Illinois 22 points below.

Long and Short.

Peach trees in car lots may be had of John Peters & Co., Urialh, Pa.; also apple and Japan plums.

Peach seed is rather scarce, but it may be obtained of Thomas Meehan & Sons, Germantown, Pa.

High grade trees are offered by Hoopes, Bro. and Thomas, West Chester, Pa. They have 600 acres.

A list of your wants will be attended to promptly by the Spaulding Nursery and Orchard Co., Spaulding, Ill.

Apple 2-year, and peach 1-year, may be had of H. M. Simpson & Sons, Vincennes, Ind.; uninjured by cold weather.

A positive insecticide and fertilizer is what is claimed for the caustic potash whale oil sold by W. H. Owen, Catawba Island, O.

James Truitt & Sons, Chanute, Kan., have apple, peach, plum, apricot, Carolina poplar, white ash and soft maple in carload lots.

Ellwanger & Barry have issued a handsome catalogue of strawberries, Holland bulbs and specialties for the summer and autumn of 1899.

Norway and silver maples, Irish junipers and American Arbor Vitae are specialties with George Achelis, West Chester, Pa., for next fall and spring.

The University Avenue Nurseries, Rochester, N. Y., John Charlton & Sons, offer a well selected stock of specialties as well as a general nursery stock.

The exclusive right to propagate the Dewey Cling peach east of the Rocky Mountains is offered for sale by the owner, H. W. Jenkins, Boonville, Mo.

Evergreens, seedling and transplanted, may be obtained at the Evergreen Nursery Co., Sturgeon Bay, Wis.; also American Basswood, High Bush Cranberry, Sugar Maple, Black Birch, etc.

A new seedling peach, the Clifton Park, is offered by Wiley & Co., Cayuga, N. Y.

The most complete line of nursery stock in France is claimed by Levavasseur & Sons, Ussy and Orleans, France. Herman Berkhan, 39 Cortland St., New York city, is sole agent for the United States and Canada.

The largest stock of maples, elms, chestnuts, etc., in the country is offered for fall and spring trade by Stephen Hoyt's Sons, New Canaan, Conn.; also October Purple plum, Green Mountain grape, Japanese maples, etc.

Toledo is to be the scene of the Ohio Centennial Exposition in 1902.

Red and yellow scale in large quantities was found in trees certified to by Inspector R. E. Drummond, of Los Angeles, as clean. The Riverside officials were much exercised over the matter and now the Los Angeles Horticultural Commission has declared that it will issue no certificate on nursery stock except after most rigid inspection.



A. H. GRIESA.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSEYMEN.

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Annual convention for 1900—Chicago Beach Hotel, June 13-14.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., AUGUST, 1899.

PROTECTION FOR ORIGINATORS.

From time to time the question is raised: Can an originator of a variety be protected by law with regard to the dissemination of that variety? And each time it is concluded that he cannot. Yet the matter is of so much importance that each discussion is of interest.

A. B. Choate, a lawyer, of Minneapolis, after working upon a case in point has arrived at this decision:

"There is no statute in this state, nor in any other that I know of, which attempts to give protection to the originator of a seedling. But, after careful consideration, I am of the opinion, that independently of any statute, by common law in this state a man who originates a seedling plant is the legal owner of such seedling and may absolutely prohibit any one else from propagating any plants from it, and may exercise as absolute control over the seedling and its increase and the disposition of such increase as he may over a domestic animal

which he owns; and if any one gets possession of buds or slips without the originator's consent, or having lawfully gotten possession propagates others without the consent of the originator, either express or implied, he may be enjoined from propagating or selling them, and is liable for any damages which the originator may suffer thereby. But if the originator sell any of the products of his plant, without limiting the purchaser in his right to propagate and sell, then the purchaser has, by implication, an unlimited right to do as he may see fit with his purchase. It was upon this theory of the law that I secured a temporary injunction, prohibiting the sale of the yearlings in question until their ancestry could be determined by a trial in court."

The difficulties are of a practical rather than a legal character. In an address before the Minnesota Horticultural Society, Mr. Choate said:

"When you, gentlemen, get the questions of individuality and heredity of plants settled, and become so expert in distinguishing them that you can give the courts definite and positive testimony in regard to the ancestry and consanguinity of all the little plant waifs which are continually presenting themselves for classification, I assure you that the courts will furnish legal protection to the midwife who officiated at the conception and birth of the waifs."

THERE MAY BE MUCH IN A NAME.

What has often occurred to many is voiced by Danske Danbridge in Gardening, probably as the result of sympathy, yet none the less to the point:

Why should roses be misnamed? We always speak of them as feminine, and yet their introducers do not hesitate to name them for generals, dukes, or canons. What a mistake to call a beautiful flower Reynolds Hole, Dr. Hogg, or Heinrich Schultheis. Such names as Princess Bonnie, American Beauty, Bride, and Bridesmaid are really fortunes to good roses. It is hard to imagine such new roses as Reichsgraf, E. V. Kesselstatt, or Frau Geheimrat Von Boch becoming very popular in America. Could anyone ever learn to love Baron T. Kuth de Rodenbeke or Comtesse Gedeon de Clermont-Tonnerre? I would like the fine old Bougere much better than I do if the name did not suggest something big, bulging, and clumsy to my fastidious ear.

What we want, says the Gardeners' Magazine of London, is more names after the style of Sunrise, Clio, Medea, Enchantress, Purity, etc., and fewer like Suzanne Marie Rodocanachi and Empress Alexandra of Russia. All of which is respectfully referred to the American Rose Society.

A NOTED GRAPE GROWER.

Elsewhere in this issue is the announcement of the retirement of Theodore S. Hubbard, of Fredonia, N. Y., from the nursery business. Mr. Hubbard is one of the most noted grape growers in the country. He began the growing of grapes over thirty-three years ago, near Fredonia. He started then both in the grape and nursery business. He made himself master of the business by extensive travel, reading and careful observation and experiment in the field. He bought out the stock in trade and list of customers of half a dozen grape growers and was for several years the only one in the East who grew grape vines on an extended scale.

Mr. Hubbard took the Wilder medal at a meeting of the American Pomological Society, in Boston, for an exhibit of

grapes, 157 varieties, believed to be the largest number ever exhibited in the United States in one collection. He was the chief introducer to the trade of the Niagara grape. He also introduced the Prentiss and the Eaton grapes. He was actively engaged in organizing the American Association of Nurserymen and early in its history held the office of president. He is an active worker in the Presbyterian church. Strict integrity has been the foundation of his success and he has earned the rest from business cares which his retirement will afford. An excellent likeness of Mr. Hubbard appeared in the NATIONAL NURSERYMAN in March, 1895.

CANADIAN SCALE LAW.

At a recent meeting of Niagara fruit growers at Grimsby, Ont., a resolution was passed expressing regret that operation of the San Jose scale act had been suspended just when the scale was beginning to spread, and asking for its prompt and vigorous enforcement; also for increased compensation for trees and orchards destroyed.

Mr. McKinnon was surprised to find, when action was so important, that the government seemed to be weakening in the enforcement of the law.

Inspector Fisher said he had examined over 75,000 trees since March 1st, and believed he had located the infected orchards. It remained to examine surrounding orchards for any trace of scale. He believed it spread much more rapidly and was more destructive than at first supposed, and its early destruction was highly important. There are only two infested districts in Ontario, one in Niagara, one in Essex, both of limited area and near the border of the United States. He had found no forest trees affected. In answer to a question, Mr. Fisher said he did not think fumigation practicable for cleansing trees, except in a limited way, and then the expense is too great.

THE FLORISTS' CONVENTION.

The fifteenth annual meeting of the Society of American Florists and Ornamental Horticulturists will be held in Detroit August 15-18. Business and pleasure are mingled in the programme for the four days' convention. Provision is made for but four papers to be read and a question box is to be provided.

These are the features urged by the NATIONAL NURSERYMAN for the American Association convention—fewer papers and more discussion, with a lively question box. If four papers are sufficient at a convention lasting four days, how many are necessary for a convention of two days?

The programme contains this plea:

To increase our usefulness, to broaden our influence and enlarge our scope, we need and are justly entitled to the loyal support of everyone in the land who makes floriculture a study or a business. It is particularly important that the coming meeting be well attended, to the end that increased vigor and efficiency may characterize our future work, and our efforts be so directed as to secure the greatest good to the greatest number. We want the name of every live florist in the country on our membership list. If you are already a member you can help the organization and through it benefit the profession by inducing others to join.

NURSERIES AT WINCHESTER, TENN.

Winchester is rapidly becoming known as one of the largest and best nursery points in the South, says the American Florist. The first nursery was established there by Shadow & Cherry in 1871, who grew probably about fifteen or eighteen acres of apple, peach and plum trees. Shadow & Cherry were succeeded by Shadow & Son, who continued the business in a small way until 1875, when they, in turn, were succeeded by Shadow & Wilson. Mr. Wilson withdrew from the firm in 1890, at which time the business had gradually grown until they had a nursery of about 100 acres. J. W. Shadow continued the business during 1891 and in 1892 he organized the Southern Nursery Company, with a capital stock of \$50,000, and was made treasurer of that company. Associated with Mr. Shadow in this company were Messrs. J. C. and N. W. Hale, of Knoxville, Tenn., both experienced nursery-men, and from the date of the organization of this company the business grew rapidly and soon reached a planting of several hundred acres.

In 1896 J. C. Hale drew out of the Southern Nursery Company and established the Tennessee Wholesale Nurseries, with the object of doing an exclusive wholesale business. This meant another expansion of the nursery interests.

In January, 1899, Mr. Shadow withdrew from the Southern Nursery Company, and organized the Cedar Hill Nursery Company, of which he is general manager. The Southern Nursery Company reorganized with N. W. Hale, president; H. N. Camp, vice-president, and W. Lee Wilson, secretary and treasurer, who, with F. A. Pattie and F. H. Kean, constitute the board of directors.

To summarize, the planting is now 100 acres by the Cedar Hill Nursery Company, 125 acres by the Tennessee Wholesale Nurseries, and 500 acres by the Southern Nursery Company.

THERE ARE OTHERS.

The following letter is a clear, straightforward statement of facts:

FREEPORT, Ill., July 12, 1899.

NATIONAL NURSERYMAN Publishing Co., Rochester, N. Y.

GENTLEMEN—I have received sample copies of your valuable and interesting journal frequently and now send \$1 bank draft herewith to pay subscription for one year.

I feel the need of your journal as a help in my wholesale department. Every nurseryman should read the NATIONAL NURSERYMAN.

Very truly yours,
JOHN M. WISE.

There are others who have received copies of the journal for a period long enough to enable them to determine its value to them as a business investment. No other journal they may be taking gives them the information contained in the NATIONAL NURSERYMAN. It is only by publishing in large quantities that a special journal like this can be produced and the subscription price, \$1 per year, is but a small outlay for the business investment it invariably proves to be with all in the nursery business.

Renewals and new subscriptions can be made at once, by return mail. The regular revision of the mailing lists is now in progress.

C. W. HOFFMAN, LITTLE YORK, O., July 24, 1899.—“I herewith hand you check for \$2 for two years' subscription. Can't do without it.”

LELONG'S DISCOVERY.

California Horticulturists at Variance Regarding the Originality of the Foster-Mother System of Root Grafting—Salable Nursery Trees Eight Months After Grafting—Salable Conifers In a Single Season—Leonard Coates' Opinion.

The interest excited by the announcement of the Stringfellow theory of root cutting is thrown in the shade by the announcement just made of the "discovery by B. M. Lelong, secretary of the California State Board of Horticulture, by which it is claimed salable nursery trees may be produced in a single season."

For several weeks previous to July 1 the daily press of California industriously circulated a statement that Secretary Lelong had announced a great discovery in foster-mother root grafting. It was explained that limbs two feet long were taken from Washington navel orange trees and united with foster-mother roots and placed in sandy soil, and in eight months they had attained a growth equal to two or three years by the ordinary methods, and that the same results were obtained with the olive, apple, peach and pear, together with other varieties of trees.

The California Fruit Grower having an idea that Pliny, Virgil and other gentlemen of the old school were familiar with Secretary Lelong's theory, wrote first to Mr. Lelong and then to the veteran nurseryman Leonard Coates. Mr. Lelong replied:

While the experiment has been a success, it is yet too early to say whether it will be of practical utility. We have yet to determine whether, after growing the plants in this way they, will become fruitful. However, it is a very important discovery, and one I have a great deal of faith in, especially in growing of plants from the cutting, such as conifers, etc.

LEONARD COATES' OPINION.

Mr. Coates replied as follows:

Wherein is there a "discovery?" Cuttings of any plant, under proper conditions, will make roots, and propagators for thousands of years have known that this process is facilitated by grafting thereon a piece of root. Planted deeply, where there is sufficient moisture, or kept watered, the cutting itself will emit roots, after the "foster-mother" has given the start. This is all there is to the woolly aphid resistant apple stocks. A cutting of Northern Spy, for instance, is grafted on to a small piece of apple root, and planted as above indicated. The next year the plant is taken up, the root graft cut off, and we have a Northern Spy apple on its own roots, which experience has proved to be resistant to woolly aphid, and which itself is used as a stock for other varieties.

There is nothing new in this. California Fruit Grower and other horticultural journals of the state have explained it many times during the past fifteen or more years. For years I have been trying these and other resistant apple stocks, as well as seedlings which were imported from New Zealand. California nurserymen would have supplied such trees long ago, but no one wanted them. The planter wanted the cheapest tree, and he got it.

Coming back to the first proposition, "all plants will take root on cuttings," the question may be asked, why is it not more generally done? The answer is that experience has shown that to keep the stock vigorous the variety must be grafted on to the root of a seedling of its own kind. To grow continuously from cuttings would in time so deteriorate the stock that it would become worthless. Grafting on to a "foster-mother root" (the term is irrelevant and superfluous) and planting in a warm, sandy soil, with plenty of water—the very best conditions—will start the sap very quickly, and a tree of any kind can be so produced in a short time. The permanent result, however, would be likely to be a dwarfed tree, precocious in bearing, but lacking vitality.

Allied to this, and simply a modification of cuttings on a "foster-mother root," is the process of "layering," which is about as ancient as grafting, for Nature herself, without the aid of man, is constantly working at it in the forest and jungle. This, to be brief, is to bend down a branch of the plant at a proper season of the year, cover it with earth, make a slight cut at the joints, and from each roots will grow) Such in time are severed from the parent, and become separate plants. This is the whole theory, and the practice, described very briefly.

Tell me when Adam first worked in the Garden of Eden, and I can better tell when plants were grown in this way.

SECRETARY LELONG'S REPLY.

To all of which Mr. Lelong makes reply:

The system of layering, which is very old, as well as enarching, are understood and have been practiced by propagators from time immemorial, and are fully illustrated by most early writers. The methods I have employed I believe to be original; at least, after consulting all the works at my command in the English, French, Spanish, Italian and German languages, I failed to find mention of any processes similar to those employed by me in the experiments of 1898 and 1899. I regret exceedingly that any mention was made of them so early in the season, as I expected to illustrate them fully the coming winter, and this would have given a better idea than the meager descriptions that have been published.

The comments as to the "foster-mother" root used in the apple grafts to raise resistant stocks, bear no relation to these.

That "trees grown from cuttings do not become prolific bearers (or words to that effect), and also that they become stunted," etc., does not apply to all species of trees, and with few exceptions, is not borne out by facts. Take, for instance, our olive orchards. They were grown from cuttings. The most prolific lemon orchards I have seen were grown from cuttings, and no doubt that tree would be grown in that way at the present time were it not that it is subject to the attacks of the gum disease; and likewise the lime and the citron. The fig, the quince, the grape and various species of plums are likewise propagated. It was only last week that A. T. Hatch told me that the most prolific plum orchard he had reared were trees grown from cuttings.

Propagators well know how tedious it is to grow conifers in particular, which has to be done by either planting the seed or by cuttings, requiring in either case from three to five years to become salable plants. By the process here spoken of, plants suitable for outdoor planting may be grown in a single season.

I have applied these processes to about 4,000 trees, which are now in nursery and which will be suitable for orchard planting the coming spring; two or three seasons at least being required by any other method. Of course outside of the trees already spoken of, we do not know whether trees so propagated from branches are going to be prolific bearers or not, and it will take several years of demonstration.

In 1888 I gave to the public the result of my experiments in budding the olive with large and small twigs, which, to my astonishment, received unfavorable criticism everywhere, because of its being new, no similar accounts being found on record, yet to-day that system is universally used as the only safe method of budding the olive. At one of our fall conventions I exhibited olive plants budded with twigs of twelve and fourteen inches in length, that had been budded the spring before, which with the growth of the season were twenty to twenty-four inches high.

To the casual observer these results may be looked upon with incredulity, but to an experimenter like myself, who has been constantly conducting experiments for a quarter of a century or more, they do not appear so difficult, and the only wonder is that it has not been done before. My experiments are on a broad scale. I have now about 200,000 orange trees in the seed bed, which next spring I shall put through the process, and which in a year or two thereafter I expect will be ready for orchard planting, otherwise at least five years being required.

I have noted carefully all that has been said by the press concerning these methods of hastening the growth of plants, and, as before stated, regret that they should have been mentioned at all, for it has not given me the opportunity to write concerning their worth, the knowledge experimenters must have of the plant, the season, etc., and the many problems that they must confront to be successful. I have made no recommendations and have cautioned all who have asked me, that it will take years of trial and experimenting to prove the practical utility of the processes and the fruitfulness of the trees so grown, which should be heeded.

In Common Council.

Editor NATIONAL NURSERYMAN:

Your issue of July just received. I am glad to get it as I had heard but little about the convention at Chicago. I never was so put out by being shut in at home. I could not get out either way for three days on account of the washouts. Such a thing never happened here before. I read what our friend Albaugh said as to being a member for twenty-one years. Well, I can discount him as I am a charter member of the American Association and have attended every meeting except one at Rochester and the one just held at Chicago.

I am glad to hear that we are not to be bothered in the future with long papers at the conventions. The question box is much better.

Z. K. JEWETT.

Sparta, Wis., July 10, 1899.

THE TRUTH IS SUFFICIENT.

Editor NATIONAL NURSERYMAN:

"It is human to err," and, as men have aspirations, it is also human to complain. Error of the human family is sometimes charged to the deficiency of higher or fixed laws, blaming nature for our own mistakes. To reach the point more directly, there has been a custom, almost from the beginning of the nursery business, to sell the products of the nursery by canvassers traveling from house to house. While this has been profitable to some salesmen, others found it necessary to hustle the business in order to make it profitable, while still others even to make fair wages, had to resort to schemes, tricks and misleading theories that they might instil enthusiasm into the purchaser and thereby unload the stock to an uninformed customer at an advanced price. This line has been worked to such an outrageous rate that the average grower has become suspicious of all persons who sell trees, and in fact the nurserymen and salesmen are all classed on about the line as that of the lightning rod peddlers. The nursery salesman meeting a stranger finds that as soon as the subject is introduced the former recoils and tries to resist all influence the former may try to exert on the would-be customer, who trembles at any further introduction from the salesman.

It is not necessary here to enumerate the multiplicity of frauds perpetrated in the sale of nursery stock on the uninformed buyer. Such things as that should not be winked at by the nurseryman. We have in existence the American Association of Nurserymen, of which the membership is largely composed of the leading citizens of America and Europe, men who would be loath to be charged with a fraud in a single order if they should realize a thousand times the value. There are in America wholesale and retail nurseries. Our interests are mutual and if it is necessary to employ salesmen, why not put catalogues in these salesmen's hands, describing and delineating the various kinds of stock correctly, and in true names, terms and classes, and if any man opens up a false theory with the intent of perpetrating a fraud in the sale of nursery stock, arrest him, as the people of Ames, Iowa, did the man who was selling by the thousands a hardy peach that was alleged to be frost proof, standing the rigid climate of Iowa and Dakota.

The only mistake of Our Horticultural Visitor in giving mention of the above case is in not giving the name of the man who was arrested. Similar cases could be made almost every

day the year around, and should, and will, be done if they come in reach of this vicinity. The nurseryman sometimes hesitates to speak of his profession under certain circumstances, as some one may be ready to make an unwarranted remark about his business. These frauds should be weeded out of the business. The truth in fruit growing is proof sufficient to induce a progressive man to buy trees and plant an orchard either large or small. The nurseryman will realize more in this way in the end than to advance a false theory to an uninformed man who will become discouraged as soon as he finds that he has been duped into buying more theory than trees.

Being associated with the farmers' institutes, lecturing on practical horticulture, the writer often wonders how some men can swindle the people time after time and evade the law as they do. I can't at this time recall a single institute where there was not one or more persons who had some grievance to relate in which he had suffered by buying some great thing at an extravagant price.

S. H. LINTON.

Marceline, Mo., July 21, 1899.

SCALE AND LADY "BIRDS."

Editor NATIONAL NURSERYMAN:

The NATIONAL NURSERYMAN has always been particularly interesting to me in the matter of bugology, because it splices the scientific aspect of the cases with sound practical hints such as those given in the last issue by Mr. Kirkpatrick of Texas.

We have a great reputation for mosquitos and other insect plagues in New Jersey, you know, and we have a most admirable staff of gentlemen to look after them, presided over by Professor Smith who I have heard give delightfully illustrated lectures on the "San Jose Scale." But I failed to identify his lantern slides and descriptions altogether, and the professor didn't have a sample along, either living or dead.

Moreover, an inquiry as to its identity with a scale introduced by Thomas Hogg on plants from Japan about twenty-five years ago, could not be answered satisfactorily.

I knew something about the pest at the time, and have often had a touch of it since, but I am not sure to-day whether the variable beast is quite the same as they make all the bother about, and call the "San Jose Scale." A Japanese correspondent of the Country Gentlemen recently stated that no such scale ever existed in Japan.

So what is a body to conclude? Is the "bug" a mere evolution or not? Maybe it doesn't matter!!

But here is another curious thing. E. Dwight Sanderson, an entomologist of Maryland says (p. 69): "Hardly had the 'San Jose Scale' commenced to get a start in the East, before it was attacked both by internal parasites and the predaceous lady 'birds.' Of the latter, but two specimens are commonly found on scale-infested trees in the East. Even more efficient are the little black beetles known as *Pentilia miscella*."

Now, ought not laws to be passed for the protection of the "predaceous lady birds," and not run the risk of suffocating the poor things with hydrocyanic acid gas?

JAMES MACPHERSON.

Trenton, N. J., July 12, 1899.

CANNOT KEEP HOUSE WITHOUT IT.

GEORGE A. SWEET, DANSVILLE, N. Y.: "Enclosed find \$1 for another year as we cannot keep house without the monthly visit of your magazine."

Among Growers and Dealers.

G. A. Gamble, Fort Smith, Ark., is at Mt. Nebo, Ark., for two months.

Herman Berkhan, New York city, visited nurserymen of Western New York last month.

B. L. Adams is proprietor of the Bonham, Tex., Nurseries succeeding E. H. Adams, deceased.

George S. Josselyn, Fredonia, N. Y., last month visited his old home on the seashore in Massachusetts.

Frederick W. Kelsey, New York City, visited Rochester and other Western New York points last month.

C. F. Gustin, of the Lenawee Nurseries, Adrian, Mich., says that he lost 90,000 peach and 7,000 apple trees during the cold weather of last February.

Thomas Meehan & Sons, Germantown, Pa., have about 5,000 feet of glass devoted to carnations, and this year they are planting all their plants inside.

The veteran nurseryman and grape grower, Professor T. V. Munson, would make an excellent special representative, at the Paris Exposition, of American grape interests.

J. W. Adams, Springfield, Mass., began business in 1849 in Portland, Me., removing to Springfield in 1867. His sons, Walter and Charles, are associated with him in the nursery business.

The property bearing the name of the Silas Wilson Company at Atlantic, Ia., has been transferred to Mr. Wilson for \$7,000 and he is the sole owner. The corporation has been dissolved.

N. W. Halé, Knoxville, Tenn., calls attention to typographical error in report of his address at Chicago convention. The South contains 818,150 square miles, instead of 118,150, as published.

Among those who were on the programme for the twelfth annual meeting of the Texas State Horticultural Society at College Station, July 25, were these nurseryman: State Entomologist F. W. Mally, Hulen; S. D. Thompson, Bowie; T. V. Munson, Denison; Gilbert Onderdonk, Nursery; H. M. Stringfellow, Galveston; G. A. Schattenberg, Boerne; G. A. McKee, Mt. Selman; F. T. Ramsey, Austin; E. W. Kirkpatrick, McKinney; John S. Kerr, Sherman.

There has been a change in the ownership and management of the T. S. Hubbard Co., of Fredonia, N. Y. Mr. Hubbard having sold his entire interest, retires from the business. His interest was purchased by E. H. Pratt, formerly for ten years the secretary and general manager of the company; Hon. John S. Lambert, one of the justices of the Supreme Court of the state of New York, and F. R. Green, cashier of the Fredonia National Bank. The present officers are: E. H. Pratt, president and general manager; F. R. Green, vice-president; W. L. Hart, secretary and treasurer. President Pratt was connected with the business of the Hubbard Company as general manager for so many years that the trade may be assured that the business will be continued on the same broad principles as heretofore. The T. S. Hubbard Co. is incorporated.

T. E. BURHOUGHS, NEW LONDON, CONN., July 24, 1899.—“Enclosed find one dollar. Please renew subscription for one year. Must have the NATIONAL NURSERYMAN.”

Recent Publications.

Part II. of the transactions of the Massachusetts Horticultural Society has been issued by the secretary, Robert Manning.

Among catalogues recently received is that of the Montpelier Nursery, D. Hay & Son, established in 1855, at Auckland, New Zealand.

The Orange Judd Co., New York, has published a working treatise on the cultivation of ginseng, by Maurice G. Kains, 12mo., 64 pp., 25 cents.

The fourth annual report of the chief fire warden, C. C. Andrews, of Minnesota, like its predecessors, is a most interesting and valuable publication. We shall refer to it again.

The rose number of the Gardeners' Magazine, London, issued July 8th, contained several appropriate articles and was accompanied by a colored plate of the handsome new rose Sunrise, introduced by G. W. Piper, of Uckfield.

A recent bulletin of the New York State Museum, by State Entomologist Ephraim P. Felt, gives in detail instructions for collecting, preserving and distributing New York insects. Another bulletin by the state entomologist gives valuable descriptions and illustrations of shade tree pests in New York state.

The United States Department of Agriculture has in press and will soon issue Bulletin No. 24, Division of Forestry. This bulletin is the first part of a paper entitled “A Primer of Forestry,” and was prepared by Gifford Pinchot, forester of the department. It deals with the units which compose the forest, with its character as an organic whole, and with its enemies. It is divided into four chapters.

Professor F. A. Waugh, an occasional contributor to our columns, is the author of “Landscape Gardening,” a treatise on the general principles governing outdoor art. The treatment of fundamental principles forms the key note of this work. The analysis enables the reader to see the relation of each fact and principle discussed to all the rest, to appreciate its relative importance and easily to remember the whole. The author possesses the rare art of condensation in a high degree, so that the reader of this work secures a great deal of information in small compass. The book will be useful to a large class of readers; not only to the professional landscape gardeners, owners of home grounds, suburban residents, park and cemetery superintendents and teachers, but also to landscape painters, photographers and art lovers and students in general. Illustrated, 12mo., 150 pp., cloth. 50 cents. New York: ORANGE JUDD CO.

The tenth annual report of the Missouri Botanical Garden has been issued by the director, Dr. William Trelease, under the direction of the board of trustees. In addition to the administrative reports for 1898 and two scientific papers, the volume contains a sketch of the late Dr. E. Lewis Sturtevant, who gave his valuable botanical library to the garden, a list of publications issued from the garden in 1897 and 1898, a list of the serial publications received at the garden library, and comprehensive indexes to the contents of the ten annual reports of the garden. The sketch of Dr. Sturtevant is of interest generally because of his deep study of botanical and agricultural subjects and the many valuable publications which resulted from that study. He was for a time the director of the Agricultural Experiment Station at Geneva, N. Y., and to him is due the commencement of the broad work done there. The Missouri Botanical Garden is in a very prosperous condition. Extensive improvements are effected each year. It is a great credit to its founder, Henry Shaw, and a notable addition to the country's prominent institutions. Since the visit of the nurserymen to the garden in June, 1897, they have taken special interest in it.

CAN'T LET OUR PAPER STOP.

HIRAM GREGORY, LOCKPORT, N. Y., May 17, 1899: “Please find enclosed \$1 to pay for NATIONAL NURSERYMAN for one year. Can't let our paper stop.”

OUR EFFORTS APPRECIATED.

J. K. HENBY & SON, GREENFIELD, Ind., May 13, 1899.—“Enclosed please find \$1.00 for NATIONAL NURSERYMAN. Allow us to congratulate you on the able manner in which you are conducting our much needed trade journal.”

From Various Points.

Stark Brothers Nurseries & Orchards Co., Louisiana, Mo., are building another packing house 150 x 200 ft.

The fifth annual meeting of the National Apple Shippers' Association will be held at the Hotel Cadillac, Detroit, Mich., August 2-3. H. C. Williamson, Quincy, Ill., president; A. Warren Patch, Boston, Mass., secretary.

The coming prune crop of Oregon, it is thought, will not exceed fifty carloads; last year five hundred were shipped, worth \$700 a car to growers. A full crop this year would mean one thousand carloads. There are 19,700 acres of prunes tributary to the Oregon division of the Southern Pacific Railroad.

The summer meeting of the Indiana State Horticultural Society will be held with the Noble County society at Island Park, Rome City, Ind., August 9-10. C. M. Hobbs, of the nursery firm of Albertson & Hobbs, Bridgeport, Ind., is president of the state society; Professor James Troop, of LaFayette, is secretary.

Professor Slingerland, Ithaca, N. Y., estimates that \$1,000,000 is paid annually in the United States for insecticides, for over 2,000 tons of Paris green. He suggests as cheaper insecticides green arsenite and arsenite of lime. Green arsenite is Paris green without the acetic acid used in that poison, made primarily for paint, and the omission considerably cheapens the poison. In other words, green arsenite is arsenite of copper, whereas Paris green is a double salt of arsenite and acetate of copper. The former is as strong as the latter, and should be used in the same proportions.

CUSTOM HOUSE ORDER.

Assistant Secretary Spalding of the treasury department has issued orders to expedite the appraisal of nursery stock at the custom houses. He suggests that the appraisal be made on the docks. Only one package or sample is in any event to be taken to the appraisers' stores. Hitherto there has been some red tape and delay in the appraisal of imported shrubs and trees to the loss of importers. In some cases importations have been held for reappraisal until the stock was worthless. In these cases the government did not get enough more to pay for the annoyance and delay. So the delays have been stopped.

WHAT THIS FIRM THINKS.

BROWN BROTHERS Co., ROCHESTER, N. Y., July 22, 1899.—“We enclose herewith \$1 to renew our subscription to the NATIONAL NURSERYMAN. We have only words of praise for your magazine, and we congratulate you upon its able conduct. We think it has an important place in all well-regulated nursery establishments.”

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

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I Have a Few Hundred YELLOW RAMBLER ROSES.

FINE STOCK. WRITE FOR PRICES.

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NEW SEEDLING PEACH, GLIFTON PARK.

Very hardy, origin Saratoga county, N. Y.; best quality, handsome appearance, free stone. Awarded first prize at State Fair in 1897. Buds for sale; order now. Also large stock two-year Cherry and Plum Trees.

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NEW CANAAN NURSERIES.

We have to offer for the Fall and Spring Trade the

**Largest Stock of Maples, Elms,
Chestnuts, etc., in the Country.**

Also 50,000 October Purple Plum, 1 and 2 years old; 30,000 Green Mountain Grape Vines from 1 to 3 years old; 5,000 Japanese Maples, 18 to 36 inches high. Currants in large quantities, and a general assortment of Nursery Stock. Orders solicited. Address

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NEW CANAAN, CONN.

Stock for Fall of 1899.

Am. Basswood,
High Bush Cranberry,
Cherry,
White Birch.

Am. Mountain Ash,
Black Ash,
Black or Sweet Birch,
Sugar Maple:

Five, up to 6 feet.

Many other varieties. Let us know your wants. Large stock of Evergreen, both seedling and transplanted.

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...THE WORDEN SECKEL PEAR...

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Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

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ALL OLD AND NEW VARIETIES. Immense Stock, Warranted True QUALITY UNSURPASSED. A fine stock of Campbell's Early vines at low rates. Send list of wants for prices.

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

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100,000 MYROBOLAN, No. 1,
100,000 PEAR, - - " 2,

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HIRAM T. JONES, - - Union County Nurseries,
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I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

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Extra Large Assortments of Shrubs, Conifers, etc. Prices on Application.

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JAMES GASS, N. Y. S. P. A., 287 Main, Buffalo, N. Y.

R. F. KELLEY, G. A. P. D., 287 Main, Buffalo, N. Y.

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We will also have our usual supply of

Apple Seedlings and other Stocks,

graded up to high standard, for shipment from either Troy, Ohio, or Topeka, Kansas.

Write us for rates before placing your order.

GEO. PETERS & CO.,
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What About Peach Seed?

Rather scarce, is it not?

Better Write Us Immediately

as we shall have a fair supply of this year's crop. But it won't last long.

Latest importation of **Raffia** just arrived. Prices a little lower than previous shipment.
New crop **Mazzard Cherry Seed** now ready.

Thomas Meehan & Sons,
Germantown, Philadelphia, Pa.

1899

...FRENCH STOCKS...

1900

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MYER & SON,

BRIDGEVILLE, DELAWARE.

E. T. DICKINSON & CO., CHATENAY, SEINE, FRANCE.

Growers and Exporters, FRENCH NURSERY STOCKS,
has to offer,

Fruit Tree Seedlings and Ornamentals.

Pear, Apple, Plum and Cherry, and Angers Quince Cuttings.
All grown specially for the American trade.

PEAR AND CRAB APPLE SEED.

The most complete assortment of Ornamental Stocks, Trees and Shrubs.
(Orders solicited and booked now at low rates.)

E. T. DICKINSON & CO., 1 Broadway, NEW YORK.

THE AMERICAN FLORIST COMPANY'S

DIRECTORY FOR 1899,

Is now ready, revised and corrected to date, with 1336 names of new concerns. This book, issued every year at great expense, contains the names and addresses of all the Florists, Nurserymen and Seed Merchants in the United States and Canada. **Price, \$2.00.**

AMERICAN FLORIST COMPANY, Chicago, Ill, U. S. A.

THE

WILLIAM STREET NURSERIES

Offer for Fall 1899 and Spring 1900

Apples, Std. and Dwarf Pears, Cherries, Plums, European and Japan; Peaches, Quinces, Ornamentals, Roses, Shrubs, etc.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

J. RICE & SONS,
GENEVA, N. Y.

When writing to advertisers mention The National Nurseryman.

1864-1899.

University Avenue Nurseries,

ROCHESTER, N. Y.

JOHN CHARLTON & SONS.

Offer for Fall of 1899:

Bismarck and a full stock of other apples. Abundance, Burbank, Monarch, and other plums. Lincoln Coreless, and other pears, standard and dwarf. Fuller's, Bogart, Reas' Mammoth, and other quinces. Currants, Gooseberries, Blackberries and Columbian and other raspberries.

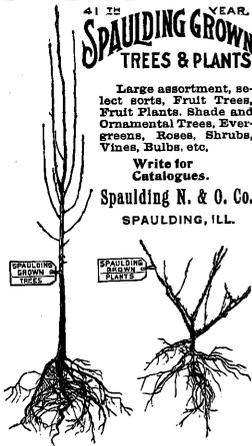
A large stock of XX Diamond Grape, and other vines—strong retailing plants—Flowering Shrubs, Roses, Pæonies, Tree Althea—fine plants—Tree Lilac, Tree Hydrangeas, Weeping Lilac, Altheas, Hydrangeas, Weigela Variegata, Tree Pæonies, etc.

Golden Glows, large, strong plants, for retailing at one-half price.

Clematis—a choice lot, Dutch Pipe, Honeysuckles, etc.

JOHN CHARLTON & SONS,
ROCHESTER, N. Y.

SEND US A LIST OF YOUR WANTS.



41 IN YEAR SPAULDING GROWN TREES & PLANTS

Large assortment, select sorts, Fruit Trees, Fruit Plants, Shade and Ornamental Trees, Evergreens, Roses, Shrubs, Vines, Bulbs, etc.

Write for Catalogues. Spaulding N. & O. Co. SPAULDING, ILL.

Apple, Cherry, Std. and Dwf. Pear PLUM, APRICOT, QUINCE.

Get O-U-R Prices.

Glove Pruned Trees

Smooth bodies. Heads right, Grade right. Special offers for the Trade. BLACKBERRY and Other Small Fruit Plants.

CAR. POPLAR, H. P. Roses and Ornamentals. SCIONS, CUTTINGS,

Cordage Burlaps

GET OUR PRICES.

Apple, Peach, Plum, Apricot, Carolina Poplar, White Ash, Soft Maple,

...IN CAR LOTS... For Fall of 1899

Fine stock; bottom prices. Special inducements for early orders. James Truitt & Sons, CHA-UTE. KANS.

WE OFFER PEACH TREES IN CAR LOTS

Low prices quoted for early Fall shipments.

We also offer Apple and Japan Plums on peach. Careful and experienced grading and packing.

JOHN PETERS & CO.,

URIAH, CUMBERLAND CO., PA.

JAPAN PLUMS

A large stock Abundance, Burbank, Hale, and all standard varieties. New Varieties: America, Apple and Chalco a speciality.

FREIGHT PREPAID

to Philadelphia on all Northern and Eastern Shipments.

Peaches, Persimmons, Pecans, Mulberries, Figs, Field Grown Grafted Roses; both Teas and Hybrid varieties, and a general line of fruit and ornamental trees grown in large quantities.

High Grade Trees and Low Prices.

THE GRIFFING BROTHERS COMPANY, POMONA NURSERIES. MACCLENNY, FLORIDA.

WE SHALL OFFER IN FALL

One Year Trees and Dormant Buds

— OF —

...BURBANK'S NEW PLUMS.

America, Bartlett, Climax, Chalco, Shiro, Sultan.

W. A. WATSON & CO.

NORMAL, ILL.

FRUIT PLATES

Vredenburg & Company,

AND NURSERY SUPPLIES.

ROCHESTER, N. Y.

Everything in

SMALL FRUIT PLANTS.

W. N. SCARFF, New Carlisle, O.

Catalogue and Price List ..Free..

WANTED.

A party with little capital who has had experience in running agents, to start a retail Nursery business. Address with reference, D. H. PATTY, Geneva, N. Y.

N. B.—I have in surplus for fall, a large stock of Standard and Dwarf Pears, Plums, Kilmarnock Willows, etc., etc. If you are in need of any of the above stock let me quote you prices, I will save you money. D. H. PATTY, Geneva, N. Y.

The Kissing Bug

your season's supply of labels. If you favor us with your orders, they will have prompt attention.

may or may not be a myth. We venture no opinion in regard to it, but we know that it is time for you to be looking for

BENJAMIN CHASE, Derry, N. H.

**W. T. HOOD & CO.,
Old Dominion Nurseries,
RICHMOND, VA.**

We offer for Fall 1899, and Spring 1900,

Apple and Peach

As fine stock as can be grown, and a very full line of
General Nursery Stock, Fruit and Ornamentals.

200,000 Peach Seedlings from Beds of Natural Seed.

NATURAL PEACH PITS.

We hope to have pits to offer in October, Crop of 1899.

Phoenix Nursery Co., Established 1852.
600 Acres.
13 Greenhouses.

successors to
SIDNEY TUTTLE & CO.

Nurseriesmen and Florists.

Eastern agents for Rosney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.

Send list of wants for prices.

P. O. BOX 625.

BLOOMINGTON, ILL.

P. Sebire & Sons, Nurserymen,

USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myrobian Plum, Malaleb and Mazzard Cherry, Angers, Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc. The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
SPRINGFIELD, NEW JERSEY.

SURPLUS OF

PEACH, PLUM, CURRANTS,

POPLARS AND SHADE TREES,

PRIVET, SHRUBBERY, EVERGREENS, ROSES.

HEADQUARTERS FOR NURSERY STOCK.

Baltimore and Richmond Nurseries,
BALTIMORE, MD.

FRANKLIN DAVIS NURSERY CO.

50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.

LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple,
Peach,
Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
Evergreens,
Shrubs,

Strawberries,
Nut Trees,
Japan Pear Seedlings,
Gooseberries,
Roses,
Raffa,
General Supplies,
&c. &c.,
&c.

**APPLE
SEEDLINGS**

FOR THE

Fall of 1899 and Winter
of 1900.

Will make special prices on large
early orders.

ALL GRADES.

F. W. WATSON & Co.,

TOPEKA, KAN.

When writing to Advertisers mention The National Nurseryman.

Snowhill Nurseries.

W. M. PETERS & SONS, Proprietors.

P. O. WESLEY, WORCESTER COUNTY, MD.

Telegraph Office, Berlin, Md.

**Our Budded List of PEACH TREES Represents more
than a Million.**

Information as to varieties, quality, grade and price, cheerfully
given. Your personal inspection invited.

EIGHT ACRES IN ASPARAGUS PLANTS,

One and two year old.

Donald's Elmira, Columbia Mammoth White,

Barr's Mammoth Palmetto, Conover Colossal.

30 Acres in Strawberry Plants, representing over seventy varieties.

PEACH BUDS.

In any quantity, cut from strictly healthy trees. Send us a list of
your wants. Will make a special price on same.

Trade List and Descriptive Catalogue mailed free.

W. M. PETERS & SONS.

When writing to Advertisers mention The National Nurseryman.

L. A. BERCKMANS.
P. J. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES

P J BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

10,000 Keiffer Pears—Extra good Stock—Boxes at Cost.

2 years, 5 feet and up, branched.
2 years, 4 to 4½, branched. Get our prices.

10,000 Standard Pears.

5,000 Everbearing Peach Trees—3 and 5 feet.

Special offer to close out stock.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug.-3d, 1898, and attracted much attention.

Ornamental Department.

100,000 Annon Privet—Unsurpassed as an evergreen hedge plant—50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stands 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel budded upon Manetti, 18-24 inches.
Two Acres in Canna.

Biota urea Nana.

Best of all the dwarf Biotas; a perfect gem. Specimens were on exhibition at the Nurseryman's Association at Omaha. We have a stock of 14,000 plants; prices low.
Broad Leaved Evergreens, Cedrus Deodora, Retinosporas, and other rare conifers.

Greenhouse Department.

100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.
Ficus, Decorative Plants, Crotons, Bedding Plants, 15,000 Camphor Trees, Sub-Tropical Fruits, etc.

Send for trade list and descriptive catalogue.

THE POMONA CURRANT.



The BEST SPECI-ALTY for the AGENTS for 1897 and 1898.

WHY? Because it is the best MONEY MAKER for the people to plant.

It is BEST in QUALITY.

Its returns come in the quickest and surest.

These being the qualities the planter is after, he buys it.

Introduced and for sale by us. Send for circulars, plates, terms, &c.

Not only have we a good stock of POMONA CURRANTS.

But also a COMPLETE GENERAL ASSORTMENT OF TREES, PLANTS, ORNAMENTALS, VINES, &c., in CAR-LOAD LOTS, especially APPLE, PEAR, CHERRY, PLUM; with good assortment of PEACH and other fruit trees and plants.

Also CAROLINA POPLAR SOFT MAPLE, ELM, &c.

APPLE STOCKS.

IMPORTED FRENCH PEARS

MAHALEB, MYROBOLAN and QUINCE stocks.

SEE TRADE LIST.

ORDER SPADES EARLY.

A limited quantity of Natural PEACH PITTS to offer.

Address, **ALBERTSON & HOBBS,**

BRIDGEPORT, MARION CO., INDIANA.

When writing to Advertisers mention The National Nurseryman.

THE

Geneva Nursery

Established in 1846.

Headquarters for : :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of : :

SHRUBS—Upright, Climbing and Standard.

ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.

RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.

PÆONIAS—Large Assortment, Named Varieties.

DAHLIAS—New Cactus. Large Flowering, Pompon.

full Assortment in : :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS GOOSEBERRIES, RASPBERRIES.

We give special attention to Dealers' complete lists. Fall trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

Apple, Peach and Japan Plum Trees.

Louden and Miller Red Raspberry.

BUDS IN SEASON.

40 kinds Japan Plums. 50 kinds Apple. 70 kinds Peach.

WEST JERSEY NURSERY CO.

STANTON B. COLE, - Bridgeton, N. J.

HALE PLUM BUDS,

GROWN AT GENEVA, N. Y.

Write for Lowest Prices.

WHITING NURSERY CO.,

457 Blue Hill Ave., BOSTON, MASS

PIONEER NURSERIES CO.

ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

Eastern Agents, PIONEER NURSERIES COMPANY, PHOENIX NURSERY CO., Salt Lake City, Utah. Bloomington, Ills.

We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

When writing to Advertisers mention The National Nurseryman.

The Amount ...You Pay



OR a thing is important, but what you get in return for your money is **TEN TIMES** more important.

Our Printed and Wired Labels are unequaled, but imitated. Being imitated only proves their supremacy.

Only good labels are imitated.

If you have not used our Labels it may pay you to write for samples and prices.

Dayton Fruit Tree Label Company,

DAYTON, OHIO.

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitæ, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and GOOSEBERRIES extensively grown. Better stock never grew.

NELSON BOGUE

BATAVIA NURSERIES,

BATAVIA, N. Y.

When writing to Advertisers mention The National Nurseryman.

BREWER & STANNARD,

OTTAWA, KANS.,

Offers to the Trade a Large and Complete Assortment of

NURSERY STOCK

APPLE,
PEAR, *Std. and Dwarf,*
CHERRY,
PLUMS, *Japan and European*
PEACH,
APRICOT,

Gooseberries, Grape Vines, Currants, Raspberries, Blackberries, Apple Seedlings, Forest Seedlings, and Osage Hedge Evergreens, 18 in. to 3 ft.

Ornamental Trees, Shrubs and Vines.

From Anywhere **East**

To Everywhere **West**

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of _____

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

Great Convention cities throughout
the country.

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G.E.P.A.,

305 Broadway, NEW YORK.

Jno. Sebastian, G.P.A.,

CHICAGO, ILL.

When writing to Advertisers mention The National Nurseryman.



J. G. HARRISON.

ORLANDO HARRISON.

GEORGE A. HARRISON



BUDS BUDS BUDS
Peach Trees by the 1,000 or Car Load Lots.

BUDS BUDS BUDS

Of the Famous New Peaches, Carman, Waddell, Mathews Beauty, Haulderbaum, Frances, Beauty (b), Delaware, Emma, Klondike and Denton.

Prices are very Low and Buds will be Cut by Competent Men.

General List of Varieties

General List of Varieties

PEACH

PEACH

- Alexander
- Amsden June
- Barnard's Early
- Bilyeu's L. Oct.
- Bokara No. 3
- Brandywine
- Bray's Rareripe
- Crawford Late
- Crawford Early
- Coue't So. Early
- Champion
- Chair's Choice
- Crosbey
- Connecticut
- Chinese Cling
- Elberta
- Early Rivers
- Early Heath
- Early Michigan

- Fox Seedling
- Foster
- Fitzgerald
- Ford's Late White
- Frances
- Geary's Holdon
- Greensboro
- Gold Drop
- Globe
- Hill's Chili
- Hale's Early
- Kalamazoo
- Lemon Free
- Lewis
- Lorentz
- Levey's Late
- Moore's Favorite
- Magnum Bonum
- McIntosh
- Morris White
- Mt. Rose
- New Prolific
- Old Mixon Cling
- Old Mixon Free
- Reeves Favorite
- Stephen's R. R. Smock



Apple Buds

List of Varieties

- Baldwin
- Ben Davis
- Bellflower
- Early Harvest
- Early Strawberry
- Early Colton
- Fallwater
- Grimes Golden
- Gravenstine
- G. G. Pippin
- Haines
- King Thompkinson
- Limber Twig
- Maiden's Blush
- Mammoth Black Twig
- Northern Spy
- North West'n Greening
- Paragon
- Red A strachan
- Rome Beauty
- Rhode Island Greening
- Stark
- Smith's Cider
- Summer King
- Summer Rambo
- Winter Rambo
- Wine Sap
- Wealthy
- Yellow Transparent
- York Imperial

DELAWARE.

This valuable peach comes from the little Diamond State, which is noted for growing the first fine peach to supply the northern markets, and the growers are of life-time experience, and they know a good peach when they see it. For twenty-five years there has been a vacancy in supplying the market with a large peach to ripen with the earliest and of good shipping qualities. Now, we have in the Delaware a beautiful white peach of good color, bright red on one side and as large as Mountain Rose, ripening with Hale's Early and Troth's Early.

This variety has been thoroughly tested and pronounced by some of the best growers to be a variety distinct from others of the season and is destined to stay. In quality it is the very best and for shipping it ranks first, as it is not like the extra early varieties from the South that do well there but do not do well on the peninsula. This is a variety that will suit the planter in a general way over various sections of the country better than any other of its season that we know of. The tree is a beautiful grower and leaves are long and pointed, and shows every sign of health.

This variety is no longer an experiment but will be planted in some of the largest commercial orchards in the country. Figure out the difference you would make at shipping peaches at the season of Troth's Early if they were of the size and quality of Mountain Rose. Every one interested in peaches should keep an eye on this valuable variety.

- Salway
- Snow's Orange
- Stump the World
- Sneed
- Triumph
- Troth's Early
- Wonderful
- Wheatland
- Wager
- Willett
- Walkers's Var. Free
- Wilkin's Cling
- White Heath Cling
- Water Loo
- Yellow St. John

PLUMS

- Abundance
- Burbank
- Berckman
- Chabott
- German Prune
- Hale
- Normand
- Ogon
- Red June
- Satsuma
- Shipper's Pride
- Tage
- Wickson
- Willard
- Wild Goose
- Shropshire Damsion

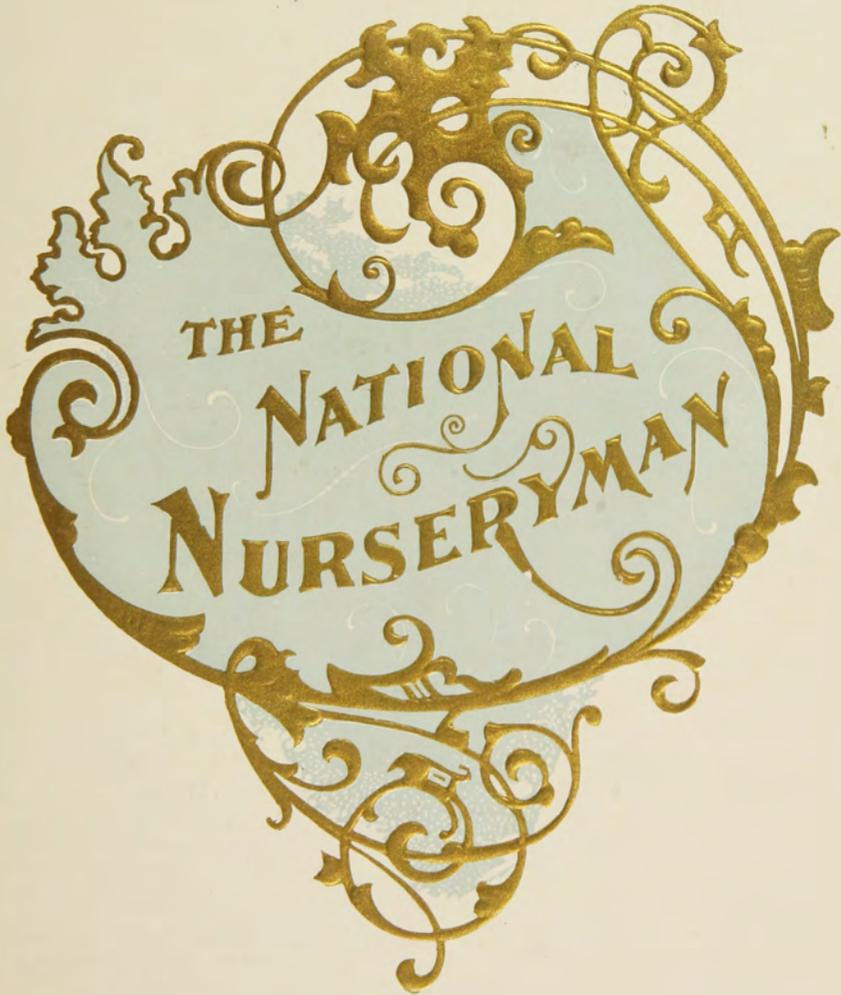
CRAB

- Hyslop
- Transcendent

We want your List of Wants and prices will be quoted promptly on what you may need.

J. G. Harrison & Sons,

BERLIN, MD.



September, 1899.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1886.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES,

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

20,000 Standard Pears—Extra good Stock.

2 years, 5 feet and up, branched.
2 years, 4 to 4½ feet, branched. Get our prices.

5,000 Everbearing Peach Trees—3 and 5 feet. \$10.00 per 100.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1888, and attracted much attention.

Cherries, Mulberries, Apples, Figs, Nuts and Peaches.

ORNAMENTAL DEPARTMENT.

100,000 Amor River Privet—Unsurpassed as an evergreen hedge plant.

50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stand 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel, budded upon Manetti, 18-24 inches.

Two Acres in Cannas.

BIOTA AUREA NANA.

Best of all the dwarf Biotas; a perfect gem. Was not injured in the least by the February freeze—while the old Biota Aurea (its parent) was badly injured. We have an immense stock and can supply it by the thousand in sizes 12-30 inches.

100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.

4,000 Fancy Caladiums.

Ficus, Crotons, and 15,000 Camphor Trees, Sub-Tropical Fruits, Etc.

Send for Trade List and Descriptive Catalogue.

PETERS & SKINNER,

North Topeka, Kansas.

CAPITAL NURSERIES.

We offer for Fall of 1899 and
Spring of 1900

APPLE, PEACH, CHERRY
AND PLUM TREES.

1 yr. KEIFFER PEAR.

BECHTEL'S DOUBLE FLOWERING CRAB.

We can supply

Apple Seedlings

in large lots. Fine grades.

KEIFFER AND JAPAN PEAR SEEDLING.
OSAGE, CATALPA, BOX ELDER,
RUSSIAN MULBERRY, SOFT
MAPLE AND ELM SEEDLING.

KANSAS RASPBERRY. BLACKBERRIES.

WRITE US FOR PRICES.

Peters & Skinner.

Albertson & Hobbs,

BRIDGEPORT, (Marion Co.) IND.

OFFER FOR FALL 1899
AND SPRING 1900.

In car load lots, assorted car load lots, or smaller quantities.

Standard Pears—Complete assortment, including liberal portion Keiffer, Bartlett, Henry, Arnold, etc.

Dwarf Pears—Complete assortment.

Plums—European, Japan and native, assorted.

Cherry—Assorted.

Carolina Poplar—All sizes; extra fine young stock.

Norway, Silver and Rock Maples.

Weir's Cut Leaved and Schwedlerii Maple.

American Elms, Weeping Elms, Lindens, Sycamore, Mulberries, etc.

Hardy Shrubs—Good assortment; also Evergreens, Roses, Vines, Small Fruits, etc.

Apple Seedlings and Imported Seedlings, Peach Pits, supplies, etc. (Prices on application.)

SEE TRADE LIST FALL 1899.

Spade and supply orders should be sent in early.

TRADE



MARK.

Japanese Nursery Stock, SEEDS, Etc.

Orders are booked now for Fall and Spring delivery. Safe arrival guaranteed. Price f. o. b. New York, duty paid.

SPECIALTIES:

Japan Maples, Citrus Trifoliata Stocks and Seeds.
Japan Pear Stocks and Seeds. Etc.

Trade List Free on Application.

SUZUKI & IIDA,

11 Broadway, 3 Nakamura,
NEW YORK. YOKOHAMA.

SOLE AGENTS OF THE
YOKOHAMA NURSERY CO.

The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES.

Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.
Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphids, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

Headquarters for Ornamental Trees and Shrubs.

Will have the largest and finest stock of large **Carolina Poplars** for the coming fall trade which we ever offered. This is the tree for quick growth and to resist the smoke and gas in village, town and city.

Weeping Trees—Especially heavy in **Teas' Weeping Mulberry, Kilmarnock, Wisconsin, Babylonica and New American Weeping Willows, Camperdown Elm, Mountain and European Weeping Ash,** and a good stock of other weeping trees. Fine stock of high top **Rose Acacia.**

Roses, Roses, Roses—Forty acres in nursery rows, own roots and budded. None better. Greatly superior to the imported.

Greenhouse Department.

Consists of **Forty-four** houses filled with **Roses, Palms, Ferns, Ficus,** and other things too numerous to mention.

Holland Bulbs—Have large lots contracted with best growers that cannot fail to please customers.

Personal inspection and correspondence solicited.

TRADE LISTS AND CATALOGUES FREE.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE
**MOUNT
 .. HOPE ..
 NURSERIES,**

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

**LOUIS LEROY'S
 NURSERIES**
 Established 1795.)
ANGERS, (M. & L.) FRANCE.
 GROWER AND WHOLESALE EXPORTER OF
FRUIT, FOREST and ORNAMENTAL STOCK
 Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.
 Prices, catalogues and all other information can be obtained by addressing
AUG. RHOTERT,
SOLE AGENT,
26 Barclay Street, (P. O. Box 2250) New York.

KNOX NURSERIES
 -Established in 1851-
 We offer to the trade for Fall of 1899 the following No. 1 stock:
APPLE, 2 yr.
 Ben Davis, Jonathan, Grimes, York Imperial, Gano, Wealthy, and a few other leading sorts.
PEACH, 1 yr.
 Heavy on Elberta, Heath Cling and Champion. Snyder Blackberry, root cuttings.
 Our stock was not injured by the cold winter.
 Correspondence solicited.
 Long distance telephone connection.
H. M. SIMPSON & SONS,
VINCENNES, IND.

Surprising, to say the least!

That is what is said regarding the lowness of our prices upon the following items. They consist partly of stock which is on land that must be cleared this season on account of expiration of leases and partly of varieties in which we have unusually heavy stocks that we desire to reduce quickly. The grade and quality of the stock is of the finest. We could furnish none better at any price.

PENZANCE HYBRID SWEET BRIARS.

- | | |
|-----------------------------|-------------------------|
| Amy Robsart, rose. | Lady Penzance, copper. |
| Anne of Sierstein, crimson. | Lord Penzance, fawn. |
| Brenda, bluish-white. | Rose Bradwardine, pink. |

CLEMATIS, 2 yrs., field-grown, XXX.

(Write for prices stating assortment and quantities).

- | | |
|--------------------|-----------------------------------|
| Henryii, white. | Madame Ed. Andre, red. |
| Jackmanni, purple. | Ramona, sky-blue, large and fine. |
| | Madame Baron Veillard, pink. |

ORNAMENTALS.

On land that must be cleared; fine stock.

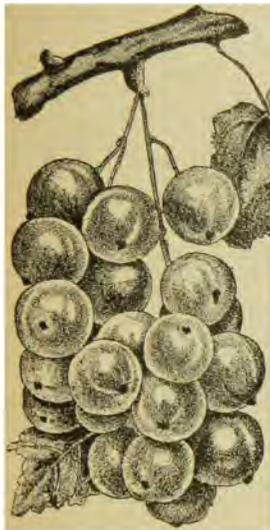
- Altheas, (dbl. purple, dbl. red, dbl. white, single purple, variegated)
 Berberry, Common (Vulgaris)
 Deutzias, 2-3 ft. (Crenata, Crenata flore pleno, Crenata fl. pl. alba.)
 Halesia Tetraptera (Silver Bell), 8-4 ft. Honeysuckle, White
 Tart'n, 8-4 ft.
 Pæonias, pink and rose colored; large roots.
 Snowball, Japan. 18-24 in. and 12-18 in.
 Spiræas, Billardii (3-4 ft.), Douglasi and Prunifolia, 2-3 ft.
 " Bumalda, Callosa Alba, Thumbergii, 18 in.
 Tree Pæonies, Banksii, 3 yr. Wisteria, purple, 3 yrs. XXX.
 Norway Spruce, 18-24 in., 12-18 in. and 6-12 in.
 Euonymus Europeæ, 6-8 ft. Mt. Ash, Oak Leaved, 8-10 ft. and 6-8 ft.
 Rhubarb, Myatts Linnaeus, XXX.
 Gooseberries, 2 yr. strong—Houghton and Smith's Improved.
 Currants, 2 yr. strong—La Versailles, No. Star, Cherry and White Grape.
 Dwarf Pears, No. 1 and Medium.
 Bartlett Clapp's Favorite. Flemish Beauty.
 Beurre de Anjou. Duchess d' Angouleme. Seckel.

Our new trade list contains our complete assortment. Sent on request.

JACKSON & PERKINS CO., NEWARK, NEW YORK.

THE OLD AND WELL KNOWN
Morris Nurseries
 Offer a complete stock of the most important varieties of fruit and ornamental trees to dealers and nurserymen. Dealers who do not find it convenient to come to the nursery, can send their orders and have them packed with great care by competent help for a moderate charge.
 Specialties for Next Fall and Spring:
Norway and Silver Maples,
Irish Junipers,
Am. Arbor Vitas.
GEORGE ACHELIS,
 Chseter County. WEST CHESTER, PA.
 When writing to Advertisers mention The National Nurseryman.

The Pomona Currant



The best specialty for the Agents. Why? Because it is the best money maker for the people to plant. It is best in quality. Its returns come in the quickest and surest. These being the qualities the planter is after, he buys it. With hardly an exception, though thoroughly tested in the leading sections and beside the new highly praised and older sorts has the POMONA proven its superiority in quality, vigor and productiveness, showing it to have no superior, if an equal, for profit to planter, and general adaptability to different sections.

One grower in 1898 picked from 13 acres of Pomona, 3 to 5 yr. set, over 5000 24 qt. cases, realizing a net profit of over \$180 per acre. Compare this with what you have realized for your fruit or from crops grown under ordinary field culture.

Introduced and for sale by us.

Send for circulars, plates, terms, etc. Prices on application.

Address **Albertson & Hobbs,** BRIDGEPORT, Marion Co., INDIANA.

Crimson Rambler.

We are Headquarters for this Valuable Climber, and will be pleased to receive inquiries from all who may need strong, dormant plants.

WRITE US AT ONCE,

stating how many are needed, and we will make good figures.

BROWN BROTHERS COMPANY,
ROCHESTER, N. Y.

GRAPE VINES AND CURRANT PLANTS

Highest Standard of Grades.

LARGEST STOCK AND LOWEST PRICES.

Correspondence Solicited.

WHELOCK & CLARK, FREDONIA, N. Y.

The Wonderful New

McPike Grape

has not only captured all Premiums wherever exhibited, but has won new laurels by passing through last winter of 27 degrees below zero, in better condition than Concord, Worden or Moores Early, and is loaded with a fine crop of Grapes.

SEND FOR PRICE LIST.

SILAS WILSON,

Successor to Silas Wilson Co.,

ATLANTIC, IOWA.

600 Acres. Established 1853.

High Grade Trees.

We offer our usual assortment of carefully grown trees and shrubs for the Autumn of 1899. All the most approved and beautiful varieties are our specialties. Exceptional care taken in grading and packing. Send for New Trade List.

HOOPES, BRO. & THOMAS,

Maple Avenue Nurseries.

West Chester, Pa.

PEACH TREES.

We have for fall and spring trade a fine block of well-grown peach trees; all the leading western varieties.

APPLE SEEDLINGS

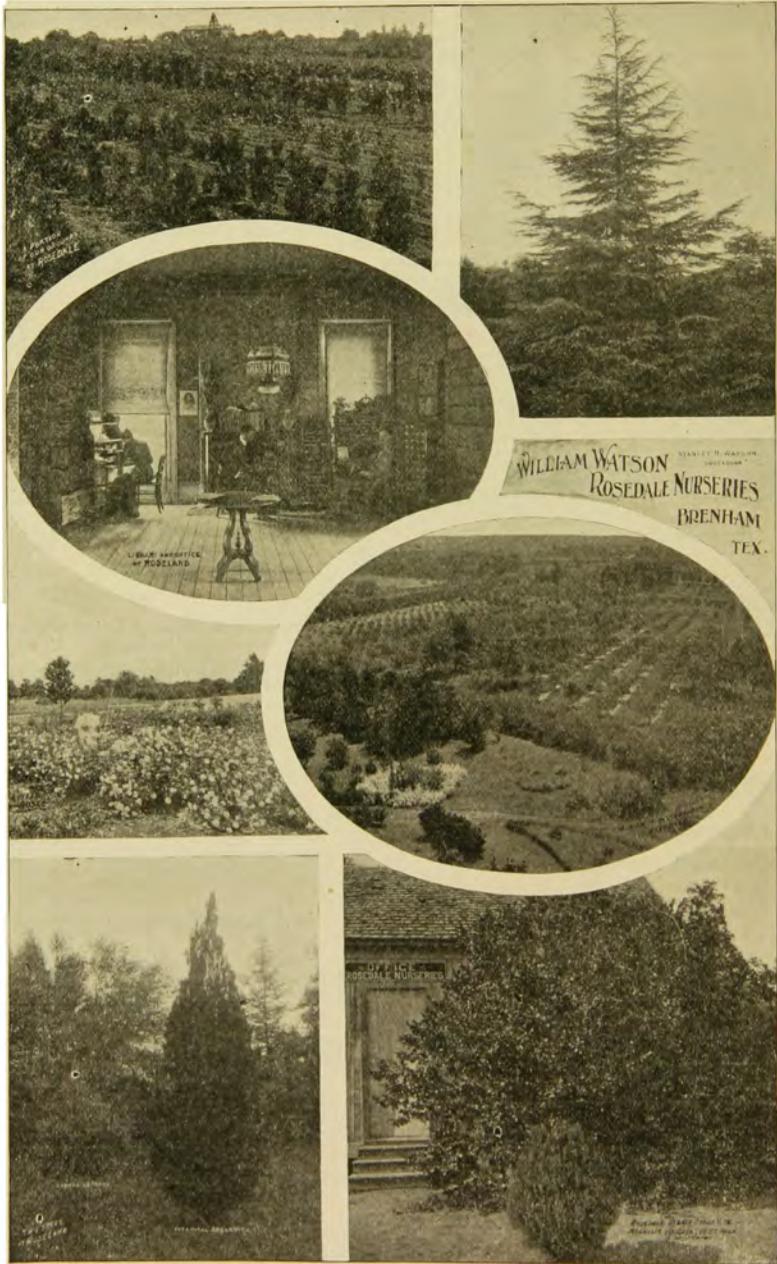
grown on new land and free from Aphs.

SHADE TREES,

large and small, together with a general line of nursery stock, including Forest Tree Seedlings, Osage Hedge Plants, Ornamental Trees, Shrubs, Etc.

APPLE GRAFTS MADE TO ORDER. PRICES RIGHT
Correspondence solicited.

YOUNGERS & CO.,
GENEVA, NEBR.



ROSEDALE NURSERIES, BRENHAM, TEXAS.

STANLEY H. WATSON, PROPRIETOR.

JOHN WATSON, MANAGER.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Selection is one of the most important factors in plant breeding."—Herbert J. Webber.

Vol. VII.

ROCHESTER, N. Y., SEPTEMBER, 1899.

No. 8.

NEW NURSERY METHODS.

Will They Be Adopted in the Light of Recent Information Regarding Root-Killing—Professor Hansen's Advice—The Russian Method—Use of Pure Pyrus Baccata as Stock—Save Siberian Crab Seed—Severe Tests:

At the Philadelphia meeting of the American Pomological Society Professor N. E. Hansen, Agricultural College, Brookings, South Dakota, will present the following interesting and valuable information :

The past winter has wrought wide-spread destruction in the northwestern nurseries and young orchards, and the afflicted area extends far to the south. Hundreds of thousands of apple root-grafts have been root-killed, and the tales of woe come from very many localities. The winter of 1872-73 will long be remembered by fruit men for devastation wrought, the winter of '84-'85 was another, and now that of '98 and '99 is added to the list.

At Brookings we find apple root-grafts root-killed every winter unless deeply covered. Several thousand were root-killed in the winter of 1896-7. Root-grafts that had made a good growth in 1897 were taken up in the fall of 1897 and wintered in cellar. Root-grafts made in the winter of 1897-8 were planted at the same time in the spring of 1898. Both lots root-killed. In all hardy varieties we find the scion alive and sound, but the American seedling root dead. Both Vermont apple and French crab seedlings root-killed. The Hiberna and other hardy varieties had not rooted sufficiently from the scion to carry the tree through ; indeed, the past winter the scion-roots of all (even Hiberna and Duchess) of the cultivated varieties winter-killed. So that "trees, rooting from the scion," will not be hardy enough in winters like that of 1898-9. Several hundred seedlings were grown in 1896 from seed of wild crabs gathered near Des Moines, Iowa, but all but one plant were killed the first winter.

WILL NURSERY METHODS CHANGE ?

Will the experience of the past winter change nursery methods? Probably very little, except in the northern nurseries. Commercial methods change slowly, and the test winters do not come often enough to compel a quick changing. Certain it is that the western American method of winter root-grafting makes possible the production of apple-trees at prices lower than those of Europe with cheap labor.

Let us make a flying trip to the largest empire in the world, Russia, a country containing one-seventh of the earth's surface. We will find that the growers in the northern fruit-growing regions have had the same trouble with root-killing, that our tale of woe was theirs also years ago, but that they have met and solved the problem and are now masters of the situation.

In 1894, with the kindly assistance and advice of my teacher, Professor J. L. Budd, the writer visited the Imperial Agricultural College at Moscow, Russia, and in 1897 the visit was repeated while on a tour of exploration for Hon. James Wilson, to secure new seeds and plants for the United States Department of Agriculture in the dry parts of Eastern Russia, Central Asia, China and Siberia. Professor R. Schroeder, the venerable head of the horticultural department, has been in the government service over fifty years.

THE RUSSIAN METHOD.

He said that the Russian method of preventing the root-killing of apple-trees was to use the true Siberian crab, *Pyrus baccata*, as a stock. The seedlings are transplanted into nursery rows and budded at the usual time in August. The trees make a good growth in the nursery, bear at least two years earlier in orchard, and are dwarfed somewhat in size of tree. In the southern parts of Russia, as at Kiev, where even French pears are grown, I found the nursery stocks to be mostly ordinary apple seedlings from Germany and France, as they were cheaper than apple seedlings of Russian origin, which were difficult to obtain in commercial quantities. (A similar state of affairs obtains in our eastern states where crab seedlings imported from France, or grown from imported seed, are at times cheaper than seedlings from seed saved at our own cider mills).

Pyrus baccata is the hardiest known species of the apple and is hardly even at the agricultural experiment station at Indian Head, about 350 miles west of Winnipeg on the Canadian Pacific Railway, where the thermometer goes down to 52 degrees or more below zero. It is found especially in the Transbaikal section of Siberia, east of Lake Baikal, where the climate is purely continental.

THE PROBLEM BEFORE US.

It now remains to be settled by experiment which is the best form of the Siberian crab for this purpose. The true *Pyrus baccata* is probably the best, as *Pyrus prunifolia* appears to be a hybrid of *P. baccata* and *P. Malus*, the cultivated apple, according to a recent observation of Professor L. H. Bailey (see Bailey's "Evolution of Our Native Fruits," page 272), who examined, while in Berlin a year or so ago, the specimen in the Willdenow herbarium on which the species is founded. Fr. Th. Koeppen (St. Petersburg, 1888), doubts the Russian or Siberian origin of *P. prunifolia*; of this article the writer secured a copy while in Russia. The Transcendent crab is of this type and blights badly. Seed from Siberia is not yet commercially obtainable. The old Yellow or Red Siberian, with fruit the size of a cherry or less, may prove very useful; also the old Cherry crab; old trees, forty years old or more, are found scattered through the older parts of the West. The true *P. baccata* has deciduous calyx segments, that is, the old sepals at the "blossom end" of the apple, fall off towards maturity. A Russian writer recom-

mends especially *Pyrus baccata cerasiformis aurea* and *Pyrus baccata cerasiformis rubra*.

USE PURE *P. BACCATA* FOR STOCKS.

In my judgment, it will be much better to use the pure *P. baccata* for stocks for the cultivated apple. I am making special effort to obtain *Pyrus baccata* seed in quantity direct from Siberia and hope to make it possible to import it in quantity in due time if the experiments under way with it as a stock at Brookings prove successful.

In the meantime, every tree of the *P. baccata* type that may be found in old orchards in the West or East, now neglected because of the very small size of fruit, should be hunted up and the fruit saved for seed this fall.

Experience has already shown that the cultivated apple makes a poor union in top-grafting upon the Siberian crab. Nor will root-grafting on pieces of crab-root be enough. No roots from the scion should be permitted. The stocks for a fair test should be handled much like the Mahaleb or Mazzard stocks for the cherry in the eastern nurseries, setting the stocks in nursery first, and afterwards, when established, budding or grafting the cultivated apples on them. It may largely do away with root-grafting in the winter, and hence make trees more expensive, but the method is worth trying. Perhaps both hybrids and pure seedlings will be too much subject to blight for the method to be successful in all localities. But certain it is, that the present method of growing apple trees on French crab or Vermont cider apple seedlings will not do for a considerable area of the Northwest in test winters.

It will take many experiments fully to settle the question. Let all who can try a few and report results.

TEXAS HORTICULTURISTS.

The Texas Horticultural Society met at College Station July 25-28. It was the thirteenth annual meeting. The season was just right for a lot of Professor Munson's new grapes and he had a magnificent display of about a hundred plates. I agree with the many who believe that some of his hybrids and crosses will soon be leading standards. A number of other nurserymen exhibited promising new varieties of different kinds of fruits.

Professor Mally, our recently appointed state entomologist, read a paper favoring a lenient and fair, yet effective, law for the suppression or exclusion of injurious insects and diseases, and it elicited some enthusiastic addresses for and against the measure. A resolution was passed favoring the enactment of such a law.

Following is a list of the officers elected: F. T. Ramsey, Austin, president (nurseryman); P. I. Burch, Rockport, first vice-president; S. D. Thompson, Bowie, second vice-president (nurseryman); S. H. Dixon, Porter, secretary; D. O. Lively, Fort Worth, treasurer.

A feeling of higher prices seemed to pervade the ranks of the nurserymen. Wholesale prices ran one to two cents higher on fruit trees and two to four cents on ornamentals to the extensive planters. One man said he this year sold \$25 worth of peaches from one Elberta tree. Many new seedling peaches and plums of Texas origin are being praised, and justly too.

PACIFIC COAST FREIGHT RATES.

Freight rates on nursery stock from California to eastern points were advanced on August 18. The Trans-Continental Freight Bureau in Supplement No. 42 provides as follows:

From Pacific coast terminals only, nursery stock, plants not otherwise specified in bales, to Mississippi river, Mississippi river, Chicago, Cincinnati, Detroit, Pittsburg, Buffalo, New York, Boston and other common points, \$6 per 100 pounds (old rate, \$4.80); plants not otherwise specified in boxes, to the same points, \$3 per 100 pounds (old rate, \$2.40); trees and shrubbery, including pineapple suckers and stumps, boxed, when same can be loaded in box or stock cars, to the points before mentioned, \$2.20 per 100 pounds (old rate, \$2). To the same eastern points other provisions are: Boxed, when too large to be loaded in box or stock cars, \$3; in bundles, bottoms boxed, tops wrapped in straw, each weighing 100 pounds or over, loaded in box or stock cars, \$2.20; in bales completely wrapped, each 100 pounds or over, \$3; in bales or in bundles, with bottoms boxed, each weighing less than 100 pounds, \$6; in bales, roots wrapped, each bale 100 pounds or over, \$4.50.

Trees and shrubbery packed in straw, loaded on flat cars, will not be accepted unless the portion covered with straw is boxed or canvased.

CUSTOM HOUSE ORDER.

Following is the text of the order by Assistant Secretary of the Treasury Spaulding to the collector of customs in New York, the substance of which was given in the August issue of this journal:

The department has informed the appraiser that merchandise of the kind in question should be promptly appraised at the actual market value as defined by section 19 of the Customs Administrative act; that but one package out of each invoice should be required to be sent to the public store for examination and appraisal, unless it should be found necessary in any particular case to call for additional packages to form a proper basis to determine the character, quantity and value of the entire importation and that the packages containing shrubs, trees and similar nursery stock, which may be properly examined on the docks, should not be sent to the public store for examination.

You will, therefore, hereafter order one package only out of each invoice for examination, and in cases where it may be practicable, order wharf examination of shrubs, trees and similar nursery stock.

The following letter is self-explanatory:

TREASURY DEPARTMENT.

DIVISION OF CUSTOMS.

OFFICE OF THE SECRETARY.

WASHINGTON, D. C., August 8, 1899.

Mr. Frederick W. Kelsey, 150 Broadway, New York, N. Y.

SIR—Replying to your letter of the 2d instant, in relation to the appraisement of nursery stock at the port of New York, I have to inform you that the Collector of Customs and Appraiser at the port named were advised on the 26th ultimo that merchandise of the kind in question should be promptly appraised at the actual market value as defined by section 19 of the Customs Administrative Act; that but one package out of each invoice should be sent to the public store for examination and appraisal unless it should be found necessary in any particular case to call for additional packages to form a proper basis for determining the character, quantity and value of the entire importation, and that packages containing shrubs, trees and similar nursery stock which may be properly examined on the dock should not be sent to the public store for examination.

Respectfully yours,

(Signed)

A. L. SPAULDING, Assistant Secretary.

FLORISTS' CONVENTION.

Large Attendance at Detroit—Co-operative Purchase Idea Suggests Organization of a Stock Company to Control Window Glass Plant—Higher Prices for Florists' Stock—The Tariff Again—Officers for the Ensuing Year.

The fifteenth annual meeting of the Society of American Florists, at Detroit, August 15-18, was declared to be one of the most successful in the history of the organization. President Rudd reviewed the work and growth of the society and suggested points for improvement. In his address President Rudd said:

The year's list of new plants introduced in this country is not especially large, and apparently contains nothing of strikingly unusual merit. In the early part of the year we followed with amused admiration the Boston exposition of how to advertise and sell a new carnation.

A decided tendency exists in outdoor planting to use less of the highly-colored flowering and foliage bedding plants, substituting massed effects of perennials and shrubbery, especially the native forms. It is quite likely that the planting at the Columbian Exposition, so much discussed at the time, is largely responsible for this movement, and as many of the leading parks and cemeteries are working on this line it is well for the florist to take heed.

Many railroads are giving special attention to the care and adornment of their station grounds with flowers. This practice is rapidly extending, and not only as creating another market, but more especially as placing well-designed and well-cared-for plantations, most prominently before the public, is in future to have a marked effect.

The present growth in floriculture in the West and far West is phenomenal. The number of glass structures being erected this year is unprecedented, notwithstanding the seemingly prohibitive prices of material. The tendency in the East seems to be more in the line of rebuilding, modernizing and increasing the quantity and quality of product from a given space rather than enlarging that space.

Present conditions may render profitable these enormous ranges of cheaply-built, poorly-equipped houses, supplied with insufficient and unskilled labor, but the future has sad lessons of experience in store for their owners.

The report of the committee on co-operative purchase resulted in animated discussion. E. G. Hill said: "If the S. A. F. wants to give this co-operative principle a practical trial I would suggest that we organize a stock company and that we buy a window glass plant. There are quite a number of co-operative concerns scattered through the country, in the glass belt and other sections, and if we could just hitch on to some of those workmen, give them forty-nine per cent. and we take fifty-one per cent., we could get glass at a reasonable price. As a starter I would suggest that we turn over the matter of buying a glass plant to the co-operative committee of the society. We were simply held up and robbed this year by the American Window Glass Company; that is all there is about that. And while I have always voted in favor of the protective tariff, I would no longer vote for a 140 per cent. tariff for the exclusive benefit of that concern."

J. C. Vaughan expressed the opinion that if a general advance of prices had been made by the florists of the country hundreds of thousands of dollars could have been added to the receipts of the trade last spring, and at the same time all plants could have been sold. He suggested that a representative committee of the commercial florists of the country, or a committee of this society, could have issued a statement, about February 1, showing the general condition of the plant market and advising the retail plantmen that, in the opinion of the

committee, a fifty per cent. advance could be made on all plant prices for the spring trade. Then the growers could have acted on such advice. He believed that this was still possible of accomplishment. Bearing in mind that good quality must go with a fair price, florists who grow good plants, the coming year, might with safety add fifty per cent. to former prices and dispose of their stock before June 15 next. Robert Craig said he liked Mr. Hill's idea because there was something definite about it. For florists to attempt to raise the prices of their plants all over the country was too big a job, but they could get control of a glass plant and get the glass at about cost for each and all of them. Then the S. A. F. would be doing something. The subject was referred to the following committee: E. M. Wood, Robert Craig, J. M. Gasser, E. G. Hill and J. L. Dillon.

Chairman Patrick O'Mara, of the committee on legislation, reported:

Your committee was early convinced that the officers entrusted with the collection of the revenues were equally anxious with them to expedite business wherever and whenever it could be done consistently with the proper discharge of their duties. While plants, bulbs and nursery stocks are on the list of dutiable merchandise there must always be more or less delay in appraising and passing them; at least they cannot be altogether avoided. These delays are more likely to occur at the port of New York, where seventy per cent. of the entire import revenue of the United States is collected, than at minor ports of entry, and for obvious reasons. The appropriate remedy—in the opinion of your committee, the only unflinching remedy—for this condition lies in legislation. While the government might easily and willingly forego the comparatively paltry revenue derived from the duty now levied on plants and bulbs, yet it is doubtful if it would be expedient to ask that they be put on the free list, even if they are to a great extent raw material to the trade at large. A line of specific duties would do away with the most, if not all of the difficulties encountered under the present system of ad valorem duties, and would be preferable for many reasons to which it is needless to refer here but which must suggest themselves to all who have been hampered by the present cumbersome system. We express the hope that, when the occasion arises to effect a change, a remedy will be sought and found in legislation and that combined and harmonious action will be taken by the florist and nursery trades.

The following officers were elected: President, Edmund M. Wood, Natick, Mass.; vice-president, F. R. Pierson, Tarrytown, N. Y.; secretary, William J. Stewart, Boston; treasurer, H. B. Beatty, Oil City, Pa. The society will meet in New York city in 1900.

Among the exhibitors were: Jackson & Perkins Co., Newark, N. Y., samples of *Cryptomeria japonica*, the Japanese araucaria; Bobbink & Atkins, Rutherford, N. J., a general assortment of palms and aspidistras, tulips, hyacinths, narcissi and crocus; C. H. Joosten, New York, samples of palm seeds and bulbs, mushroom spawn, fostite, etc.

HORTICULTURAL SOCIETY MEETINGS.

Horticultural society meetings have been called as follows: Iowa, at Des Moines, December 12-15, 1899; Minnesota, at Minneapolis, December 5-7, 1899; South Dakota, at Parker, December 12-14, 1899; Nebraska, at Lincoln, January 9-11, 1900; Wisconsin, at Madison, February 7-10, 1900; Southern Minnesota, Albert Lea, January 17-19, 1900; Southeastern Iowa, Mt. Pleasant, November, 21-23, 1899; Southwestern Iowa, Logan, December 20-22, 1899; Northwestern Iowa, at Spencer, December 6-8, 1899; Northeastern Iowa, at Cresco, November 28-30, 1899.

Among Growers and Dealers.

George C. Stone, Dansville, N. Y., buried his wife and his father-in-law in July.

J. V. Cotta, Nursery, Ill., has been ill and unable to do business for some time.

Thomas B. Meehan and family, Germantown, Pa., spent a portion of the summer at Delaware Water Gap.

The entire stock of C. Ribsam & Son, nurserymen, Trenton, N. J., was sold by auction on the premises August 30.

J. Austin Shaw fell on the marble floor of the swimming baths of the Oriental hotel, Detroit, on August 17, and sustained a concussion of the brain. He is recovering.

D. S. Lake, Shenandoah, Ia., and Mr. Wallace, of Troy, O., called on Western New York nurserymen last month, en route to New England.

Mrs. Harrison, wife of J. J. Harrison, of the Storrs & Harrison Co., Painesville, O., died suddenly August 16. Mr. Harrison, two sons and a daughter survive.

Irving Rouse, Rochester, N. Y., chairman of the executive committee of the American Association of Nurserymen, spent the summer at his summer residence at Gananoque, Ont.

C. C. Mayhew, Sherman, Texas, who has been making a tour among northern and southern nurserymen, called upon Western New York nurserymen during the latter part of August.

Henri de Vilmorin, the head of the firm of Vilmorin, Andrieux & Co., of France, died August 22d. He was a noted seedsman and hybridizer. His reputation as an author is world-wide.

An excellent likeness of S. D. Willard, Geneva, N. Y., appeared in a recent issue of the American Agriculturist. He is 64 years old and has 100 acres set with plums, pears, cherries, apples, peaches and apricots.

E. Albertson, Bridgeport, Ind., visited Rochester nurserymen during the latter part of last month. He made a trip through the central and middle western states in August and called upon many of the nurserymen.

Henry Wallis, Wellston, Mo., read a paper on "Cultivation and Best Varieties of Grapes" before the Missouri State Horticultural Society. Several nurserymen at the Chicago convention sampled Mr. Wallis' wine made from his new grape.

A. M. Leonard, of the Zinnia Ridge Nursery Co., Piqua, O., made a tour last month among nurseries, visiting, among others, the Storrs & Harrison Co., Painesville, O., Ellwanger & Barry, Chase Brothers Co. and John Charlton & Co., Rochester.

It is reported that the Alvin Nursery Co., at Alvin, Texas, has closed a contract for preparing the ground, planting and cultivating for four years 2,500 acres in pear trees near North Galveston, Texas. The orchard is to be delivered to the owners in 1903.

C. Petrick, of Ghent, Belgium, who is represented in the United States and Canada by Aug. Rhotert, of New York, has now enlarged his establishment by an addition of 90,000 feet of glass, which he will use almost exclusively for the growing of palms, araucarias, ficus and other plants for the American market.

The last session of the Missouri legislature authorized the establishment of a horticultural experiment station on the south slope of the Ozarks, which will soon be located and put into operation. S. H. Linton, of the East Hill Nurseries, of Marceline, is favorably spoken of by prominent horticulturists for the position of managing horticulturist and his claims are being pushed vigorously.

The president of the American Pomological Society, which will hold a biennial session in Philadelphia, September 7 and 8, is a nurseryman, C. L. Watrous, Des Moines, Ia.; and a nurseryman, P. J. Berckmans, Augusta, Ga., is the chairman of the executive committee. The secretary is William A. Taylor, Washington, D. C. On the local committee on arrangements are Thomas B. Meehan, Germantown, Pa., and William Warner Harper, Chestnut Hill, Pa.

E. W. Reid's Nurseries make the following announcement: "Owing to the decision of the Postoffice Department to open an office in proximity to the nurseries, for the better accommodation of mail matter here, we should be pleased if you will kindly change our postoffice address to Upland, Belmont County, Ohio, instead of Bridgeport, Ohio. This is not a change of location, as we are still in the same place, but an effort of the Postal Department to give us better mail facilities."

SOUTHERN NURSERY ASSOCIATION.

Pursuant to arrangement made at Chicago in June, the newly organized Southern Nurserymen's Association met at Chattanooga, Tenn., on August 1.

The association as organized includes the nurserymen of fifteen southern states. Resolutions were drawn up and adopted whereby the association members will be put in touch with each other on all matters relating to the nursery business. It will be the duty of the association to regulate all trade matters, protect each other and govern the prices, market, sale and cultivation of fruit trees and other plants for which there is a demand. About fifty delegates were present at the convention, which adjourned to meet July 31, 1900, at such place as the executive committee may designate.

The following officers were elected: President, N. W. Hale, Knoxville, Tenn.; vice-president, W. D. Griffing, Macclenny, Fla.; secretary and treasurer, A. W. Newton, Nashville, Tenn.; executive committee, C. M. Griffing, Macclenny, Fla., W. L. Wilson, Winchester, Tenn., J. A. Miller, Rome, Ga., E. A. Bissell, Richmond, Va., J. Van Lindley, Pomona, N. C.

We are glad to welcome the new association. Its members are members of the American Association of Nurserymen and it was launched at the Chicago convention of the national association. It will work with the latter as do the Western Wholesale Association and the Eastern Association. The Southern Association will undoubtedly accomplish much in the way of advancing the interests of the large and important section of which its president, Mr. Hale, spoke so entertainingly at the Chicago convention.

ONE OF THE MOST INTERESTING HE READS.

W. M. SCOTT, STATE ENTOMOLOGIST, ATLANTA, GA.—"I hand you herewith enclosed \$1 for the NATIONAL NURSERYMAN for another year. This journal is one of the most interesting that I read.

CARL SONDEREGGER, FAIRBURY, Neb.—"Please find enclosed \$1.00. I like your paper very much. Do not wish to have it discontinued."

In Nursery Rows.

WAXED TAPE FOR BUDDING.—The Bulletin of the Botanical Department, Jamaica for June, contains the following recipe for preparing budding-wax: To every pound of beeswax add a lump of resin the size of an egg, and 1½ tablespoonfuls of raw linseed oil. Boil, and then dip the tape in.

A NEW PLUM.—Mercer Brown, Spiceland, Ind., sent us last month samples of a new purple plum, of medium size, firm yet juicy, flesh of fine flavor and especially small pit. He says it is a good bearer and is hardy as is evidenced by its bearing this year after the severe cold weather of last February.

THE MAJOR BOTTS PEACH.—We received on August 26th from John Watson, Brenham, Tex., samples of the "Major Botts" peach. This is a chance seedling growing in the yard of Major T. B. Botts in Brenham. It was a very late peach for the extreme South. The samples sent were large, although Mr. Watson says that the dry, hot weather has affected the size. It is of rich yellow color; flesh firm yet juicy and of good flavor. It ripens at a season when there is no peach to compete with it. This is the seventh year of the tree with regular crops. There seems to be a large field for just such a peach.

RUBUS MORIFOLIUS.—We have received from Suzuki & Iida, New York city, a hand painting from nature of a new variety of rubus which was recently found by a representative of that firm in Northern Japan. They are of the opinion that the variety would do well in this country. The painting shows the plant to be luxurious and the fruit of a brilliant color. Of the variety the firm says: "The fruit of this variety ripens in the month of July, about a month later than *Rubus nictus*, and it is a far superior variety than any other, the fruit having a splendid appearance. The color of the fruit is a light red and every single stem produces from four to six strawberry-like fruits. The plants attain a height of five to six feet." Further details may be obtained of the firm at 11 Broadway, New York.

JAPANESE MAPLES.—The beauties of the Japanese maples are clearly set forth in Lucius D. Davis' "Ornamental Shrubs" just published by the Putnams of New York. Regarding the Blood-leaved variety Meehan's Monthly says that in 1858 the Meehan Nurseries received from a Belgian correspondent five plants of this variety, each three or four inches in height, paying what was deemed a reasonable price, \$30. They were potted in four inch pots for a season. One was subsequently stolen, one was reserved for a specimen and is still growing in the nursery grounds. The other three were grown for propagating purposes. All of the earlier distributions in this country, and until trade with Japan was opened, came from these three plants, the first 100 plants, about twelve inches in height, being sold to a Boston dealer for \$100. The variety still holds its popularity.

STRAWBERRIES AND PEACHES AT HARRISONS.—"In spite of the early wet spring followed by seven weeks of drought," write J. G. Harrison & Sons, Berlin, Md., "we have a very good stock of peach seedlings to bud and the work is being done now. Since about the first of July it has been quite seasonable and our stock of peach, apple and plum trees, asparagus roots and strawberry plants has made a remarkable growth. After our peach are budded we cultivate and sow crimson clover between the rows. We have found from last season's experience it was quite beneficial as a fertilizer for the following season's growth of trees. Our one year trees thus treated with a little potash are as fine as we have ever seen grow and invite personal inspection of our budded list of last season of over one million trees and you can count this season's budding yourselves."

DORMANT ROSE GRAFTING.—At the florists' convention the following question was asked: "Can roses be grafted on roots of Manetti with dormant wood as is done in apple grafting?" E. G. Hill said that the method of procedure in his boyhood days was to take a piece of root, say two inches in length, and either splice or tongue graft, both root and scion being in the dormant state. After this operation was performed the grafts were placed, generally two in a two and a half inch pot, put in a greenhouse with a cool temperature overhead and with bottom heat; with such treatment from 75 to 80 per cent. united and made splendid bushes the first year. In later years, since black spot put in an appearance, the same method had been tried by Mr. Hill with

repeated failure. Whether that was due to the black spot which infests and attacks the hybrid roses in the open ground, thus preventing the wood from properly ripening, the speaker was unable to say. Robert George, of Painesville, Ohio, stated that growers in Alabama had had good success by the method in question with Marechal Niel and that type of rose and with hybrids such as Paul Neyron and Magna Charta; with dark colored roses like Jacqueminot, Camille de Rohan, not so good; with the latter the wood seemed to canker at the graft and these grafted roses placed in nursery rows made a growth of two to three feet in one season.

CHESTNUT CULTURE.—G. Harold Powell says in American Gardening: The trunks of the chestnut in the nursery frequently blight upon the south and west sides. The bark splits, sinks in, turns dark in color and the tree finally dies. Sometimes a similar difficulty is noticed on large Japanese trees, but I do not recall seeing it on the larger Europeans. Imported European seedlings seem to be more susceptible than others. The writer had occasion to examine a thousand imported seedlings a short time since, 950 of which had died of the body blight. The nature of the body blight is not definitely understood, but as the south and west sides of the tree are generally affected it seems likely that the trouble is not unlike the sun scald of the cherry and other fruit trees. Sun scald is a climatic malady. It occurs during the late winter or early spring months, when there may be alternate freezing and thawing of the tissues on the side of the tree exposed to the rays of the sun. Trees that enter the winter in a succulent, unripened condition, or those taken to a poorly adapted climate, are most susceptible to sun scald. The fundamental treatment for sun scald is of a cultural nature. Less stimulating fertilizers, an early cessation of tillage in the fall, a better adapted soil—these and other conditions which help to mature the wood early in the fall, lessen the danger from sun scald. Cultural conditions, however, will not overcome the susceptibility of a tree not climatically adapted to its region. It is evident therefore that it is an unwise policy to import chestnut seedlings from Europe for use in American nurseries.

AMERICAN ROSE SOCIETY.

President William C. Barry presided at the meeting of the American Rose Society in Detroit last month. The premium list for the exhibition in New York in March, 1900, will be issued October 1. The following were enrolled as life members: Joseph Heacock, Wyncote, Pa.; Alexander Montgomery, Natick, Mass.; E. Hippard, Youngstown, O.; Robert F. Tesson, St. Louis; Frank R. Pierson, Tarrytown, N. Y.; Philip Breitmeyer, Detroit; Peter Reinberg, Chicago; Harry Dale, Brampton, Ont.; Frederick Mathison, Boston; J. M. Gasser, Cleveland; J. L. Dillon, Bloomsburg, Pa.; Emil Buettner and J. C. Vaughan, Chicago.

NURSERYMEN'S OPINIONS OF PLUMS.

The Fruitman, Marcus, Ia., has obtained the following views of nurserymen on plums: C. L. Watrous—"The DeSota is the most profitable variety;" M. J. Wragg—"Of narrow leaf plums that seedling of Wild Goose, Pool's Pride, is most popular in South Iowa;" Silas Wilson—"I expect to market in the near future as many bushels of fruit from my Domestic plum trees as my friends who plant the Americana, and get twice the money for them;" C. G. Patten—"It is only within a few years that the possibilities of this fruit have been realized. We are now on the eve of its rapid development;" J. C. Doughy—"Minnesota has twenty-five brand new plums. Among these are some very good, some just good, and some no good."

THE NATIONAL NURSERYMAN.

OF FORTY YEARS STANDING.

Growth of the Oldest Nursery in Texas and One of Oldest in Country—Founded by William Watson in 1859—His Sons Proceeding on the Same Enterprising Plan—Nursery-Born and Nursery-Bred They Are Nurserymen.

We present in this issue views of the oldest nursery in Texas and one of the oldest in the country. Forty years ago the Rosedale Nursery was established by William Watson at Brenham. Some account of an institution which has existed so long and which has attained such a commanding position despite many obstacles is of special interest.

William Watson, the founder of the business, came from Ireland, where his father had settled, after leaving the family home in Lancashire, England. In youth he traveled much over many parts of the world. In visiting the botanical gardens of London, Paris, Vienna, Stuttgart, Munich, Naples, Turin, and even Rio de Janeiro, he found much to interest him, and thus possibly acquired his love for flowers and fruits. He lived in New York city a while, then in Wheeling, later in Louisville, and came to Texas in 1859, to Galveston. He selected Brenham, Washington county, to locate, and rented a house and three acres of land on which he established his nursery or the beginning of it. Hardly had that beginning become substantial when his state withdrew from the Union, and in the war that followed, he carried a musket in her defense.

At the close of the war, broken in health and fortune, he again took up his work. It was something new in this section and it prospered. Within ten years his business had grown out of its long clothes stage, and he bought thirty acres of land near Brenham and located the present site of the nursery; this place was improved and within three years he declined an offer of \$30,000 for his place and business. In those days it was different down there; for a long time Brenham had no railroad; later it was only the terminus and trees had to be hauled

hundreds of miles by wagon. Texas is the state of "magnificent distances." The first trees planted in the present city of Alvin, now the great fruit center of the coast country, were from these nurseries many years ago. Among the first fruit trees planted in the fruit belt of East Texas, were those furnished by Mr. Watson.

Having a vast field, and an increasing immigration, the business grew, while Mr. Watson added to his nurseries from time to time until they now include nearly two hundred acres of fine Texas prairie land.

Mr. Watson died in 1897, aged 65 years. He had been vice-president of the American Pomological Society, vice-president of the American Association of Nurserymen. He was one of the founders and leading spirits of the Texas State Horticultural Society and its second president. Mr. Watson was well known to the veteran nurserymen, P. J. A. Berckmans, John Saul, Thomas Meehan, the Smiths and others. An indication of the esteem in which the founder of the Rosedale Nurseries was held is the following from the Horticultural Gleaner under date of September, 1897:

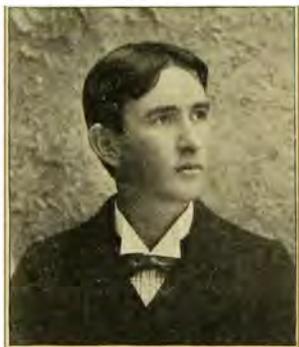
On the 19th of August the horticulturists of Texas lost, by the death of Mr. William Watson, one of their greatest benefactors. Mr. Watson's work in Texas began at Brenham in 1859, where he has since labored persistently and industriously for the development of Texas horticulture. It is difficult to estimate the amount of good done by his labors. If he had not spent his time and money

in making experiments his survivors would have to make them now. If he had not made failures and suffered loss and disappointment, we would have them to suffer now. But he has left his work so that we may take it up and carry it forward to our own and the country's good. A debt of gratitude is due the memory of Mr. Watson, not by the horticulturists only, but by the state. Every orchard planted in Central Texas is planted in the light of Mr. Watson's work.

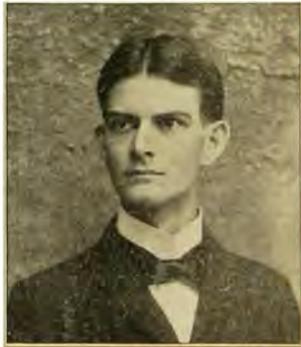
Mr. Watson was succeeded by his eldest son, Stanley H. Watson, who, with his brothers, was given a good education. He selected the agency business, and was accounted a good salesman. The S. H. in his name stands for "Strictly Hustling," and when he goes after business, he generally gets it;



WILLIAM WATSON, FOUNDER.



STANLEY H. WATSON, PROPRIETOR.



JOHN WATSON, MANAGER.

RESIDENCE AT
ROSEDALE

he believes, as did his father, that the secret of success in the nursery business is a very simple matter, after all, if one will only do three things, but it is essential that those three things should be done thoroughly: First, grow your stock, and good stock, economically; second, sell it and at a profit; third, collect your money. And then success is pretty certain! Stanley H. Watson gives his whole attention to the agency department; he is an old agent himself, and can sell as many as any, and believing that the bulk of the nursery business is done through traveling salesmen, he looks after this important department himself. While directing the boys, he finds time to carry a plate-book himself now and then. He is well known and is considered very popular. He says it is a good idea to get out and shake hands with customers. That is the way to keep them. And the Watsons do keep them. Last January they filled an order for one of their customers who first bought trees from them in 1867; he is one of many. Several of their agents are sons of former agents; and in the list of ex-agents who have in former years sold Watson's trees one can count members of the state legislature, county and district judges, and several who have become prominent in national politics. The local county judge is an ex-agent. The Watsons expect to find one of them president yet. They have nearly one hundred agents at work this year, including salary, commission, and local agents. Nearly all their trade is through agents, besides, of course, a good office business.

Stanley H. Watson enjoys the distinction of being probably the youngest proprietor of any large nursery business in the Union; he certainly is in Texas, besides having the oldest nursery in that state. He is "less than thirty." So is John Watson, his brother, who is general business manager. L. C. Watson manages the mail order department, J. H. Merrin is stenographer and I. B. Johns secretary. John Watson, after his return from the University of Texas, entered the nursery office, the work of which he directs. He supervises generally during his brother's absence. Nursery-born and nursery-bred, the Watson brothers ought to be and they are nurserymen. Their teacher was an acknowledged authority upon matters pertaining to horticulture in Texas, and they believe, as did their father when he went there forty years ago, that no section of the country can equal the immense resources of that state. With the development of those resources the growth of the nursery business must go hand in hand; every new farm opened means trees; every new home improved means flowers; and all of it means a great deal to the nurseryman.

Many of the northern people have no idea of Texas. It is vast; one could build a Chinese wall around the state and could find everything within its borders necessary to life and comfort. However, a Chinese wall is not the sentiment of those people; they are too cosmopolitan for that.

The Watsons have adopted as their motto Admiral Dewey's famous words at the battle of Manila bay: "Keep cool and attend strictly to orders." Orders are what the nurseryman wants.

L. G. KELLOGG, RIFON, WIS.—"Enclosed find draft for \$1 for NATIONAL NURSERYMAN. Can not do business without the journal."

J. VAN LINDLEY NURSERY CO., POMONA, N. C., July 24, 1899—"We regret that we had overlooked our subscription to the NATIONAL NURSERYMAN. We do not want you to let the paper lapse, as it is a good trade paper. We would like to receive it weekly instead of monthly."

CORNELL'S COURSE IN FORESTRY.

A year ago Cornell University, Ithaca, N. Y., secured 30,000 acres of woodland in the Adirondack mountains near Axton, N. Y., for the exclusive use of her forestry department. This land has been divided into a number of sections, and several seed beds have been laid out, in which have been planted over 1,000,000 small trees of different variety. Professor John Gifford, recently elected to the chair of forestry at Cornell, and Professor Roth, of Cornell, have been in these sections inspecting the woodland and directing the work of the surveyors, for six weeks.

KANSAS FRUIT.

Secretary Barnes of the Kansas Horticultural Society gives the following census of bearing fruit trees in the state: Apples, 7,533,358; pears, 191,660; peaches, 4,058,762; plums, 638,233; grapes, 6,354 acres. For the present crop he gives the following estimate: Apples, 47 1-12 per cent.; pears, 33 per cent.; peaches (only fourteen counties reported), 32 per cent.; plum, 35 3/8 per cent.; grapes, 70 5-7 per cent. He says: "Trees throughout the state are making vigorous growth, and those injured but not killed during the extreme cold weather of February last are fast recuperating, and bid fair to be heard from next year."

CROP CONDITIONS.

The crop report of the United States Department of Agriculture, dated August 1, states: There are but few states from which the reports as to the apple crop are not even more unfavorable than they were last month. Taking the fourteen states having 3,000,000 or upward apple trees in bearing at the last census, there was a further decline during July of seven points in New York and Tennessee, three points in Pennsylvania and Kentucky, four in Missouri, North Carolina and Maine, and six in Iowa. The condition in Illinois, Indiana and Kansas underwent no change, and there was an improvement of two points in Ohio and of three points in Michigan and Virginia.

AMERICAN APPLE SHIPPERS' ASSOCIATION.

The American Apple Shippers' Association in convention at Detroit on August 3, elected the following officers: President, G. E. Richardson, Leavenworth, Kan.; vice-president, C. P. Rothwell, East Palestine, O.; treasurer, W. L. Wagner, Chicago; secretary, A. W. Patch, Boston.

The report of the committee, compiled from reports of the association's statistician, shows the following percentages of a full crop of apples in each of the states named: Arkansas 60, California 75, Colorado 50, Illinois 45, Iowa 50, Kansas 45, Kentucky 25, Maryland 60, Michigan 45, Missouri 40, New England 25, New Jersey 75, New York 40, Nebraska 40, Ohio 65, Pennsylvania 45, Virginia 65, West Virginia 60, Wisconsin 35, Washington 50, Canada 65.

A NECESSITY.

H. J. WEBER & SONS NURSERY CO., NURSERY P. O. MO.: "Enclosed find \$1 in currency, for which kindly renew our subscription to the NATIONAL NURSERYMAN. We could not think of doing without it."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Payment in advance required for foreign advertisements.

Drafts on New York or postal orders, instead of checks, are requested.

Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Wilson J. Peters, Troy, O.; vice-president, D. S. Lake, Shendoah, Ia.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

Executive Committee—Irving Rouse, Rochester, N. Y.; C. L. Watrous, Des Moines, Ia.; E. Albertson, Bridgeport, Ind.

Committee on Transportation—Wilson J. Peters, ex-officio, chairman; William Pitkin, Rochester, N. Y.; Peter Youngers, Geneva, Neb.; A. L. Brooke, N. Topeka, Kan.; Robert C. Berckmans, Augusta, Ga.

Committee on Legislation—C. L. Watrous, Des Moines, Ia.; N. H. Albaugh, Tadmor, O.; Silas Wilson, Atlantic, Ia.; Thomas B. Meehan, Germantown, Pa.

Committee on Tariff—Irving Rouse, Rochester, N. Y.; J. J. Harrison, Painesville, O.; N. W. Hale, Knoxville, Tenn.

Annual convention for 1900—Chicago Beach Hotel, June 13-14.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., SEPTEMBER, 1899.

IMPORTANCE OF HYBRIDIZATION.

In the historic old gardens of the Royal Horticultural Society at Chiswick, England, on July 11, two hundred persons from all quarters of Europe gathered to discuss the hybridization of plants, a subject of direct interest to nurserymen. The proceedings have been but briefly referred to by the American journals. Dr. Masters, editor of the Gardener's Chronicle, London, presided and in his address welcomed the foreign guests, one of the most prominent of these being Herbert J. Webber of the U. S. Department of Agriculture.

"To appreciate the importance of cross-breeding and hybridization," said Dr. Masters, "we have only to look round our gardens and our exhibition-tents, or to scan the catalogues of our nurserymen. Selection has done and is doing much for the improvement of our plants, but it is cross-breeding which has furnished us with the materials for selec-

tion. A few years ago by the expression 'new plants,' we meant plants newly introduced from other countries, but, with the possible exception of orchids, the number of new plants of this description is now relatively few. The 'new plants' of the present day, like the roses, the chrysanthemums, the fuchias, and so many others, are the products of the gardeners' skill. From peaches to potatoes, from peas to plums, from strawberries to savoy, the work of the cross-breeder is seen improving the quality and quantity of our products, adapting them to different climates and conditions, hastening their production in spring, prolonging their duration in autumn."

Referring to the work of the early hybridists, Dr. Masters continued: "It is curious, however, to note that objections and prejudices arose from two sources. Many worthy people objected to the production of hybrids, on the ground that it was an impious interference with the laws of nature. To such an extent was this prejudice carried, that a former firm of nurserymen, at Tooting, celebrated in their day for the culture, amongst other things, of heaths, in order to avoid wounding sensitive susceptibilities, exhibited as new species introduced from the Cape of Good Hope, forms which had really been originated by cross-breeding in their own nurseries.

"The best answer to this prejudice was supplied by Dean Herbert, whose orthodoxy was beyond suspicion. He, like Linnæus before him, had observed the existence of natural hybrids, and he set to work experimentally to prove the justness of his opinion. He succeeded in raising, as Englehart has done since, many hybrid narcissi, such as he had seen wild in the Pyrenees, by means of artificial cross-breeding. If such forms exist in nature, there can be no impropriety in producing them by the art of the gardener."

The following papers were read: "Hybridization and cross-breeding as a Method of Scientific Investigation," W. Bateson, Esq., M. A., F. R. S. Cambridge; "Hybridization as a means of Pangenetic Infection," Professor Hugo De Vries, Amsterdam; "Hybridization and its Failures," the Rev. Professor Geo. Henslow, M. A., V. M. H., London; "Experiments in Hybridization and Cross-breeding," C. C. Hurst, Esq., F. R. H. S. F. I. S., Burbage, Hinckley.

At the banquet following the conference, Mr. Webber, the American delegate, was accorded the place of honor and responded to the first toast after the usual loyal toasts. Speaking on "Horticulture" he said he brought the friendly greeting of American horticulturists. It seemed to him, from what had been brought out on this occasion, that we are merely on the threshold of the matter, and it was a great misfortune that no reward awaited the originator of a new plant or variety. He considered that more honor was due to him who brought out a new plant than to him who but reproduced it afterwards.

AMERICAN POMOLOGICAL SOCIETY.

Once in two years this national organization meets and discusses horticultural topics upon a broad scale. The twenty-sixth biennial session will be held at Horticultural Hall, Philadelphia, September 7-8. Representative horticulturists, nurserymen and pomologists will be present. A nurseryman, C. L. Watrous, Des Moines, Ia., prominent in the American Association of Nurserymen, is president of the American Pomological Society, and the programme for the two days session contains papers and discussions by prominent nurserymen.

Among these are Thomas Meehan, C. G. Patten, J. W. Kerr, J. H. Hale, S. M. Emery, T. V. Munson, and G. L. Taber.

All interested in fruit and its culture are invited to attend, and horticultural societies are urged to send delegates properly accredited. Low railroad fares are promised.

The exhibition of fruits, especially of new or little known varieties, and other articles of pomological interest, such as pruning and cultivating implements, either by individuals or societies, in competition for the Wilder medals, is especially encouraged. Such exhibits will be examined and reported on early in the session by a special committee of expert pomologists, who will be governed by the society rules for naming and exhibiting fruits.

At the time of its organization the membership list of this society comprised practically every prominent nurseryman and fruit grower in the country, and at the present day there is not a state in the Union which is not represented by some of its most progressive and noted pomologists. As the society is now working in co-operation with the division of pomology of the national department of agriculture the coming session promises to be of more than ordinary interest.

THE MARKET.

Advices from the nursery centers of the West indicate that in general fruit stocks will be cleaned up to a large extent, and that cherry and apple will be scarce. Prices on pear and plum have not advanced as much as expected at the Chicago convention, though it is thought they will increase. Apple and cherry prices, especially the former, have stiffened perceptibly. It is probable that western nurserymen will have to go East for stock before they can get their own to marketable size again. There is considerable peach on hand.

PLANTING KEIFFER HEAVILY.

Western orchardists are planting Keiffer pear heavily and this variety is commanding good prices, \$150 per thousand, where Bartlett, Clairgeau and others are selling at \$80. Recent sales of Keiffer at 10, 12 and 15 cents for the three grades are noted. E. Albertson, Bridgeport, Ind., says: "If I were to plant an orchard of pears to-day I would select Keiffer for 99 per cent. of the kind. The Keiffer pear is not fit to eat until two months after it becomes yellow. It ripens from the outside, unlike other pears, and it does not rot at the core. The Keiffer is a heavy bearer and the fruit sells rapidly."

TREE PLANTING IN TREELESS STATES.

Gifford Pinchot, forester, of the United States Department of Agriculture, has issued a circular announcing that the Secretary of Agriculture will publish in the year book for 1899 a resume of the achievements of the United States in every branch of agriculture during the nineteenth century, for distribution at the Paris Exposition. The division of forestry will contribute a short history of forestry in this country and the efforts of private landowners to apply the principles of forestry.

In New England there are numerous instances of planting white pine on waste places with excellent results, and in Massachusetts the planting of larch has proved highly satisfactory.

Many farmers have found it profitable to plant locust and red cedar for fence posts, and in more than one case the cultivation of black walnut has brought large returns. In the Central West the fast growing catalpa and the ailanthus have produced remarkable results in short periods in the hands of private growers.

A distinct branch of tree planting is that practiced in treeless states of the West. There, in addition to the uses to which their wood is put, trees have proved of great value in the form of wind breaks. In these cases the best results have generally been obtained from the Osage orange, catalpa, maple, elm, box elder, Norway spruce, Scotch pine and others, according to differing local conditions.

Along the banks of streams trees have been set to fix the fast eroding soil, and to prevent the increasing floods; and on cultivated hillsides which have begun to gully from the washing of rain, trees have been made to do good service in checking the excessive surface drainage and saving the fertile soil.

There are suggestions here for the extension of the nursery business. Our readers may profit by them and at the same time may be of service to the federal forester by sending any information they may have along these lines.

THE "NATIONAL NURSERYMAN" WELL KNOWN.

The Miami Valley Horticulturist has the following editorial note in the July issue: "We are indeed gratified to present to our readers this month a report of the National Nurserymen's convention, of which any journal in America would be proud. The national reputation of the correspondent, together with his eminent ability, makes us once more proud that the Miami Valley Horticulturist has only to look about our own Valley for productions. Our obligation to Mr. Albaugh is greater than ever." We appreciate the compliment, but truth compels us to state that it was not entirely the NATIONAL NURSERYMAN'S convention. The name of the organization which held the convention is The American Association of Nurserymen. The nurserymen's trade journal is so well known in the Miami Valley that the slip of the pen is excusable. We call the attention of the valley journal to an error in its report. The official proceedings, as well as the official journal, gives the legislative committee as follows: Messrs. Watrous, Albaugh, Wilson and Meehan.

MAY BE PROFIT IN THIS PEST.

A daily paper in New York state published the following despatch from Clyde, N. Y., during a time when news was dull:

The idea is suggested of the possibility of turning an apparently unmitigated curse into something approaching a blessing. The cocoon of the tent caterpillar can be carded, if not reeled. This leads to an estimate of the apple tree to be used as a mulberry tree, furnishing food for silk worms. An average tree will support ten or a dozen tents of caterpillars, yielding 3,000 silk makers, representing a yield of three pounds of silk worth \$1 per pound.

With proper appliances attached to the trunks of the trees for the worms to spin their cocoons in, not much time would be expended in gathering the product which would equal the apple proceeds of a tree at 75 cents a barrel. The worm might be improved so as to produce a finer quality of silk and in the end the silk might prove more profitable than the apple.

From Various Points.

The Society of American Florists has 490 members.

Elbert S. Carman has withdrawn from the position of editor-in-chief of the *Rural New Yorker* and has been succeeded by H. W. Collingwood.

The American Carnation Society met in Detroit, August 16, President William P. Craig presiding. A programme for the February meeting in Buffalo was arranged.

The Chrysanthemum Society in Detroit last month elected E. G. Hill president and Edwin Lonsdale vice-president. Treasurer May and Secretary Smith were re-elected.

The Connecticut legislature has passed a law protecting the trailing *Arbutus*, said to be the first law ever passed in any state of the Union for the protection of a wild flower.

Professor William Trelease, of Missouri Botanical Garden, has returned from a two months' trip in Alaska. He was with a scientific party and has collected a valuable amount of data pertaining to the flora of that country.

E. Dwight Sanderson has been elected entomologist at the Delaware State Experiment Station at Newark. Prof. P. H. Rolf, horticulturist at the Florida State Experiment Station, is now at Clemson College, Clemson, S. C.

The San Jose scale was found last month on plum and pear trees at the home grounds of E. S. Carman, recently editor of the *Rural New Yorker*, in New Jersey. Professor John B. Smith, state entomologist, prescribed the necessary remedies and declared that there was no cause for alarm or for digging up and destroying the trees.

The secretary of the Florists' Hail Association reported at the Detroit convention last month: On the first day of August, 1899, the 864 members comprising the Florists' Hail Association insured an aggregate of 11,209,865 square feet of glass, sub-divided as follows: Single thick, 2,838,560; double thick, 5,934,262 square feet; extra one-half, single thick, 254,525 square feet; extra one-half double thick, 446,116 square feet; extra whole, single thick, 650,685 square feet; extra whole, double thick, 1,436,038 square feet.

Professor Alfred Rehder, editor of a European horticultural journal, is visiting the large cities of the United States, studying the arboricultural features of the best collections, preparatory to writing the articles on trees and shrubs in the "American Encyclopedia of Horticulture," the largest work of the kind, which is being edited by Professor L. H. Bailey of Cornell University. After visiting New York, Philadelphia, Rochester, Buffalo, Cleveland, Detroit, Chicago, St. Louis and the Vanderbilt estate at Biltmore, N. C., Professor Rehder will make his headquarters at the Arnold Arboretum, Boston.

Recent Publications.

The *Gardeners' Magazine* and the *Gardeners' Chronicle* of London, Eng., in their July issues, contained valuable sketches and portraits of noted hybridizers.

Among catalogues recently received those of the Rosedale Nurseries, Stanley H. Watson, Brenham, Tex., and the Fruitland Nurseries, Augusta, Ga., the P. J. Berckmans Co., are especially attractive.

The official proceedings of the American Association of Nurserymen have been issued by Secretary George C. Seager. The book is of

much interest to all nurserymen. Those who are not members of the American Association should send \$2 to the secretary, at Rochester, N. Y., and receive this book of proceedings. They should also attend the annual convention at Chicago next June and see what they have been missing in the way of enjoyment and business profit. The proceedings comprise a full stenographic report of the convention, printed and bound in excellent manner, a credit to the secretary and his assistant, Edward J. Seager.

We have received from the secretary, L. Woolverton, Grimsby, Ont., copies of the thirtieth annual report of the Fruit Growers' Association, of Ontario, and the fifth annual report of the fruit experiment stations of Ontario. Together they form a valuable index to the fruits of Ontario according to conditions of 1898. The report of the Fruit Growers' Association contains papers and discussions of many timely topics. The report of the experiment stations is preceded by nearly 100 pages of illustrations and descriptions of the fruits of Ontario by Mr. Woolverton who notes the importance of some means of identifying all varieties now grown in the Province. The illustrations are all new and original and admirably depict the various fruits. Mr. Woolverton's work is to be highly commended.

FAMILIAR FLOWERS OF FIELD AND GARDEN, by F. Schuyler Mathews, is a companion volume to the author's *FAMILIAR TREES AND THEIR LEAVES*. Full descriptions of flowering plants arranged with regard to the months in which they bloom are given together with illustrations by means of which each may readily be identified. The descriptions are in such interesting and original style as to make the volume a most attractive one to take up and read at any point at any time. Popular and scientific names of varieties are given. No attempt is made to give cultural directions. The flowers are described as they are found growing, as the reader finds them and as he wishes to identify them. Familiarity with a flower, says the author, does not always include a knowledge of its name and family. Great care has been given to color names in this volume which is intended as a companion to Gray's *Field, Forest and Garden Botany*, as revised by Professor L. H. Bailey. The book has over 200 drawings by the author and a systematical index and floral calendar. It is printed on heavy paper and is handsomely bound. Cloth, pp. 308, 12 mo., \$1.75. New York: D. APPLETON & Co.

ORNAMENTAL SHRUBS, for garden, lawn and park planting, with an account of the origin, capabilities, and adaptations of the numerous species and varieties, native and foreign, and especially of the new and rare sorts, suited to cultivation in the United States, is a title new too pretentious for the timely volume just issued by the Putnams. The author is Lucius D. Davis who in his preface clearly outlines the scope of the work; and it is of special interest to nurserymen. "It is well understood" says Mr. Davis, "that botany deals chiefly with fixed forms, as represented by orders, genera and species, and that it takes little or no note of such varieties as are constantly making their appearance throughout the world. For this there is good reason from a scientific standpoint, but when it comes to the practical use of plants in general cultivation it is found that many of the species thus treated have given forth varieties, through processes well understood, that are far more valuable for the work in hand than the originals, and such as are coming, in a large measure, to displace them. A very large proportion of the plants in the best gardens of Europe and America belong to the latter class, many of which are not even named by the scientists, much less described. To these especial attention is given, as for horticultural purposes they are of great value. It is true that much has been written in a fragmentary way concerning these varietal forms, but this is believed to be the first attempt to gather and publish in a single volume an account of the wonderful evolutions in connection with the several types so far as they are of practical use in our gardens and parks." The idea suggested by the author has been followed closely in his book. It is along these lines directly that the nurseryman is working. Much of the material in the volume will be more or less familiar to him but he will find also much that will prove of special value in practical application to his business. It is a volume too, that will largely increase the intelligent demand for ornamental stock for planting in public and private grounds. As it is not designed to be a scientific treatise, no attempt is made at strictly botanical classification. The descriptions, however, are 1 re-

sented in such an attractive form as to be at once popular and at the same time easily classified according to the names by which the plants are scientifically known throughout the civilized world. The volume was prepared in Newport, R. I., America's great summer resort, where are to be found in extraordinary measure the combined horticultural treasures of the world. These famous gardens derive their chief beauty, as Mr. Davis says, from hardy plants. In almost every instance the chief reliance for both flowers and foliage is upon shrubs and herbaceous perennials. The volume forms a timely guide to all who have the care of planting estates or parks and those who desire to know something of the many beautiful shrubs in the modern improved landscape tracts. It is handsomely executed, the text being in large type upon rich paper with wide margin, deckle edge and gilt top, in cloth binding with appropriate design. The illustrations, many of them half-tones, add greatly to the value of the work. 8vo., pp. 338. Fully illustrated, \$3.50, New York: G. P. PUTNAM'S SONS.

As an aid in the preservation and in the classification of specimen leaves of the trees of Northeastern America, Charles S. Newhall has prepared **THE LEAF COLLECTOR'S HANDBOOK AND HERBARIUM**, a volume of 116 figures, opposite each of which is a blank page for the reception of specimens of leaves and memoranda regarding dates, localities, name of finder, incidents, characteristics of the tree, etc. The guide in the fore part of the volume enables one to identify a specimen readily. In the back of the book are gummed pages from which may be cut strips to hold in place the specimen leaves. Used in connection with the author's **TREES OF NORTHEASTERN AMERICA**, this new volume lends much additional interest to the study of our native trees. The guide, the list of genera and the clearly arranged illustrations, however, will enable one to identify a specimen without the aid of the companion volume. Cloth, 8vo. Uniform with the author's other books. \$2. New York and London: G. P. PUTNAM'S SONS.

Long and Short.

Peach and plum on plum are offered by A. Pullen, Milford, Del.

Crimson Rambler roses at Brown Brothers Company's, Rochester, N. Y.

Hale plum buds and Senator apple buds at Whiting Nursery Co.'s, Boston.

Grape vines and currant plants at Wheelock & Clark's, Fredonia, N. Y.

Everbearing mulberries can be had at the Carolina Nursery Co.'s, Selma, N. C.

A stenographer asks a position and an opportunity for an investor is offered in this issue.

George Brothers, East Penfield, N. Y., have H. P. Moss and climbing roses; also clematis.

Figs, persimmons, pecans, pomegranates, Cape Jessamines at Rose-dale Nurseries, Brenham, Tex.

Norway Maple, White Birch, Carolina Poplar and peach trees at Malvern Nurseries, Malvern, Pa.

J. W. Adams & Co., Springfield, Mass., grow for the trade a full line of shrubs listed in this issue.

Peach seed, raffia and Mazzard cherry seed may be had of Thomas Meehan & Sons, Germantown, Pa.

The McPike grape won new laurels during the cold weather of last winter. Silas Wilson, Atlantic, Ia., offers it.

Peach trees, apple seedlings, shade trees and apple grafts to order are offered by Youngers & Co., Geneva, Neb.

A remarkably full assortment of peach, strawberry and plum is offered by J. G. Harrison & Sons, Berlin, Md.

White Elm, Barberry, Horse Chestnut, currants, Mt. Ash and evergreens may be had of Gardner & Son, Osage, Ia.

The man behind the trees, says Benjamin Chase, Derry, N. H., the label man, is as important as the man behind the gun.

Japan Maples, Citrus Trifoliata stocks and seeds, Japan Pear stocks and seeds at Suzuki & Iida's, 11 Broadway, New York.

Jackson & Perkins Co., Newark, N. Y., have some ornamental stock which may not be found elsewhere. See their list.

Ellwanger & Barry, Rochester, N. Y., can supply all wants. The completeness of their nurseries is known throughout the world.

The Storrs & Harrison Co., Painesville, O., have a fruit and ornamental assortment that is not surpassed. The quality is of the highest. Albertson & Hobbs make a specialty of the Pomona currant which they regard the best specialty for agents. In another column is a description.

Apple, peach, cherry and plum trees and one-year Kieffer pears can be had of Peters & Skinner, N. Topeka, Kan.; also apple seedlings in large lots.

An attractive list of stock is offered in another column by P. J. Berckmans Co., Augusta, Ga. Over one acre under glass; 360 acres in nursery stock.

Standard pears, dwarf pears, plums, assorted cherry and Carolina poplar, together with other fruit and ornamental stock can be obtained of Albertson & Hobbs, Bridgeport, Ind.; also apple seedlings.

H. S. Wiley, Cayuga, N. Y., has devised a vest pocket caliper which should prove of value and convenience. It is three inches in length and one and one-quarter inches in width. At one end is a three-quarter inch slot and at the other a five-eighths inch slot. It will sell for from 12 to 15 cents. Mr. Wiley has used such a caliper for years and has found it very practical.

GEORGIA HORTICULTURISTS.

The twenty-third annual meeting of the Georgia State Horticultural Society at Tallulah, August 2d and 3d, was the largest and one of the most successful meetings in the history of this organization. Many essays pertaining to fruit culture and kindred subjects were discussed. From reports from every district in the state it was shown that commercial planting of peaches, pears and plums is on the increase, notwithstanding the almost total failure of the fruit crop, due to the freeze of February last. The San Jose scale is being vigorously fought, and the state entomologist reports that fully 90 per cent. of the San Jose scale has been killed in the infested districts in the southwestern portion of the state.

The following officers were re-elected: President, P. J. Berckmans, Augusta, Ga.; treasurer, L. A. Berckmans, Augusta, Ga.; secretary, G. H. Miller, Rome, Ga. The society will hold its next meeting at Dublin, Ga., next August.

I HAVE

2,500 FIRST-CLASS PEACH TREES

(Aug. buds) I will exchange for 2 yr. Pear and Apple trees; information, write

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Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

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We will also have our usual supply of

Apple Seedlings and other Stocks,

graded up to high standard, for shipment from either Troy, Ohio, or Topeka, Kansas.

Write us for rates before placing your order.

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TROY, OHIO.

THE Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.
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RHODODENDRONS — Ponticum, Catawbiense, Named Hybrids.
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Full Assortment in :

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GOOSEBERRIES. RASPBERRIES.

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Fall trade list on application.

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NEW YORK.

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200,000 Peach Trees, 100,000 Blackberry,
2,000,000 Strawberry Plants, 500,000 Raspberries.

Eldorado, Maxwell and Lucretia Blackberries.

MILLER, LOUDON and
COLUMBIAN . . .

TRIUMPH,
GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS.

. . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond with us.
Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.

E. T. DICKINSON & CO., CHATENAY SEINE,
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Growers and Exporters, **FRENCH NURSERY STOCKS,**
has to offer, **Fruit Tree Seedlings and Ornamentals.**

Pear, Apple, Plum and Cherry, and Angers Quince Cuttings.
All grown specially for the American trade.

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The most complete assortment of Ornamental Stocks, Trees and Shrubs.
Orders solicited and booked now at low rates.

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DIRECTORY FOR 1899,

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WILLIAM STREET NURSERIES

Offer for Fall 1899 and Spring 1900

Apples, Std. and Dwarf Pears, Cherries, Plums,
European and Japan; Peaches, Quinces,
Ornamentals, Roses, Shrubs, etc.

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Apple and Peach

As fine stock as can be grown, and a very full line of
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200,000 Peach Seedlings from Beds of Natural Seed.

NATURAL PEACH PITS

We hope to have pits to offer in October, Crop of 1899.

Phoenix Nursery Co., Established 1852.
600 Acres.
13 Greenhouses.
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SUCCESSORS TO SIDNEY TUTTLE & CO.
Eastern agents for Rossmey Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on own roots. Correspondence solicited.

Send list of wants for prices.
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50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.

LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple,
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Standard Pears,
Plum,
Apricots,
Grapes,
Shade Trees,
Evergreens,
Shrubs,

Strawberries,
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Japan Pear Seedlings,
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General Supplies,
&c. &c.,
&c.

**APPLE
SEEDLINGS**

FOR THE

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Will make special prices on large
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botan Plum, Mahaleb and Mazzard Cherry, Angers, Quince, Small
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stock in the country. Prices very low. Packing secured. Send for quotations
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High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
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Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices,

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
SPRINGFIELD, NEW JERSEY.
SURPLUS OF

PEACH, PLUM, CURRANTS,

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**Our Budded List of PEACH TREES Represents more
than a Million.**

Information as to varieties, quality, grade and price, cheerfully
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EIGHT ACRES IN ASPARAGUS PLANTS,

One and two year old.

Donald's Elmira, Columbia Mammoth White,
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30 Acres in Strawberry Plants. representing over seventy varieties.

PEACH BUDS.

In any quantity, cut from strictly healthy trees. Send us a list of
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Better Write Us Immediately

As we shall have a fair supply of **NATURALS**, this year's crop. But it won't last long.

Latest Importation of **RAFFIA** just Arrived.

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Rather
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New crop **Mazzard Cherry** seed now ready.

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40 kinds Japan Plums. 50 kinds Apple. 70 kinds Peach.

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Hicks, Russian, Downing, White English, New American and Ornamental sorts.

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FREIGHT PAID TO Cincinnati, Philadelphia, Memphis, Meridan, New Orleans or any other point where the rate does not exceed 80 cents per hundred pounds.

Stock Right. Grades Right. Prices Right. Write for List.

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GROW FOR THE TRADE.

Hydrangea Pan. Gr.—Many thousand, all sizes.

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Schwedler's Maple—Beautiful trees, 6 to 10 feet.

Silver and Sugar Maples—20,000 trees, all sizes.

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Walter Pease; Borgeat; Wilder Currant, new fruits.

3000 choice Carnations. Extra strong Wisterias.

Clean, thrifty and healthy in every respect. Our Half Century Catalogue sent free.

Norway Maple—2½ to 3 ft.

Norway Maple—8 to 9 ft.

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Carolina Poplars—12 ft.

Carolina Poplars—Extra size.

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Peach Trees—5 to 7 ft.

Trees in quantities at low prices.

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We have to offer for the Fall and Spring Trade the

Largest Stock of Maples, Elms, Chestnuts, etc., in the Country.

Also 50,000 October Purple Plum, 1 and 2 years old; 30,000 Green Mountain Grape Vines from 1 to 3 years old; 5,000 Japanese Maples, 18 to 36 inches high. Currants in large quantities, and a general assortment of Nursery Stock. Orders solicited. Address

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Stock for Fall of 1899.

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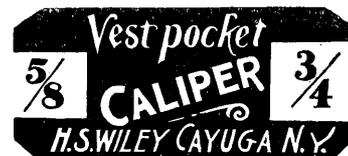
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10,000 Gen. Jacqueminot, 5,000 Paul Neyron, 3,000 La France and other leading varieties, 2 ft. and up. Own roots.

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All the leading varieties in heavy 2 year, field grown plants. Write for prices.

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Bismarck and a full stock of other apples.
Abundance, Burbank, Monarch, and other plums.
Lincoln Coreless, and other pears, standard and dwarf.
Fuller's, Bogart, Reas' Mammoth, and other quinces.
Currants, Gooseberries, Blackberries and Columbian and other raspberries.

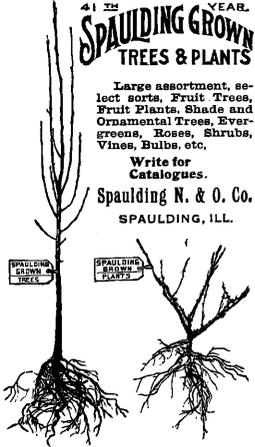
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Golden Glows, large, strong plants, for retailing at one-half price.

Clematis—a choice lot, Dutch Pipe, Honeysuckles, etc.

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SPAUDING GROWN TREES & PLANTS

Large assortment, select sorts, Fruit Trees, Fruit Plants, Shade and Ornamental Trees, Evergreens, Roses, Shrubs, Vines, Bulbs, etc.

Write for Catalogues.

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Get O-U-R Prices.

Std. and Dwf. Pear PLUM,
APRICOT, QUINCE.

Glove Pruned Trees
Smooth bodies, Heads right, Grade right. Special offers for the Trade.

BLACKBERRY and Other Small Fruit Plants.

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Cordage Burlaps
GET OUR PRICES.

Apple, Peach,
Plum,
Apricot,
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White Ash,
Soft Maple,

... IN CAR LOTS ...
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Fine stock; bottom prices.
Special inducements for early orders.

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WRITE FOR PRICES.

White Elm, 1 yr., Barberry, all sizes, Horse Chestnut, Soft Maple, 1 yr. Pæonies, Currants, Poplar Leaved White Birch, 6 to 8 ft. Mt. Ash, for lining out, Gooseberries.

A full line of Evergreens in seedling and transplanted stock, including a large percentage of the beautiful **COLO BLUE SPRUCE**.
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A large stock **Abundance, Burbank, Hale,** and all standard varieties. **New Varieties: America, Apple** and **Chalco** a speciality.

FREIGHT PREPAID

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Peaches, Persimmons, Pecans, Mulberries, Figs, Field Grown Grafted Roses; both Teas and Hybrid varieties, and a general line of fruit and ornamental trees grown in large quantities.

High Grade Trees and Low Prices.

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The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

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We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

40th YEAR.

Rosedale Nurseries,

Stanley H. Watson, Proprietor, **BRENHAM, Washington Co., TEXAS.**

Southern Fruits and Ornamentals. Figs, Japanese Persimmons, Pecans, Pomegranates, Cape Jessamines, Rosedale Hybrid Arbor Vitae, etc.

FOREMAN WANTED NOVEMBER 1ST.

Everything in SMALL FRUIT PLANTS.

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Catalogue and Price List ..Free..

WANTED. A party with little capital who has had experience in running agents, to start a retail Nursery business. Address with reference, **D. H. PATTY, Geneva, N. Y.**

N. B.—I have in surplus for fall, a large stock of **Standard and Dwarf Pears, Plums, Kilmarnock Willows, etc., etc.** If you are in need of any of the above stock let me quote you prices, I will save you money.
D. H. PATTY, Geneva, N. Y.

THE MAN BEHIND THE TREES

Is as important a personage as "the man behind the gun," if you desire your purchases true to the label.
Busy times ahead; better get in your label order early and avoid the rush.

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The Syracuse Nurseries

...THE WORDEN SECKEL PEAR...

One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

SMITHS & POWELL COMPANY,
SYRACUSE, N. Y.

Also a general assortment of budded Apples. Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

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ALL OLD AND NEW VARIETIES.
Immense Stock, Warranted True
QUALITY UNSURPASSED.

A fine stock of Campbell's Early
vines at low rates.
Send list of wants for prices.

An extra fine stock of CURRANTS
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Also DOWNING GOOSEBERRIES,
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100,000 MYROBOLAN, No. 1,
100,000 PEAR, - - " 2,

in perfect condition and ready for immediate shipment. Write for particulars.

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The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both in lap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Junesberry and Huckleberry. **Z. K. JEWETT & CO.,** Sparta, Wis. included. Ask for prices and terms.

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A full line of stock for wholesale and retail. Correspondence solicited.
The only practical Box Clamp in use at low price.

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ALLEN L. WOOD,
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**EXTRA FINE
PLANTS** At . . .
Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,
RASPBERRIES, BLACK-
BERRIES, Etc.
In the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

CHARLES DETRICHE, Senior,
ANGERS, FRANCE.

Grower and Exporter of Fruit Tree Stocks, Forest
Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.
Sole Representatives for the United States.

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"U. S. STANDARD"

Caustic Potash Whale Oil Soap.

A positive Insecticide and Fertilizer.
Recommended by Entomologists, and a guaranteed article.
Send for circular and price list.

MANUFACTURED ONLY BY

W. H. OWEN, CATAWBA ISLAND, O.

Honey Locust Hedge, Most Ornamental for Parks and Lawns.

Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. **OSAGE ORANGE HEDGE** and plates also.

WRITE FOR PRICES AND TRY THEM.

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Ornamental LARGE TREES SMALL

FLOWERING SHRUBS in great variety. Descriptive Catalogue
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Write me for easy terms and prices.

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4 Daily Vestibuled Trains,
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**FREE RECLINING CHAIR CARS.
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Full information regarding rates, etc., cheerfully given.
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Our Printed and Wired Labels are unequaled, but imitated. Being imitated only proves their supremacy.

Only good labels are imitated.

If you have not used our Labels it may pay you to write for samples and prices.

Dayton Fruit Tree Label Company,

DAYTON, OHIO.

For Park and Street Planting.

American, Scotch and English Elm, Silver, Sugar and Norway Maples, Carolina and Lombardy Poplars, Horse Chestnuts, American White Ash, Cut-Leaved Birch, Purpled Leaved Beech, Catalpa, American and European Lindens.

Extra Size, 6 to 20 feet, 1 to 6 inches.

Heavily stocked with Kilmarnock and New American Willow, Camperdown Elm, Tea's Weeping Mulberry, Siberian and American Arbor Vitæ, Norway Spruce, and a great variety of Shrubs and Roses.

Apples, Pears, Plums, Cherries, CURRANTS and GOOSEBERRIES extensively grown. Better stock never grew.

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BATAVIA NURSERIES,

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BREWER & STANNARD,

OTTAWA, KANS.,

Offers to the Trade a Large and Complete Assortment of

NURSERY STOCK

APPLE,
PEAR, *Std. and Dwarf,*
CHERRY,
PLUMS, *Japan and European*
PEACH,
APRICOT,

Gooseberries, Grape Vines, Currants, Raspberries, Blackberries, Apple Seedlings, Forest Seedlings, and Osage Hedge Evergreens, 18 in. to 3 ft.

Ornamental Trees, Shrubs and Vines.

From Anywhere **East**

To Everywhere **West**

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of _____

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

Great Convention cities throughout
the country.

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G.E.P.A., Jno. Sebastian, G.P.A.,
305 Broadway, NEW YORK. CHICAGO, ILL.

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CARMAN.

Earlier than Elberta; skin tough a good shipper. Consult our budded list of Peach Trees (over 1,200,000) varieties: Asparagus, Strawberry Plants, Plum and Apple Trees. Send for catalogue. HARRISON'S NURSERIES, Berlin, Md.

**TREES BY THE 1000
or CAR LOAD.**

PEACH

Trees are a specialty with us and no other firm in the U. S. can show more or finer Strawberry Plants by the million varieties. Asparagus Roots, Plums. Write for catalogue.



General List of Varieties.

PEACH.

- Alexander
- Amsden June
- Barnard's Early
- Biley's L. Oct.
- Bokara No. 3
- Bradywine
- Bray's Rareripe
- Crawford Late
- Crawford Early
- Cone's So. Early
- Champion
- Chair's Choice
- Crosbey
- Connecticut
- Chinese Cling
- Elberta
- Early Rivers
- Early Heath
- Early Michigan
- Fox Seedling
- Foster
- Fitzgerald
- Ford's Late White
- Frances
- Geary's Holdon
- Greensboro
- Gold Drop
- Globe
- Hill's Chilli
- Hale's Early
- Kalamazoo
- Lemon Free
- Lewis
- Lorentz
- Levey's Late
- Moore's Favorite
- Magnum Bonum
- McIntosh
- Morris White
- Mt. Rose
- New Prolific

BUDS BUDS BUDS

Of the Famous New Peaches, Carman, Waddell, Mathews Beauty, Haulderbaum, Frances, Beauty(b), Delaware, Emma, Klondike and Denton.

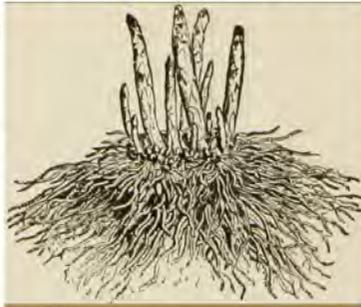
PRICES ARE VERY LOW AND BUDS WILL BE CUT BY COMPETENT MEN.

Our 75 Varieties of Strawberry Plants, ready to Ship September 15th.



Get Our Prices all from New Beds

30 Acres Planted to Roots and they are making a good Growth.



APPLE TREES, Good Assortment, Two Year.



Have only 1 Year Roots to Offer the Trade—Stocky, Well-Grown.

General List of Varieties.

PEACH.

- Old Mixon Cling
- Old Mixon Free
- Reeves Favorite
- Stephen's R. R.
- Smock
- Salway
- Snow's Orange
- Stump the World
- Sneed
- Triumph
- Troth's Early
- Wonderful
- Wheatland
- Wager
- Willet
- Walkers's Var. Free
- Wilkin's Cling
- White Heath Cling
- Water Loo
- Yellow St. John

PLUMS.

- Abundance
- Burbank
- Berckman
- Chabott
- German Prune
- Hale
- Normand
- Ogon
- Red June
- Satsuma
- Shipper's Pride
- Tag
- Wickson
- Willard
- Wild Goose
- Shropshire Damson

J. G. Harrison & Sons

BERLIN, MD.

We want your List of Wants.

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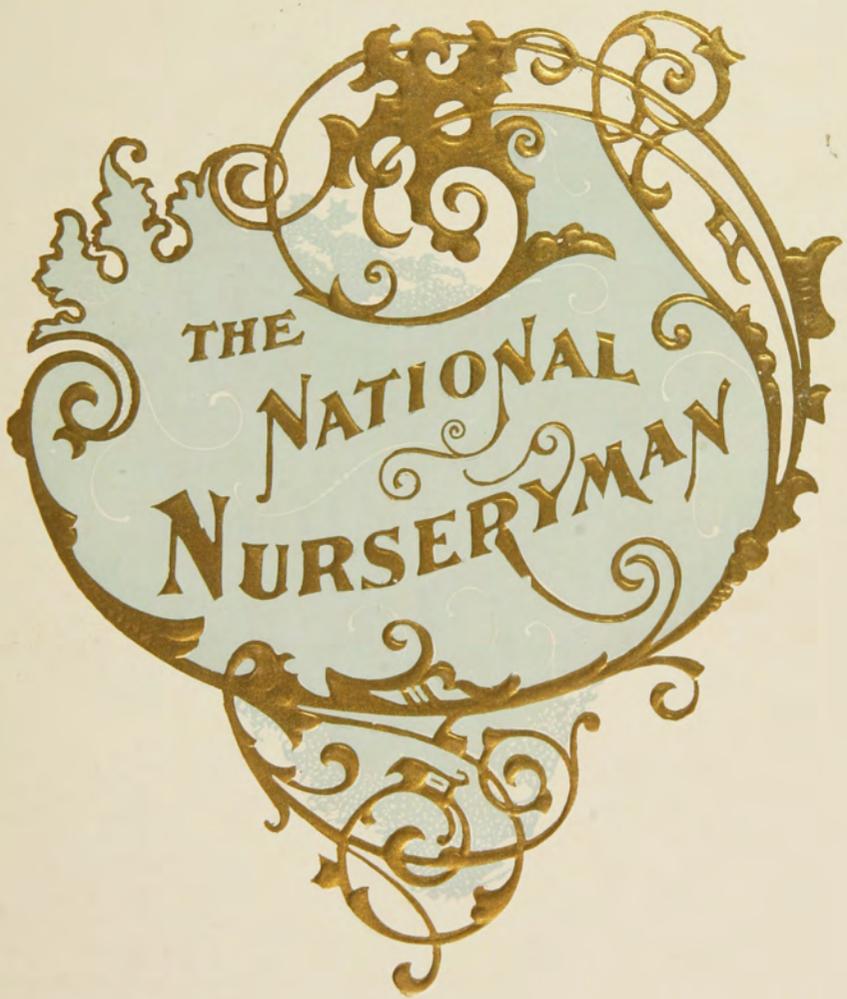


Strawberry. Immensely productive and earlier than Hoffman. A seedling of Wilson, pollenized by Hoffman, plant and fruit both showing larger and finer than Wilson. Seventy other varieties. Columbian Asparagus roots: Peach, Apple and Pear trees. Write for Catalogue, etc. Harrison's Nurseries, Berlin, Md.

COLUMBIAN WHITE



Shoots white, remaining so as long as it is on the tree; robust and vigorous. Nick O'Hara's largest new Strawberry. 70 Bush. Consult our budded list of peach trees—over 1,200,000 for sale. Catalogue free. HARRISON'S NURSERIES, Berlin, Md.



October, 1899.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
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FRUITLAND NURSERIES,

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

20,000 Standard Pears—Extra good Stock.

2 years, 5 feet and up, branched.
2 years, 4 to 4½ feet, branched. Get our prices.

5,000 Everbearing Peach Trees—3 and 5 feet. \$10.00 per 100.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Cherries, Mulberries, Apples, Figs, Nuts and Peaches.

ORNAMENTAL DEPARTMENT.

100,000 Amour River Privet—Unsurpassed as an evergreen hedge plant.

50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stand 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel, budded upon Manetti, 18-24 inches.

Two Acres in Cannas.

BIOTA AUREA NANA.

Best of all the dwarf Biotas; a perfect gem. Was not injured in the least by the February freeze—while the old Biota Aurea (its parent) was badly injured. We have an immense stock and can supply it by the thousand in sizes 12-30 inches.

100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.

4,000 Fancy Caladiums.

Ficus, Crotons, and 15,000 Camphor Trees, Sub-Tropical Fruits, Etc.

Send for Trade List and Descriptive Catalogue.

PETERS & SKINNER,

North Topeka, Kansas.

CAPITAL NURSERIES.

We offer for Fall of 1899 and
Spring of 1900

APPLE, PEACH, CHERRY
AND PLUM TREES.

1 yr. KEIFFER PEAR.

BECHTEL'S DOUBLE FLOWERING CRAB.

We can supply

Apple Seedlings

in large lots. Fine grades.

KEIFFER AND JAPAN PEAR SEEDLING,
OSAGE, CATALPA, BOX ELDER,
RUSSIAN MULBERRY, SOFT
MAPLE AND ELM SEEDLING.

KANSAS RASPBERRY. BLACKBERRIES.

WRITE US FOR PRICES.

Peters & Skinner.



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Albertson & Hobbs,

BRIDGEPORT, (Marion Co.) IND.

OFFER FOR FALL 1899
AND SPRING 1900.

In car load lots, assorted car load lots, or smaller quantities.

Standard Pears—Complete assortment, including liberal portion Keiffer, Bartlett, Henry, Arnold, etc.

Dwarf Pears—Complete assortment.

Plums—European, Japan and native, assorted.

Cherry—Assorted.

Carolina Poplar—All sizes; extra fine young stock.

Norway, Silver and Rock Maples.

Weir's Cut Leaved and Schwedlerii Maple.

American Elms, Weeping Elms, Lindens, Sycamore, Mulberries, etc.

Hardy Shrubs—Good assortment; also Evergreens, Roses, Vines, Small Fruits, etc.

Apple Seedlings and Imported Seedlings, Peach Pits, supplies, etc. (Prices on application.)

SEE TRADE LIST FALL 1899.

Spade and supply orders should be sent in early.

TRADE MARK.



Japanese Nursery Stock, SEEDS, Etc.

Orders are booked now for Fall and Spring delivery. Safe arrival guaranteed. Price f. o. b. New York, duty paid.

SPECIALTIES:

Japan Maples, Citrus Trifoliata Stocks and Seeds.
Japan Pear Stocks and Seeds, Etc.

Trade List Free on Application.

SUZUKI & IIDA,

11 Broadway, 3 Nakamura,
NEW YORK. YOKOHAMA.

SOLE AGENTS OF THE
YOKOHAMA NURSERY CO.

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The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES.

**Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.
Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.**

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphid, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

Headquarters for Ornamental Trees and Shrubs.

Will have the largest and finest stock of large **Carolina Poplars** for the coming fall trade which we ever offered. This is the tree for quick growth and to resist the smoke and gas in village, town and city.

Weeping Trees—Especially heavy in **Teas' Weeping Mulberry, Kilmarnock, Wisconsin, Babylonica and New American Weeping Willows, Camperdown Elm, Mountain and European Weeping Ash,** and a good stock of other weeping trees. Fine stock of high top **Rose Acacia.**

Roses, Roses, Roses—Forty acres in nursery rows, own roots and budded. None better. Greatly superior to the imported.

Greenhouse Department.

Consists of **Forty-four** houses filled with **Roses, Palms, Ferns, Ficus,** and other things too numerous to mention.

Holland Bulbs—Have large lots contracted with best growers that cannot fail to please customers.

Personal inspection and correspondence solicited.

TRADE LISTS AND CATALOGUES FREE.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE _____
MOUNT
•• HOPE ••
NURSERIES,

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

LOUIS LEROY'S
NURSERIES
 (Established 1795.)
ANGERS, (M. & L.) FRANCE.
 GROWER AND WHOLESALE EXPORTER OF
FRUIT, FOREST AND ORNAMENTAL STOCK
 Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.
 Prices, catalogues and all other information can be obtained by addressing
AUG. RHOTERT,
SOLE AGENT,
26 Barclay Street, (P. O. Box 2250) New York.

KNOX NURSERIES.

(Established in 1851.)

We offer to the trade for Fall of 1899 the following No. 1 stock:

APPLE, 2 yr.

Ben Davis, Jonathan, Grimes, York Imperial, Gano, Wealthy, and a few other leading sorts.

PEACH, 1 yr.

Extra size, fine for small orders.

Heavy on Elberta, Heath Cling and Champion.

Snyder Blackberry, root cuttings.

Our stock was not injured by the cold winter.

Correspondence solicited.

Long distance telephone connection.

H. M. SIMPSON & SONS,
 VINCENNES, IND.

Surprising, to say the least!

That is what is said regarding the lowness of our prices upon the following items. They consist partly of stock which is on land that must be cleared this season on account of expiration of leases, and partly of varieties in which we have unusually heavy stocks that we desire to reduce quickly. **The grade and quality of the stock is of the finest.** We could furnish none better at any price.

PENZANCE HYBRID SWEET BRIARS.

Amy Robsart, rose.	Lady Penzance, copper.
Anne of tierstein, crimson.	Lord Penzance, fawn.
Brenda, bluish-white.	Rose Bradwardine, pink.

CLEMATIS, 2 yrs., field-grown, XXX.

(Write for prices stating assortment and quantities).

Henryii, white.	Madame Ed. Andre, red.
Jackmanni, purple.	Ramona, sky-blue, large and fine.
	Madame Baron Veillard, pink.

ORNAMENTALS.

On land that must be cleared; fine stock.

Altheas, (Dbl. purple, single purple, and variegated).
 Berberry, Common (Vulgaris).
 Dautzias, 2-3 ft. (Crenata, Crenata flore pleno, Crenata fl. pl. alba.)
 Halesia Tetraptera (Silver Bell), 3-4 ft. Honeysuckle, White Tart'n, 3-4 ft.
 Pæonias, pink and rose colored; large roots.
 Spireas, Billardii (3-4 ft.), Douglasi and Prunifolia, 2-3 ft.
 " Bumalda, Callosa Alba, Thumbergii, 18 in.
 Tree Pæonies, Banksii, 3 yr. Wisteria, purple, 3 yrs. XXX.
 Norway Spruce, 18-24 in., 12-18 in. and 6-12 in.
 Euonymus Europeæ, 6-8 ft. Mt. Ash, Oak Leaved, 6-8 ft.

Currants, 2 yr. strong—La Versailles, No. Star, Cherry and White Grape.

Dwarf Pears, No. 1 and Medium.

Bartlett	Clapp's Favorite.	Flemish Beauty.
Beurre de Anjou.	Duchess d' Angouleme.	Seckel.

Plums, No. 1 and medium.

Very low prices on European sorts.

Our trade list contains our complete assortment. Sent on request.

JACKSON & PERKINS CO., NEWARK, NEW YORK.

THE OLD AND WELL KNOWN
Morris Nurseries
 Offer a complete stock of the most important varieties of fruit and ornamental trees to dealers and nurserymen. Dealers who do not find it convenient to come to the nursery, can send their orders and have them packed with great care by competent help for a moderate charge.
 ❀
 Specialties for Next Fall and Spring:
Norway and Silver Maples,
Irish Junipers,
Am. Arbor Vitas.
 ❀
GEORGE ACHELIS,
 Chseter County. WEST CHESTER, PA.

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The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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VOL. VII.

ROCHESTER, N. Y., OCTOBER, 1899.

No. 9.

AMERICAN POMOLOGICAL.

Semi-Centennial Meeting at Philadelphia—Prominent Nurseryman Re-elected President—Some Pioneers—President Watrous' Address—Isothermal Lines Should Govern—Thomas Meehan's Reminiscences—Silver and Bronze Medals for Fruit Exhibits—Election of Officers.

The twenty-sixth biennial session of the American Pomological Society was held in Philadelphia September 6-7. There were present 130 accredited delegates from 22 states and 100 others, most of whom are members of the society. Among the older members present were Thomas Meehan, Germantown, Pa.; P. J. Berckmans, Augusta, Ga.; S. B. Parsons, Flushing, L. I.; T. V. Munson, Dennison, Texas; Robert Manning, Reading, Mass. A letter of regret was sent by George Ellwanger, Rochester, N. Y. President C. L. Watrous, the well-known nurseryman of Des Moines, Ia., occupied the chair. Assistant Pomologist William A. Taylor, Washington, D. C., performed his duties as secretary.

PRESIDENT WATROUS' ADDRESS.

President Watrous' address, the feature of the first session, was received with marked attention, the reading of it being often interrupted by expressions of approval. The president urged the necessity of systematic scientific breeding of American fruits. The time had gone by when we could afford to place dependence upon varieties brought from without. The division of the country into well-defined life zones was now accomplished and suitable fruits must be bred up to fit these divisions. The next fifty years should see fruit breeding as systematically carried out as stock breeding now is. Pomologists must supply the material for the several stations to work upon, and then, at the meeting of the society, which was a court of last resort, the facts could be sifted out. Already the good work was begun. In the Mississippi Valley hybrid plums had already taken their place, and the development of the northern grape awaited such work as Munson had done in the South. Garden herbariums, such as was now in the New York station, should be kept in all sections. A national herbarium of pomology would act as a check upon frauds. Fruits originated in their own botanical districts, and it was the duty of the society to teach they were most likely to succeed there. Thousands of dollars had been wasted in the endeavor to introduce foreign varieties. Isothermal lines rather than territorial divisions should be looked to. The society's best work was to be done for the mass of the American people, but it certainly could not wholly guide the public taste, and if men will buy Ben Davis instead of Grimes' Golden, the pomologist must plant that—he must go in for what pays.

The committee on the address fully endorsed the president's remarks and recommended the appointment of two commercial fruit growers, one representing the East and one for the West, to present papers on marketing at the next session of the society, to see if some means of avoiding gluts could not be devised. They further recommended that the Department of Agriculture prepare and issue a bulletin relating the connection of the experiment stations with pomology and setting forth plainly just what each station had done and was doing along that line.

The treasurer, Professor L. R. Taft, reported that the Wilder endowment \$5,000 is invested in railroad bonds, bearing 4 per cent. interest, giving a stated income, of which one-fifth was for the purchase of medals for worthy objects within the province of the society. The biennial income was \$1,292.48. The cash in the treasury is \$636.64, of which about \$240 is to the credit of the medal fund, the full amount not having been used at any one meeting since 1889.

THOMAS MEEHAN'S REMINISCENCES.

Thomas Meehan sketched the work done in Philadelphia and the surrounding district in early days. American pomology, he said, is the admiration of the world, and the American Pomological Society has had more to do with that eminence than any other. Europeans were amazed at the profusion of fruits, the poor enjoying with the richest. The poor abroad grow fruit, but it goes for tithes and taxes, and others enjoy it. This society is responsible for the difference here. Mr. Meehan reviewed the beginning of grape culture in Philadelphia, and its spread, following with the pear and the apple, and telling of the attempts at importation and the destruction by rats in the hold, and the law which gave no redress if there was a cat on board. Philadelphia had become a horticultural center because of the desire for wine. Penn had established the city where it was because he had concluded it was a good place in which to grow good wine, and he sent to France for his vines, which he grew in what was now part of Fairmount Park. His efforts partly failed, so he sent for French vineyardists, but as failure still followed they concluded Philadelphia was not hot enough, so they took up the Reading grape, which gave a wine that Franklin said was as good as the foreign wine. But they were not satisfied, and sought the native grapes till they got the Alexander—considered a great advance, but it was greatly inferior to the Concord. Bartram also tried to grow for wine and introduced a grape from Virginia, almost equal to Delaware, but it failed, too, and so the Susquehanna was searched till a grape known as Susquehanna was discovered. It was as good as the Delaware to-day, but that failed, too, after a time. Later a vineyard, three and one-half acres of Catawba and Isabella, was set out near Wissahickon, but it, too, gave out, the men did not realize the phylloxera was at work, which pest, he believed, Penn had brought from Europe. All this

THE NATIONAL NURSERYMAN.

failure of imported stock led to the cultivation of the native grape, and Philadelphia laid claim to that. The Pennsylvanians had decided taste in those days, and when the advent of Concord was announced from Massachusetts, the committee which went to investigate, came back with "diphtheria in their throats." Such was the reception given to the one grape that has crowded out all others. The grapes which emanated from Philadelphia included Bartram, Bonsel, Alexander, Archer, Bland, and Maxitawny, which was the first really good white grape. In pears, Bartram, Petrie, Brandywine, Penn, Tyson, Seckel, Washington, Ledger, Catherine, Early Wilmington, Chancellor, Jones, and Kieffer, belong to Philadelphia. There were, also, 38 varieties of apples, all prominent in their time that had arisen about the city. Mr. Meehan insisted that the wrong man often got credit for a variety. It is not always the finder who deserves the credit, but he who puts it before the public—the man who knows when he sees a good thing. The Seckel pear owes its distribution to Dr. Hosack of New York; so, too, the Kieffer was not recognized by the man whose name it bears; it was W. Parry who saw it at the Centennial Exhibition, who really merits the honors in this case.

THE AWARDS.

An unusually fine exhibition of fruit was passed upon by a committee consisting of F. M. Hexamer, New York City; H. E. Van Deman, Virginia; John Craig, Iowa; G. B. Brackett, Washington, D. C., and A. G. Gulley, Connecticut, with the following result:

Silver Wilder medals to the New Jersey State Horticultural Society for 696 plates of 12 different kinds of fruit; to Ellwanger & Barry, Rochester, N. Y., for a choice collection of one hundred varieties of pears; to the Agricultural Experiment Station of Arkansas for a collection of 15 varieties of long-keeping seedling apples; to the Agricultural Experiment Station of Michigan for a collection of apples, pears, peaches, plums and grapes (which includes several new sorts of much merit) as well as for a collection of photographs of orchard trees; to Parry's Pomona Nurseries, Parry, N. J., for a collection of edible nuts of various kinds; to Roland Morrill, Benton Harbor, Mich., for an exhibit of Elberta and Kalamazoo peaches of superior merit, together with a collection of photographs showing the orchards and the method of pruning, and a statement of the treatment of the orchards, with account sales from a Chicago commission man, showing prices ranging from \$5 to \$7.50 per bushel for selected peaches; to John Chariton, Rochester, N. Y., for his seedling grape Charlton.

Bronze Wilder medals were awarded C. L. Watrous, Des Moines, Ia., for a collection of native plums; to Howard A. Chase, Pocono, Pa., for a collection of apples and plums, and to George E. Murrell, Fontella, Va., for an exhibit of apples and grapes. Honorable mention was made of the exhibits of Peder Pederson, Huntingdon Valley, Pa.; W. B. K. Johnson, Allentown, Pa.; the New York Experiment Station; L. Phelps, Sanford, Fla.; L. Burbank, Santa Rosa, Cal.; the Iowa Agricultural College Experiment Station; the Pennsylvania State College; Greening Brothers, Monroe, Mich., for Banana apple; C. C. Corby, Montclair, New Jersey, for Montclair and Corby grapes and for the Bloomfield apple, shown by C. R. Hartshorne, Brighton, Md.

The following fruits were favorably commented on: Peaches, Evans, Dewey and Worcester; grape, Brown; blackcap raspberry, Evans; apples, Canajoharie, Koffman's June and Pride of the Hudson.

ELECTION OF OFFICERS.

The following officers were elected: President, C. L. Watrous, Des Moines, Iowa; first vice-president, Thomas B. Meehan, Philadelphia; secretary, William A. Taylor, Washington; treasurer, Professor L. R. Taft, of the Agricultural College, Michigan; vice-presidents, W. G. Vincenheller, Arkansas; J. H. Hale, Connecticut; Alexander Pullen, Delaware; W. Saunders, District of Columbia; G. L. Tabor, Florida; P. J. A.

Berckmans, Jr., Georgia; H. M. Dunlap, Illinois; J. Troop, Indiana; Charles G. Patten, Iowa; W. H. Barnes, Kansas; W. M. Munson, Maine; J. W. Kerr, Maryland; M. C. Strong, Massachusetts; C. J. Monroe, Michigan; J. J. Evans, Missouri; C. C. Shaw, New Hampshire; I. J. Blockerell, New Jersey; F. M. Hexamer, New York; J. Van Lindley, North Carolina; J. J. Harrison, Ohio; F. A. Waugh, Vermont; George E. Morrill, Virginia; H. W. Miller, West Virginia.

Among those who served on committees during the meeting were: H. C. Irish, Shaw Gardens, St. Louis; Prof. F. M. Webster, Wooster, O.; R. M. Kellogg, Three Rivers, Mich.; Byron D. Halstead, New Brunswick, New Jersey; Prof. W. B. Alwood, Blacksburg, Va.; W. C. Strong, Waban, Mass.; Prof. H. Van Deman, Parksley, Va.; John Craig, Ames, Ia.; L. A. Goodman, Westport, Mo.; Prof. A. Waugh, Burlington, Vt.; Prof. W. R. Lazenby, Columbus, O.; W. H. Ragan, Greencastle, Ind.

NOMENCLATURE.

Prof. F. A. Waugh urged the necessity of a stable nomenclature on a scientific basis. This was a necessity before there can be a scientific pomology. No botanist pretended to know the names of all the plants, but he had a system which made him acquainted in a general way, and that was what one wanted in our fruits. The American Pomological Society was not in a position to impose arbitrary rules—no society is big enough to force a rule, it can only formulate a principle. As to selection of names it must be remembered that a name was merely a designation, not a variety nor an advertisement. Publication was essential to the proper security of a name, and this could be done in anything that bore a date—a nurseryman's catalogue offered a suitable medium.

S. B. Parsons said he was glad to hear it suggested that a nursery catalogue would be regarded as a publication, and recounted several instances where ornamental plants had been introduced by nurserymen in this country—named and duly described in a catalogue, but such was ignored by our European friends, who seized upon the plant and renamed it. They did such things at Kew. Magnolia oleander had been renamed M. Watsoni, and M. Halli had come back to him as M. stellata.

T. V. Munson, Denison, Texas, urged that the Secretary of Agriculture prepare an authoritative list of all fruit names. This to become a legal standard list and to which all catalogue makers were to be compelled to conform under penalty of exclusion from the mails. Further, in order to protect the purchasing public, it was advisable that state laws be enacted to punish such people as gave out false, overdrawn descriptions of new varieties, which thus became a sort of fraud. New varieties of fruits to be submitted to the United States Pomologist, and to be described by him before they could become subjects of interstate commerce. Legislation protected the sale of pure butter, and why not of fruit?

THE SEASON AT HUNTSVILLE.

The growing season at Huntsville, Ala., has been good; all stock runs heavier in caliper than usual. Two year cherry are exceptionally fine, standard pear very smooth and handsome, and a heavier stock here this season than usual. Peach run more to first-class grades than usual owing to the growing season. The stock of peach among Huntsville growers is about as heavy as last year.

ENGLAND'S IMPORTS OF NURSERY STOCK.

Deploring the lack of detailed statistics, the Gardeners' Chronicle, London, gives the following as the only available information regarding the importation of nursery stock in Great Britain :

Imports of Plants, Shrubs, Trees, and Flower Roots entered for Value only.

Imports for four years.	1895.	1896.	1897.	1898.
	£	£	£	£
Germany	30,187	39,465	42,020	43,889
Holland	184,025	203,390	213,663	221,793
Belgium	38,433	40,271	44,780	49,872
France	46,515	46,337	41,591	49,708
Japan	10,352	12,100	18,954	18,147
United States of America.	17,377	18,922	18,373	13,395
Mexico	3,251	1,816	2,204	319
Republic of Colombia...	8,735	9,896	9,008	10,425
Brazil	3,639	5,002	3,715	6,259
Other foreign countries...	4,448	4,117	4,607	3,410
Total, foreign countries.	346,962	381,216	398,875	417,217

IN AN ENGLISH NURSERY.

A representative of the Gardeners' Chronicle, London, has been visiting the nurseries of John Russell, at Brentwood, in Essex ; at Haverstock Hill, in Middlesex, and at Milford and Richmond in Surrey. In several of the nurseries, he says, and particularly in the larger one on Sheen Common, Mr. Russell has a large variety of ornamental trees and shrubs, including flowering species, and those possessing attractive foliage. Of Ligustrum, we noted several species ; the Japanese Privets for instance, varieties of *L. japonicum*. But the feature of the Privets was the large number of the golden variegated variety of *L. ovalifolium*, of which, it is estimated, there are 40,000 plants of salable sizes.

Rhus typhina, *R. Cotinus*, *R. glabra*, *R. g. laciniata*, etc., all very pretty deciduous shrubs, were noticed in quantity. The *Forsythias*, including *F. Fortunei*, *F. suspensa*, *F. viridissima*, and a variegated variety of the last-named species, are gaining popularity, but not to the extent they deserve. Also a number of fine standards and bushes of the best of the hardy *Acacias* or *Robinias*, including about 1000 fine plants 7 feet high of the well-known *Acacia inermis*, besides *Bessoniana*, and other "Mop-headed" varieties ; also *Robinia neo-mexicana*, *pyramidalis*, *hispida grandiflora*, etc. Maples were noted in considerable variety. *Acer virginicum rubrum*, a picture in spring ; *A. colchicum rubrum*, most ornamental in autumn, and *A. pseudo-platanus purpurea*, with its leaves of effective purple color on the underside, and exceedingly ornamental when disturbed by the breeze, are some of the noteworthy ones. A large stock of standard *Limes* is possessed for street and avenue planting, including a variety with smooth, glossy leaves, and which retains its foliage exceptionally late in autumn.

Hollies and *Aucubas* being plants which are greatly in request, are kept in extensive "drifts." Of *Hollies*, Mr. Russell says he has about 200,000 ; and of *Aucubas* we saw instances of 7000 plants in a "drift." *Ailanthus glandulosa*, the very popular *Osmanthus* in variety, *Phillyreas*, *Catalpa*

aurea, *Daphne Mezereum*, *D. M. alba*, and *D. M. rubra* *Arundo Donax*, hardy *Yuccas*, *Viburnums*, *Skimmias*, common and uncommon species of *Quercus* ; *Olearias*, *Magnolias*, *Eurya japonica* and *E. latifolia variegata* (in large numbers), *Cratægus*, *Cerasus*, and *Berberis* ; *Horse-Chestnuts*, *Cornus*, *Beeches*, *Laburnum*, *Pyrus*, *Syringa*, were also among the evergreen or deciduous species of flowering and ornamental trees and shrubs.

When speaking of the "Mop-head" *Robinia* previously, we should have mentioned a variegated form of "inermis." From present appearances it will be likely to become very popular for alternating with the green variety in town or suburban gardens. The American plants, or most of them, are cultivated in the nursery at Milford, and these we did not see. At Sheen, among the *Cedars*, were some nice plants, 7 feet high, of *Cedrus Deodara* and *C. atlantica*, and a smaller batch of *C. a. glauca*, one of the most effective of all coniferous trees. Paul's Double Scarlet Thorn, the merits of which are well-known, is grown in pots for use in the forcing-house. The standard *Planes* are remarkable for their strong, smooth stems, and would make fine avenue trees.

A considerable variety of herbaceous, perennial, and other border plants were observed in one or the other nursery. The ground on Sheen Common contains a fine lot of fruit trees, and we were very much surprised to find upon these a more than average crop of plums ; the bulk of them were *Victorias*, and there would certainly be some hundreds of bushels. Apples were also good, and rather better than an average crop ; whilst pears were much under, excepting the variety of *Jargonelle*.

Recent Publications.

The United States Department of Agriculture has issued a bulletin on the subject of frost, by Prof. E. B. Garriott, describing the formation of frost and devices for protecting trees and plants from its effects.

Albert T. Hill has compiled some timely notes on the forest conditions of Porto Rico which are issued in bulletin 25 of the Division of Forestry. United States Department of Agriculture. Sixty varieties of trees of Porto Rico are described and plates showing samples of the woods are presented.

G. B. Brackett, pomologist of the U. S. Department of Agriculture, has issued, as bulletin 8, a revised catalogue of fruits recommended for cultivation in the various sections of the United States and the British provinces, by the American Pomological Society. W. H. Ragan is chairman of the committee on revision. A map shows the boundaries of the 19 districts into which the country is divided and tables indicating the description of each variety of fruit and its adaptability to the divisions are presented. The fruits mainly adapted to northern localities are described first in the tables, then the subtropical and tropical fruits and then the native and introduced fruits and nuts. The society's rules for exhibiting and naming fruits are given. Prof. E. J. Wickson, of the University of California prepared the portion of the catalogue relating to the Pacific coast states. W. A. Taylor, assistant pomologist, at Washington, aided in the general work.

MR. ALBAUGH'S OPINION.

N. H. ALBAUGH, Phoneton, O.—"The NATIONAL NURSERYMAN is indispensable to all nurserymen."

DO NOT WANT TO MISS A NUMBER.

ALABAMA NURSERY COMPANY, H. B. CHASE, Sec'y, Huntsville, Ala., Sept. 11, 1899.—"We do not want to miss a single number of the NATIONAL NURSERYMAN. We enclose price of another year's subscription. It is a good paper, without doubt the best that reaches the nursery trade."

In Nursery Rows.

RED JUNE EATING APPLE.—After a dozen years' trial in comparison with Astrachan, Early Harvest and Yellow Transparent, say J. W. Adams & Co., Springfield, Mass., we find the Red June fit for cooking earlier, is more productive, and is uniformly fair and free from insects. Though smaller in size, we regard it as the best one early apple for the family.

MAID OF HONOR ROSE.—The latest bud variation of the Catherine Mermet family is the Maid of Honor. The Mermet was sent out by J. B. Guillot, fils, Lyons, France, in 1869. Sprouts from the Mermet are: Bride, sent out by J. N. May in 1885; Waban, by E. M. Wood & Co., in 1891; Bridesmaid, by Moore, in 1892. Maid of Honor is described as more robust and productive than Bridesmaid.

NEW CLEMATIS.—M. Koster, Nellie Moser and Mme. Baron Veillard are new varieties of clematis. The first named has crimson flowers, but of not so deep a color as Mme. Andre, first shown in this country in 1893. Nelly Moser, it is said, has flowers six inches in diameter, of rosy lilac color, with a vivid carmine stripe, a French variety, not yet introduced in America. The Mme. Baron Veillard is of pinkish lavender.

DUCHESS OF OLDENBURG.—I consider the Duchess of Oldenburg apple more valuable in its season than Ben Davis is in its season and wonder why there are not commercial orchards planted of the Oldenburg, says S. H. Linton, Marcelline, Mo. It comes into bearing early, is a regular annual bearer, and is a hardy, long-lived tree. On the average the prices will run higher at the season of the Oldenburg than at that of the Ben Davis. Early apples have been running down in number during the past few years until there is quite a shortage in the supply.

CLING PEACHES.—One of the oldest commission men in Chicago says: "We begin the season with clings. They sell at low figures and when they are out of the way it is unprofitable to raise the price much, from the fact that people become sick of peaches. Hence, in a full year, they sell at from 10c. to 12½c. per basket, when without them we could as readily sell at double the prices they now bring, the entire season, as we did before the clings were planted. When they were being planted, twenty years ago, I told what the result would be; but it has cost the growers much to learn the lesson."

AMELIORATING THE NATIVE PLUM.—The possibilities of improving our native plums and crabs are immense, says Prof. John Craig, Ames, Ia. New varieties are constantly appearing. I should like to see these for the purpose of study and in order to record an accurate description. Fruit growers should be on the alert to observe improvements in the native crabs and plums in riverside thickets. The plums of the future for Iowa are undoubtedly these natives, pure or cross budded, and the advances that have been made in the way of ameliorating the native, point to this as one of the foundation stones in Iowa pomology.

BLOSSOM BUDS AND TWIG BUDS.—Judge Samuel Miller, Bluffton, Mo., says: I like to take triplets from bearing trees, then one is sure of a bud in the middle that will make a shoot, the two outside buds being blossoms. When the trees are small, the twigs from maiden plants in the nursery are to be preferred, as they rarely form blossom buds. If budding is done early there is but little danger of any blossom buds having matured, but later, one is likely to get blossom buds that bloom the following spring, but never start a shoot. So long as the buds are thin, pointed and of dark color, they are all right, but when they become plump and gray on the surface, they are to be rejected. There are many failures with the uninitiated because of the wrong selection of buds. The only blossom buds on my place of the peach family were near the ground.

SILKEN LEAF APPLE.—Prof. J. L. Budd, Ames, Ia., says: The Silken Leaf we imported as No. 75 from Moscow, Russia. Its name comes from its large leaves that feel like silk to the touch. It is the most vigorous in growth in nursery or orchard that is known to the writer except possibly the "Big Estray" of which R. R. Speer writes and talks. It is now very popular as a late fall cooking apple in Ohio, Indiana, North Iowa, and the mountain states. At the exposition at Chicago, the Washington exhibit showed on the tables ten bushels of

this variety to fill up spaces. It is large, colored, smooth and, as Mr. Ivins states, it comes in for two months in the fall when good cooking apples are scarce. It takes the place of the old Maiden's Blush, but it is some later and the tree is hardy everywhere while the Maiden's Blush is very tender.

CHARLTON GRAPE.—Chairman F. M. Hexamer of the native fruit committee of the American Pomological Society, reported as follows on the Charlton grape at the Philadelphia meeting of the society: "A cross between the Brighton and Mills, raised by John Charlton, Rochester, N. Y. The original vine has fruited the last six years, and its fruit seems to increase each season. The berries are globular in shape, and medium to large in size, moderately compact, and sometimes shouldered; color red, similar to Catawba, quality best, flesh tender and melting; juicy, sweet and vinous, separating readily from the seeds, of which there are but few. Skin thin, but firm enough to insure good keeping and shipping quality. Season early, showing color before Concord, but the fruit is in eating condition before it is fully colored. The vine is a strong, healthy grower and a prolific bearer."

THE PAPA W.—Prof. H. E. VanDeman says in the Rural New Yorker: The true papaw grows on a large bush or small tree. One that stood near my old home in Southern Ohio was about a foot in diameter of trunk, and the branches spread out like those of an apple tree. It is rare to find one half that size. It is strictly a North American plant, and is found wild from Western New York to Northern Florida, Eastern Texas, Kansas and Southern Michigan. The fruit varies in quality, size, shape and season of ripening, much like other wild fruits. Some are scarcely three inches long, and nearly round in shape, others are more than six inches long, and over two inches in diameter. Soil and location have something to do with the size of the fruit, the largest being found in the rich, virgin soils along the creeks and rivers of the central states. So far as I know, there are no named varieties of the papaw, although there are some that might well deserve that distinction. It would, probably, be easy to propagate such by budding or grafting, but I do not think it has been tried. Those who have really choice varieties within reach, should propagate them and make them known to the public, for this is a good fruit that is neglected, except perhaps, to spare a tree or bush occasionally in clearing land of its natural growth.

BUDDING THE WILD ROSE.—Clarence Wedge, of Albert Lea, Minn., says in the Fruitman: "It does not seem to be generally known what good stock the common wild rose makes for a variety of the choicest cultivated varieties including the teas. We budded the La France, about six weeks ago, on a strong sprout of the wild rose, dug from the woods this spring and already have two fine blooms. We put in the buds about three feet from the ground, and the foliage seems to be much healthier than in the same variety on its own roots near the surface. The Germans, near New Ulm, Minn., make great use of these little rose trees, and manage to winter almost every variety by covering with dry leaves and placing a water-tight shed over them, not a difficult matter to accomplish, with a few long wide boards, where the roses are set in rows." Prof. Budd, Ames, Ia., says: "No woody plant is easier to bud than our wild roses. If budded three feet from the ground, and the stem is supported by a small stalk, the little rose trees are easy to lay down as the wood will bend considerably without breaking, and it is only necessary to cover the bearing wood. If the top is covered with inverted sods, nearly all our best cultivated varieties will go through winter in condition for perfect flowering. Some varieties that do not flower well on their own roots show perfect flowers on this vigorous, hardy root. The sprouts are easy to keep down if given a little attention each week."

NOT FOR TEN TIMES ITS COST.

W. F. HEIKES, HUNTSVILLE, Ala., Aug. 9, 1899.—"Please find enclosed \$1 draft on New York to cover one year's subscription. We value your paper and would not be without it for ten times its cost."

OUR EFFORTS APPRECIATED.

J. K. HENRY & SON, GREENFIELD, Ind., May 13, 1899.—"Enclosed please find \$1.00 for NATIONAL NURSERYMAN. Allow us to congratulate you on the able manner in which you are conducting our much needed trade journal."

STATELY ENGLISH TREES.

We are indebted to William Fell, Hexham, England, whom all the nurserymen at the Chicago convention met, for a copy of the Land Agent's Record in which is an account of the nineteenth annual meeting in London of the English Arboricultural Society, of which he is a prominent member. The members visited Osterley park which for three hundred years—ever since Sir Thomas Graham, the founder of the Royal Exchange, received it as a gift from the Crown—has been famed for its beautiful timber. The red brick mansion, now the seat of the Earl of Jersey, is surrounded by a garden laid out in the best old English style, and by lawns beautifully planted with cedars of Lebanon, stately descendants of the trees that clothed the brown slopes of Syria and the Taurus mountains of Asia Minor; Oriental planes, transplanted from the Levant and South-eastern Europe; English elms, and magnificent Spanish chestnuts.

Thence the members drove two or three miles to Syon House, the residence of the Duke of Northumberland, which has one of the oldest gardens in England, and is unsurpassed for the variety of its timber. It stands on the site of an ancient monastery suppressed by Henry VIII, whose body rested there for a night during the journey from Westminster to the tomb at Windsor. The pleasure grounds were laid out by "Capability" Brown, while successive owners, from the time of the Lord Protector Somerset and Henry Percy, ninth Earl of Northumberland—to whom James I. granted Syon House and the Manor of Isleworth—have contributed to its superb collection of rare trees. Though the view on entering the park is somewhat circumscribed, no one can fail to be impressed by the massive grandeur of these forest giants, and by the rich foliage of the well-defined lines of ash, beech, elm, oak, and lime. Great belts of trees flank the west front of the mansion, whose red brick walls spring from a groundwork of flowering trees and shrubs set among tall ashes and elms. A fine cedar of Lebanon and a snowy *Mespilus* from North America arrest the eye immediately one approaches the lawn. There are many large ornamental trees and shrubs, such as the black walnut (*Juglans nigra*), from the Western United States, the common chestnut, the Portugal laurel, the Judas tree (*Cercis siliquastrum*) of South Europe, noted for its early and beautiful scarlet flowers, and as the traditional tree on which Judas hanged himself; the Chinese crab, a lovely flowering *Stuartia Virginica*, from North America; and the *Arbutus Andrachne*, with its richly-colored bark. Other notable specimens, to which attention was directed, are the allspice tree of Carolina, one of the sweetest scented of flowers, and the beautiful snowdrop or silver bell tree.

FIFTY-SEVEN VARIETIES OF OAKS.

Of oaks the grounds of Syon House can boast no fewer than fifty-seven different varieties. Near the entrance to the rosary is a fine specimen of the cork oak, which yields a porous bark that is made into corks. The pine grounds at Syon House are also very beautiful, and contain great clusters of magnificent trees. Other examples that drew the eyes of visitors were the giant cedar of Lebanon, over 80 ft. high, and 15 ft. in girth $2\frac{1}{2}$ ft. from the ground, with branches that spread over 84 ft.; a majestic flat-headed yew; a mulberry, believed to be the oldest in England, introduced from Persia in 1548, whose fruit some of the party tasted and pronounced excellent; and

that very ornamental tree, the *Pterocarya Caucasicæ*, a small tree allied to the walnut, and the most western representative of the small order *Juglandæ* in the old world. Not only are the trees at Syon House rare but many of them have attained gigantic proportions. Deciduous cypresses from 98 ft. to 104 ft. high, liquidambar from 80 ft., Cretan maples from 45 ft., black poplars from 114 ft., and *Sophora Japonica* from 70 ft. are among these forest giants.

After luncheon, provided by the Duke of Northumberland, the visitors drove to Kew, where they were welcomed by Mr. Nicholson, curator of the Royal Gardens. Among the specimens that attracted attention were the fine Turkey or mossy-cupped oak, presented by Horace Walpole; the American persimmon, and the zizania, or Indian rice, on which the wild fowl of America feed, and which is supposed to give its peculiar flavor to the canvas-back duck. This tree has been cultivated at Kew with great difficulty. The seeds lose their vitality in crossing the Atlantic, though some small plants have yielded satisfactory results. The Corsican pine, the rare *Pinus monticola*, and the maidenhair tree (*Ginkgo biloba*) also claimed notice. The maidenhair tree is especially remarkable. It is a last representative of one of the most ancient types of plants, and there is, we believe, only one instance of it having been, in recent years at any rate, found in the wild state. In Japan it is found only in the precincts of temples, where it has been almost certainly planted. Being deciduous it tolerates the neighborhood of towns, and though its growth is slow, it might with advantage be more cultivated in our parks. In the timber museum members of the party found much to interest them.

WILLIAM FELL'S SPEECH.

At the dinner, our mutual friend, Mr. Fell, responded to the toast "The English Arboricultural Society." He said that the society was doing a much-needed work, and one that had greatly benefited the country. At Shields and in other large centres, to say nothing of the Thames Embankment, they could find gratifying evidence of what might be done by judicious planting. The papers read before the society had been the means of disseminating a great deal of useful knowledge. That society had judges for their essays who were second to none in the United Kingdom. (Hear, hear.) One of them, Dr. Somerville, had been selected for the chair of forestry at Cambridge, the first holder of the post, which was offered to him entirely unsolicited. (Cheers.) The society was doing another great work—the encouragement and training of young foresters, and the society's certificates were a guarantee of practical knowledge. (Cheers.) The society was in a sounder financial position that day than it had ever been before. (Cheers.) He was glad to see that in the Isle of Man the House of Keys had granted £100 to the local society for tree-planting. He would be glad if Parliament would give facilities for an extension of experimental forestry work. He trusted that the visit to Windsor and the other royal parks was the first step in the direction of getting their title altered, so that it would in future be the Royal English Arboricultural Society. (Cheers.)

The president, Joseph Graham, of South Shields, in his speech said that the American institution of Arbor Day might with great advantage be copied in Great Britain, training the children to plant, instead of destroy trees. The society should endeavor to get the educational authorities interested.

THE STATE FAIRS.

Splendid Exhibit of Fruit at the New York Meeting—Nearly Six Thousand Plates—Western New York Society Wins First Prize for Ninth Consecutive Time—Nurserymen's Displays—Great Display of Plums at Iowa State Fair.

For the first time in several years, says the Country Gentleman, the fruit exhibit at the New York State Fair at Syracuse in August was a delight to the eye, being ripe or ripening, and not a green fruit show, with the varying colors of varieties contrasting or blending along the rows of heaped-up plates. This was due to the fair being one week later and the ripening of fruit one or two weeks earlier, owing to the dry season. To this latter also was due the greater exemption from insect and fungus attack, the apple exhibit being remarkably free from blemish of any kind. The total exhibits were 5,935 plates—apples, 2,565; pears, 962; plums, 916; peaches, 332; quinces, 27; grapes 1,133; beside 400 to 500 plates not tabled.

The largest general collection, winning first prize for the ninth consecutive time, was that of the Western New York Horticultural Society, which showed 1,200 plates—apples, 154 varieties; pears, 85; plums, 35; peaches, 8; grapes, 63. The quality of this fruit was superb and worthy of hours of study. The same may be said of the exhibit of its younger rival, the Eastern New York Horticultural Society, which embraced 630 plates; apples, 415; pears, 68; plums, 68; peaches, 2; grapes, 92. The exhibit of the Geneva Experiment Station was slightly larger than the last—709 plates: apples, 307 varieties; plums, 125; pears, 53; peaches, 22; quinces, 7; grapes, 195, and afforded fine opportunity for a study of fruit.

Messrs. Ellwanger & Barry of Rochester had their usual fine assortment of fruits—573 plates, including 60 varieties of apples, 140 of pears, 58 of plums and 71 of grapes. A pyramidal frame supporting part of their grape exhibit was much admired, and on Thursday was photographed for the fair officers. S. D. Willard of Geneva led off again in plum exhibits—235 plates, including the new Burbank introductions, October Purple and Wickson, the latter probably the first to be fruited this side of the Rocky mountains. It is a large brilliant red plum (coloring up since picking), very juicy, sweet, pleasant flavor. Mr. Willard also showed 25 plates of peaches and a few apples, including Longfield and Arabkoe. Other noteworthy collections were shown by C. H. Darrow of Geneva, W. P. Rupert & Sons of Seneca Castle, H. S. Wiley of Cayuga, O. S. Jacques of Wright's Corners, Luther Collamer of Hilton, E. VanAlstyne of Poughkeepsie, Jas. E. Rice of Westchester County, D. O. Lincoln of Newark, W. Field of Niagara on the Lake, Ont., and others.

In amateur grapes, C. C. Corby of Montclair N. J., easily led, as in the past, taking first premium on all collections, while his 40 single plates all took first, second or third premiums, a remarkable sight. His grapes excel in size of bunch and berry and in compactness of cluster, resembling rather the products of a cold grapeery than the usual growth on out-door vines. In addition to a good soil and judicious fertilizing, Mr. Corby believes that his success is largely due to growing many varieties together, so that fertilization is perfect. W. F. Taber of Poughkeepsie showed some fine Wordens, Moore's Early, Niagara and Concords; also some Smokehouse apples.

The usual exhibit of hothouse grapes from D. M. Dunning

of Auburn was absent this year, to the regret of all admirers of fine grapes. In their place, however, was an excellent collection from Mrs. Patrick Barry of Rochester, including Black Morocco, Duke of Buccleugh, Black Hamburg, Gronier du Cantal, Mill Hill Hamburg, Trentham Black, Chasselas Napoleon, Muscat Troveren and Black Frontignan.

IOWA STATE FAIR EXHIBIT.

Regarding the exhibit of fruit at the Iowa State fair the Iowa State Register says: "The show of plums has never been equalled in the West. In size, beauty and number of varieties, the collections of native plums was never equalled and the same was true of the Russian and Japan varieties. To add to the plum interest, dozens of amateurs brought native and Russian plums for identification. The show of grapes was also a surprise, so early in the season following the hard winter. The apple exhibit was about as fine as usual and far more educational, as it gave a better opportunity than ever to study the new ironclad varieties from the north half of the state. The display by R. P. Speer, of Cedar Falls, of Russian and other hardy varieties was never equalled by northern exhibitors, and those of J. B. Mitchell, of Cresco, and J. C. Ferris, of Hampton were very fine. The drawing out of such an exhibit in an off fruit year, and such an artistic arrangement in placing and decorating, is no small task, and Superintendent Wragg and his able assistants Secretary Green and Elmer Reeves, cannot be given too much credit.

Among Growers and Dealers.

J. D. Durksen has started a nursery business at Seger, Oklahoma Territory.

William Scott, the well-known florist of Buffalo, is starting a nursery at Corfu, N. Y.

W. C. Zimmer has removed from Fort Scott, Kan., to Eve, Mo., and entered the nursery business.

Geneva, N. Y., nurserymen report good sales during the summer. R. G. Chase was in Philadelphia last month.

John Watson, manager of the Rosedale Nurseries, Brenham, Tex., called on Western New York nurserymen last month.

C. R. Burr & Co., Hartford, Conn., has started in the nursery business. Mr. Burr called on Rochester nurserymen last month.

William C. Barry, Rochester, N. Y., was the only member named for the committee on nomenclature at the Philadelphia meeting of the American Pomological Society.

Thirty-seven varieties of apples and twelve of peaches were awarded premiums at the Minnesota state fair. The Jewell Nursery Co. and Clarence Wedge were leading exhibitors.

N. W. Hale, Knoxville, Tenn., writes: "Trade seems to be very good in this territory. Wholesale prices are greatly in advance of last year and I think the demand is going to be good."

W. A. Watson, who has been conducting the McLean County Nursery Co., has sold the stock to William E. Rossney, Bloomington, Ill., who will continue to operate the nursery. Mr. Watson will conduct a fruit farm.

The following firms supplied plants for the seven beds in the esplanade at the National Export Exposition which opened in Philadelphia September 14: Thomas Meehan & Sons, William Warner Harper, William H. Moon Co., and State Pogie Nurseries.

C. C. Elwell, who has for the last six years been connected with the Empire State Nursery Co., of Waterloo, N. Y., has disposed of his interest therein and accepted a position as agency manager at Lawrence, Kan., with C. W. Carman, successor to the Lawrence Nursery Company.

HYBRIDIZATION IN AMERICA.

In his paper on "Hybridization in America," Professor L. H. Bailey of Cornell University said at the hybridization conference in London:

In relation to area, extensive gardening is rarer in America than in Europe; there are relatively fewer glass houses, less interest in individual plants, and less of the amateur's instinct. On the other hand, larger tracts of land are devoted to horticulture. Fruit growing is more developed than anywhere else in the world, and greater interest is taken in cosmopolitan varieties.

Again, there is much less interest in hybrids, simply as hybrids. Those hybrids mostly valued in America are those which fulfill some particular conditions of withstanding sun, or rain, or drought; and it must be remembered that there is as great a diversity of climate in the United States as in the whole of Europe. Hybrid ornamental plants, such as cannas, lilies, etc., are quite common over the water, but they are purchased from Europe.

The hybridizing of fruit trees, vines, apples, plums, etc., with native species has been undertaken from an economic standpoint, with a view to obtaining plants suitable to special cases. An apple is wanted to stand the climate of the cold north—Russian races, and Siberian crab are stocks that have been imported to aid in the pursuit.

An idea of the magnitude and scope of the work is, that Craig alone made 5,000 crosses in Iowa in 1899, and a messenger went 600 miles into Arkansas to obtain pollen to be used at the experimental station at the former place.

The European pear does not thrive in the southern states and the introduction of a new specially raised variety has made profitable pear growing possible there.

Attention was also drawn to the orange experiments brought before the conference by Mr. Webber. The paper concluded with a list of the chief experimenters, the names of plants dealt with under the heading of particular states, and including Canada.

In his final sentences, Professor Bailey pointed out that by producing a single hybrid which could be named and sold, more immediate results, so far as glory and so on, might be obtained; but when species are blended so that the resulting plants cannot be distinguished from ordinary varieties, then a more useful end is attained.

CLARK E. GARDNER.

Mr. Gardner is the junior member of the firm of Gardner & Son, nurserymen and evergreen specialists, of Osage, Iowa. Their nurseries were established in 1869 by the senior member of the firm, Charles F. Gardner, who is now president of the Iowa State Horticultural Society and also of the Northeastern Iowa Horticultural Society.

The business of the firm has grown from a small planting of evergreen seed covering a few, feet square, to the planting of seed enough each year to raise millions of young trees, besides a large and general line of fruits and ornamentals.

Mr. Gardner is but 26 years of age, but he has devoted his whole time since 8 years of age, when not in school, to the

nursery business, first in field work, budding, grafting, cross fertilizing, etc., and later in the office work of which he now has full charge. With a corps of efficient helpers he handles the large correspondence and general office work of the business. They have about 500 local agencies and gangs of salaried men, and during the past year have shipped stock into over thirty different states and territories.

OLD ENGLISH OAKS.

The life of an oak tree is of prodigious length. Some nine hundred years is its little span, but there is one in Nottinghamshire, says the Globe of London, credited with nearly fifteen hundred years of age. The giants of the woods which witnessed the hideous Druidical sacrifices in their youths looked down in their old age upon Robin Hood and his merry men, and the archery and morris dancing started in his memory on May Day. Were there but "tongues in trees" what valuable assistance to the modern history might not some of our English oak trees give. There is Owen Gledower's Oak near Shrewsbury, with a girth of forty feet, and room for eight persons to stand in the hollow of its trunk, and from whose lofty branches the Welshman in 1403 witnessed the great battle between Henry IV. and Hotspur. There is the Queen's Oak at Huntingfield, in Suffolk, whence Queen Elizabeth once shot a buck. There is the Querslie Oak, near Glasgow, which sheltered Wallace and three hundred of his men. There is the Abbots' Oak in the park of Woburn Abbey on which Henry VIII. caused the recalcitrant Abbot to be hung in 1537. There is Sir Philip Sydney's Oak at Penshurst, planted at his birth in 1554, and memorialised by Ben. Jonson and Waller. Of monsters of venerable age, but no historical interest, we have the Cowthorpe Oak,



CLARK E. GARDNER.

near Wetherby, in Yorkshire, which will hold seventy persons in its hollow, and whose age is computed at sixteen hundred years; the Bull Oak in Wedgenoak Park, which was growing at the Conquest; the Winfarthing Oak, which was seven hundred years old at that time; Shakesperre's Oak in Leigh Park, near Warwick, which was part of the forest at Arded; William the Conqueror's Oak in Windsor Great Park, which is thirty-eight ee in girth; the Swilcar Oak, in Needwood Forest, Staffordshire, which is between six and seven hundred years old; and the King's Oak in the New Forest, supposed to have witnessed Rufus' death.

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T. J. DWYER & SON, CORNWALL, N. Y.—"Please find enclosed herewith \$1 in payment for our subscription in the NATIONAL NURSERYMAN. Pardon our neglect in not sending you this before now. We look for and enjoy your paper very much."

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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SELECTION AND ITS EFFECTS.

Too much cannot be said among nurserymen of the value of selection in its application to cultivated plants. The effects of selection are marvelous, and, when one considers how much has been accomplished by the choice of individuals considered as agents of reproduction, it is a matter of wonder that greater attention is not given the subject by men who are in the business of improving or creating varieties.

The recent death of Henri L. Vilmorin, the noted hybridizer, and the convention of hybridizers in England, are events that have brought the matter of selection and its effects upon cultivated plants again prominently before the horticultural world. The matter covers so broad a field that it is possible to touch but briefly upon its varying phases within the limit of a monthly publication. M. Vilmorin aptly says that the task of the improver of cultivated plants is not to create new species,

but to establish and fix in known species well-defined and constant races possessing distinct characters which may render them useful or agreeable to man.

In No. 1 of volume 11 of the Experiment Station Record, is an article on the subject of selection of plants, by M. Vilmorin. He shows the striking example of the variations that selection can develop by reference to the cultivated forms of Brassica oleracea, a plant native to the coasts of Western Europe. The simplest form of the cultivated plant is found in the cabbages, conical, spherical, flattened, red and green. Then there are the forms of headless cabbage known as kale, differing widely in respect to size, shape and color. The stem of Brassica oleracea, by selection, has been thickened to form a food for cattle. If, instead of affecting the entire stem, the swelling is localized, a little distance above the ground, the kohlrabi is formed, the varieties of which are numerous, large or small, early or late, white or violet. The top root may be thickened by selection, too, and the turnip-rooted cabbage and ruta-baga have been formed. The floral branch of Brassica oleracea is very thick and when young is tender. Italian gardeners, by a careful selection of seed created the very characteristic modification known as the cauliflower, in varying forms, early or late, white, yellow, rose, or violet, hardy, tender, large and small.

It should be noted, says M. Vilmorin, that, in the various forms, but one organ is enlarged. If this organ is the root, the leaves and the petioles are proportionately diminished in size, and serve only as auxiliary organs to the root. It is very difficult in general to develop two organs at the same time, to any great degree, in the same plant.

If plants did not vary there could be no selection. Every modification that a plant shows is not necessarily worth fixing. M. Vilmorin's entire article is highly interesting to a student of horticulture. Up to the present time, says M. Vilmorin, selection has been applied particularly to annuals or biennials, plants in which generations follow each other rapidly. Under the management of corporate bodies it could be applied to forest trees. And the selection of buds from bearing trees, as well as choice specimens, is being urged in the propagation of fruit trees.

In his series of essays on the survival of the unlike, Professor L. H. Bailey cites many interesting cases of his observation of the behavior of plants under the hand of man. Intensely interesting, also, to any worker in horticulture, is Professor Bailey's sketch of the evolution of our native fruits.

The role of selection has been of the greatest importance in the past; it will continue so in the future. Every nurseryman must, perforce, be a better nurseryman after a study of the writers named and other authors upon kindred subjects.

AGE OF APPLE TREES.

The question as to whether it is better to plant one-year-old or two-year-old apple trees has been at times quite thoroughly discussed in our columns by some of the most prominent horticulturists of the Northwest. The question has been recently taken up by the Western Fruit Grower of St. Joseph, Mo. It has obtained and published the opinions of many prominent fruit growers, nurserymen and others on the subject, but there is nothing like an agreement of opinion on the question.

Major Frank Holsinger of Rosedale, Kansas, would, other things being equal, plant apple trees three or four years old. N. F. Murray, of Oregon, Missouri, says two-year-old apple trees do better than small one-year olds, but well grown one-year-olds have many advantages and will give satisfaction in planting new orchards. Prof. John Craig, of the Iowa Agricultural College, is not very definite in his statement and evidently believes that it depends upon other conditions whether it is better to use one-year-old or two-year-old trees.

Peter Youngers, Jr., of Geneva, Neb., prefers trees two years old. J. C. Evans, of North Kansas City, Mo., would make no difference as the advantages just about offset each other. F. Wellhouse, of Topeka, Kansas, prefers two-year old trees. Prof. Whitten, of the Missouri Agricultural College, ordinarily prefers to plant trees two years old, but knows a good many successful horticulturists who prefer first-class yearlings. Silas Wilson, of Atlantic, Iowa, says that yearling trees are all right if the land on which they are planted is planted in some kind of a hoed crop, but if the ground is to be sowed with oats or wheat or planted with corn, two-year old trees should be used. Prof. Budd recommends yearling trees and so does T. T. Lyon. H. E. Van Deman likes a one-year-old tree. W. L. Hall, of Anthony, Kansas, would plant yearling trees if he could secure those which had made vigorous growth. R. J. Bagby prefers trees one year old, but says that the finest trees are those which are cut back at the end of the first year and then allowed to grow another year in the nursery, giving a one-year top on a two-year root. Stark Bros. prefer strongly-rooted, well-grown, one-year budded trees. Mr. Butterfield's choice is a medium-sized two-year-old tree.

The foregoing opinions all relate to apple trees. In the case of plum, peach and cherry trees when any preference was expressed, it was for trees one year old.

AMERICAN POMOLOGICAL SOCIETY.

For fifty years the American Pomological Society has worked earnestly for the advancement of horticulture in America. Europeans learn with amazement that fruit is not a luxury in this country; that the poor and the rich alike enjoy its use. This result has been brought about by the American Pomological Society which held its twenty-sixth biennial meeting in Philadelphia last month. The attendance was unusually large, the fruit exhibit the best shown by the society in years.

There was a formidable programme of papers on subjects more or less directly connected with pomology. The college professors and the experiment station men were much in evidence on the programme. Some of them admitted what was quite generally felt—that there may be too many papers by these men on a horticultural programme. It was this feeling, freely expressed at the annual convention of the American Association of Nurserymen in Chicago last June, that resulted in the determination to have fewer long papers on the programme and more discussion incident to the opening of a question box.

Prominent nurserymen took prominent part in the Philadelphia meeting and C. L. Watrous, Des Moines, Ia., was re-elected president. The next meeting, in 1901, may be in Buffalo.

THE PASSING OF THE SCALE SCARE.

It is with much satisfaction that the NATIONAL NURSERYMAN notes the comment upon all sides of the decadence of the San Jose scale scare. Two years ago we were told that by the end of 1899 the country would be overrun with this pest and that unless restrictive legislation were secured in the states and at Washington, the orchards of the Union would be doomed. Certain over-zealous entomologists went so far as to meet in Washington and prepare a bill for introduction in Congress which was to strike a deadly blow at the nursery trade on the first of July following. The NATIONAL NURSERYMAN instantly and vigorously objected to any legislation in which the nurserymen of the country were directly interested, without an opportunity for the nurserymen to be heard in the matter. That bill was dropped and its promoters were obliged to meet the nurserymen in annual convention and listen to the opinions of representative men in the nursery trade. The result was a federal bill of far different mien. The matter proceeded orderly and as it should.

And wherever the hydra headed enemy of the legitimate nursery trade appeared, this journal instantly turned the light of publicity upon it, believing that the only way to fight it effectively was to fight it openly. There was no attempt to stop the making of San Jose scale laws; but we contended constantly that in the making of such laws, due regard should be had for the interests of one of the most important industries of the country.

We have waited in vain for some indication that the San Jose scale was spreading rapidly from state to state and that whole orchards were being devastated. That was what we were promised. We have admitted that there might be conditions under which the scale would spread rapidly, but we have maintained that the nurserymen could be trusted to preserve their trade to such a degree that those conditions would not result.

Two or three entomologists started the scare and continued it. To the credit of the profession it should be said that some of the most prominent entomologists discounted these efforts, almost from the start. And now at the close of 1899, President C. L. Marlatt, at the recent convention of the Association of Economic Entomologists in Columbus, O., said:

The last few years have witnessed a most remarkable expansion of the policy of organized warfare against insect pests, which is mainly due to aroused public attention to the ravages of a single insect—the San Jose scale. Is not the fight against insects comparable with the historic royal command to the tide to cease its rising? In a state of nature, we find plants and insects flourishing together for ages, and this suggests that nature may establish a balance of forces without the assistance of man, and leads us to inquire whether repressive measures may not be to a great extent futile, and that a *laissez faire* policy may be more generally applicable than some suppose. Instances of special damage by injurious insects are rare, in comparison with the large number and variety of such insects. Special plant cultures have endured for thousands of years without serious injury from insects, *e. g.* olive trees, grapes, citrus trees. It is only a question of time when the apparently exterminated insect returns. Local control is the best system of economic entomology. General and governmental effort may assist the operation of natural law by introducing parasites, and to some extent excluding pests, but for the most part local control is preferable.

The NATIONAL NURSERYMAN, it may be argued, is prejudiced in the interests of the nurserymen and against restrictive laws. But what say the journals devoted to the interests

of the orchardist who has been told by the entomologist to beware of nursery stock? We have repeatedly quoted the opinion of the Rural New Yorker that the San Jose scale scare was out of all proportion to the actual conditions. And now the Country Gentleman says under the caption "The Awful San Jose:"

It is to be hoped that the practical fruit-grower has not missed the pith of that very important discussion indulged in by the Economic Entomologists. When a man with the standing and reputation of C. L. Marlatt boldly discusses in his presidential address the question whether it would do just as well to let the San Jose scale slide, taking a little less anxious thought for the morrow, there is some meaning in the situation. It has appeared to many outsiders that some entomologists have been magnifying the scale scare, sometimes from natural over-enthusiasm, sometimes to make an honest penny. Now the leading entomological society of America frankly asks whether all these inspections, quarantines and red tape are worth while. Are they? We don't know any more about it than the Economic Entomologists do; but for the present let us keep our heads and our digestions, and attend to our orchards as well as we can, scale or no scale.

These are representative journals and they express the general sentiment on the subject. And it is general sentiment that may be depended upon always.

Due diligence in endeavoring to prevent damage by the San Jose scale in localities should be observed, as in the case of any injurious pest.

DEVELOPMENT OF BUDS.

At the Philadelphia meeting of the American Pomological Society Professor W. R. Iazenyby of Columbus, O., presented a paper on "The Origin and Development of Buds on Fruit Trees." Fruit buds are of three kinds—1) leaf buds from which new shoots are developed; 2) flower buds, which consist of undeveloped flowers, and 3) mixed buds, from which both shoots and flowers may come. It will be seen that leaf buds are concerned in the growth of the plant on which they are born, while flower buds result in the development of new individuals. Fruit buds may be divided into two groups—1) buds formed the same year they open, and 2) those developed the previous year. They may be either lateral or terminal, the lateral buds being most common on peach and nectarine, while those of the apple, pear and plum are usually terminal.

The flower buds toward the end of the branches of peach trees seldom develop. All of the buds at a node on peach trees may be flower buds, but when three are present the center one is a leaf bud. Although the flower buds do not, as a rule, open until a year after they form, in some instances open in the fall of the same year, and during warm periods in the winter they enlarge so as to be one-eighth of an inch long by February 1. Many varieties produce about the same number of buds, and there seems to be a definite relation between the number of the two kinds of buds, the leaf buds usually constituting from 35 to 46 per cent. of all the buds on a tree.

During the growing season there is little difference between the flower and leaf buds of the apple. As a rule those on the new shoots are leaf buds, while the fruit buds are in short fruit spurs. The leaf buds of plums are generally smaller and more pointed, and the flower buds are in spurs. As a rule, the leaf buds are closely appressed, while the oval flower buds stand out from the branches. On some sorts the buds are in threes at the base of the shoots and are solitary towards the tips. In the pear there are six to nine flowers in a bud, and

there is little difference between leaf and flower buds. The form of the leaf buds in different varieties is more constant than is the form of the fruit, and one familiar with their appearance can rely upon the buds to determine the varieties. Cherry trees develop their buds one year and open them the next. They are usually three to eight in a fruit spur, with a leaf bud at the tip. Grape buds are borne on wood of the same year's growth, and are on the first new nodes opposite leaves. When a tendril is opposite a leaf, no fruit buds will be found further along on the cane. Leaf buds may be changed to flower buds and flowers to leaf buds at any period of their growth. The development of flower buds can often be brought about by summer pruning and other operations that check the growth of the trees.

CEMETERY SUPERINTENDENT TO NURSERYMAN.

David Z. Morris has resigned the position of superintendent of Mt. Hope Cemetery, the largest in Rochester, N. Y., to accept a position in Brown Brothers' nursery business at Welland, Ont. Edward Morris, formerly the representative of Brown Brothers in Chicago, will also be connected with the Welland office.

Mr. Morris has been superintendent of Mt. Hope Cemetery for ten years. Under his direction the cemetery has become self-supporting. It is declared to be the largest cemetery in the country, outside of New York and Philadelphia, having about 215 acres, and there have been in it about 60,000 burials. It has been in use constantly since 1838, and is the only place for the interment of Protestants in Rochester. This accounts for the great number of graves there located, and for the large tract devoted to the cemetery.

HARDY PLUM STOCKS.

The list of plums that Mr. Frankland sends from Manitoba is truly something of a surprise, says H. A. Terry, Crescent, Ia., in Fruitman. But Mr. Frankland's trees are probably all worked on Americana stocks, which will account for their hardiness, as I have yet to find any native plums on their own roots, or worked on Americana roots that were winter killed last winter. A great many nurserymen have for several years past been using Mariana roots to graft plums on, and Mariana being in the Myrobalan family, it has almost invariably root killed all over the Northwest. I have hundreds of trees in my plum orchard large enough to bear a bushel of fruit each that are on Myrobalan stock, and all are dead, but not a tree in my orchard on Americana roots is dead. I find this is the case all over our state, and also in Nebraska, Dakota, Minnesota, etc.

It seems to me that nurserymen should learn a lesson from this fact and use the native roots for working plums. The Wild Goose and some other Chicasas on their own roots are badly injured, and some of them killed outright. Of cherries, all my trees on Mazzard roots are killed, while those on Mahaleb are many of them a good deal injured, but will probably recover, but those on their own roots, and on purple Morello and late Richmond roots, are not injured in the least. We need hardy stocks to endure our "test winters." The Wild Goose on own roots will most of them recover.

From Various Points.

J. E. Ackerman, Passaic, N. J., invites proposals for supplying about 4,000 shade trees for street planting by the city and mails specifications upon request.

At the second annual meeting of New England Park Superintendents last month at Providence, R. I., J. H. Pettigrew, Boston, was elected president; G. A. Parker, Hartford, secretary; J. A. Hemingway, Worcester, treasurer.

At the Paris Exposition will be exhibited views of propagating houses and beds, fields of growing nursery stock, methods of propagating, planting, pruning, spraying, cultivating, digging, grading, packing, shipping and storage of nursery stock.

A new cherry maggot, unlike the grub of the plum curculio has been discovered in Massachusetts and New York. Prof. Slingerland of Ithaca is unable, at present, to identify it positively. It is found in the fairest of the fruit, and no point of entry is indicated. It will prove a difficult pest to fight.

The dutiable imports of plants, shrubs and vines amounted to \$31,969 in May, 1899, and \$751,247 during the eleven months' period of 1899. The free imports of seeds amounted in May to \$41,071 against \$40,434 during May, 1898. The total for eleven months amounted to \$722,656 during 1899, as compared with \$659,618 during 1898.

Seventy-five members, from 18 states, attended the thirteenth annual convention of the Association of Cemetery Superintendents at New Haven September 6-7. The association has 147 members. The new officers are: President, William Stone, Salem, Mass.; vice-president, George M. Painter, Philadelphia; secretary and treasurer, H. Wilson Ross, Newton Center, Mass.

Walter N. Allen, Topeka, Kan., is enthusiastic over the Farmers' Federation of the Mississippi Valley. He says that Kansas will produce this year nearly 400,000,000 bushels of corn, and other states of the Mississippi Valley will have large crops. Left to themselves, the farmers would put this vast crop upon the market within a few months. He proposes a farmers' trust with 2,000,000 shares at \$10 each. He says the cost of commissions for marketing farm products is over \$21,000,000 and that the Farmers' Federation can do it for \$1,000,000.

A despatch from San Francisco, September 9, says: The largest single raisin deal in the history of the California Raisin Association was carried out at Fresno last week, when 125 carloads of three-crown standard loose Muscats were sold for over \$100,000. Later other sales were made, with result that 145 carloads were sold for \$115,000, practically cleaning up the crop of 1898. Another large sale was of prunes, at Visalia—410 tons on the Encina ranch to one buyer, at 24c. per lb., less 5 per cent. commission. Up to September 1 the shipments of fresh deciduous fruits from this state were 4,261 carloads.

Foreign Notes.

Thomas Lunt, a successful grape grower, of Scotland, won the gold medal and first prize in the great grape class at the Shrewsbury show in England recently. He is also a noted grower of chrysanthemums.

J. R. Pearson & Sons, the well-known nurserymen, at Chilwell, England, have established new nurseries, 100 acres in extent, at Lowdham. In round numbers the firm has 300,000 fruit trees for sale each season, but as the demand for the more popular apples is on the increase these figures are being increased to meet it. At Lowdham are 23,000 apples on the Paradise stock; 20,000 standard apples; 100,000 standard plums; 5,000 dwarf plums and 22,000 espalier trained trees.

Of the fruit crop in England the Gardeners' Chronicle says: The failure in apples is extraordinary. Pears are worse still, but these have not the same commercial significance as either apples or plums. No fewer than one hundred and ninety-nine correspondents in England (out of two hundred and thirty-eight) note the plum crop as below average, and only two record it as over. Cherries are a little better. Small fruits including currants, gooseberries, and raspberries, better still.

Obituary.

Philip H. Alburger, proprietor of the South Laurel Hill Nurseries, Philadelphia, died on September 9.

Alfred Henderson, eldest son of the late Peter Henderson, and president of the corporation known as Peter Henderson & Co., 35 Cortland street, New York, died September 5 at Spring Lake, N. J., aged 47.

T. Francis Rivers, the well-known introducer of many choice fruits, died at Sawbridgeworth, England, August 17, aged 68. Among his introductions were, in peaches, Early Louise, Early Rivers, Early Beatrice, Alexander, Waterloo, and Gladstone; in nectarines, Lord Napier, Early Rivers and Cardinal; in plums, Grand Duke, Monarch, The Czar, Early Rivers; in pears, Conference, Magnate, Princess, and Fertility; in apples, Rivers, Codlin, St. Martin's and Prince Edward. The Early Rivers cherry is considered one of the most valuable early sorts. Mr. Rivers was the second Victoria medalist and chairman of the British Fruit Growers' Association.

Henri Leveque de Vilmorin, whose death we announced in our last issue, was 57 years of age. With Edward Andre and Edward Pynaert he first became known to British colleagues at the great horticultural exhibition and congress of 1866. He was from that time a prominent figure at the principal continental horticultural gatherings and regularly visited the trial grounds and seed farms in Italy and in France. He was highly regarded by a host of friends. He was a prolific writer on horticultural subjects. He was the head of the largest and most historic seed firm in France. He was honored abroad as well as at home. He was first vice-president of the National Horticultural Society of France, at one time president of the Botanical Society, an officer of the Legion of Honor and of the Merite Agricole, a member of the Royal Horticultural Society, and a recipient of the Veitch medal in 1896. The family of Vilmorins from the time of Philippe Victor Leveque de Vilmorin, grandfather of Henri, has been noted in horticultural work. Philippe died in 1804. To him succeeded Pierre Louis Francois de Vilmorin, the father of Henri, a correspondent of the Institute of France. He died in 1862, aged 86 years. The remarkable arboretum created by him at Barres, is now the property of France. Madame Elisa Vilmorin, wife of Louis and mother of Henri, enjoyed a high reputation as an experimentalist. Her observations on the strawberry are classical and were summarized by Decaisne in his "Jardin Fruitier du Museum." They were accompanied by beautiful illustrations from her pencil. She died at Vervieres in 1868.

THE STERILITY OF FRUITS.

"So many of our fruit trees fail to produce blossoms that set fruit that it is becoming quite essential to find out the cause and remedy if possible," says S. W. Chambers in Michigan Farmer. "We have heretofore attributed the cause chiefly to the climate. Bad weather at the time the blossoms open has been blamed for a host of troubles that the weather probably had little to do with. We are just beginning to realize that it is the lack of proper pollenization of the flowers that causes much of this lack of proper fruit setting. So many of our fruit blossoms have defective pistils that it is impossible for them to produce fruit, and on some varieties the pollen is held in such small quantities that it is impossible to scatter it over the pistils that need it.

"Our plums and pears have fewer well developed pistils than most other fruits. As a rule there are plenty of these trees that yield flowers with an abundance of pollen, but comparatively few with perfectly developed pistils. What we need today is for the nurseryman to sell us varieties which are noted for perfect pistils. Such varieties could be obtained with a little care of selection and breeding. Some nurserymen have made fair experiments in this direction, and we may hope for better things in the near future."

GRIFFING BROTHERS' NEW OFFICE.

Griffing Brothers Company have removed their headquarters from Macclenny to Jacksonville, Fla.

The object of this move is to facilitate managing the business part of their extensive nurseries, and to be more centrally located for the new branches they have just added to their business, namely: A mail order seed department, offering a complete line of garden and field seed for the entire South; a poultry establishment; a mail order implement and supply department. All their nursery stock is grown at Macclenny, with the same careful attention as in the past, together with such seed as it is practical to grow in that climate.

NURSERY STOCK INSPECTORS.

Secretary of Agriculture Hamilton at Harrisburg, Pa., has announced the appointment of the following inspectors of nursery stock in Pennsylvania for the year ending July 31, 1900: George C. Butz, State College, for the Western District of Pennsylvania; Prof. S. B. Heiges, York, for the Southern District, and F. M. Bertram, 21 South Twelfth street, Philadelphia, for the Eastern District.

Professor S. T. Maynard says that the old varieties of apples are running out and cites the Baldwin as an example. The varieties which he calls new, and which he says are coming more into vogue, are Sutton, Palmer, McIntosh, Wealthy and Gano. None of these, except possibly the last, is in reality new. All are good, says the Country Gentleman. Palmer, is little known, except locally. We suppose that this is the same as Palmer Greening, or more properly, Washington Royal.

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

HERMAN BERKMAN, SOLE AGENT.
39 AND 41 BORTLANDT STREET, NEW YORK.

Sole Agent for United States and Canada.

I HAVE

2,500 FIRST-CLASS PEACH TREES

(Aug. buds) I will exchange for 2 yr. Pear and Apple trees; information, write

F. M. CREW, - COLLEGE PARK, MD

WANTED!

A position in some good nursery as Book-keeper or general office work. Can do most any work required in a nursery office. Have had over ten years experience in nursery work, both office and out side work. Am strictly temperate. Correspondence solicited. Address X27, care NATIONAL NURSERYMAN. References given.

To Nurserymen

New crop of British Columbia broad leaved Maple seeds by mail. Leaves frequently grow 18 inches in diameter. Write for prices. Address

M. J. Henry, Nurseryman, Vancouver, B. C., Can.

When writing to Advertisers mention The National Nurseryman.

Long and Short.

F. James, Ussy, France, offers French fruit tree stocks. Labels in great variety at Benjamin Chase's, Derry, N. H. Peach pits, crop of 1899, at Stark Brothers' Nurseries, Louisiana, Missouri.

Small fruit plants and Japan plums at the Milford Nurseries, Milford, Del.

Standard stock can be had of A. L. Brooke, North Topeka, Kan., strictly wholesale.

J. Van Lindley Nursery Co., Pomona, N. C., has staple stock that many will need.

Apple seedlings in most grades may still be had of F. W. Watson & Co., Topeka, Kan.

Grape cuttings in leading varieties can be had of Lake View Nursery Co., Sheridan, N. Y.

Rattan hot-bed mats at Heywood Brothers and Wakefield Company's, Buffalo, N. Y.

The Prairie City Nursery, Ripon, Wis., has Downing and Victoria, two and three year.

Jackson & Perkins Co., Newark, N. Y., have an attractive announcement in another column.

Natural peach seed and peach trees by the 100, 1000 or carload may be secured of J. G. Harrison & Sons, Berlin, Md.

A new crop of British Columbia broad-leaved maple seeds will be sent by mail by M. J. Henry, Vancouver, B. C. A sample leaf sent to Rochester measured over a foot in diameter.

A typographical error in the September number of the NATIONAL NURSERYMAN made the address of F. M. Crew read College Park, Ind., when it should have read College Park, Md.

Grape Cuttings By the 1,000 or 100,000.

Growers will do well to submit us a list of their wants before purchasing. Can supply all of the leading varieties. Write for Price List.

LAKE VIEW NURSERY CO., - Sheridan, N. Y.

J. Van Lindley Nursery Co.,

POMONA, N. C.

Some Staples that many will need, Fall, 1899, and Spring, 1900.

CHERRY, 2 yrs., $\frac{3}{4}$ to $\frac{1}{2}$ and $\frac{1}{4}$ to 1 inch. Ey. Richmond, May Duke, Olivet, Wragg, Hoke, Emp. Eugenie, English and Common Morello, Reine Hortense, Smith's Big, Napoleon, Ey. Purple, and others.

JAPAN PLUMS, 2 yrs., $\frac{3}{4}$ to $\frac{1}{2}$ and $\frac{1}{4}$ to 1 inch. Wickson, Willard, Red June, Kelsey, Berckmans, Abundance, Chabot, Normand and other Japs. Wild Goose, Yellow Wild Goose, Golden Bty., Whitaker, Mrs. Clifford, Shropshire, Damson, etc. All varieties Japs, in yr., medium stock.

PEACH TREES, large stock, leading varieties, especially Carman, Emma, Klondike, Greensboro, Triumph, Elberta, Waddell, Chairs Choice, Salway and 52 other varieties.

3,000 BEAUTIFUL 2 YR. KEIFFER PEAR. This is an item that will strike many.

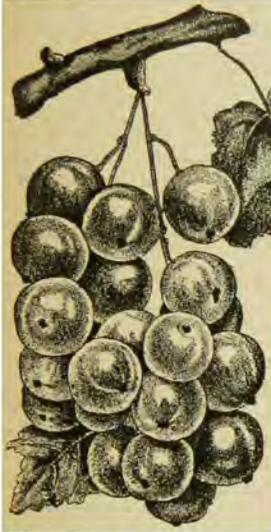
In Apple have on surplus in **YORK IMPERIAL**, Bonum, Va. Beauty, Albemarle, Phippen, Baldwin, and Red Limbertwig. Nice 2 yr. medium stock, 4 to 5 ft.

Unusually fine stock Silver Maples, Carolina and Lombardy Poplars, three grades.

NATURAL PEACH PITS, CROP OF 1899. A few hundred bu. to offer. Give lists of wants and write promptly for prices.

When writing to Advertisers mention The National Nurseryman.

The Pomona Currant



The best specialty for the Agents. Why? Because it is the best money maker for the people to plant. It is best in quality. Its returns come in the quickest and surest. These being the qualities the planter is after, he buys it. With hardly an exception, though thoroughly tested in the leading sections and beside the new highly praised and older sorts has the POMONA proven its superiority in quality, vigor and productiveness, showing it to have no superior, if an equal, for profit to planter, and general adaptability to different sections.

One grower in 1898 picked from 13 acres of Pomona, 3 to 5 yr. set, over 5000 24 qt. cases, realizing a net profit of over \$180 per acre. Compare this with what you have realized for your fruit or from crops grown under ordinary field culture.

Introduced and for sale by us.

Send for circulars, plates, terms, etc. Prices on application.

Address **Albertson & Hobbs,** BRIDGEPORT, Marion Co., INDIANA.

Crimson Rambler.

We are Headquarters for this Valuable Climber, and will be pleased to receive inquiries from all who may need strong, dormant plants.

WRITE US AT ONCE,

stating how many are needed, and we will make good figures.

BROWN BROTHERS COMPANY,
ROCHESTER, N. Y.

GRAPE VINES AND CURRANT PLANTS

Highest Standard of Grades.

LARGEST STOCK AND LOWEST PRICES.

Correspondence Solicited.

WHEELOCK & CLARK, FREDONIA, N. Y.

When writing to Advertisers mention The National Nurseryman.

The Wonderful New

McPike Grape

has not only captured all Premiums wherever exhibited, but has won new laurels by passing through last winter of 27 degrees below zero, in better condition than Concord, Worden or Moores Early, and is loaded with a fine crop of Grapes.

SEND FOR PRICE LIST.

SILAS WILSON,

Successor to Silas Wilson Co.,

ATLANTIC, IOWA.

600 Acres. Established 1853.

High Grade Trees.

We offer our usual assortment of carefully grown trees and shrubs for the Autumn of 1899. All the most approved and beautiful varieties are our specialties. Exceptional care taken in grading and packing. Send for New Trade List.

HOOPES, BRO. & THOMAS,

Maple Avenue Nurseries.

West Chester, Pa.

PEACH TREES.

We have for fall and spring trade a fine block of well-grown peach trees; all the leading western varieties.

APPLE SEEDLINGS

grown on new land and free from Aphid.

SHADE TREES,

large and small, together with a general line of nursery stock, including

Forest Tree Seedlings, Osage Hedge Plants, Ornamental Trees, Shrubs, Etc.

APPLE GRAFTS MADE TO ORDER. PRICES RIGHT
Correspondence solicited.

YOUNGERS & CO.,
GENEVA, NEB.

When writing to Advertisers mention The National Nurseryman.

The Syracuse Nurseries

...THE WORDEN SECKEL PEAR...

One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

SMITHS & POWELL COMPANY,
SYRACUSE, N. Y.

Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

GRAPE VINES

ALL OLD AND NEW VARIETIES. Immense Stock, Warranted True QUALITY UNSURPASSED. A fine stock of Campbell's Early Vines at low rates. Send list of wants for prices.

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

100,000 MYROBOLAN, No. 1,
100,000 PEAR, - - " 2,

in perfect condition and ready for immediate shipment. Write for particulars.

HIRAM T. JONES, - - Union County Nurseries,
ELIZABETH, N. J.

The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both bulap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneberry and Huckleberry. Z. K. JEWETT & CO., Sparta, Wis. included. Ask for prices and terms.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut, - - KANSAS CITY, MO.
PROPRIETORS OF THE

LEES SUMMIT NURSERIES.

A full line of stock for wholesale and retail. Correspondence solicited.
The only practical Box Clamp in use at low price.

[ESTABLISHED 1876]

ALLEN L. WOOD,
Rochester, N. Y.

EXTRA FINE PLANTS At Wholesale.

The Largest Stock of CURRANTS, GOOSEBERRIES, RASPBERRIES, BLACK-BERRIES, Etc. In the United States.

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

CHARLES DETRICHE, Senior,
ANGERS, FRANCE,

Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc. Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.

Sole Representatives for the United States.

Mr. Detriché would be glad to receive any horticultural catalogues or papers. When writing to advertisers mention The National Nurseryman.

SAN JOSE SCALE, CURL LEAF,

And other orchard and garden pests can absolutely be controlled by using

"U. S. STANDARD"
Caustic Potash Whale Oil Soap.

A positive Insecticide and Fertilizer. Recommended by Entomologists, and a guaranteed article. Send for circular and price list.

MANUFACTURED ONLY BY

W. H. OWEN, CATAWBA ISLAND, O.

Honey Locust Hedge, Most Ornamental for Parks and Lawns.
Strong and handsome for farm fencing. Hardy for cold climates.

Easy seller at good profits. Put your agents on to it. Plates of this beautiful Hedge to sell from, furnished cheap. OSAGE ORANGE HEDGE and plates also.

WRITE FOR PRICES AND TRY THEM.

A. E. WINDSOR, - - - - HAVANA, ILLS.

Ornamental TREES

LARGE SMALL

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSERYMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled SPHAGNUM MOSS. No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

Wabash R. R.

Offers Unexcelled Service to the WEST.

4 Daily Vestibuled Trains, BUFFALO to CHICAGO.

3 Daily Vestibuled Trains, BUFFALO to ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.

Full information regarding rates, etc., cheerfully given.
...Address...

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JAMES GASS, N. Y. S. P. A., 287 Main, Buffalo, N. Y.
R. F. KELLEY, G. A. P. D., 287 Main, Buffalo, N. Y.

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1864-1899

University Avenue Nurseries,

ROCHESTER, N. Y.

JOHN CHARLTON & SONS.

Offer for Fall of 1899:

Bismarck and a full stock of other apples. Abundance, Burbank, Monarch, and other plums. Lincoln Coreless, and other pears, standard and dwarf. Fuller's, Bogart, Reas' Mammoth, and other quinces. Currants, Gooseberries, Blackberries and Columbian and other raspberries.

A large stock of XX Diamond Grape, and other vines—strong retailing plants—Flowering Shrubs, Roses, Pæonies, Tree Althea—fine plants—Tree Lilac, Tree Hydrangeas, Weeping Lilac, Altheas, Hydrangeas, Weigela Variegata, Tree Pæonies, etc.

Golden Glows, large, strong plants, for retailing at one-half price.

Clematis—a choice lot, Dutch Pipe, Honeysuckles, etc.

JOHN CHARLTON & SONS,
ROCHESTER, N. Y.

SEND US A LIST OF YOUR WANTS.



4 1/2 IN. YEAR.
SPAUDLING GROWN TREES & PLANTS

Large assortment, select sorts. Fruit Trees, Fruit Plants, Shade and Ornamental Trees, Evergreens, Roses, Shrubs, Vines, Bulbs, etc.

Write for Catalogues

Spaulding N. & O. Co.
SPAUDLING, ILL.

Apple, Cherry, Std. and Dwf. Pear PLUM, APRICOT, QUINCE.

Get O-U-R Prices.

Glove Pruned Trees
Smooth bodies, Heads right, Grade right. Special offers for the Trade.

BLACKBERRY and Other Small Fruit Plants.
CAR. POPLAR,
H. P. Roses and Ornamentals.
SCIONS, CUTTINGS.

Cordage Burlaps
GET OUR PRICES.

Apple, Peach, Plum, Apricot, Carolina Poplar White Ash, Soft Maple,

... IN CAR LOTS ...
For Fall of 1899

Fine stock; bottom prices. Special inducements for early orders.

James Truitt & Sons,
CHANUTE, KANS.

WRITE FOR PRICES.

White Elm, 1 yr., Barberry, all sizes, Horse Chestnut, Soft Maple, 1 yr. Pæonies, Currants, Poplar Leaved White Birch, 6 to 8 ft. Mt. Ash, for lining out, Gooseberries.

A full line of Evergreens in seedling and transplanted stock, including a large percentage of the beautiful **COLO BLUE SPRUCE.**

GARDNER & SON, Osage Nurseries, - OSAGE, IOWA.

JAPAN PLUMS

A large stock Abundance, Burbank, Hale, and all standard varieties. New Varieties: America, Apple and Chalco a specialty.

FREIGHT PREPAID

to Philadelphia on all Northern and Eastern Shipments.

Peaches, Persimmons, Pecans, Mulberries, Figs, Field Grown Grafted Roses; both Teas and Hybrid varieties, and a general line of fruit and ornamental trees grown in large quantities.

High Grade Trees and Low Prices.

THE GRIFFING BROTHERS COMPANY,
POMONA NURSERIES. MACCLENNY, FLORIDA.

PIONEER NURSERIES CO.

ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

Eastern Agents, **PIONEER NURSERIES COMPANY,**
PHOENIX NURSERY CO., Salt Lake City, Utah.
Bloomington, Ills.

We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

40th YEAR.

Rosedale Nurseries,

Stanley H. Watson, Proprietor, **BRENHAM, Washington Co., TEXAS.**

Southern Fruits and Ornamentals. Figs, Japanese Persimmons, Pecans, Pomegranates, Cape Jessamines, Rosedale Hybrid Arbor Vitæ, etc.

FOREMAN WANTED NOVEMBER 1ST.

Everything in SMALL FRUIT PLANTS.

W. N. SCARFF, New Carlisle, O.

Catalogue and Price List ..Free..

F. JAMES, NURSERYMAN, USSY, (CALVADOS) FRANCE.

Offer in large quantities for this fall or spring delivery :

Fruit Tree Stocks, Forest Tree Seedlings, Norway Spruce, American Arbor Vitæ, Ornamental shrubs, etc.

NO AGENTS, which permit to offer at lowest possible rates. Kindly send your lists of wants. You will surely save dollars.

Dewey Comes Sailing Home

give our usual prompt attention to any further orders that may come our way.

BENJAMIN CHASE, DERRY, N. H.

and the prospective hilarity may cause you to overlook your label order if it is not placed before his arrival. We are pretty busy but can

**W. T. HOOD & CO.,
Old Dominion Nurseries,
RICHMOND, VA.**

We offer for Fall 1899, and Spring 1900,

Apple and Peach

As fine stock as can be grown, and a very full line of General Nursery Stock, Fruit and Ornamentals.

200,000 Peach Seedlings from Beds of Natural Seed.

NATURAL PEACH PITS.

We hope to have pits to offer in October, Crop of 1899.

Phoenix Nursery Co., Established 1852.
600 Acres.
13 Greenhouses.
Nurserymen and Florists.

SUCCESSORS TO SIDNEY TUTTLE & CO.
Eastern agents for Rossney Pear, the best and handsomest pear yet introduced. We have an unusually fine stock of Irish Juniper, 2 to 3 ft. and 3 to 4 ft., also a splendid stock Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses, all on 'own roots. Correspondence solicited.

Send list of wants for prices.
P. O. BOX 625.

BLOOMINGTON, ILL.

P. Sebire & Sons, Nurserymen,

USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myrobian Plum, Mahaleb and Mazzard Cherry, Angers, Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces, Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple, Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
SPRINGFIELD, NEW JERSEY.
SURPLUS OF

PEACH, PLUM, CURRANTS,

POPLARS AND SHADE TREES,

PRIVET, SHRUBBERY, EVERGREENS, ROSES.

HEADQUARTERS FOR NURSERY STOCK.

Baltimore and Richmond Nurseries,
BALTIMORE, MD.
FRANKLIN DAVIS NURSERY CO.
50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.
LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

Apple, Peach, Standard Pears, Plum, Apricots, Grap s. Shade Trees, Evergreens, Shrubs.		Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Raffia, General Supplies, &c., &c., &c.
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Look Out

for a sharp raise
in the price of

Apple Seedlings

The crop of good No. 1 stock is short.
We still have a fair supply of most of the grades.
We have also

Two Year Apple and Cherry.
One Year Peach and Plum.
Concord Grape and an extra
fine block of one year Kieffer
Pear 4-6 ft.

F. W. WATSON & CO.,
TOPEKA, KAN.

When writing to Advertisers mention The National Nurseryman.

Snowhill Nurseries.

W. M. PETERS & SON, Proprietors.
P. O WESLEY, WORCESTER COUNTY, MD.
Telegraph Office, Berlin, Md.

**Our Budded List of PEACH TREES Represents more
than a Million.**

Information as to varieties, quality, grade and price, cheerfully given. Your personal inspection invited.

EIGHT ACRES IN ASPARAGUS PLANTS,
One and two year old.

Donald's Elmira, Columbia Mammoth White,
Barr's Mammoth Palmetto, Conover Colossal.
30 Acres in Strawberry Plants, representing over seventy varieties.

PEACH BUDS.

In any quantity, cut from strictly healthy trees. Send us a list of your wants. Will make a special price on same.

Trade List and Descriptive Catalogue mailed free.

W. M. PETERS & SONS.
When writing to Advertisers mention The National Nurseryman.

Surplus for Fall, 1899—Spring, 1900.

FAIRMOUNT NURSERIES

TROY, MIAMI CO., OHIO.

Apple, good assortment, Cherry, 2 and 3 years, Plum, European and Japans, Std. Pear, Kieffer and others, Peach, leading sorts, Gooseberry, Downing & Houghton, H. T. D. Pear, Quince, Grapes, Currants, Rhododendro ns Azaleas, Clematis, Tree Roses, H. P. Roses, Climbing Roses, Carolina Poplars, Pyramidalis, Ornamentals, Evergreens, Etc.

We will also have our usual supply of

Apple Seedlings and other Stocks,

graded up to high standard, for shipment from either Troy, Ohio, or Topeka, Kansas.

Write us for rates before placing your order.

GEO. PETERS & CO.,
TROY, OHIO.

ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors, Angers, France,

beg to announce to the trade that their extensive spring sowing will enable them to supply for the Fall 1899 and Spring 1900, large quantities of first-class, well-graded **FRUIT SEEDLINGS** at lowest market prices, also a fine and complete variety of **ORNAMENTALS, ROSES, SHRUBS, Etc.** Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105-107 Hudson St., NEW YORK.

Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucretia Blackberries.

MILLER, LOUDON and TRIUMPH,
COLUMBIAN . . GREENSBORO and EMMA,

Raspberries.

and a full
assortment of

Wickson, Red June and Giant

Peaches

PLUMS. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond with us.
Our Catalogue will save you money.

MYER & SON,

BRIDGEVILLE, DELAWARE.

THE

Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.
ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.
RHODODENDRONS—Ponticum, Catawbiense, Named Hybrids.
PÆONIAS—Large Assortment, Named Varieties.
DAHLIAS—New Cactus, Large Flowering, Ponpon.

Full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, **CURRENTS**
GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA NEW YORK.

When writing to Advertisers mention The National Nurseryman.

E. T. DICKINSON & CO., CHATENAY SEINE, FRANCE.

Growers and Exporters, FRENCH NURSERY STOCKS,
has to offer.

Fruit Tree Seedlings and Ornamentals.

Pear, Apple, Plum and Cherry, and Angers Quince Cuttings.
All grown specially for the American trade.

PEAR AND CRAB APPLE SEED.

The most complete assortment of **Ornamental Stocks, Trees and Shrubs.**
Orders solicited and booked now at low rates.

E. T. DICKINSON & CO., 1 Broadway, NEW YORK.

THE AMERICAN FLORIST COMPANY'S

DIRECTORY FOR 1899,

Is now ready, revised and corrected to date, with 1336 names of new concerns. This book, issued every year at great expense, contains the names and addresses of all the Florists, Nurserymen and Seed Merchants in the United States and Canada. **Price, \$2.00.**

AMERICAN FLORIST COMPANY, Chicago, Ill, U. S. A.

THE
WILLIAM STREET NURSERIES

Offer for Fall 1899 and Spring 1900

Apples, Std. and Dwarf Pears, Cherries, Plums.
European and Japan; **Peaches, Quinces,**
Ornamentals, Roses, Shrubs, etc.

Send your want list to us before placing your order. We will please you not only in price and quality of stock, but also with satisfactory dealings in every respect.

J. RICE & SONS,
GENEVA, N. Y.

When writing to advertisers mention The National Nurseryman.

What About Peach Seed? Rather Scarce, Is it Not?

Better Write Us Immediately

As we shall have a fair supply of **NATURALS**, this year's crop. But it won't last long.
 Latest Importation of **RAFFIA** just Arrived.
 Prices a little lower than previous shipment.

New crop **Mazzard Cherry seed** now ready.

Thos. Meehan & Sons,
 GERMANTOWN, PHILA., PA.

Rattan Hot-Bed Mats.

OF GREAT VALUE TO EVERY NURSERYMAN.

For particulars address

Heywood Brothers and Wakefield Company,
 BUFFALO.

Apple, Peach and Japan Plum Trees.

Louden and Miller Red Raspberry.

BUDS IN SEASON.

40 kinds Japan Plums. 50 kinds Apple. 70 kinds Peach.

WEST JERSEY NURSERY CO.

STANTON B. COLE, - Bridgeton, N. J.

Everbearing Mulberries

Hicks, Russian, Downing, White English, New American and Ornamental sorts.

ONE AND TWO YEARS OLD.

FREIGHT PAID TO Cincinnati, Philadelphia, Memphis, Meridan, New Orleans or any other point where the rate does not exceed 60 cents per hundred pounds.

Stock Right. Grades Right. Prices Right. Write for List.

CAROLINA NURSERY COMPANY, Selma, N. C.

- 250,000 Miller Red Raspberry Plants.
- 300,000 Early Harvest Blackberry Plants.
- 150,000 Lucretia Dewberry Plants.
- 125,000 Strawberry Plants, from best leading sorts.
- 100,000 Peach Trees, one year from bud and June budded in surplus.
- 20,000 Japan Plums, one year from bud, also in surplus.

WRITE FOR PRICES.

MILFORD NURSERIES,

Alex. Pullen, Prop. Milford, Delaware.

- Norway Maple—2½ to 3 ft.
- Norway Maple—8 to 9 ft.
- White Birch—Extra Size.
- Cal. Privet—2 years; fine.
- Norway Spruce—5 to 6 ft.; fine.

- Carolina Poplars—12 ft.
- Carolina Poplars—Extra size.
- Osage Orange—1 yr.; cheap.
- Am. Arborvitae—5 to 6 ft.; fine.
- Peach Trees—5 to 7 ft.

Trees in quantities at low prices.

MALVERN NURSERIES, Malvern, Pa.

J. A. ROBERTS, Prop.

When writing to Advertisers mention The National Nurseryman.

NEW CANAAN NURSERIES.

We have to offer for the Fall and Spring Trade the

Largest Stock of Maples, Elms, Chestnuts, etc., in the Country.

Also 50,000 October Purple Plum, 1 and 2 years old; 30,000 Green Mountain Grape Vines from 1 to 3 years old; 5,000 Japanese Maples, 18 to 36 inches high. Currants in large quantities, and a general assortment of Nursery Stock. Orders solicited. Address

STEPHEN HOYT'S SONS,
 NEW CANAAN, CONN.

Stock for Fall of 1899.

- Am. Basswood,
- High Bush Cranberry,
- Cherry,
- White Birch.
- Am. Mountain Ash,
- Black Ash,
- Black or Sweet Birch,
- Sugar Maple:

Five, up to 6 feet.

Many other varieties. Let us know your wants. Large stock of Evergreen, both seedling and transplanted.

Evergreen Nursery Co.,

Former address: Evergreen, Wis. **Sturgeon Bay, Wis**

Vest pocket

5/8 CALIPER 3/4

H.S. WILEY CAYUGA N.Y.

Most convenient and practical
GALIPER
 ever offered. Endorsed by the trade generally. Best metal, never has to be adjusted. 15 cents will put one in your pocket.

H. S. WILEY, - Cayuga, N. Y.

A few thousand of Campbell's Early Grape Vines. A large stock of Clematis, leading varieties.

Not Quite a Million but an Immense Quantity.

Also a fine stock of Yellow Rambler Roses. Write for Prices.

P. W. BUTLER, East Penfield, N. Y.

PEACH PITS CROP 1899

We have secured a limited quantity of extra good seed. Write for prices, stating amount wanted.

STARK BROS NURSERIES, Louisiana, Mo.

Get our prices on the following Surplus Stock:

- 10,000 DOWNING, 2 yr. No. 1.
- 10,000 VICTORIA. " " 2,000 L. B. Holland 2 " "
- 5,000 VICTORIA, 3 yr. No. 1.

Address **PRAIRIE CITY NURSERY,**
RIPON, WIS.

H. P. MOSS AND CLIMBING ROSES

10,000 Gen. Jacqueminot, 5,000 Paul Neyron, 3,000 La France and other leading varieties, 2 ft. and up. Own roots.

CLEMATIS.

All the leading varieties in heavy 2 year, field grown plants. Write for prices.

GEORGE BROTHERS, EAST PENFIELD, N. Y.

When writing to Advertisers mention The National Nurseryman.

The Amount ...You Pay

FOR a thing is important, but what you get in return for your money is **TEN TIMES** more important.

Our Printed and Wired Labels are unequalled, but imitated. Being imitated only proves their supremacy.

Only good labels are imitated.

If you have not used our Labels it may pay you to write for samples and prices.

Dayton Fruit Tree Label Company,

DAYTON, OHIO.

NORTH TOPEKA NURSERIES.

STRICTLY WHOLESALE.

I offer to the trade for fall of 1899 and spring of 1900 a full line of stock, including

APPLE, Apple Seedling,
PEACH, French and Japan
CHERRY, Pear Seedling.

A LIMITED AMOUNT OF KEIFFER PEAR.
GOOD STOCK. GOOD GRADES.

A. L. BROOKE, - North Topeka, Kan.

NURSERY STOCKS

OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphus, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of *Fruit Tree Stocks*, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

Transon Brothers Nurseries

BARBIER & CO., SUCCRS., ORLEANS, FRANCE.

For Price List Apply to

KNAUTH, NACHOD & KUHNE, 13 William St., NEW YORK.

When writing to Advertisers mention The National Nurseryman.

BREWER & STANNARD,

OTTAWA, KANS.,

Offers to the Trade a Large and Complete Assortment of

NURSERY STOCK

APPLE,
PEAR, Std. and Dwarf,
CHERRY,
PLUMS, Japan and European
PEACH,
APRICOT,

Gooseberries, Grape Vines, Currants, Raspberries, Blackberries, Apple Seedlings, Forest Seedlings, and Osage Hedge Evergreens, 18 in. to 3 ft.

Ornamental Trees, Shrubs and Vines.

From Anywhere East

To Everywhere West

The Great Rock Island Rout

IS THE BEST LINE.

The Great Cities of

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

Great Convention cities throughout the country.

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G.E.P.A.,

Jno. Sebastian, G.P.A.,

305 Broadway, NEW YORK.

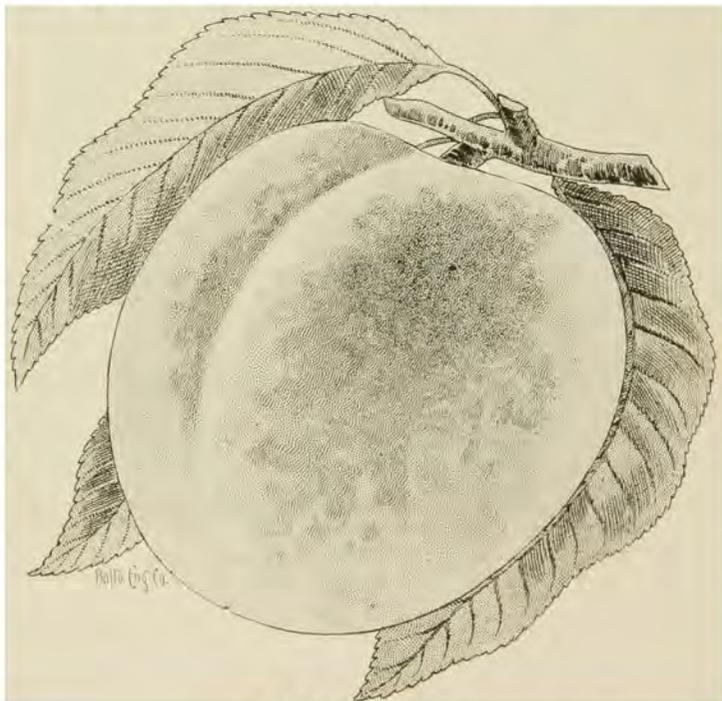
CHICAGO, ILL.

When writing to Advertisers mention The National Nurseryman.

Natural Peach Seed

Have a few more than will need to plant; will sell them at fair price, quality considered.

Peach Trees by the 100, 1,000 or Car Load.



VICTOR.

The originator describes it as the earliest peach known, ripening ten days earlier than the Sneed. The tree is a very vigorous, compact grower, a regular and immense bearer. The fruit is of a very pleasant sub acid flavor, equals the Alexander in size, ripens thoroughly and is a semi-cling. A seedling of the Chinese Cling crossed with Spanish blood, bordering on the Indian type. Ripened its whole crop of fruit in 1897 between May 8th and 16th on originator's grounds in Smith county, Texas. To confirm this statement we would say that the Victor is the earliest peach we have ever known to be in this State. We have received two specimens by mail coming in very good condition after being packed for fifteen days and they reached here on May 30th. The fruit is from medium to large for such an early peach, somewhat of the type of Chinese Cling, red blush, of excellent flavor, and for earliness we have not been able to find a peach that will excel this, and those who are looking for the earliest peach grown, by all means should plant Victor. The accompanying cut is from a photograph of the exact size. We are offering trees of this variety in June buds only, and will mail them anywhere in the United States. Write at once for prices.

J. G. Harrison & Sons,

Send list of
Wants this day.

BERLIN, MD.

General
List
of
Varieties.

PEACH.

Alexander
Amsden June
Barnard's Early
Bilyeu's L. Oct.
Bokara No. 3
Brandywine
Bray's Rareripe
Crawford Late
Crawford Early
Cone't So. Early
Champion
Chair's Choice
Crosbey
Connecticut
Chinese Cling
Elberta
Early Rivers
Early Heath
Early Michigan
Fox Seedling
Foster
Fitzgerald
Ford's Late White
Frances
Geary's Holdon
Greensboro
Gold Drop
Globe
Hill's Chili
Hale's Early
Kalamazoo
Lemon Free
Lewis
Lorentz
Levey's Late
Moore's Favorite
Magnum Bonum
McIntosh
Morris White
Mt. Rose
New Prolific

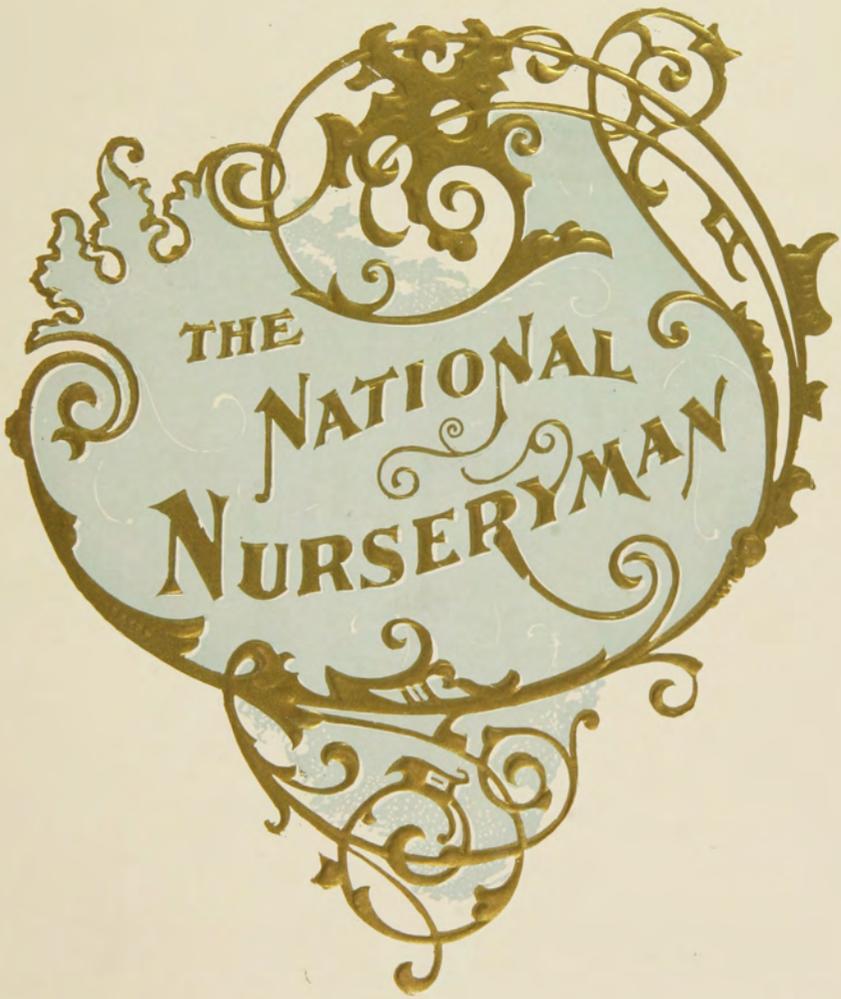
General
List
of
Varieties.

PEACH.

Old Mixon Cling
Old Mixon Free
Reeves Favorite
Stephen's R. R.
Smock
Salway
Snow's Orange
Stump the World
Sneed
Triumph
Troth's Early
Wonderful
Wheatland
Wager
Willett
Walkers's Var. Free
Wilkin's Cling
White Heath Cling
Water Loo
Yellow St. John

PLUMS.

Abundance
Burbank
Berckman
Chabott
German Prune
Hale
Normand
Ogon
Red June
Satsuma
Shipper's Pride
Tage
Wickson
Willard
Wild Goose
Shropshire Damson



November, 1899.

The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES.

Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.
Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphids, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

Headquarters for Ornamental Trees and Shrubs.

Will have the largest and finest stock of large **Carolina Poplars** for the coming fall trade which we ever offered. This is the tree for quick growth and to resist the smoke and gas in village, town and city.

Weeping Trees—Especially heavy in **Teas' Weeping Mulberry, Kilmarnock, Wisconsin, Babylonica and New American Weeping Willows, Camperdown Elm, Mountain and European Weeping Ash,** and a good stock of other weeping trees. Fine stock of high top **Rose Acacia.**

Roses, Roses, Roses—Forty acres in nursery rows, own roots and budded. None better. Greatly superior to the imported.

Greenhouse Department.

Consists of **Forty-four** houses filled with **Roses, Palms, Ferns, Ficus,** and other things too numerous to mention.

Holland Bulbs—Have large lots contracted with best growers that cannot fail to please customers.

Personal inspection and correspondence solicited.

TRADE LISTS AND CATALOGUES FREE.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE
**MOUNT
•• HOPE ••
NURSERIES,**

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

**LOUIS LEROY'S
NURSERIES**
(Established 1795.)
ANGERS, (M. & L.) FRANCE.
GROWER AND WHOLESALE EXPORTER OF
FRUIT, FOREST and ORNAMENTAL STOCK
Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.
Prices, catalogues and all other information can be obtained by addressing
AUG. RHOTERT,
SOLE AGENT,
26 Barclay Street, (P. O. Box 2250) New York.

KNOX NURSERIES.

(Established in 1851.)

We offer to the trade for Fall of 1899 the following No. 1 stock:

APPLE, 2 yr.

Ben Davis, Jonathan, Grimes, York Imperial, Gano, Wealthy, and a few other leading sorts.

PEACH, 1 yr.

Extra size, fine for small orders.

Heavy on Elberta, Heath Cling and Champion.

Snyder Blackberry, root cuttings.

Our stock was not injured by the cold winter.

Correspondence solicited.

Long distance telephone connection.

H. M. SIMPSON & SONS,
VINCENNES, IND.

LIST OF SPECIAL SURPLUS.

The following list consists of certain items which either are on land that we must clear this season on account of expiration of lease or else we have unusually heavy stocks that we desire to reduce quickly. For these reasons we are willing, for a short time, to sell at extreme prices. The stock is of our best grade and quality. Could not furnish any finer stock of the sizes given if the prices were doubled.

- Currants, 2 yr. No. 1**—Black Champion, Cherry, La Versailles.
currants, 2 yr. No. 1⁴, selected medium grade, fine stock—Black Champion, Cherry, Fay's Prolific, La Versailles.
- European Plums, (on plum) No. 1, medium and No. 2** mostly 2 years.
Bradshaw, German Prune, Monarch, Reine Claude, Empire State, Lombard, Niagara. Shippers Pride, Genii, McLaughlin, Prince Englebert, Yellow Egg.
- Standard Pears, No. 1, medium and No. 2, 2 and 3 years.**
Bartlett, Clapp's Favorite, Idaho,
Beurre Clairgeau, Duchess d' Angouleme, Koonce,
Beurre de Anjou, Flemish Beauty, Seckel.
- Dwarf Pears, 2 yr., No. 1 and Medium.**
Beurre de Anjou, Duchess d' Angouleme, Flemish Beauty.
Clapp's Favorite, Seckel.
- PENZANCE HYBRID SWEET BRIARS.**
Amy Robsart, rose. Lady Penzance, copper.
Anne of Gierstein, crimson. Lord Penzance, fawn.
Brenda, bluish-white. Rose Bradwardine, pink.
- CLEMATIS, 2 yrs., field-grown, XXX.**
(Write for prices stating assortment and quantities).
Jackmanni, purple. Ramona, sky-blue, very large
Madame Ed. Andre, red.
- SHRUBS.** On land that must be cleared; fine stock.
Althea, Variegata, 12-18 in. Berberry, purple, 2-3 ft.
Deutzias, 2-3 ft. (Crenata, Crenata flore pleno, Crenata fl. pl. alba.)
Halesia Tetraptera, 3-4 and 2-3 ft. Snowball, Japan, 12-18 in.
Spiræas, Billardii, 3-4 ft., and Douglassi 2-3 ft.
" Bumalda and Callosa Alba, 18 in.
Wisteria, purple, 3 yrs. XXX.
Norway Spruce, 18-24 in., 12-18 in. and 6-12 in. (On leased land must be cleared this season.)
Euonymous Europea, (Strawberry Tree), 6-7 ft.
- For our complete assortment including fine stock of *Ampelopsis Veitchii*, Evergreens, Herbaceous Plants, Roses, Shrubs, Ornamental Trees, Blackberries, Gooseberries, Quinces etc. Send for our Wholesale Price List.
Specialties—Iceberg Blackberry, Cumberland Raspberry.
Plates furnished free to customers for agents' use.

JACKSON & PERKINS CO., NEWARK, NEW YORK.

BREWER & STANNARD,
OTTAWA, KANS.,
Offers to the Trade a Large and Complete Assortment of
NURSERY STOCK

**APPLE,
PEAR, Std. and Dwarf,
CHERRY,
PLUMS, Japan and European
PEACH,
APRICOT,**

Gooseberries, Grape Vines, Currants, Raspberries, Blackberries, Apple Seedlings, Forest Seedlings, and Osage Hedge Evergreens, 18 in. to 3 ft.
Ornamental Trees, Shrubs and Vines.

When writing to Advertisers mention The National Nurseryman.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"In irrigation is the best promise of the West's future prosperity."

VOL. VII.

ROCHESTER, N. Y., NOVEMBER, 1899.

No. 10.

FALL SALES.

REPORTS FROM ALL SECTIONS OF THE UNITED STATES AND CANADA REGARDING SEASON'S TRADE.

An Unusually Busy Fall Season—Demand for Stock Unprecedented—Little Surplus for Spring—Sharp Advance in Prices Within Four Months is Confidently Expected—Nurserymen Generally are Greatly Encouraged by the Outlook—The Opinions of Leading Growers.

Following are reports of the season's trade from all sections of the United States and from Canada :

BRIDGEVILLE, DEL., Oct. 20.—Meyer & Son : " Fall sales have been about the same as last season, but prices have ruled better than for several years before, and some lines of stock are very scarce and high. There seems to be a tendency for better prices and the outlook for spring is very promising. We anticipate a heavy spring trade. The pear and apple crop has been very profitable to the growers in this section, and there is a growing demand here for this stock. The failure of our peach crop here has reduced plantings in this line."

WEST CHESTER, PA., Oct. 11.—George Achelis : " Judging from the number of orders I have booked, it seems that nurserymen anticipate a scarcity of fruit trees, particularly next spring, and I admit that I share the same feeling. Even now it is very difficult to buy some kinds of fruit trees, and of course the price of these will advance very much for next spring."

SPRINGFIELD, N. J., Oct. 16.—Flemer & Felmy : " We are doing the largest fall business on record. A very noticeable increase in the fruit tree line sales. The outlook for spring is good, and we expect to clean out pretty closely on very nearly everything."

IN NEW ENGLAND.

NEW CANAAN, CONN., Oct. 13.—Stephen Hoyt's Sons : " It is yet early to report anything very definite in relation to fall sales, but at this date the indications are much more favorable towards an increase of business over the last two seasons. There is more inquiry for nursery stock and prices seem to be a little higher on many things, thus making the outlook much more favorable for us than last season, which was truly a hard year for nurserymen."

PLYMOUTH, MASS., Oct. 11.—T. R. Watson : " I wish to report heavier sales than I have ever had before for the fall and a very bright outlook for the spring."

BOSTON, Oct. 12.—Harlan P. Kelsey : " It is yet too early to give a report of this fall's sales, but I doubt if it will be up to the average. The outlook for spring, however, is better than I have known it for some time past."

AT GENEVA.

GENEVA, N. Y., Oct. 11.—W. & T. Smith Company : " We are having an unusually busy fall season. The demand for stock is unprecedented, and sales now indicate that there will be little surplus stock left for spring sales. There does not seem to be any surplus of stock in either fruit or ornamental trees of any kind this season."

GENEVA, N. Y., Oct. 11.—E. Smith & Sons : " The fall sales for nursery stock have been unusually good, and the outlook for spring sales is the best that it has been in years. However, there is a shortage of many varieties of plums and pears ; also apples and sour cherries."

GENEVA, N. Y., Oct. 12.—Sears, Henry & Co. : " Sales for this fall have been much larger than we expected. Have had a deluge of orders, even more than we could care for satisfactorily. Some varieties of standard pears and European plums are moving slowly. Think, however, all of these will be needed in the spring. Prices are more satisfactory than for a number of years, with a strong indication of a decided advance above rates for next spring."

IN WESTERN NEW YORK.

ROCHESTER, N. Y., Oct. 11.—Brown Brothers Co. : " We have about the usual fall sale, which, we think—coming after such a severe winter—is quite satisfactory, and promises a better sale than usual for spring. Last winter discouraged a great many people as regards fall planting, and we believe that a great deal of trade that would have come for fall in an ordinary year will show in next spring's sale."

"All in all, we are very much encouraged over the outlook. We are very glad to see wholesale prices stiffening up, for we believe this will work greatly to the advantage of both the grower and the retailer."

NORTH COLLINS, N. Y., Oct. 12.—Eugene Willett : " The trade in grapes has been brisk and prices well advanced, with good prospects for spring. It seems the quality of vines on the market is unusually limited, especially of two-year-old stock."

ROCHESTER, N. Y., Oct. 25.—John Charlton & Sons : " We have not done as yet as much business this fall as we did in fall of 1898. Some items have been worth more this season, notably apples and cherries occasioned by their scarcity only. We think on the whole that the volume of nursery business will be no more this fall than it was last season. We are yet filling orders every day and if weather continues favorable we hope to continue busy for a long time yet."

"We think that all desirable first class fruit tree stock will be entirely cleaned out next spring, leaving the trade in a healthier condition for the near future."

ROCHESTER, N. Y., Oct. 25.—Allen L. Wood : " My fall sales are the heaviest I have ever had. I am still busy packing orders. Prices are a little higher than they have been and

the outlook for spring is very good. Some kinds of small fruit will be very scarce next spring. Currants and gooseberries are in good demand at an advance in prices."

ROCHESTER, N. Y., Oct. 25.—Irving Rouse: "Fall trade has been, with us, very good indeed. We have sold more stock and at better prices than at any time during the past four years.

"Our impression is that there will be a shortage of most kinds of stock for spring use. Prices on most articles are rapidly approaching a paying basis, although there is still a chance for improvement in certain lines such as dwarf and standard pear, quince and plum.

"With the great shortage of stock in France this year, which is going to materially curtail the plantings, we think the outlook for the business for the next few years is brighter."

ROCHESTER, N. Y., Oct. 25.—The Hawks Nursery Co.: "We have no reason to complain. Things are moving along very satisfactorily, and we think the prospects are good."

AT DANSVILLE.

DANVILLE, N. Y., Oct. 17.—James M. Kennedy: "Stock shipped this fall is bringing from 50 to 75 per cent. more than a year ago. Owing to the drought stock is not quite as heavy as last season, but it is of good quality. There seems to be an increased demand, and growers are holding for top prices. The wholesale trade this fall exceeds that of a year ago, while the retail trade is at least 25 per cent. better and the prospects for next spring are very encouraging.

"Seedlings planted this spring are in fine condition, and the budding is better than it has been for several years. Many buyers have already been here offering profitable prices for stock in bud. On the 21st inst. one train took out five furniture car-loads of stock, or about 75,000 trees.

"While stock will be pretty well cleaned up this fall there will be a fair amount left for spring trade at market prices. There will be planted here next spring the usual amount of stock notwithstanding the syndicate that is trying to control the out-put for next season. It might be well to say in this connection that growers could readily contract stocks planted next spring for better prices than are being paid this fall. But there seems to be no disposition to make contracts for the future, as they believe it is time for them to reap part of the harvest which they have so patiently waited for."

DANVILLE, N. Y., OCT. 24.—C. F. MacNair & Co.: "Prices have been very high and the supply short of demand. Sales have been entirely satisfactory and collections good. The outlook is much better than one year ago."

DANVILLE N. Y., OCT. 28—Morey & Son: "Trade was never better than it is this fall. Stock will be pretty well cleaned up. Still there will be some left for spring, but not enough to suit the general trade which comes here. Prices are ruling much higher than they did last season, and we all feel encouraged, and believe there is still a future for the business."

OHIO AND MICHIGAN.

PAINESVILLE, O., Oct. 12.—The Storrs & Harrison Co.: "We have done no figuring on the amount of stock sold this fall; only know that we have been farther behind on our orders than ever before, and that we never shipped more stock up to this time of the year than we have this fall. Think there is no possible question that all kinds of stock,

unless it should be some varieties of ornamentals, will advance in price for spring trade. Think there will be a large demand for stock for spring."

NEW CARLISLE, O., Oct. 12.—W. N. Scarff: "Our sales to date are far ahead of last year, and perhaps equal to any season since we have been in business. The supply of our line of stock is very limited in the state, and there will, no doubt, be a sharp advance in prices for spring. Prospects for spring trade are certainly good, as all marketable stock will sell at good money."

GREENVILLE, O., Oct. 13.—E. M. Buechly: "Sales this fall will be in advance of last season, and continued sales seem to be easily made by our men; and the outlook for spring is encouraging if we may judge by the inquiries made. Stock is riper than usual at this season of the year owing to dry weather, and we are busy with our retail trade orders, digging and packing at this writing."

KALAMAZOO, MICH., Oct. 11.—L. G. Bragg & Co.: "We have been making sales the past six months with far less effort on the part of our agents than any season for the past six years. No effort is required to wholesale stock, as it is all, and more too, in good demand. We believe the prospect is good for the largest sales for next spring that have been made in several years. We fear there is not stock enough in sight to go around. There certainly is not in some important lines—apples, cherries and Keiffer pears for instance."

IN THE SOUTH.

JACKSONVILLE, FLA., Oct. 14.—The Griffing Brothers Co.: "For fall and early winter business there is a good demand for nursery stock, from both the wholesale trade and the planters, in all lines, and especially peaches, Japan plums, Japan persimmons, pears, paper shell pecans, hardy Satsuma oranges and field-grown grafted tea roses which are leaders with us, and of which our stock is very large. Our spring trade being more largely mail order catalogue business, it is too early to predict what it will be; but, judging from the present inquiries, we believe that the supply of the more popular sorts will be exhausted before the season is far advanced. Prices are a little advanced over previous years."

BERLIN, MD., Oct. 18.—J. G. Harrison & Sons: "The trade in all lines has been very good this fall and prices have advanced, so it makes the business more interesting. Strawberry plants have been selling freely for the last 60 days. We are now shipping out peach trees in small quantities, but our heavy shipments of peach do not come on until about November 1st to 10th. The trade in apple is better than for years, and our stock in this direction is consequently better. The Keiffer pear tree is simply a wonder of the age. They will be planted if they can be found, but who knows about the fellow that is growing them for the next two or three years? Plum stock on plum root is in strong demand, while plum on peach root is not going as well.

"Making, as we do, a specialty on asparagus, our fall orders have been far in excess of any former year we have been in the business, and the roots have made more than twice the growth for one year than we have ever had before. Taking everything into consideration, things look very encouraging for a good fall trade and to clean up with some profit."

RICHMOND, VA., Oct. 12.—W. T. Hood & Co.: "Our retail sales for '99 have been about as usual. There is an active

demand for apple trees, and an improved general demand at a somewhat advanced price. We consider the outlook quite bright for the future, if nurserymen generally will be conservative in their planting. In our opinion, the present increased demand for stock does not warrant excessive plantings. For several years past we have all suffered on account of the very large surplus of stock; and the problem before us is to avoid repeating the mistakes of the past."

BALTIMORE, Oct. 11.—The Franklin Davis Nursery Co.: "We are at the commencement of a very busy season, and from the amount of orders booked and inquiries received daily for nursery stock, we feel that business will be better than for many years, both for fall 1899 and spring 1900.

"Prices on fruit trees have very materially advanced, and we believe these will be even higher by spring. As we have had so many years of low prices we feel very much encouraged for the future."

NEBRASKA AND COLORADO.

GENEVA, NEB., Oct. 16.—Youngers & Co.: "When we commenced packing this fall we had more goods sold for fall shipment than in any previous season in the history of our business. We are not certain that we have sold more trees, but the orders foot up more dollars and cents. The increase in price does not seem to have materially affected the quantity of goods sold.

"The outlook for spring of 1900 is very good at present. We have more orders already booked than usual at this season of the year. We anticipate that stock of all sorts will be well cleaned up in the West unless it is peach trees. There is a general shortage on No. 1 apples, cherries of all grades, and American plums

"The outlook for the apple seedling business is exceedingly good. While the stocks are a little short, prices are ruling higher than common. Taking it on the whole, the western nurseryman has nothing to complain of; satisfactory business and satisfactory prices."

GREELEY, COL., Oct. 17.—The Greeley Nurseries: "Our sales for fall delivery are several thousand dollars in excess of our last fall's business, prices are good, and we believe that collections will be better than last year. But as yet we cannot tell fully, as we have not yet got any returns from the deliveries of this fall. The prospects for spring of 1900 are very good, and we believe will be much better than last spring, as we have already twice as much business booked for spring delivery as we had last year at this time. In a general way we see every indication of the nursery business improving over the past few years."

IN KANSAS.

OTTAWA, KANS., Oct. 13.—Brewer & Stannard: "Our wholesale trade for fall shipment has been the same as a year ago, while our retail trade has not been quite as strong. We have, however, a great deal more booked for spring delivery than we have had before in the history of our business. On account of the dry weather stock has not made its usual growth. The outlook for trade is very encouraging, and we believe everything in the West will be exhausted before the spring trade is over."

TOPEKA, KANS., Oct. 12.—F. W. Watson & Co.: "Trade is immense—far beyond expectations. We had expected rather a quiet fall packing season, owing to the havoc the

hard winter played with stock planted in fall of '98, but the western nurserymen have no complaint, except that they have not enough trees to fill the orders with. As to prices, apple are going skyward, cherry well up in the clouds, Kieffer pear near the stars, and apple seedlings—and in fact all fruit tree stock—about out of sight. Whether caused by general prosperity, octopus, tariff, or gold standard, makes but little difference; prices of nursery stock have come back to a paying basis."

NORTH TOPEKA, KANS., Oct. 18.—Peters & Skinner: "As a rule, we have but little fall trade in this part of the country, but the demand for stock this fall is good, and some lines are getting scarce already. Spring trade bids fair to be lively, and stock will be cleaned up closer than it has been for some years."

SEDGWICK, KANS., Oct. 13.—The Sedgwick Nursery Co.: "Our sales are fully up to the average, and prices some better than they have been heretofore."

IN CANADA.

TORONTO, Oct. 11.—Stone & Wellington: "Our fall sales are fully 40 per cent. in advance of last year, and the entire season's business has been done at old-time prices, which means a very satisfactory turn-over.

"The outlook for spring is most promising—the best for years—and we believe we are safe in predicting an increase for the coming season of at least 50 per cent., and we believe in so stating that we are keeping on the conservative side."

From Various Points.

It is reported that Louisiana parties are preparing to invest \$80,000 in a nursery in Madison county, Georgia.

J. T. Thompson, originator of the Columbia raspberry, says that since that fruit was introduced in 1894, he has sold 458,000 plants.

Over 1,000 nurserymen, seedsmen and fruit growers in Germany have petitioned the government for a protective tariff against American horticultural productions.

G. B. Brackett, Department of Agriculture, Washington, D. C., is receiving very many photographs illustrating nursery processes, for exhibition at the Paris Exposition.

The U. S. Department of Agriculture has issued a bulletin by Dr. Charles U. Shepard on tea culture in South Carolina. It has been proven that tea may be grown in the warmer portions of the United States.

The dutiable imports of plants, shrubs and vines amounted to \$111,546 in August, 1899, and \$347,938 during the ten months' period of 1899. There were imported in August, 1898, \$94,245, and during the eight months of 1898, \$119,080 worth.

Professor Van Deman says that the greenish yellow apple splashed with pale red, known as Grosh or Western Beauty, and in Pennsylvania as English Rambo, should be called the Grosh. The apple is worthy of general cultivation. It is sometimes called Big Rambo, Ohio Beauty and Musgrove.

An interesting feature of the display of the Michigan state fair was a peck of Northern Spy apples taken from a tree that had been sprayed, and another peck from a tree that was left unsprayed, which showed to a marked degree the effect of spraying, as in one case it was impossible to find an imperfect apple, while few of those that were not sprayed were free from blemishes.

In France, Germany, Belgium, and some other European countries it is the practice to plant fruit trees along the public roads. The local governments plant the trees and cultivate them as a source of revenue, and it is said that in Belgium there are three-quarters of a million roadside fruit trees, which in one year produced \$2,000,000 worth of fruit. The walnut, chestnut, cherry, plum, and apple are the favorite trees for roadside planting.

A NURSERY TEST.

Effect Upon Young Stock Under Most Trying Conditions—Observations by Professor Craig at Ames, Ia.—Behavior of Apples, Plums, Cherries and Grapes During the February Freeze—Banking Root-Injured Trees—General Conclusions.

In a timely paper on the effects of the freeze of 1898-9 in Iowa, read before the American Pomological Society, Prof. John Craig, Ames, Ia., said:

APPLES.—In the region worse affected the destruction to one and two-year-old nursery stock was almost complete. Varietal differences manifested themselves to some extent in this series as noted above. Inherent hardiness, with ability to root from scion, depth of planting, were important factors. Neglected nurseries fared better than those receiving good cultivation. Transplanted nursery trees escaped much better than those not transplanted, because set deeper. In one case a row of peach trees was saved by the soil thrown up from a drain opened late in the autumn. As to stocks, no opportunity presented itself during the course of this study for securing a comparison of hardiness of stocks, except in one instance, where a considerable amount of stock grafting had just been done on the Shield and Whitney crab previously noted. Jonathan Grimes' Golden and Willow Twig, as three-year top grafts, in nursery, came through in good condition. Prof. N. E. Hansen, of South Dakota Agricultural College, reports apple trees, root grafted on *Pyrus baccata* seedlings, entirely uninjured, and suggests the use of this stock by nurserymen of the Northwest. At present seed is not available.

APPLES IN ORCHARD.—The vigor and age of the individual trees affected the final result materially. (1) Trees from 5 to 15 years old suffered less than those younger or older. (2) Trees on north slopes suffered more from root-killing than those on south slopes. (3) Apples were injured most on sandy soil, least on loam, and to an intermediate degree on clay. (4) A standard of hardiness based on ability to withstand injury to the branches did not prove reliable in all cases when applied to the injury sustained by the roots. For instance, Haas, an unusually vigorous and hardy tree was generally killed throughout the snowless region. In the college orchard, where it has been freely used for top grafting purposes, the destruction of this variety was almost complete. (5) Among varieties least injured are first, the crabs; second, natives, Siberians, and Hibernial type of Russian apples; third, varieties of western origin, such as Northwestern and Patten Greening; fourth, Wealthy, Duchess, Tetofsky, Willow and Scott's Winter.

PLUMS IN NURSERY.—Plums, native or European, worked on peach or Myrobolan, killed; on Mariana badly injured; on Americana slightly injured, but recovered rapidly. In a few instances permanently injured.

In orchard.—The injury may be scaled in the same manner but was less pronounced throughout. Americanas, on peach roots escaped where well rooted from the scion. Sand cherry (*Prunus Besseyi*) stocks have been used to some extent in the state. In no case have I found these roots injured in the slightest degree. In passing I may add that experience has not yet developed the ultimate effect of this stock upon the scion. Thus far its dwarfing influence upon varieties of the Americana type is conclusively demonstrated. Domestic plums, on own roots, fared better than the same varieties on

peach Myrobolan or Mariana. Let me interpolate at this point that the experience of our nurserymen has proved the unsuitability of Americana stocks for propagating the Domesticas and Japan varieties by budding. The top outgrows the stock. When root grafted the scion soon becomes an own rooted tree; but the first year's growth in nursery is unsatisfactory.

In orchard the results of the freeze, as bearing upon the kind of stock used, approximated quite closely those outlined above. As to varieties, Americanas suffered slightly, *augusti folias* considerably, domesticas badly, Japanese severely, Japan on Sand cherry came through without injury.

CHERRIES IN NURSERY.—The two almost universally used cherry stocks are Mazzard and Mahaleb. The former was practically a total loss in the case of two-year-olds, and a complete loss of one-year-olds. Morello stock and own rooted Morello trees generally escaped with slight injury, except in exposed situations. In orchard the results were substantially the same, though the desirability of deep planting received emphatic commendation by the escape from root injury of several young Richmond orchards set unusually deep (e. g. those set in a dead furrow; dwarf pears on cultivated ground and in mulched strawberry patch). In the college nurseries the practice of root grafting the cherry received commendation by the fact that the only trees which escaped were those which were partly on their own roots. (Bird cherry stocks?)

BANKING.—The effect of banking or hilling up root-injured nursery trees was tried. The banking was done by turning the wings of the cultivator so that they would throw the soil against the row. The object in view was to encourage the rooting of the stock from the live wood at the surface of the ground. Practically no beneficial results were obtained in the case of apples or plums.

With the grapes, however, 80 per cent. of the varieties in the college vineyard were saved by cutting them back severely and hilling them deeply. They have rooted near the surface of the ground and have made a top growth from 1½ to 3 feet, but, of course, will need thorough protection for two or three seasons, until the roots penetrate to their normal depths.

GENERAL CONCLUSIONS.—A careful canvass of the whole field, with the assistance of the leading fruit growers of the state, leads to the following conclusions:

(1) That the lack of a protecting blanket of snow coupled with unusually low temperatures was the chief cause of the great loss of nursery stock and orchard trees.

(2) That inasmuch as trees on north slopes suffered more than trees on south aspects, and in proportion to the surface protection present, the intensity of frost bore a definite relation to the amount of injury inflicted.

(3) That conclusive data are wanting to show that more injury resulted on untilled orchard lands than on those supplied with tile drains.

(4) That orchard and nursery trees suffered most on exposed dry knolls with northern aspects than elsewhere.

(5) That the character of winter surface cover, in other words, desirable cover crops, is a question of paramount importance in Northern Mississippi valley states.

(6) That the matter of congenial and hardy stocks for plums, apples and cherries is a subject worthy the earnest attention of experiment station workers and nurserymen in the Northwest.

AN APPLE THAT WITHSTANDS DROUGHT.

Dr. A. M. Ragland, of Pilot Point, Texas, writes to Rural New Yorker: I am experimenting with various fruits, especially apples, to determine their value for our southern climate. I have long held the opinion that a race of apples can be found or produced from southern seedlings that will resist the heat and drought of such climates as that of Texas. I have one which is probably a new seedling originating in Georgia. It came to me about ten years ago from the nursery of P. J. Berckmans, Augusta, Ga., billed as Wallace-Howard. When it reached bearing age I was convinced that it was not. I sent samples of fruit and a description of the tree to Mr. Berckmans. He said that it was not Wallace-Howard, but he was unable to identify it. The tree is a vigorous, upright grower, and retains foliage till very late in the fall. Heat and drought—one drought of sixty days' duration just ended—had no perceptible deleterious effect upon this variety. The fruit is very large, oblate, green with faint red stripe; ripens here during September.

NEBRASKA FRUIT CULTURE.

There is no species of fruit raised north of the Mason and Dixon line and south of the Canadian possessions that Nebraska is not to-day producing in the greatest variety, says a correspondent of the Country Gentleman. Apples, peaches, pears, apricots, plums, quinces, grapes and other fruits, all of the finest quality imaginable. Of course, these species are all of the hardier varieties, but the climate and rigorous winters do not seem to have affected the flavor and appearance of these luscious fruits. Experts have pronounced the Nebraska fruit equal in every respect to the stock produced on the famed sand hills of Kentucky. It is estimated that twenty million dollars were realized by the farmers of the state on the orchard productions last year, and last year was not a favorable season for fruit in the state.

Commercial orcharding is being entered into briskly by the Nebraska farmer to-day. As a rule in the state, the soil is rich, the subsoil deep and fertile, the fruit is comparatively free from the more troublesome insects of other sections, and the fruit is brighter in color and more luscious than that yielded by any other sections of the country.

The largest orchards in Nebraska are owned by the following gentlemen, stockmen, farmers and bankers, who see in the fruit industry a source of income in the very near future: Isaac Pollard, Cass county, 150 acres; J. H. Master, Otoe, planted in 1856, 80 acres; Hon. J. Sterling Morton, 80 acres; E. T. Hartley, Lancaster county, 200 acres; Carpenter & Gage, Jefferson county, 60 acres; O. D. Howe, Pawnee county, 80 acres; W. J. Hesser, Cass county, 70 acres; Elias Beaver, Richardson county, 60 acres; W. F. Jenkins, Valley county, 40 acres; William McCormick, 30 acres in apples at Blair; J. M. Russell, Gage county, 1,000 acres of apples, peaches and cherries. Their peach crop of 1896 was 60,000 baskets. E. E. Sanborn, Sarpy, 25 acres of apples, from which he sold 2,000 bushels last year. E. F. Stephens, Crete, grew 13,000 bushels of apples last year. Most of these orchards are very young, however, and not bearing commercially yet. In five years Nebraska will have reached unusual proportions as a producer of fruit.

Among Growers and Dealers.

W. H. Bruning, Cedar Bluffs, Neb., grows red cedar cheaply from seed.

J. E. Killen, representing C. H. Joosten, importer of bulbs, plants and seeds, New York City, called upon the nurserymen of the Genesee valley last month.

M. E. Hinkley, Mt. Vernon, Ia., has rented his nursery at Marcus, Ia., to A. S. Black.

Harlan P. Kelsey, Boston, Mass., is interested in the culture and sale of Ginseng plants.

J. C. Ferris, Hampton, Ia., secured nine first and three second premiums at the Iowa state fair.

W. B. Cole, of the Mentor Avenue Nursery, Painesville, O., is constructing a root cellar at his place.

At the Michigan state fair Ellwanger & Barry, Rochester, N. Y., had a display of 52 plates of pears.

Gardner & Son, Osage, Ia., have established a steam watering plant to furnish water for their nursery in dry weather.

L. Mohler, of the firm of L. Mohler & Bro., Warrensburg, Mo., visited the nurseries at Ottawa, Kans., last month.

Stark Brothers, Louisiana, Mo., have leased 350 acres of land near Huntsville, Ala., and will establish a nursery there.

W. R. and J. B. Laughlin, College Springs, Ia., have sold their nursery, established in 1856, to J. F. Johnson for \$5,400.

The Iowa Agricultural College has received a collection of pæonies amounting to fifty-eight named varieties from P. S. Peterson & Son, Chicago.

P. J. Berckmans, Augusta, Ga., was in New York City early last month; Mr. Mills of the State Nursery Co., Butte, Mont., visited St. Paul and Chicago.

L. H. Cobb of Lynn, Kan., has removed to Perry, Oklahoma, and will conduct a general florist, nursery and seed business under the name of L. H. Cobb & Co.

Roland Morrill, Benton Harbor, Mich., who has told horticulturists often how to grow peaches, this year sold peaches to the value of \$35,000 from a 50-acre orchard.

A government official, on the ground of forest preservation, stopped the agent of David Hill, Dundee, Ill., who was collecting evergreen cones in the Black Hills, but afterward allowed the collection.

S. M. Emery, Bozeman, Mont., has been elected vice-president of the National Irrigation Congress which met at Missoula, Mont., September 25-27, with 200 delegates, and which will meet in Chicago next year.

T. V. Munson, Denison, Tex., proposes for a uniform nomenclature; that the secretary of agriculture publish an authoritative list of fruit names to which catalogues must conform under penalty of exclusion from the mails.

T. E. Steele has resigned his position as bookkeeper with Parry's Pomona Nurseries, Parry, N. Y., to accept a position with D. Landreth & Sons, Philadelphia. Mr. Steele understands horticulture, having held the former position for over ten years.

G. H. Van Houten, Des Moines; C. G. Patten, Charles City; M. E. Hinkley, Mount Vernon; J. W. Murphy, Glenwood, and M. J. Wragg, Waukeo, constitute a committee appointed by the Iowa Horticultural Society to procure fruit for exhibit at the Paris Exposition.

Hebert S. Chase, of the Alabama Nursery Co., Huntsville, Ala., on October 4, married Miss Fanny Morey, daughter of John B. Morey, Dansville, N. Y. The ushers were Sidney S. Morey and John B. Morey, Jr., Maxwell Sweet, of Dansville, and Robert S. Whitehead, of Syracuse. The best man was Charles Chase, of New York City, brother of the groom. Miss Laura Morey, sister of the bride, was maid of honor. Mr. and Mrs. Chase will reside in Huntsville, Ala. Chase and Morey are familiar names in the annals of the nursery trade.

In Common Council.

Editor NATIONAL NURSERYMAN :

In reply to the "Passing of the Scale Scare" on page 109 in your October number, I think a little explanation is needed. The nurserymen of the United States should appreciate a trained entomologist, but a political inspector should be denounced. It is disgusting to the nurserymen to allow a man to be appointed through purely political pleasure to inspect an orchard or nursery. It is done to give them a few days work during the year at a good round salary, when, as a matter of fact, the most of them do not know San Jose scale from a tumble-bug. One among the able entomologists of the country, I think, is located in this state. He is a man who has worked from the start of the scale business—in fact, he was in California studying it when it was discovered here in the East in 1893. He has been trained in the best universities of this country and studied four years with Prof. Comstock of Cornell University, the man who first discovered and described the San Jose scale over twenty years ago. In New York, California, Illinois and Maryland his work has been of the highest rank, as attested by the complimentary reviews and notices given him by the best agricultural and horticultural papers in this and nearly every foreign country. I only wish we had a few other men of equal ability who could travel over the country as he has and give the world the results of his researches.

By following closely his instructions, many a nurseryman in this and other states has saved his business; and thousands of fruit growers have been protected at the same time. When unavoidable ruin and bankruptcy was staring many nurserymen in the face, by his unwearied zeal and faithfulness to his profession he saved them. I am in a position to know that these appeals come to him from several states not far distant, and are still coming more numerous than ever. A prominent New Yorker, who last winter said in Albany at the State Horticultural meeting, that he would rather get rid of the codling moth than the San Jose scale, is now "singing another tune" and appealing to Maryland for help. The State of Pennsylvania has asked Maryland to prepare her a bulletin on fumigation.

Now at a time when nurserymen and fruit growers should be most active and wide-awake, come the views of the "Passing of the Scale" and "Let Good Enough Alone." You speak of waiting in vain to see where the scale has made rapid spread. I could furnish you many instances, especially this season, in the United States and Canada, where the spread of the scale has been seen and the most of them from nurseries heretofore not suspected. There are new cases coming up every week in different sections, even where there have been men to inspect the premises who do not know what the scale is. Not only in our own state, but in a few neighboring states. I am a little surprised to know that our friend, Prof. Marlatt, has changed his mind so rapidly, since only a few years ago when he made an address before the Peninsula Horticultural Society at Denton, Md., he spoke of his experiments in Capt. Emory's orchard and warned us of the danger of the scale. We know that since then there have been thousands of trees destroyed by the scale; and we know more, that there are men who have stopped the fruit business until

their farms were clean of this insect. I fear you have only published one side of the subject. Did not the people in attendance at the Columbus meeting of the Economic Entomologists last August bitterly resent Prof. Marlatt's statements, and did they not pass a resolution showing they did not approve of many of his expressions? The discussion which followed was the liveliest in the convention, and was participated in by the foremost and most prominent members. In fact, it was so warm that Dr. Howard, United States entomologist, himself requested a representative of the press present not to report the discussion in the spirit it was given. Still further, the discussion was so lively the Washington authorities have decided not to include it in the proceedings of the convention, and that Prof. Marlatt's address is to be modified before being printed. In spite of the above the little clause quoted by the NATIONAL NURSERYMAN has been published to open up the subject in a milder way. When it comes to such an important subject as this there should be something fair about it, and the NATIONAL NURSERYMAN, as a representative of the nursery industries of the United States, should publish both sides with the facts and not simply take the narrow-minded side, leaving off the other which has been discussed by other eminent men. This is a matter of great importance, as I stated in a short paper read before the nurserymen's convention in Chicago, in June. We are pleased to say that there has never been a case of San Jose scale in our county, but we are just as precautions as if the scale was with us, and we consider it our duty to protect our customers to the greatest possible extent. Nurserymen must protect each other as well as their fruit-growing customers.

The nurseryman who wants to accept the "Let good enough alone" policy will soon find out that he must bestir himself to keep in the business.

There is much to be learned yet, and we hope that there will be one honest, energetic and up-to-date entomologist trained in the business in ten years where there is only one now; but we do not need any more political inspectors.

ORLANDO HARRISON.

Berlin, Md., October 24, 1899.

AT BREWER & STANNARD'S.

Brewer & Stannard, of Ottawa, Kans., are just completing an extensive addition to their packing house, which makes a frost-proof building, 170 by 135 feet, with railroad switch running into the building. This building has heavy stone walls, with a brick wall inside, leaving an air space of two inches, and the roof is built with air spaces, and also has a five-inch layer of mineral wool. There is a very thorough system of ventilation, and a splendid water supply, which gives them as good packing facilities as any firm in the country.

KNOXVILLE NURSERY CO., KNOXVILLE, TENN.:—"We enclose \$1 as payment for NATIONAL NURSERYMAN for one year. We are well pleased with the paper and shall continue our subscription."

HAS HAD ENOUGH SCALE TALK.

G. T. KINSEY, PAXTON, ILL.:—"Sure, I want the NATIONAL NURSERYMAN sent me. It's part of my business. Give us more on care of pruning, budding, etc., of stock and less of scale law. I think there is more talk than scale. Still it may be good that our state pays out \$8,000 to the boys for coming around and tickling us up. Enclosed find \$1."

In Nursery Rows.

TREE VALUES—In a recent law suit in Niagara county, N. Y., where a row of shade trees in front of a country home was involved because of the encroachments of a trolley line, experts in the values testified that thirteen trees, mostly maples, were worth \$100 each, and nine trees were worth \$65 each, while a few others were appraised at \$125 each. These values were not successfully assailed by the opposition. The trees have been twenty-six years planted.

MCPIKE GRAPE.—At the August meeting of the Alton, Ill., Horticultural Society Mr. McPike reported: "The McPike vines are now full of beautiful grapes, being the fifth annual fruiting, and have been carefully examined by many members of the Alton Horticultural Society, several of whom are here present. The bunches very large, berries a blue-black, three and three-eighths inches in circumference, as you see on the table. For four years the McPike took all the premiums at Springfield, Chicago, St. Louis and Omaha; at Columbus, Ohio, captured the Marshall P. Wilder silver medal, and is expected to do the same this fall. I am thus particular because no one else has the facts so thoroughly before them."

SEEDLING GRAPES.—Professor Munson, several years ago, gave the following directions for growing seedling grapes: "In November or December take a box four or five inches deep, and wide and long enough to hold the seeds when planted in rows three inches apart and one and a half inches apart in the rows. Fill to within one inch of the top with rich sandy loam. Drop the seed in drills made with the finger or pencil, to the depth of a half an inch or more. Cover with the same fine, rich soil; then sprinkle till saturated with water; nail the cover on lightly and place the box in some nook on the north side of the house, or in a fence corner where the direct rays of the sun will not strike it, and bring the soil up around the sides even with the top of the box to keep moist."

INDUSTRY GOOSEBERRY.—William Fell & Co., Hexham, England, is an ardent supporter of Whinham's Industry gooseberry. His eye has caught a comparison made by an American nurseryman between the Industry and the Red Jacket. "The berries of the Red Jacket," says Mr. Fell, "are not nearly as large as those of the Industry, and the crop of fruit is not one-fifth of that of the Industry, even on bushes that have been planted two years longer. The growth and vigor of the Red Jacket are not so strong, clean and vigorous as that of the Industry. We have tested the two sorts now for several years, and the plants are growing side by side and under the same conditions. We have seen the Whinham's Industry gooseberry growing and fruiting as far south as Bloomington, Ill., quite as well as we can grow and fruit it with us in England."

CHARLTON GRAPE.—John Charlton & Sons, Rochester, N. Y., on September 18th sent to the Gardeners' Chronicle, London, England, samples of the Charlton grape. In the issue of the Chronicle for October 7th, the editor says: "The grapes came over to this side in an ordinary cross handled trug or basket made of thin wood and fitted with a cover, quite uninjured, excepting that about one-sixth of the berries had dropped from the bunches. The bloom was perfect, although the bunches had been simply wrapped in soft paper, and there was no other packing material used. The color is purple with a reddish tinge; the pulp far less viscid than that of some other American varieties we have tasted, and the flavor very pleasant and sugary, reminiscent of the strawberry and black currant. The skin is tough, and the variety should keep a long time after ripening. Not a berry had decayed upon arrival."

MAHALEB SEEDLINGS.—Mahaleb cherry seedlings are the favorite for sherry propagation with American nurserymen says Director S. M. Emery, Montana Experiment Station. They are a small, wild tree found on sand knolls and dry rocks, over Western Europe, with white bark, hard, close-grained, dark-colored wood, small black bitter fruit and flowering in short racemes. The wood, leaves, flowers and fruit are so powerfully perfumed that it is known as "the perfumed cherry." The Mazzard seedling is from the pits of the wild cherry of Europe; it is nearly allied to and supposed to be the original form of many of our cultivated varieties. The choke cherry is neither the one or the other, being an American seedling known as the Prunus

Virginiana. The Myrobalan plum from seedling is an imported plum from Europe used extensively by American nurserymen as stocks upon which to graft and bud plums, prunes and apricots.

WHY NURSERY LANDS "RUN OUT."—In nursery lands, the soil is injured in its mechanical texture by the methods of cultivation and treatment, says Prof. L. H. Bailey. The best nursery lands are the "strong" lands, or those which contain a basis of clay, and these are the ones which soonest suffer under unwise treatments. The nursery land is kept under clean culture and it is therefore deeply pulverized. There is practically no herbage on the soil to protect it during the winter. When the crop is removed, even the roots are taken out of the soil. For four or five years the land receives practically no herbage which can rot and pass into humus. And then the trees are dug in the fall, often when the soil is in unfit condition, and this fall digging amounts to a fall plowing. The soil, deeply broken and robbed of its humus, runs together and cements itself before the following summer; and it then requires three or four years of "rest" in clover or other herbage crop to bring it back into its rightful condition.

IMPROVING THE ROSE.—With the exception of the long list of generally unsatisfactory and short-lived budded varieties of so-called hybrid perpetuals of foreign origin, the hardy rose has scarcely been introduced to American flower lovers, says American Florist. The Crimson Rambler is indeed a grand acquisition, but this, as well as the pretty and interesting progeny of the Wichuraiana and multiflora crossing, as far as seen, is but as the stepping stone to something better in the evolution of our garden favorite to its highest type. The rose will never take its proper place until it has been developed so that we shall have good varieties—climbing as well as bush—blooming continuously from June until November and as vigorous and hardy at least as far north as is Jacqueminot. Who can say that a Crimson Rambler that will do this is an impossibility? Now that our hybridizers are fairly well started we shall see. And the Rose Society, lifted out of its former restricted field and standing on a broader and better basis, will be no small factor in the great evolution.

NEW ORNAMENTAL TOBACCO.—*Nicotiana affinis* and *N. colosea* have been cultivated in this country for the last few years says Rural New Yorker, and are gaining in favor. *Affinis* grows two or three feet high, and bears an abundance of pure white, very sweet-scented flowers, nearly three inches across. It is particularly fragrant in the evening. It is easily grown from seed, and cuttings rooted in September bloom freely in the winter. *Colosea* grows about six feet high. It has immense leaves, rose or violet when young, but changing when mature to green, with red nerves. *Colosea variegata* has leaves deeply edged with white. The seeds of *Colosea* are scarce and high-priced, and in our experience have very low germinating qualities. *Nicotiana sylvestris* is a new form. It grows about five feet high, with very symmetrical foliage. The blooms are produced with the greatest freedom. They are pure white, star-shaped, and have tubes about six inches long. They are fairly fragrant in the evening. A bed or hedge of *sylvestris* in good form would make a splendid background for dwarf, bright-colored plants. *Sylvestris* will probably be offered next spring.

CATALPAS AS LAWN TREES.—Why is it, I wonder, says a writer in Gardeners' Magazine, London, that people go on planting commonplace trees and neglect those that are not only more beautiful but always attract attention, particularly at flowering time? I lately saw a grove of catalpas in full flower in a low-lying part of a Dorsetshire park, and thought that not even an avenue of horse chestnuts in full flower, or an apple or cherry orchard in bloom, impressed one so much as this beautiful sight. The delicate tone of green that catalpas always have serves as a foil for the great loose clusters of white, purple spotted flowers produced in July at a time when there are no flowering trees in bloom. As quick-growing, shade-giving lawn trees I should always plant them if the soil were at all suitable, and it is not particular in this respect, though decidedly preferring a deep and moist soil. As isolated trees they have somewhat of a lumpy appearance, but in groups of three or more this is obviated, especially if some conical trees are quite near the group. The old *C. bignonoides* is the common kind in nurseries, but probably the best is *C. cordifolia* (called also *C. speciosa*), because hardier and flowers in a smaller state.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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VALUE OF DISCUSSION.

Upon all sides are opportunities to benefit by experience. We have called attention to the fact that at the recent biennial meeting of the American Pomological Society the programme was made up of papers of great length presenting matter that was not new for the most part. And now the nineteenth annual session of the Farmers' National Congress has been held in Boston and one of the leading agricultural journals of the country says of it: "It must be said that in some respects the convention was a windy affair. The speeches were long and, as a rule, did not deal with topics calculated to arouse earnest discussion. Some of them were discussed briefly, but it would seem as though shorter talks dealing with single, live topics, followed by animated, possibly prearranged discussion would be better. Some points

made by the speakers met with vigorous approval from various delegates, but nothing definite seemed to be in mind."

To a very large degree that criticism could be applied to the proceedings of the American Association of Nurserymen. As these suggestions are presented in the experience of others, they may be considered by the programme committee of the American Association.

As we have repeatedly urged, upon the character of the programme and the proceedings of the annual conventions of the American Association depend the interest in the association and the attendance at the annual gatherings. We would like to see the proceedings made so valuable that the nurserymen could not afford to stay away from the conventions.

THE SEASON'S TRADE.

Steadily have conditions improved until now the nurseryman has something besides hope to depend upon. The realization of a marked increase in prices is at hand. Special reports to the NATIONAL NURSERYMAN from various points indicate conclusively the confidence that has been restored and the promise of a continuance of a period of business activity upon a paying basis. Wholesalers are greatly encouraged by the outlook. Apple, cherry and pear and fruit tree stocks are scarce, and prices are sure to advance in the spring. Fall sales have increased in many sections, even where a severe winter was expected to affect sales this year. There will be a large demand for stock for spring. It has been an unusually busy fall season.

AUTUMNAL GLORIES.

Seldom have the trees and shrubs put on a more brilliant attire than was the case this fall. Nature set the fashion for bright colors and the leaves in glen and forest presented magnificent landscape scenery. The parks of Rochester, N. Y., as those of other cities, afforded a grand opportunity for viewing the work of Nature whose brush had been dipped alternately in orange and gold and crimson. Here and there the verdant green of springtime had been left untouched, by way of contrast. The Indian summer haze added greatly to the beauty of the landscape. The high banks of the Genesee, which flows through one of Rochester's largest parks, were clothed in splendor. Red and gold predominated. Most brilliant of the reds were the leaves of the red maple, the dogwoods and the sumacs. Next to the dogwoods in brilliancy of coloring were the pin oaks. The scarlet oaks with their sharp-toothed, deeply-lobed leaves were very attractive. All in red were the silky dogwoods, the red osier dogwoods, the panicked, round-leaf and alternate-leaf dogwoods.

The clearest yellow was on the leaves of the American birches; the black birches, the tulip trees and the hickories that grew along the water furnished the yellow also. The hickories growing in dry places lose their leaves soon. The beautiful tinge of purple and brown was from the white ash, while the sassafras leaves were of varied hue, some being of a rich orange, some a brilliant red and some a lemon yellow. The variegated leaves of the soft maple this year were exceptionally brilliant. Scattered through the mass of crimson and gold was the dark green of the pines and hemlocks and the emerald green of the European birches. The yellow and red of the hornbeam mingled with the red shad trees.

Among the shrubs the red viburnums and sumacs contrasted strongly with the yellow flowers and leaves of the witch hazel and the yellow of the huckleberry and the spice bush.

PUBLISHING BOTH SIDES.

We take pleasure in publishing in another column a communication from Orlando Harrison, Berlin, Md., on the subject of San Jose scale. Mr. Harrison calls attention to the fact that the NATIONAL NURSERYMAN did not refer to the discussion attending the remarks of Prof. Marlatt on the subject of the scale, which was strongly against Prof. Marlatt's position.

We are very sure that reference to the files of the NATIONAL NURSERYMAN will show that this journal has been eminently fair in giving both sides of the San Jose scale controversy. It is the one journal in the United States that has published both sides, and it is the journal that prevented the adoption of a federal bill which was aimed at the nursery trade without due regard for the interests of that trade. This journal has published long extracts from the opinions of entomologists on the subject of San Jose scale, and it is the only journal that has published the laws of all the states and Canada on the subject.

We believe the nurserymen understand the subject fully now, and we should not have reverted to it had not the president of the Society of Economic Entomologists announced his opinions so positively. We supposed that a statement that his views were not coincided in was superfluous, for the majority of entomologists are on record as opposing such views. It was his statement alone that constituted the news. In this connection it is proper to note that other journals referred to Prof. Marlatt's remarks as the single feature that was deserving of special comment.

We are glad to give space to our correspondent now that the question has been raised.

DAVID HILL'S OPINION.

In a recent interview with a representative of Agricultural Advertising, David Hill, Dundee, Ill., is quoted as saying, among other things: "Yes, it's something of a business and it has all been built up by advertising. I am a strong believer in advertising. Many of the leading nurseries do not advertise, depending entirely upon agents and traveling representatives to dispose of their stock, but I think they make a mistake. I started in here twenty-seven years ago with seven acres of ground and a debt of \$3,500. With advertising the business grew until it has assumed its present proportions. The outlook for the advertiser I consider very flattering. I find that the farm papers are the only ones I can profitably use, *excepting the trade papers, of course, which I use for the wholesale trade.*"

W. T. Hood, Richmond, Va., wisely advises nurserymen to be conservative in their plantings. The present increased demand does not warrant excessive plantings. Now that stock is being cleaned up, a united effort should be made to keep the supply somewhere near the demand. The mistakes of the past should not be repeated.

The Minnesota Horticultural Society offers a premium of \$1,000 for a seedling apple tree as hardy and prolific as the

Duchess, with fruit equal to the Wealthy in size, quality and appearance, and that will keep as well as the Malinda. The competition is open to all. Full particulars may be obtained from Secretary A. W. Latham, Minneapolis.

The Florists' Exchange suggests that florists in country villages and towns, in the suburbs of cities, and even in the cities, desirous of increasing their business and their profits, can well afford to pay more attention than they now do, as a class, to the retailing of seeds, shrubs, shade and ornamental trees, small and standard fruits, hedge plants, etc.

The U. S. Department of Agriculture, it is reported, expects to record plant growth by photography. The cinematographe will be employed. Photographs of the plant or plants are to be taken by automatic exposure every two hours, the whole picture to cover a period of two or three months. It is not altogether the growth of the plant itself that it is intended to record in this way, but the growth and development of plant blights, diseases, and parasites.

It is reported that there is an apple revival at Winchester, N. H. During a visit there by A. T. Lindeman, the first secretary of the Michigan Pomological Society and an enthusiastic pomologist, he interested business and professional men and farmers in the growing of apples in that section which he argues is especially adapted to the purpose. Others in New England are talking of reviving the apple industry, and there may be a marked increase in the demand in New England for apple trees from the nurseries.

The season has produced, perhaps, fewer novelties than some seasons, but there is the usual number of freaks of nature. A Port Kent (N. Y.) correspondent of the Country Gentleman calls attention to a crop of pear-shaped apples from a tree that had borne apples of normal condition many years and which appeared to be Red Astrachan. The fruit in question was of a perfect pear shape, yet of malformed apple character internally. The Gardeners' Magazine, London, England, figures the Thomas Andrew Knight apple, practically devoid of core and called a seedless apple. It originated from Cox's Orange Pippin and Peasgood's Nonesuch. The Rural New Yorker has obtained opinions showing that a melon that ran into a peppermint patch could not have acquired the taste of that pungent plant as was claimed.

The audit of the recent fruit show of the Royal Horticultural Society, at Crystal Palace, London, showed that the following varieties led in the number of dishes displayed: Apples—Cox's Orange Pippin, Ribston Pippin, Worcester Pearmain, Warner's King, Peasgood's Nonesuch, Blenheim Pippin. Pears—Pitmaston Duchess, Doyenne du Cornice, Louise Bonne de Jersey, Durondeau, Marie Louise, Williams' Bon Chretien, Souvenir du Congress. Plums—Coe's Golden Drop, Monarch, Pond's Seedling, Transparent Gage, Reine Claude de Bavay. Peaches—Sea Eagle, Princess of Wales, Walburton Admirable, Nectarine, Lady Palmerston. Grapes—Muscat of Alexandria, Alicante, Gros Maroc, Black Hamburgh. There were exhibited 2,203 plates of apples, 842 plates of pears, 83 plates of grapes and 79 plates of plums.

A PERIOD OF TRANSITION.

The Status of Apple Growing in the United States—A Thoughtful Review by Roland Morrill—Northern Counties Produce Best Fruit—Oldest Markets are Most Discriminating—Conditions Under Which Apples Should be Grown.

Roland Morrill, in a paper before the Michigan State Horticultural Society, made the following general observations regarding the growing of apples :

I am first going to make two or three propositions which, if they have not already occurred to you, may commend themselves : The first is that the northern countries, in the successful production of any variety of fruit tree or vegetable, produce the highest quality. That is a broad proposition that any scientific man or close observer will bear me out in making.

The next proposition is that as our markets become older they become more discriminating. If you please, take Boston, and every well informed fruit grower of this country knows that Boston will pay more for quality than any other market in the United States, and is far more exacting than any other market. I think that is true the world over—the older the market the more discriminating it becomes ; and as the markets become older the people who handle fruit understand the nomenclature better, the correct naming of fruit, and they judge less by the eye than they do by the reputation of a certain variety, and the knowledge it contains certain qualities.

I am going to make another suggestion, that the conditions are better for growing a perfect apple, so far as quality is concerned, in Michigan, Canada, Northern Ohio, New York and New England, than they are in any portion of the United States. I am going to follow that up with another statement, that the best apple markets in the United States, the great cities, are located within their boundaries or very near them. Chicago is really proving to be one of the best apple markets in the world, because it feeds a vast country which so far has not succeeded in producing what it needs.

BEST CONDITIONS FOR GROWTH.

The best facilities or transportation are largely located within these regions, the cheapest rates made within the United States. I am going to combine all these propositions with the suggestion that these are the conditions under which the apples of the United States should be grown. The fact is that these states have had their era of growing apples cheaply with very little intelligence or care, and have gotten into the bad habit of neglecting apple orchards, with the natural result that now, under new and more trying conditions than they have ever seen, they are rapidly going out of the apple business and turning it over to regions that are only temporarily favored, in my opinion. We will take Missouri, with a soil admirably adapted to growing the apple, but a climate entirely against its favor, a new region, in which insects and fungi have not yet secured a strong foothold, and region destined, when these do establish themselves, to have more trouble than we have in my opinion. These are the conditions which confront us. We find here men who have grown apples successfully in the past. Their orchards are becoming old—thirty, forty, fifty and even sixty years old. Condemning the apple business, or saying that it does not pay—and certainly it does not, in the conditions under which they are cultivating) or not cultivating, as you please), does not conclude the matter.

What is the history of the apple, and in fact of all other fruits in the United States? The early settlers of any state planted and grew fruits that succeeded in that state, with comparative ease ; they simply set the trees and found the crop, and it has required no effort on their part ; and through those plantings certain areas have been discovered, if you please, which proved so successful in every sense of the word that they became known as apple localities or peach regions. We have one over on the west side of the state, a peach region, simply because the local conditions favor the peach, and we set largely.

That induced all sorts of troubles that the peach-grower has to contend with, and those troubles were too many for us. We were not far enough advanced in peach culture to keep up with the difficulties, and we had to go out of it, our climate not changing at all, but the industry was destroyed. With this destruction came a better knowledge of conditions. A few men who were broad enough, quick enough to catch the idea, with the aid of our scientific men, that there were ways to combat this trouble, began to do so, and a new idea dawned, an era in which men make it a business, not to find things, but to produce things, and again we are making money. Now that is the history, I think, all over the United States, of these various favored regions.

PRESENT CHANGES.

The apple is going through a period of transition. Growers in these regions that I have mentioned as being the best in the United States are now destroying their orchards because of their age. They are somewhat discouraged, but through all those regions can be found a few men—occasionally one who has taken his orchard in time, who has applied the best intelligence he can collect, the best there is of his own knowledge, and is making a decided success of apple-growing. I have in mind a few men who have succeeded in producing annual crops. I could name one man in the state of Michigan, in a neighborhood admirably adapted to the growing of the apple. He has succeeded in producing eight successive crops, and, the lightest one has been a fair crop, by the application of intelligence and hard labor to his work, and he has made that a very profitable orchard. It covers forty acres and the average for that whole time has been a net profit of between thirty-eight and forty dollars net per acre, or the interest on four hundred dollars per acre, for eight years, commencing with an orchard twenty-five to thirty years old.

We would naturally infer that if one man can do this in a certain neighborhood, another man under the same conditions should be able to do it, because, as has been said here, there are no secrets among horticulturists ; or, if there are, they do not amount to very much. The best thought of horticulturists is given away in meetings like this. Those conditions under which this man, and other men like him, produces good apples are the ordinary well-known methods of caring for an orchard—good culture, fertilization, careful pruning and spraying in season, and thoroughly—just the ordinary precautions that every man must understand to-day who pays any attention to it, and which are necessary to successful orchard-growing.

We find that the average farmer is a stubborn creature. He does not take to new ideas very rapidly. It may be his misfortune, and I think it is, but it certainly opens the way for ambitious men who really have intelligence, and men who are

willing to learn, to make something, to make some money for their old age. In my opinion one of the best horticultural chances is in apples.

SECOND ERA OF APPLE CULTURE.

There will undoubtedly be a second era of profitable apple culture. This western section of which I was speaking is now crowding us to the wall with worthless Ben Davis, is already beginning to feel the ravages of the canker worm, codlin moth, and the apple scab, and some of those sections that only five or six years ago were sending in some of the finest carloads that went to our market, are to-day almost as bad off as we are; and it is a fact that they are not so far along in knowledge of how to meet those difficulties. Their orchards are large, as a rule, their cultural methods are not equal to ours, and the natural result will be that their orchards will go faster than ours, because they do, in those climates, go faster than ours when they begin to fail. These warmer climates of Missouri, Kansas, and Southern Illinois, are those in which these insect and fungus troubles breed faster than they do with us, and are much harder to combat, and this must have its effect. We are fortunately situated, so long as these things must be fought all over the United States. I think we can combat them as cheaply as any other section, or cheaper. We can produce the highest quality, and we have the markets at our door; we have the transportation facilities, and there are a few natural conclusions which I must draw from these facts, whether you do or not. The first one is that a man who is not willing to accept these conditions, who does not feel himself able to meet these requirements, would better destroy every tree he has, and get out of the business and go into wheat or corn or something that he likes, immediately and not breed trouble for his neighbors and disappointment for himself. The man who may enter into the business is the man who loves it, the man who will study it, the man who has not learned so much that he can not learn any more, and is willing to keep up with the procession.

But what are we doing? We are, almost over this entire section that I have mentioned, accepting what appears to a good many men to be inevitable—going out of apple orchards, destroying, perhaps, ten trees where we are planting one. I think this year will show a little different state of affairs. Nurserymen tell me there has been a pretty good call for apples over that section, and I think the conclusion must have forced itself upon the best informed men that there is a time coming, not very far from this, when they will wish they had good apples.

IN MONTANA AND IDAHO.

An exchange calls attention to the fact that Montana and Idaho recently passed rigid laws for the inspection of nursery stock. All homegrown stock in Montana must be fumigated before shipping, and all nursery stock, trees, plants, vines and cuttings shipped into the state must be fumigated before being delivered to the purchaser. Such consignments must be unpacked and if covered with burlap, this must be removed for the fumigation. All green fruits and citrus fruits offered for sale in Montana must be inspected, and if found free from disease or infestation, shall be passed; if not, shall be destroyed by burning. Fruit dealers are cautioned against selling or giving away empty boxes, packages or wrappings which

have contained fruit. The law declares that all such packages or wrappings must be destroyed by burning. The fruit interests in these western states are small beside those of New York, yet the western fruit growers are more carefully protected.

Since the organization of the Montana State Board of Horticulture the inspectors have inspected and fumigated upwards of 350,000 fruit trees, all of which were imported to the state and added to the orchards this spring. Most of the trees are varieties of apples, though pears, plums, cherries and apricots have a fair representation. The process of fumigation adopted for Montana is known as the California treatment, consisting of placing the nursery stock in air-tight tents or boxes and generating hydrocyanic acid gas. This is a solution of 58 per cent. potassium cyanide and sulphuric acid.

HOTHOUSE GRAPES.

At the sixty-eighth annual fair of the American Institute in New York, September 26-28, the center of attraction and of merit in the fruit display was undoubtedly the hothouse fruit from W. Rockefeller's estate. The grapes Mrs. Pince, Madresfield Court, Black Hamburg and Muscat of Alexandria were practically perfection in color, size and finish, and carefully staged on proper boards showed up grandly. W. Scott, Tarrytown; Howard Nichols, Yonkers; A. Taaffe, and Mrs. Patrick Barry, Rochester, N. Y., also contributed materially to the display of hothouse grapes. As to varieties, besides those already named, there were Barbarossa (Nichols), and the following remarkable collection of Mrs. Barry: Black Hamburg, Raisin de Calabre, Black Alicante, Muscat Troveren, Golden Queen, Chasselas Napoleon, Black Frontignan, Black Morocco, Chomier du Cautal, Mill Hill Hamburg, Duchess of Buccleugh, Golden Champion, White Tokay and Syrian.

Obituary.

Jacob Wentz, who has been in the nursery business at Rochester for four decades, died at his home at Irondequoit, N. Y., on September 27th, aged 70 years.

F. W. Loudon, the well-known horticulturist, died at his home in Janesville, Wis., October 2d. He was best known as the originator of the Jessie strawberry and the Loudon raspberry. Francis William Loudon was born at Stratford, Vt., December 17, 1818. He was a tanner by trade, afterward engaging in the boot and shoe industry. In 1852 Mr. Loudon retired from business and turned his attention to horticultural pursuits, in which he gained a national reputation.

J. V. Cotta, president of the Cotta Nursery and Orchard Co., Freeport and Nursery, Ill., died September 27th at his home in Nursery. Mr. Cotta was born at Eisenach, Germany, June 6, 1855. After an apprenticeship of three years under the late Herrman Jaeger at the Karthaus Garden, at Eisenach, he came to America at the age of 19 and established the original nursery of the Cotta Nursery and Orchard Co., in 1865, at what is now Nursery, Ill. In February, 1899, this company was formed. It includes the management of the original nursery and that established at Freeport in 1886 by his son, H. R. Cotta. The deceased had been president of the company from the date of its organization. Mrs. Cotta, four sons and one daughter survive. The business will be continued by the company. J. V. Cotta, Jr., is vice-president; H. R. Cotta, secretary, and Charles Cotta, treasurer.

FRUITS FOR THE PRAIRIES.

Charles G. Patten, Charles City, Ia., at the American Pomological Society meeting, illustrating the importance of breeding fruits for the prairies, stated that while some counties have shipped 800,000 bushels of apples, in others even the Siberian crabs cannot be grown. Turner and Loudon raspberries have survived a temperature of 35° below zero the past winter, and several kinds of American plums do well, although European plums and the apples and pears of the eastern states do not succeed. Seedling fruits, to do well, must be the product of a similar soil and climate, and not a single Russian variety is as well adapted for cultivation in Iowa as several local seedlings. If the best fruits, of the hardiest and best varieties, are selected, good results can be obtained. Whitney No. 20 and Soulard crabs have been used with good success as stocks, as have *Pyrus cordifolia*, *P. angustifolia* and some others.

AS REPORTED FROM PENNSYLVANIA.

The American Agriculturist publishes the following: "A new 'racket' is being worked by tree peddlers in Pennsylvania. They sell an assortment of large and small fruits to be planted on one acre, agreeing to replace any that do not live for five years, and to send a practical nurseryman to see that the tract is handled right. For payment they ask \$110, half in cash and half in notes, and half the crop on tract at end of fifth year, but if the sellers fail to prune or replant, they forfeit all right to the crop.

"In other words, this outfit gets \$110 cash (for the note has to be paid if given) for a batch of nursery stock that could probably be bought at a less price of as good or better quality from any reliable nurseryman. How many times are these agents likely to attend to the orchard each year for five years for half the crop the fifth year, especially when they are under no obligation to do so?"

NEBRASKA HORTICULTURISTS.

The State Horticultural Society this year exhibited Sept. 11-16, under greater difficulties than usual. The trying winter of 1898-9 injured many orchards. While summer fruits were quite abundant and attractive, autumn varieties were in lesser supply. Winter varieties are not so abundant nor in as good condition as usual. The fair also was held at a date when our leading winter varieties were not yet in as attractive condition to show, and the summer varieties which have usually the more showy qualities had all passed by.

Owing to the severe winter of 1898-9 the vineyards of the state are not in as good condition as usual; the Concord however, again shows its superior value in hardihood and productiveness. This old stand-by with Worden, Pocklington, Niagara, Moore's Early, and Woodruff Red, with possibly the Brighton for family use, makes a strong list for the average planter. The commercial planter will plant largely of Concord, Worden, for blue, Niagara and Pocklington, for white, and perhaps, Woodruff Red, as a red variety. The uniformly fine condition in which the Woodruff Red appeared from all exhibitors would indicate that this variety should be carefully

experimented with and quite likely in the near future it may be freely planted.

Much attention was attracted by the fine exhibit of Peter Younger of Geneva, Neb. This gentleman has sprayed his orchard five times this season, and leading horticulturists present were satisfied, from the appearance and quality of the fruit exhibited that the repeated spraying had been of marked benefit. The sentiment is gaining ground among our orchardists that he who would have fruit of the best character, free from worms, must spray regularly and intelligently.

The floral exhibit was better than in former years. On Thursday and Friday the society gave grapes and apples to all comers.

At the close of the week's exhibit, the society decided to make use of the large amount of surplus fruit in showing on the tables a fresh supply in many varieties. This will assist in maintaining the attractive condition of the horticultural hall and it is hoped that, for some weeks to come, it will continue to advertise the horticultural resources of the state.

Crete, Neb., Sept. 1899.

E. F. STEPHENS.

THE HORTICULTURAL SOCIETIES.

Meetings of horticultural societies have been called as follows: Worcester, Mass., at Worcester, Nov. 1; Maine, at Newport, Nov. 15-16; S. E. Iowa, at Mt. Pleasant, Nov. 21-23; N. E. Iowa, at Cresco, Nov. 28-30; Central Missouri, at Booneville, Dec. 2; Minnesota, at Minneapolis, Dec. 5-7; N. W. Iowa, at Spencer, Dec. 5-7; Ohio, at Newark, Dec. 6-8; South Dakota, at Parker, Dec. 12-14; Iowa, at Des Moines, Dec. 12-15; S. W. Iowa, at Logan, Dec. 19-21; Illinois, at Springfield, Dec. 26-28; New Jersey, at Trenton, Jan. 3-4; Nebraska, at Lincoln, Jan. 9-11; Peninsula, at Salisbury, Md., Jan. 10-12; Rhode Island, at Providence, Jan. 17; Southern Minnesota, at Albert Lea, Jan. 17-19; Western New York, at Rochester, Jan. 24-25; Wisconsin, at Madison, Feb. 7-10; Missouri, at Princeton, Dec. 5-8; California, at San Jose, Dec. 5-8; Maryland, at Baltimore, Dec. 6-7.

Recent Publications.

The October issue of *The Fruitman*, a North Central monthly journal of horticulture, is the first in an enlarged form and at the new publication place, Mt. Vernon, Ia. The editors, M. E. Hinkley, Clarence Wedge and H. W. Hinds will make the journal of special interest to the fruit growers of Iowa and the adjoining states. Their efforts deserve success.

"A Primer of Forestry," Part I., has been issued by the Division of Forestry, U. S. Department of Agriculture. It is by Gifford Pinchot, the able and active forester, and it is bound in cloth. The bulletin is of great value and we are pleased to see it put into a form that makes it durable and a pleasure to refer to it. The bulletin is just what its name implies. It is profusely illustrated with instructive half-tone engravings. Part II. of the bulletin will deal with "Practical Forestry."

The Griffing Brothers Company, Jacksonville, Fla., have issued a handsome rose catalogue entitled "Roses for the Southland." Following an attractive announcement is a little chat about roses, in which the advantages of field-grown grafted roses over budded roses are set forth with the aid of illustrations in a forcible manner. Preceding the illustrated list of varieties are instructions as to the cultivation and care of roses. The whole is printed on book paper, embellished with half-tone engravings and a colored cover. Pp. 86.

Long and Short.

TREES OF GREAT AGE.

Natural peach seed a specialty at J. G. Harrison & Sons, Berlin, Md
For apple seedlings, new land grown, address A. E. Windsor
Havana, Ill.

Extra fine seedling peach pits may be had of George C. Roeding,
Fresno, Cal.

A competent foreman is wanted by Stanley H. Watson at the Rose-
dale Nurseries, Brenham, Tex.

A complete stock of fruit and ornamental stock at Storrs & Harri-
son Company's, Painesville, O.

Myrobolan seed and natural peach seed can be obtained of Thomas
Meehan & Sons, Germantown, Pa.

Apple seedlings, equal to any on the market, in three sizes, are
offered by F. S. Phoenix, Bloomington, Ill.

A list of special surplus stock of wide variety is offered in another
column by Jackson & Perkins Co., Newark, N. Y.

Genuine mountain natural peach pits, crop of 1899, may be obtained
of the J. Van Lindley Nursery Co., Pomona, N. C.

The Ellwanger & Barry Nurseries, Rochester, N. Y., established
fifty years ago, are under the original management.

L. J. Farmer, Pulaski, N. Y., is the introducer of a new strawberry
of great promise. It is a seedling resulting from the growing of seeds
of Eureka, Lady Rusk, Gandy, and Bubach. The berry is large, dark
red, and very firm. The fruit sold at 12 to 20 cents per quart in New
York and Boston this year. It is a week later than other varieties.
On account of its superior carrying qualities it has been named the
"Rough Rider."

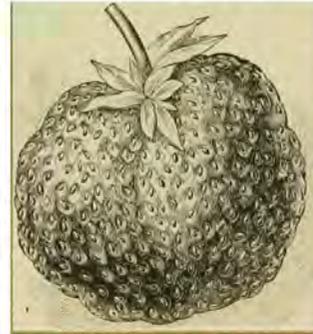
NEW JERSEY FRUIT GROWING.

About one-tenth of New Jersey's 34,000 farmers are actively engaged in commercial horticulture. They have over 4,000 acres in large and small fruits. Returns from 3,058 growers, who each had an average of over 12 acres in fruits, include peaches 18,750, apples 6,104, pears 3,707, cherries 64, quinces 15, plums 12, a total of 28,652 fruit trees, besides which 8,772 acres of small fruits were reported, making an aggregate of 37,423 acres, to which about one tenth was added to cover areas not specifically reported. The small fruits include strawberries 3,927 acres, blackberries 2,848, raspberries 1,052, grapes 839, currants 85, gooseberries 20. It will be observed that the peach industry slightly exceeds all the others put together. The apple is the next most important fruit, although hardly one-third the acreage of peaches. The others in order of importance are strawberries, pears, blackberries, raspberries, grapes, currants, cherries, gooseberries, quinces and plums.

The fruit industry is general throughout the state, the northern counties being second in peaches, strawberries, cherries, quinces, plums, gooseberries and currants. The central section leads in acreage of apples and peaches, is second in pears, grapes, blackberries and raspberries, while the southern section leads in acreage of pears, grapes and small fruits.

Gericke, the great German forester, writes that the greatest ages to which trees in Germany are positively known to have lived are from 500 to 570 years. For instance, the pine in Bohemia and the pine in Norway and Sweden have lived to the latter age. Next comes the silver fir, which in the Bohemia forests has stood and thrived for upward of 400 years. In Bavaria the larch has reached the age of 275 years. Of foliage trees the oak appears to have survived the longest. The best example is the evergreen oak at Aschaffenburg, which reached the age of 410 years. Other oaks in Germany have lived to be from 315 to 320 years old. At Aschaffenburg the red beech has lived to the age of 245 years. Of other trees the highest known are ash, 170 years; birch, 160 to 200 years; aspen, 220 years; mountain maple, 225 years; elm, 130 years, and red alder, 145 years.

NEW STRAWBERRY—"ROUGH RIDER."



THE firmest, latest, best keeping strawberry ever produced. Enormously productive and large. Brought 12 to 20c. per quart wholesale in New York and Boston, season of 1899. We are the introducers and supply plants to the trade. Nurserymen are invited to catalogue it. For prices, cuts, and all information address

L. J. FARMER
Nurseryman,
PULASKI, N. Y.

P. S. We have 18 acres of strawberries, 5 acres of raspberries, 4 acres of blackberries, &c., &c. We can quote rock bottom prices on red raspberries and blackberry plants. Correspondence solicited.

- 250,000 Miller Red Raspberry Plants.
- 300,000 Early Harvest Blackberry Plants.
- 150,000 Lucretia Dewberry Plants.
- 125,000 Strawberry Plants, from best leading sorts
- 100,000 Peach Trees, one year from bud and June budded in surplus.
- 20,000 Japan Plums, one year from bud, also in surplus.

WRITE FOR PRICES.

MILFORD NURSERIES,

Alex. Pullen, Prop.

Milford, Delaware.

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

HERMAN BERKHAN, SOLE AGENT,

39 AND 41 ORTLANDT STREET, NEW YORK.

Sole Agent for United States and Canada.

NORTH TOPEKA NURSERIES.

STRICTLY WHOLESALE.

I offer to the trade for fall of 1899 and spring of 1900 a full line of stock, including

APPLE, Apple Seedling,
PEACH, French and Japan
CHERRY, Pear Seedling.

A LIMITED AMOUNT OF KEIFFER PEAR.

GOOD STOCK. GOOD GRADES.

A. L. BROOKE, - North Topeka, Kan.

NURSERY STOCKS

OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphus, Acacia, Currants, Willows, Sambucus, Spiraea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of *Fruit Tree Stocks*, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

Transon Brothers Nurseries

BARBIER & CO., SUGCRS., ORLEANS, FRANCE.

For Price List Apply to

KNAUTH, NACHOD & KUHNE, 13 William St., NEW YORK.

THE

Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.
ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.
RHODODENDRONS—Ponticum, Catawbiense, Named Hybrids.
PÆONIAS—Large Assortment, Named Varieties.
DAHLIAS—New Cactus, Large Flowering, Ponpon.

full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

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ESTABLISHED 1780.

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Braut & Son, Directors, Angers, France,

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Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.

Eldorado, Maxwell and Lucretia Blackberries.

MILLER, LOUDON and TRIUMPH,
COLUMBIAN . . . GREENSBORO and EMMA,

Raspberries.

Wickson, Red June and Giant

PLUMS.

Peaches

and a full assortment of

It will be to advantage of those in the trade to correspond with us.
Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.

EXTRA FINE SEEDLING PEACH PITS

. In carload and less than carload lots.

Address,

GEO. C. ROEDING, FRESNO, CAL.

Everything in

SMALL FRUIT PLANTS.

W. N. SCARFF, New Carlisle, O.

Catalogue and Price List ..Free..

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Is now ready, revised and corrected to date, with 1388 names of new concerns. This book, issued every year at great expense, contains the names and addresses of all the Florists, Nurserymen and Seed Merchants in the United States and Canada. Price, \$2.00.

AMERICAN FLORIST COMPANY, Chicago, Ill, U: S: A.

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Offer for Fall 1899 and Spring 1900

Apples, Std. and Dwarf Pears, Cherries, Plums, European and Japan; Peaches, Quinces, Ornamentals, Roses, Shrubs, etc.

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As fine stock as can be grown, and a very full line of General Nursery Stock, Fruit and Ornamentals.

200,000 Peach Seedlings from Beds of Natural Seed.

NATURAL PEACH PITS.

We hope to have pits to offer in October, Crop of 1899.

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600 Acres.
13 Greenhouses.
Nurserymen and Florists.

Eastern agents for **Rossney Pear**, the best and handsomest pear yet introduced. We have an unusually fine stock of **Irish Juniper**, 2 to 3 ft. and 3 to 4 ft., also a splendid stock **Hybrid Perpetual, Moss, Climbing, Hybrid Tea and Ever-blooming Roses**, all on own roots. Correspondence solicited.

Send list of wants for prices.
P. O. BOX 625.

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**P. Sebire & Sons, Nurserymen,
USSY, CALVADOS, FRANCE.**

A general assortment of **Fruit Tree Stocks**, such as **Apple, Pear, Myrobolan Plum, Mahaleb and Mazzard Cherry, Angers, Quince, Small Evergreens, Forest Trees, Ornamental Shrubs, Roses, Etc** The largest stock in the country. Prices very low. Packing secured. Send for quotations before placing your orders elsewhere. Catalogue free. Agents for U. S. America and Canada.

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High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces, Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple, Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

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SURPLUS OF

PEACH, PLUM, CURRANTS,

POPLARS AND SHADE TREES,

PRIVET, SHRUBBERY, EVERGREENS, ROSES

HEADQUARTERS FOR NURSERY STOCK.

Baltimore and Richmond Nurseries,
BALTIMORE, MD.
FRANKLIN DAVIS NURSERY CO.
50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES.
LOW PRICES ON PEACH TREES FOR EARLY ORDERS.

- Apple,
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- Plum,
- Apricots,
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- Shade Trees,
- Evergreens,
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- Strawberries,
- Nut Trees,
- Japan Pear Seedlings,
- Gooseberries,
- Roses,
- Raffia,
- General Supplies,
- &c. &c.,
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Look Out

for a sharp raise
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Apple Seedlings

The crop of good No. 1 stock is short. We still have a fair supply of most of the grades. We have also

Two Year Apple and Cherry.
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Concord Grape and an extra fine block of one year Kieffer Pear 4-6 ft.

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Our Budded List of PEACH TREES Represents more than a Million.

Information as to varieties, quality, grade and price, cheerfully given. Your personal inspection invited.

EIGHT ACRES IN ASPARAGUS PLANTS,
One and two year old.

**Donald's Elmira, Columbia Mammoth White,
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30 Acres in Strawberry Plants, representing over seventy varieties.

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ALL OLD AND NEW VARIETIES.
Immense Stock, Warranted True
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A fine stock of Campbell's Early
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Send list of wants for prices.

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100,000 MYROBOLAN, No. 1,
100,000 PEAR, - - " 2,

In perfect condition and ready for immediate shipment. Write for particulars.

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A full line of stock for wholesale and retail. Correspondence solicited.
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At . .
Wholesale.

The Largest Stock of
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RASPBERRIES, BLACK-
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In the United States. . . .

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Grower and Exporter of Fruit Tree Stocks, Forest
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Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

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And other orchard and garden pests can absolutely be controlled by using

"U. S. STANDARD"
Caustic Potash Whale Oil Soap.

A positive Insecticide and Fertilizer.
Recommended by Entomologists, and a guaranteed article.
Send for circular and price list.

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Offer in large quantities for this fall or spring delivery :

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NO AGENTS, which permit to offer at lowest possible rates. Kindly send
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LARGE
SMALL **TREES**

FLOWERING SHRUBS in great variety. Descriptive Catalogue
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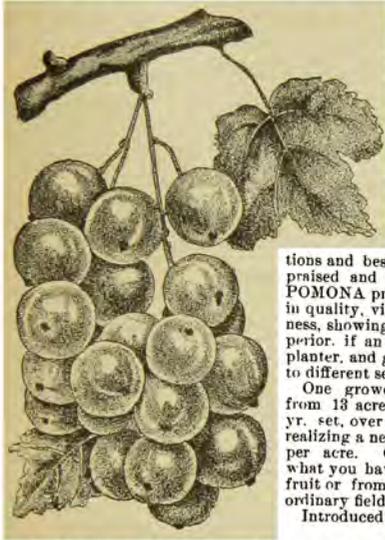
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One grower in 1898 picked from 13 acres of Pomona, 3 to 5 yr. set, over 5000 24 qt. cases, realizing a net profit of over \$180 per acre. Compare this with what you have realized for your fruit or from crops grown under ordinary field culture.

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WRITE US AT ONCE,

stating how many are needed, and we will make good figures.

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GRAPE VINES AND CURRANT PLANTS

Highest Standard of Grades.

LARGEST STOCK AND LOWEST PRICES.

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Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

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PIONEER NURSERIES CO. ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

Eastern Agents, **PIONEER NURSERIES COMPANY,**
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Bloomington, Ills.

We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

PEACH TREES.

We have for fall and spring trade a fine block of well-grown peach trees; all the leading western varieties.

APPLE SEEDLINGS

grown on new land and free from Aphs.

SHADE TREES,

large and small, together with a general line of nursery stock, including Forest Tree Seedlings, Osage Hedge Plants, Ornamental Trees, Shrubs, Etc.

APPLE GRAFTS MADE TO ORDER. PRICES RIGHT
Correspondence solicited.

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LET US MAKE YOU PRICES ON

CHERRY, 2 years, $\frac{3}{4}$ to $\frac{1}{2}$.—May Duke, Ey. Richmond, Hoke, Eng. Morello, Com. Morello, Wragg, Reine H. Olivet, Empress Eugenie, Ostheime.

PLUM, 2 years, $\frac{3}{4}$ to $\frac{1}{2}$.—Willard, Wickson, Red June, Kelsey, White Kelsey, Mikado, Normand, Bailey, Hytankio, Berckmans, Yeddo, Wild Goose, Gol. Beauty, Forest Rose, Shropshire Damsion, Tenant Prune, Mrs. Clifford, Mo. Apricot, Roberson, World Beater.

CHALCO, 1 year, 3 feet.

HALE, 1 year, 4 to 5 feet, strong.

APPLE: York Imperial, 2 years, $\frac{3}{4}$ to $\frac{1}{2}$; Bonum, 2 years, $\frac{3}{4}$ to $\frac{1}{2}$; Staymen's Winesap, 1 year, 3 to 4 feet, budded stock.

PEACH TREES, Leading Varieties.

PEACH PITS, CROP 1899.

GENUINE MOUNTAIN NATURALS. Write for sample and delivered price.

J. VAN LINDLEY NURSERY CO., POMONA, N. C.

WRITE FOR PRICES.

White Elm, 1 yr., Barberry, all sizes, Horse Chestnut, Soft Maple, 1 yr. Paeonies, Currants, Poplar Leaved White Birch, 6 to 8 ft. Mt. Ash, for lining out, Gooseberries.

A full line of Evergreens in seedling and transplanted stock, including a large percentage of the beautiful **COLO BLUE SPRUCE**.

GARDNER & SON, Osage Nurseries, - OSAGE, IOWA.

JAPAN PLUMS

A large stock Abundance, Burbank, Hale, and all standard varieties. New Varieties: America, Apple and Chalco a specialty.

FREIGHT PREPAID

to Philadelphia on all Northern and Eastern Shipments.

Peaches, Persimmons, Pecans, Mulberries, Figs, Field Grown Grafted Roses; both Teas and Hybrid varieties, and a general line of fruit and ornamental trees grown in large quantities.

High Grade Trees and Low Prices.

THE GRIFFING BROTHERS COMPANY,

POMONA NURSERIES. MACCLENNY, FLORIDA.

APPLE SEEDLINGS.

WE OFFER THE FOLLOWING GRADES:

First Class, 3-16 inch and up, straights.

Second Class, 2-16 to 3-16 inch, straights.
Branched, 3-16 inch and up.

These Seedlings are equal to any on the market. We are selling them at Reasonable Prices. First Come, First Served.

Address

F. S. PHOENIX, Bloomington, Ill.

Apple, Peach and Japan Plum Trees.

Louden and Miller Red Raspberry.

BUDS IN SEASON.

40 kinds Japan Plums. 50 kinds Apple. 70 kinds Peach.

WEST JERSEY NURSERY GO.

STANTON B. COLE, - Bridgeton, N. J.

When writing to Advertisers mention The National Nurseryman.

Can You Meet the Demand

For Plum and Peach Trees when it comes? The unprecedented winter killed trees that must be replaced, and it takes but little judgment to see the demand that is bound to come.

Raise Your Own Plum Stocks

The race to get a little share of imported stocks this year and last should carry a lesson home. **Myroblan** is easily raised from seed. Don't get left entirely. We have the seed. No more Mariana stocks.

Natural Peach Seed

Is scarce—many persons ignorant of the facts say there is none—but we have a few bushels fresh seed collected in a non-yellow section.

Write at once for quotations.

Full line of Imported and Native Fruit Stocks and Seeds

THOMAS MEEHAN & SONS, Germantown, Phila., Pa.

A few thousand of Campbell's Early Grape Vines.

A large stock of Clematis, leading varieties.

Not Quite a Million but an Immense Quantity.

Write for Prices.

P. W. BUTLER, East Penfield, N. Y.

PEACH PITS CROP 1899

We have secured a limited quantity of extra good seed. Write for prices, stating amount wanted.

STARK BROS NURSERIES & CO, Louisiana, Mo.

Get our prices on the following Surplus Stock:

10,000 DOWNING, 2 yr. No. 1.	5,000 VICTORIA, 3 yr. No. 1.
10,000 VICTORIA. " " "	2,000 L. B. Holland 2 " "

Address **PRAIRIE CITY NURSERY, RIPON, WIS.**

Rattan Hot-Bed Mats.

OF GREAT VALUE TO EVERY NURSERYMAN.

For particulars address

Heywood Brothers and Wakefield Company, BUFFALO.

FOR APPLE SEEDLINGS

New land grown, Address

A. E. WINDSOR, Havana, Ill.

FOREMAN WANTED. A first-class, educated, practical, working foreman wanted at the oldest nurseries in Texas; single man preferred; twelve months work in the year, and permanent situation if satisfactory; wages higher than in the north, and living cheaper; must be thoroughly competent and experienced in the propagation and care of nursery stock; no glass; am willing to pay a good man, good salary. Send references and state salary wanted. Address, **STANLEY H. WATSON, Rosedale Nurseries, BRENHAM, TEXAS.**

When writing to Advertisers mention The National Nurseryman.

P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES,

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

20,000 Standard Pears—Extra good Stock.

2 years, 5 feet and up, branched.
2 years, 4 to 4½ feet, branched. Get our prices.

5,000 Everbearing Peach Trees—3 and 5 feet. \$10.00 per 100.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Cherries, Mulberries, Apples, Figs, Nuts and Peaches.

ORNAMENTAL DEPARTMENT.

100,000 Amoor River Privet—Unsurpassed as an evergreen hedge plant.

50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stand 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel, budded upon Manetti, 18-24 inches.

Two Acres in Canna.

BIOTA AUREA NANA

Best of all the dwarf Biotas; a perfect gem. Was not injured in the least by the February freeze—while the old Biota Aurea (its parent) was badly injured. We have an immense stock and can supply it by the thousand in sizes 12-30 inches.

100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.

4,000 Fancy Caladiums,

Ficus, Crotons, and 15,000 Camphor Trees, Sub-Tropical Fruits, Etc.

Send for Trade List and Descriptive Catalogue.

PETERS & SKINNER,

North Topeka, Kansas.

CAPITAL NURSERIES.

We offer for Fall of 1899 and
Spring of 1900

APPLE, PEACH, CHERRY
AND PLUM TREES.

1 yr. KEIFFER PEAR.

BECHTEL'S DOUBLE FLOWERING CRAB.

We can supply

Apple Seedlings

in large lots. Fine grades.

KEIFFER AND JAPAN PEAR SEEDLING.

OSAGE, CATALPA, BOX ELDER,

RUSSIAN MULBERRY, SOFT

MAPLE AND ELM SEEDLING.

KANSAS RASPBERRY. BLACKBERRIES.

WRITE US FOR PRICES.

Peters & Skinner.



When writing to Advertisers mention The National Nurseryman.

Albertson & Hobbs,

BRIDGEPORT, (Marion Co.) IND.

OFFER FOR FALL 1899
AND SPRING 1900.

In car load lots, assorted car load lots, or smaller quantities.

Standard Pears—Complete assortment, including liberal portion Keiffer, Bartlett, Henry, Arnold, etc.

Dwarf Pears—Complete assortment.

Plums—European, Japan and native, assorted.

Cherry—Assorted.

Carolina Poplar—All sizes; extra fine young stock.

Norway, Silver and Rock Maples.

Weir's Cut Leaved and Schwedlerii Maple.

American Elms, Weeping Elms, Lindens, Sycamore, Mulberries, etc.

Hardy Shrubs—Good assortment; also Evergreens, Roses, Vines, Small Fruits, etc.

Apple Seedlings and Imported Seedlings, Peach Pits, supplies, etc. (Prices on application.)

SEE TRADE LIST FALL 1899.

Spade and supply orders should be sent in early.

TRADE



MARK.

Japanese Nursery Stock, SEEDS, Etc.

Orders are booked now for Fall and Spring delivery. Safe arrival guaranteed. Price f. o. b. New York, duty paid.

SPECIALTIES:

Japan Maples, Citrus Trifoliata Stocks and Seeds, Japan Pear Stocks and Seeds, Etc.

Trade List Free on Application.

SUZUKI & IIDA,

11 Broadway, 3 Nakamura,
NEW YORK. YOKOHAMA.

SOLE AGENTS OF THE
YOKOHAMA NURSERY CO.

When writing to Advertisers mention The National Nurseryman.

Natural Peach Seed

Have a few more than will need to plant; will sell them at fair price, quality considered.

Peach Trees by the 100, 1,000 or Car Load.



VICTOR.

The originator describes it as the earliest peach known, ripening ten days earlier than the Sneed. The tree is a very vigorous, compact grower, a regular and immense bearer. The fruit is of a very pleasant sub acid flavor, equals the Alexander in size, ripens thoroughly and is a semi-cling. A seedling of the Chinese Cling crossed with Spanish blood, bordering on the Indian type. Ripened its whole crop of fruit in 1897 between May 8th and 16th on originator's grounds in Smith county, Texas. To confirm this statement we would say that the Victor is the earliest peach we have ever known to be in this State. We have received two specimens by mail coming in very good condition after being packed for fifteen days and they reached here on May 30th. The fruit is from medium to large for such an early peach, somewhat of the type of Chinese Cling, red blush, of excellent flavor and for earliness we have not been able to find a peach that will excel this, and those who are looking for the earliest peach grown, by all means should plant Victor. The accompanying cut is from a photograph of the exact size. We are offering trees of this variety in June buds only, and will mail them anywhere in the United States. Write at once for prices.

J. G. Harrison & Sons,

Send list of
Wants this day.

BERLIN, MD.

General
List
of
Varieties.



PEACH.



Alexander
Amsden June
Barnard's Early
Bilyeu's L. Oct.
Bokara No. 3
Brandywine
Bray's Rareripe
Crawford Late
Crawford Early
Cone't So. Early
Champion
Chair's Choice
Crosbey
Connecticut
Chinese Cling
Elberta
Early Rivers
Early Heath
Early Michigan
Fox Seedling
Foster
Fitzgerald
Ford's Late White
Frances
Geary's Holdon
Greensboro
Gold Drop
Globe
Hill's Chili
Hale's Early
Kalamazoo
Lemon Free
Lewis
Lorentz
Levey's Late
Moore's Favorite
Magnum Bonum
McIntosh
Morris White
Mt. Rose
New Prolific

General
List
of
Varieties.



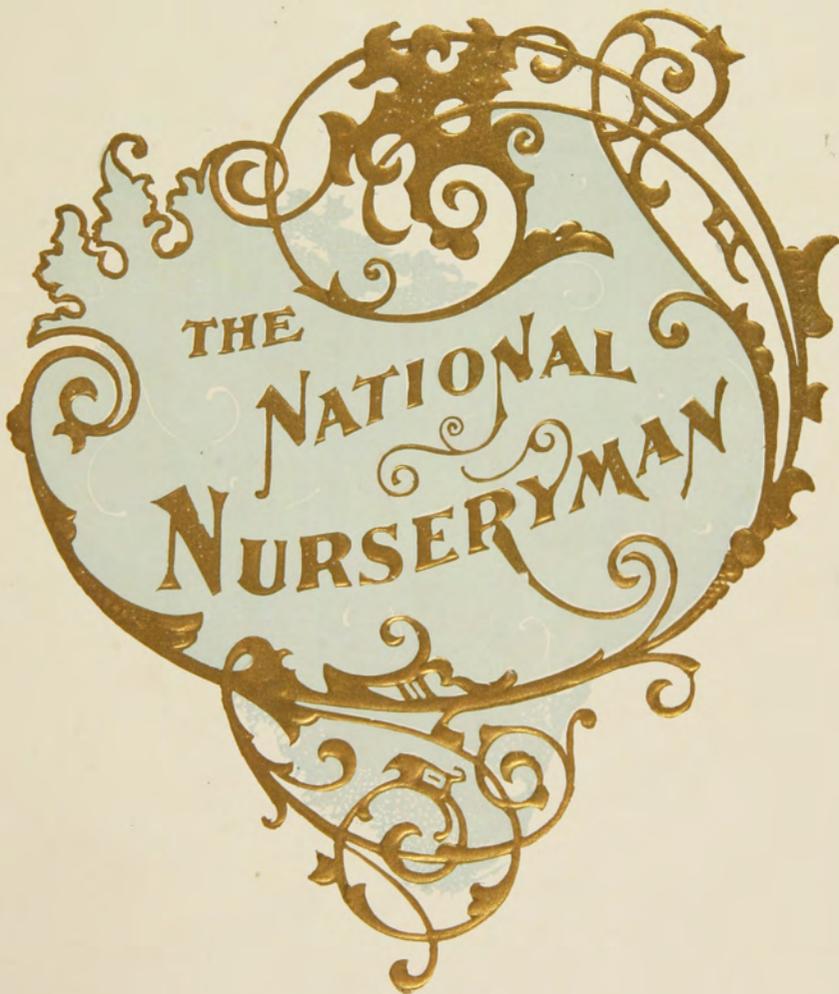
PEACH.



Old Mixon Cling
Old Mixon Free
Reeves Favorite
Stephen's R. R.
Smock
Salway
Snow's Orange
Stump the World
Sneed
Triumph
Troth's Early
Wonderful
Wheatland
Wager
Willett
Walkers's Var. Free
Wilkin's Cling
White Heath Cling
Water Loo
Yellow St. John

PLUMS.

Abundance
Burbank
Berckman
Chabott
German Prune
Hale
Normand
Ogon
Red June
Satsuma
Shipper's Pride
Tage
Wickson
Willard
Wild Goose
Shropshire Damson



December, 1899.

The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES.

**Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.**

Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphids, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

Headquarters for Ornamental Trees and Shrubs.

Will have the largest and finest stock of large **Carolina Poplars** for the coming fall trade which we ever offered. This is the tree for quick growth and to resist the smoke and gas in village, town and city.

Weeping Trees—Especially heavy in **Teas' Weeping Mulberry, Kilmarnock, Wisconsin, Babylonica and New American Weeping Willows, Camperdown Elm, Mountain and European Weeping Ash,** and a good stock of other weeping trees. Fine stock of high top **Rose Acacia.**

Roses, Roses, Roses—Forty acres in nursery rows, own roots and budded. None better. Greatly superior to the imported.

Greenhouse Department.

Consists of **Forty-four** houses filled with **Roses, Palms, Ferns, Ficus,** and other things too numerous to mention.

Holland Bulbs—Have large lots contracted with best growers that cannot fail to please customers.

Personal inspection and correspondence solicited.

TRADE LISTS AND CATALOGUES FREE.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE
**MOUNT
 .. HOPE ..
 NURSERIES,**

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

**LOUIS LEROY'S
 NURSERIES**

(Established 1795.)
ANGERS, (M. & L.) FRANCE.

GROWER AND WHOLESALE EXPORTER OF

FRUIT, FOREST and ORNAMENTAL STOCK

Camellias, Clematis, Coniferæ, Lilacs, Magnolias, Rhododendrons, Roses, Shrubs, Etc.

Prices, catalogues and all other information can be obtained by addressing

AUG. RHOTERT,

SOLE AGENT,

26 Barclay Street, (P. O. Box 2250) New York.

KNOX NURSERIES

(Established in 1851.)

We offer to the trade for Fall of 1899 the following No. 1 stock:

APPLE, 2 yr.

Ben Davis, Jonathan, Grimes, York Imperial, Gano, Wealthy, and a few other leading sorts.

PEACH, 1 yr.

Extra size, fine for small orders.

Heavy on Elberta, Heath Cling and Champion.

Snyder Blackberry, root cuttings.

Our stock was not injured by the cold winter.

Correspondence solicited.

Long distance telephone connection.

**H. M. SIMPSON & SONS,
 VINCENNES, IND.**

When writing to Advertisers mention The National Nurseryman.

Jackson & Perkins Co., NEWARK, N. Y.

HEADQUARTERS FOR

ROSES, CLEMATIS,

ALSO GOOD STOCKS OF

*Ampelopsis Veltchil, Chinese Matrimony Vine, Wisteria, Purple,
 Deutzias, Forsythia Fortunell, Fringe, Purple,
 Fringe, White, Halesia Tetraptera, Herbaceous Plants,
 Hydrangea Pan. Grand—18-24 in. Snowball, Japan,
 Hydrangea P. G. tree form, Splreas, Sumac, cut leaved,
 Tree Paonias, Weigelias, Xanthoceras.*

*Acacia, Mexican, Alder, European, Beech, American,
 Cytissus Laburnum, Euonymus, European,
 Magnolia Acuminata, Magnolia Speciosa, Willow, Kilmarnock,
 Mulberry, New American, Arbor Vitae, American,
 Arbor Vitae, Siberian, Fir, Nordman's Silver, Larch, European,
 Spruce, Colorado Blue, Spruce, Norway.*

CURRENTS—2 yr., No. 1. Black Champion, Cherry, La Versailles, Fay's. 2 yr., medium, Black Champion, Cherry, Fay's.

GOOSEBERRIES—Columbus, Houghton, Industry, Red Jacket.

PEARS—Standard and dwarf **PLUMS.**

Send for our price list which gives low quotations on the above and upon many other items of interest—too numerous to mention here.

WANTED for mailing: 2,000 to 3,000 Bismarck Apple, 1 yr. grafts or buds (grafts preferred). Send sample and price.

BREWER & STANNARD,

OTTAWA, KANS.,

Offers to the Trade a Large and Complete Assortment of

NURSERY STOCK

**APPLE,
 PEAR, Std. and Dwarf,**

CHERRY,

PLUMS, Japan and European

PEACH,

APRICOT,

Gooseberries, Grape Vines, Currants, Raspberries, Blackberries, Apple Seedlings, Forest Seedlings, and Osage Hedge Evergreens, 18 in. to 3 ft.

Ornamental Trees, Shrubs and Vines.

When writing to Advertisers mention The National Nurseryman.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"The temple of commerce is supported by columns of advertising."

VOL. VII.

ROCHESTER, N. Y., DECEMBER, 1899.

NO. 11.

A SKEPTIC CONVINCED.

An Instance in the Investigation of the Stringfellow Method of Root Pruning—Henry E. Dosch, State Commissioner of Horticulture of Oregon, Finds Short Root Method of Planting Nursery Trees at the North Successful—Other Tests.

In view of the general opinion that the method of root-pruning advocated by H. M. Stringfellow, Lampasas, Tex., is not adapted to the northern sections of the United States it is of interest to cite recent experiments as far north as Oregon. The method proposed is to cut off all the roots of a young tree at transplanting time, leaving only a naked stub of say two inches in length, and to set this in a dibble hole. Mr. Stringfellow's claim is that the new root system resulting from this treatment will be a strong, vigorous, perpendicular growth of lusty, large-diametered roots, heading straight down for the moist depths of the subsoil, instead of a network of fine, capillary, surface rootlets, matted horizontally within a few inches of the ground. These roots, penetrating deeply, will safely anchor the tree, and in a year's time produce a better growth of top than would result from the roots left intact at transplanting. It is evident, further, that considerable labor would be saved in setting.

Henry E. Dosch, of Oregon, superintendent of the Oregon agricultural and horticultural exhibit at the Chicago World's Fair, winning the highest prize, for which he received a vote of thanks from both branches of the legislature, is the state commissioner of horticulture and is widely known throughout the Northwest as probably the ablest all-round horticultural writer and experimenter in that section of the United States. He says:

"Some five years ago my attention was called to this new method of root pruning in planting trees. I was incredulous, as it upset all time honored teachings; yet as the article in question was from such a man as J. H. Hale, saying he had just planted 100,000 peach trees in his Georgia orchard in that way, I had to take it for granted that the Stringfellow method was the correct one.

"This method of pruning away practically all the roots of a young tree before planting it, seems to be finding an increasing number of advocates, though it runs so exactly counter to the established practice and teaching of generations of orchardists that conservative people find it difficult to believe the favorable reports of it which they see in print. Having been taught all our lives the necessity for keeping the root system of a young tree as nearly intact as possible when moving it from the nursery to the orchard, it gives one a shock to be told that it would be better to cut it away entirely.

"The advocates of this system claim that with trees so treated, the new roots, springing direct from the crown and short stubs, assume a more natural position and strike down

more deeply into the soil than when a tree is set in the usual way; and consequently the tree is more vigorous and longer lived. Again, they point to the undoubted fact that the new plan is much the cheaper and it reduces to a minimum the danger of spreading all kinds of insect pests and fungous diseases, such as scale, root lice, black knot, root rot, etc. Less care would also be required in digging trees, and a good share of roots and tops could be cut away before shipping, thus saving in boxing and freight, while the digging of large holes could be entirely dispensed with, as the tree, whittled to a neat stub, in properly prepared soil, could be simply shoved into the ground or planted in a dibble hole like a cutting.

"At the Fruit Growers' Convention held in La Fayette, Ore., in the summer of 1895, I called attention to this method and urged those present to experiment along this line and report results, but the very idea was hooted at by our most advanced horticulturists and nurserymen, so I dropped the matter, having resolved, however, to give the method a thorough trial myself, and prove either its correctness or failure, under our climate and soil conditions.

"For this purpose I procured fifty trees, one, two, and three years old, of pears, apples, prunes, plums and cherries, grafted on different kinds of roots. I did this to give the method a thorough and complete trial, and if possible see whether one or the other roots would do better; also if the age of the trees made any difference. I then cut away every root, leaving but three inches—less would have been better—on the stubs and removed every little fibre, so they were perfectly bare; the tops were cut off to 30 inches in height, all alike, and set in two rows, three feet apart in the row and five feet between the rows.

"The first year the trees made but a few inches growth, which I attributed, and correctly so, to the fact they were growing roots; yet I had my fears, as my soil is a heavy, stubborn, clay soil, underlaid with hard pan, and a very dry season followed. I hoed and cultivated them the same as I would have done if planted in the orchard but when fall came I had about concluded it was a failure and paid no farther attention to them.

"The following spring, when preparing my garden where they were planted, I started to pull them up, when, to my surprise, I could not do it. Upon examining the little things, I noticed the buds were swelling, so I concluded to allow them to remain, giving them the same treatment as before; and when they did begin to grow I thought they never would stop; the prune trees grew eight, and the apple and pear trees three and four feet.

"The fruit growers' convention met that year in July in Newberg, to which I took a number of these trees to show the results of my experiment, and naturally, like myself, all present were very much astonished, but the proofs admitted of no argument. The most surprising fact of all was, not the large top growth these trees made, but the perfect root system

they had formed. We all know that most nursery trees have one-sided roots, difficult to replant, and in our clay soils they spread out close to the surface in growing and are constantly torn by the plow, producing innumerable sprouts. In the Stringfellow method, this is all changed; the pruned trees throw out three or four strong roots from each stub, which strike diagonally down into the soil. Those which I dug to exhibit at Newberg had grown roots down into this heavy clay soil over four feet, penetrating the hard pan and throwing out hundreds of little rootlets, but none grew near the surface, hence out of reach of the plow. A more perfect and symmetrical root system could not be formed.

"I am confident that if plum stock is used for our prune trees, care being taken to cut away the buds at the union when pruning the roots for planting under this system, no sprouting will follow, thus eliminating the principal objection to the use of plum stock for prunes, which stock is conceded hardest, natural and most suited to our moist, clay soils. No sprouts occurred on those trees I experimented with.

"As to what aged tree is best adapted for this method, I could see no difference whatever, the three-year-old trees making the same perfect root system as the one- and two-year-old, nor was there any difference as to the stock on which they were grafted. The only difference was that the three-year pear and cherry trees set some fruit, which matured nicely. If I were planting a new orchard I would certainly use the Stringfellow method of root pruning."

A GEORGIA EXPERIMENT.

H. N. Starnes, at the Georgia Experiment Station, experimented with apple, cherry and peach. An extract from his report follows:

"The root-pruned trees made fewer, deeper, larger and more robust roots; the unpruned, a mat of small laterals, like a great dishmop. The depth of penetration for the roots formed by the root-pruned apple tree shown in photograph was, for instance $17\frac{1}{2}$ inches against $9\frac{1}{2}$ inches for the unpruned tree. This year the two-year-old experimental peach orchard, planted in dibble holes, will now average 12 to 15 feet in height, and bore an enormous crop the past summer. Whether or not Stringfellow's methods ultimately become universally adopted, they cannot, in view of the various successful tests in which they have figured, be any longer criticised as visionary or ridiculed and so dismissed. The Stringfellow theory has now gone beyond this point, and must be treated with the respect which its grave importance to the fruit grower demands."

Commenting on these and other experiments, the Country Gentleman, Albany, N. Y., says:

"This short pruning, or so-called Stringfellow method, is likely to work best in southern localities, and in light, loose, fast soils. It gives best results with peaches, Japanese plums and apricots, about in the order named. It is more apt to be successful when stocks like Marianna or Myrobolan plum are used which grow as cuttings. The main thing, however, is to have a good, sound, vigorous tree when it comes from the nursery. Cutting and patching a weakly, scrubby tree does not pay."

THE APOLOGY ACCEPTED.

J. F. MARTIN, WINFIELD, KAN.—"We cannot get along without your valuable journal. Our failure to remit is due only to neglect. Enclosed find \$2."

LOCAL NURSERIES.

Upon a subject of general interest among nurserymen, the Country Gentleman says:

"There is a good deal of prejudice in favor of local nurseries. One constantly hears the opinion that an orchardist in Ontario should not plant trees from a southern locality, like Maryland (supposing he could get them!) or that an Iowa man should eschew nursery stock grown in Alabama. According to our observation, which has been somewhat varied and extensive, there is absolutely nothing in this notion so far as the success of young nursery stock is concerned. There is always an advantage in dealing with a local nurseryman, in that he has a local reputation to sustain, he is accessible, and he can be held to his bargain better than a man in some distant state. Freight is sometimes saved, too, by buying of a local nursery, though not often.

"But the idea that young trees suffer by being unaccustomed to their new surroundings seems to us insufficiently founded on fact. Trees brought from a distance unquestionably have to undergo some degree of readjustment; but there is no more reason to suppose that this acclimatization process is deleterious to the health and vigor of the tree than to suppose that it is an advantage. We have personally observed a number of instances in point and they all support the opinion here expressed.

"We are aware that many horticulturists hold a different opinion, and we have no doubt that some of them can cite facts on their side; but in general this notion seems to be grounded on prejudice and not on observation."

DIGGING TREES BY STEAM.

The Perry, O., Forum has the following description of the digging of trees by steam power, and incidentally praise for the soil of Perry township:

"To a firm like L. Green, Son & Co., when the shipping season begins, it is a continual rush until the season is over and the orders filled. They ship in carload lots, their stock going to nearly every state in the Union, hence the necessity of quick work in filling their orders which often come by wire making it necessary to load several cars in as many hours. To take trees out of the ground, pack in boxes and load in cars is no small matter, yet they have always filled their orders until this fall, when to their regret it was simply an impossibility to get cars fast enough to supply the demand, hence several large orders were canceled. In order to facilitate matters at this season of the year, Abraham Adams of Leroy has put in operation the steam digger. The digging apparatus is attached to a traction engine which is anchored at the end of the row of trees, the plow being drawn by two steel cables which pass through two pulleys staked to the ground, the cable winding in a set of reels attached to the engine. The process has proven a success, and we are told that the machine will in one day do the work of 500 men and do it better. With this apparatus the digging of trees in our large nurseries by horse or hand power is a thing of the past, and as the rule of the business men of Perry is progression, we are not surprised to see them grasp new ideas and keep to the front in all that meets the demand for their fast increasing trade.

"Mr. Adams claims his invention to be able to fill a long

felt want and has applied for a patent. For a tree lifter it certainly is a 'cracker-jack,' and those who are not familiar with the large amount of work to be done in the shipping season can form no idea of the necessity of quick work in order to keep up with the orders for carloads of nursery stock.

"Perry township has long been known as having one of the finest soils in the Union for the growing of fruit trees, and buyers consider themselves very fortunate when they are able to place their orders with our well known firms. The climate also is very advantageous for the growing of fruit trees, as no infectious diseases have ever been known in our nurseries, hence it is well known that the nursery interests of Perry township are second to none, and notwithstanding the fact that hundreds of acres are being utilized in this branch of industry new nurseries are being set out and cultivated, and the present demand proves that the idea of overproduction is a fallacy and that the stock grown in this section will always find a ready market."

A NURSERYMAN'S ENTERPRISE.

M. Butterfield of the Star Nurseries, Lee's Summit, Mo., has set out about 80,000 trees on the contract plan within the last few years, principally in Western Missouri and Kansas, and is now engaged in making some experiments in fruit raising in the southeastern part of the state. "I have made arrangements to start an experimental farm near Farmington," said he, "and some interesting results are anticipated. I will put out sixty varieties of apples, sixty varieties of peaches, strawberries, and, in fact, all the leading varieties of small fruits for experimental purposes. The country looks like a fine fruit region, but there is not at present a single commercial orchard in that section, so far as I have been able to learn. The soil is superior, and contains the exact quantity of iron which has been long recognized as giving the finest flavor and color. Horticulturists know that a good wheat country will almost always produce fine fruit. They also recognize in certain native timber growths the adaptability for fruit growing. A soil which produces black walnut, sugar tree, wild cherry, paw-paw, red and white oak, hickory and elm is marked out by nature for fruit raising. Then, instead of having to haul iron filings miles and miles to put around their trees, as the orchardists of other sections have had to do, the fruit growers there will find the exact elements already existent in the soil.

"I have been engaged for three weeks past in collecting specimens from the old orchards in that neighborhood, which I will display at the coming meeting of the State Horticultural Society at Princeton. I expect to open the eyes of some of the fruit men, too, for this region at the east end of the Ozark rise has been almost neglected by fruit growers. In my opinion it will produce almost any kind of fruit, but for pears and strawberries the conditions are almost ideal. They tell me that strawberries from that section have already a reputation on the St. Louis market because of their fine color and flavor, but nobody has gone into the fruit raising business on an extensive scale, for reasons that can hardly be comprehended by the experienced fruit grower."

A SAMPLE FROM THE MAIL.

THE CRETE NURSERIES, E. F. STEPHENS, Manager, Crete, Neb., Nov. 13.—"Enclosed please find \$1 renewal of your excellent journal."

From Various Points.

The Country Gentleman says: "They still have the nerve out in Indiana to issue a San Jose scale bulletin."

Professor Van Deman is advising the purchase of nursery stock in the fall and keeping it for spring planting.

The Western Association of Wholesale Nurserymen will hold its semi-annual meeting in Kansas City on December 20th.

Secretary Barnes of the Kansas Horticultural Society says there are 7,533,358 apple trees in bearing in Kansas and 3,641,385 not in bearing.

The annual meeting of the Fruit Growers' Association of Ontario will be held at Whitby, December 5 and 6. L. Wolverton, Grimsby, is secretary.

The dutiable imports of plants, shrubs and vines amounted to \$276,552 in September, 1899. There were imported the same month of last year \$220,290.

H. C. Irish of St. Louis is quoted as saying that the American Association of Nurserymen has done more for the everlasting benefit of fruit growers than has any other agency.

Contrary to the usual practice, a Belgian horticulturist plants cuttings of hardy trees and shrubs in the fall. The percentage of loss, he insists, is smaller than when planted in the spring, and the results much more satisfactory.

The executive committee of the American Rose Society has decided to hold the first rose exhibition in the Eden Musee, New York City, March 27, next. Premiums to the extent of \$1,000 are already guaranteed, and there will be eight to ten silver cups.

The Great Bourbon, as the oldest of the orange trees at Versailles is called, died last year at the age of 477 years, says a French contemporary. The seeds of a particularly flavorful orange were sown in 1421 by Leonara de Castille, Queen of Navarre and resulted in this.

The dutiable imports of plants, shrubs and vines amounted to \$38,075 in July, 1899, against \$24,835 worth in July, 1898. The total imports for the seven months ending July 31, 1899, amounted to \$238,392, as compared with \$24,835 worth imported during the first seven months of 1898.

The annual inspection of Illinois nurseries required by law of the state entomologist was done by assistants of Professor S. A. Forbes of the University of Illinois. The total number of nurseries found was 274. The average cost of inspection paid, under the law, by nurserymen, was \$5.38 for each nursery.

A recent decision of the Supreme court of Washington states that to be effectual the countermand of an order of purchase must be made before delivery of goods to carrier. That notice was deposited in the post office is not sufficient. The mail is here considered as the agent of the party sending the notice of countermand.

A writer in the Journal of Horticulture estimates that in all England there are fully 1,100 acres covered with commercial greenhouses, which he apportions to various branches as follows: Three hundred and fifty acres for flowers, 350 acres for grapes; tomatoes, 250 acres; cucumbers, 110 acres, and 50 acres to stone fruit, strawberries and other produce.

The grape belt of New York consists of about 30,000 acres, of which 25,000 are in nine townships on the border of Chautauqua Lake in New York, and 5,000 in two townships in Pennsylvania. An average yield is 7,000 carloads in a season, 3,000 baskets to a car, or 21,000,000 baskets. Of these nearly 95 per cent. are Concord, and the average price last year was seven cents a basket. It is estimated that there are 8,000 pickers employed, and as a rule there are eight to ten women to one man.

Every horticulturist should be, to a considerable extent, an entomologist, says an exchange. He should be able to recognize any common insect that invades his fruit plantation or his orchard. To accomplish this he should have a small collection of the insects that are most common. These collections are not readily obtainable at this time, but the demand for them will create a supply. In older countries this demand and supply already exist. In England one entomologist makes a business of breeding insects for the purpose of supplying collections,

In Common Council.

Editor NATIONAL NURSERYMAN :

I am very pleased to see your brief notice on tree values, published in your last issue. I like to see such references, for, as a rule, people do not realize the value of a tree. It is true that the value is hard to estimate. It may be said, I think, that there are two values possessed by a tree. First, the commercial or market value, and the other, the sentimental value or value of association. This latter is not to be measured by commercial law. Unfortunately, however, the commercial rating too often prevails. A note of the nature that I refer to is worth a good deal to some people who look at a tree from the dollars and cents side. If they cannot be reached from the natural or sentimental side, let us reach them from the other standpoint.

JOHN CRAIG.

Ames, Ia.

NURSERY SALES IN IOWA.

Editor NATIONAL NURSERYMAN :

The ubiquitous and persuasive tree agent has been probably more numerous in the state this summer and autumn than for many years. Secretary Greene of the State Horticultural Society estimates that the loss of fruit trees in the state, due to the severe freezing of last winter, amounts to over 700,000 trees. The net result of this was a greatly increased activity in tree planting lines by amateur as well as commercial growers. A few would-be tree growers have become discouraged and have not replanted. It is probably as it should be. Unless a man is interested in his business he is not likely to make a success of it, and the lukewarm orchardist, the man who takes a mild interest in the business, is wasting time for himself and injuring the business of others, and he had better keep out of it. The planting of this year, then, will be done by men best qualified to care for the trees they plant. Altogether the pomological signs of the times are hopeful.

JOHN CRAIG.

Iowa Agricultural College, Ames, Ia., Nov. 6, 1899.

ADVOCATES FUMIGATION.

Editor NATIONAL NURSERYMAN :

We read the article by Orlando Harrison, in the November issue of your good journal with much interest, and while there seems to be a dislike for the articles by some, and others are crying "enough!" we think the San Jose scale is too formidable a foe for us to stop and be content with matters where they stand now.

Those who see no dangers in it may not have had enough of it, or, they have had too much of it. We do not want any of it, and we want to be protected from it, for we have buyers who look to us to give them good clean stock, and to protect them from the scale.

We do not know what states have had the "political inspectors," and we do not know if our inspectors in this state are "political inspectors" or not; but we do know that they are all good, thorough, conscientious scientific men, and we know that each man, both of our past and present inspectors, has been and is now able to detect the presence of the San Jose scale in any stage of its development. We are satisfied about that, even if they have not written and talked so much about it

as some others have; but, we believe nursery inspection, as it is carried on in the states to-day, is a fraud on its face, whether it be done by an entomologist, a "political inspector," or a politician.

Many of our nurseries have from hundreds of thousands to millions of trees in them, enough to keep an inspector busy at one nursery for an entire year; but it is done, we know, always within a week, and, as a rule, in a day. Trees are, consequently, omitted, a great many more than two-thirds of them. These omitted trees are surely not inspected, they are not any more inspected than the five hundred to a thousand trees of my neighbor's, just over the fence, which were not inspected; yet I have a certificate stating that my trees have been inspected, and, by law, I dare not buy one of my neighbor's trees, which are not inspected and ship it with my uninspected trees. It is, furthermore, impossible for the grower to know that his trees are all clean; he thinks so, but he does not know, nor does the inspector, for, do as they like, under the present system, they omit nearly nine-tenths of the trees in a whole nursery. It is a chance of hit or miss, and it does seem foolish, even for an entomologist.

Fumigation seems the only remedy, and this will have to be done by all of us, or none of us are safe, nor are our planters. We should protect the planter as well as the nurseryman, for it is on him, ultimately, that we must rely. We must not sell him bills on such terms as those given by the firm which sells about \$20 to \$30 worth of trees for \$110 on a bogus contract.

EARL PETERS.

Uriah, Pa., Nov. 15, 1899.

JAPAN PEAR SEEDLINGS.

Editor NATIONAL NURSERYMAN :

Some years ago I purchased a few Japan pear seedlings for propagating a few trees for home planting, but found such a diversity of foliage and habit, that I was foolish enough to let some of them come to fruiting. In foliage they, I might almost say, ranged from cut-leaved weeping birch to Carolina poplar. A number of them fruited this year, and for curiosity, I express you a few varieties. Each cluster (except the smallest ones, of which I send several) is from a different tree, and while there is a strong similarity in some ways, they are all different. The one sample in a sack is really edible, but there are very few of them so. The smallest ones of which I send several clusters are from a tree $2\frac{3}{8}$ inches in diameter where the limbs start out; it had considerable over a bushel of pears, hanging firmly to the branches to-day; might pay to grow for seed, to produce stocks for budding, as the Japs are wonderfully vigorous and healthy in foliage.

I also send you three samples of the Globe pear, a seedling of my own, that I think well of. They are not yet ripe, but soon will be.

Camp Hill, Pa., Nov. 7, 1899.

DAVID MILLER.

[The samples of Japan pears came four, five and six in a bunch, about the size of plums or larger, dark russet in color, hard yet with plump jet black seeds. The Globe pear is spherical, yellow with red cheek, of coarse grain, sweet and very juicy.]

BEST PAPER IN THE TRADE.

P. OUWERKERK Jersey City, N. J., Nov. 15, 1899.—"The NATIONAL NURSERYMAN is the best paper in the trade. With pleasure I renew my subscription."

PROPOSED LEGISLATION.

A number of prominent New York horticulturists, several senators and an assemblyman, met at the Department of Agriculture in Albany last month to discuss proposed amendments to the San Jose scale law, which is considered ineffective.

S. D. Willard of Geneva exhibited specimens of infested nursery stock, and some Greening apples so badly discolored as to be unrecognizable. The present law offers no compensation to nurserymen for the destruction of infested stock, and until it does, there seems little chance of successfully combating this pest.

It was suggested that the law ought to be so amended by the next legislature as to provide that any nursery stock sold within the state, shall be fumigated by the vender or his duly authorized agent after coming into the state, before planting or transplanting; also, that if, after a certificate has been issued to the nurseryman an examination of his nursery stock shows it to be infested, the commissioner of agriculture shall withdraw certificate and notify vender or person to whom certificate was issued that he must sell no more stock under said certificate, that he must return the certificate to the Department of Agriculture, and that a failure to do this shall be a misdemeanor, punishable by fine.

MR. KELSEY'S SUMMARY.

Frederick W. Kelsey, of New York city, who from the first opposed federal legislation with reference to the San Jose scale, says:

To those who have watched the results of attempted legislative remedy, there can be little doubt as to the futility of the laws thus far enacted, or the wide-spread injury caused by the agitation incident to this legislation.

Not content with the injury already occasioned by panic and ineffectual state legislation, there are those who are still advocating national legislation in the same direction.

Many of our representatives in Congress are broader men and better informed on practical questions before them than is generally accredited to them, and unless there is a decided change on this question the prospect of congressional action on the kind of legislation referred to would seem somewhat remote.

State coöperation with local interests and remedies that strike at the source of these insect devastations may be helpful and in many ways beneficial, but the legislative remedies thus far attempted as applied to the San Jose scale appear to have been more injurious to the fruit-growing interests and to the country at large than the loss from the pests themselves.

AN ORDER FROM THE PACIFIC COAST.

J. G. Harrison & Sons, Berlin, Md., whose reputation for great care in fumigating nursery stock has reached the Pacific coast, last month received the following order:

TOLUCA, LOS ANGELES CO., CALIFORNIA, }
November 13, 1890. }

Messrs. J. G. Harrison & Sons.

DEAR SIRS:—I wish to get a few June buds, peach, as an experiment to sell again. The inspector here may throw them out. Most of the inspectors are nurserymen and will not look with favor upon trees from the East.

If you will quote me prices delivered at Burbank, my nearest express office, I will see how many I can dispose of. Burbank is twelve miles north of Los Angeles. The best time to set trees here is in December.

Yours truly,

E. BLAKESLEE.

Among Growers and Dealers.

R. A. Simpson, Vincennes, Ind., who has been ill of typhoid fever, is convalescing.

Parsons & Sons Co., Flushing, L. I., this fall shipped fruit trees and vines to Eastern Siberia.

Thomas Hopkins of Seattle, Washington, is now the proprietor of the Yakima, Wash., Nursery.

Franklin K. Phoenix is actively engaged in the nursery business at the age of 75 at Delavan, Wis.

H. W. Settemlire, Tangent, Oregon, has planted a ton of peach pits for next season's budding stock.

J. A. Stewart, the well known nurseryman of Christopher, Wash., has been visiting his parents in England.

The Great Northern Nursery Company has been established at Baraboo, Wis., by M. F. Foley, formerly of Reedsburg.

Professor John Craig made 5,000 crosses of fruits in Iowa during the present year, his first at the Iowa Agricultural College.

Irving Rouse, Rochester, N. Y., made a flying trip to France last month in the interest of his large importation of seedlings.

Louis Roesch, Fredonia, N. Y., writes: "I have had double the trade I had a year ago and run short in many varieties of grape vines."

J. F. Martin, Winfield, Kan., writes: "Our fall sales have taken about all the stock we could spare. Fear we shall be short for spring."

The Great Northern Nursery Co., established at Baraboo, Wis., last spring with M. F. Foley as manager, shipped about ten cars of stock this fall.

The Johnson Orchard and Nursery Co., Dallas, Texas, has been incorporated with a capital of \$10,000 by J. B. Adams, J. B. Estes, E. B. Bedford and others.

Among the firms that joined the Western Association of Wholesale Nurserymen at its last meeting are F. W. Watson & Co., Topeka, Kan., and Bates Brothers, Floral, Kan.

William Longworth, who is in his eighty-fifth year and who has resided in Bloomington, Ill., since 1880 is preparing, it is reported, to retire from the nursery business.

Stanley H. Watson, Rosedale Nurseries, Benham, Tex., writes: "Cotton is up to 7 cents, and cattle and wool bringing good prices. We, therefore, expect prosperous times in Texas this fall."

James Hartshorne, manager of the Chicago Carnation Co., at Joliet, Ill., is a member of the American Association of Nurserymen. He is devoting his special attention to pæonies as well as carnations.

The Elizabeth, N. J., Nursery Company has completed another greenhouse, 100 feet long and 20 feet wide, and now has upward of 400,000 roses potted in 2½-inch pots, ready for lining out and spring sales.

A. D. Barnes, Waupaca, Wis., says: "Practically no apples in the Wisconsin, but prospect for a good crop in the northern half of the state next year is fine, as our young orchards have made a splendid growth and set full of fruit buds."

H. M. Simpson & Sons, Vincennes, Ind., writes: "We have had very good sales this fall, much better than we anticipated. We have very little left except some light grade apple and a small lot of peach. Prices, too, were as good as one could usually ask. We have had a very good year."

Mr. McGill of the Oregon Wholesale Nursery Company, Salem, Ore., states that sales in fruit trees have been fully equal to those of any previous year. There are more small orders than usual, indicating that more family orchards are being set out. This firm will sell nearly all the output of their nursery to the retail trade this season.

The Pacific Nursery Company, Tangent, Ore., has grown a fine lot of apple, plum and prune trees this year. Some of their prune trees have made a growth of over twelve feet in twelve months. W. O. Hudson & Son, proprietors, are formerly from Michigan, and of long experience in tree growing. They have supplied trees for many extensive orchards in the Northwest during the past few years.

In Nursery Rows.

APPLE OPALESCENT.—From the Dayton Star Nurseries, Dayton, O., says Meehan's Monthly, we have a sample of the Opalescent apple, a seedling from an old orchard near by. It is rather larger than our best specimens of Baldwin, but resembling it in all other characters, and this is high praise.

STERNS SEEDLING APPLE.—Sterns seedling apple was generally considered the most promising seedling at this year's New York state fair, says Prof. Van Deman. It was grown from seed of a Spitzenburg, by Charles L. Sterns, of North Syracuse, N. Y., and came into bearing at six or seven years of age. It is much larger and flatter in shape than the Spitzenburg, and brighter in color, being generally overspread with red. The quality is considered fully as good as Gravenstein.

SWEET CRAB APPLE.—This should be called the honey crab, as it is as sweet as an apple can be, and the jelly made from it is the nearest imitation of honey of anything that I have ever tasted, says Samuel Miller. It is in size between the Siberian and Transcendent, yellow ground, often nearly covered with red. My only tree is dead with the exception of a few limbs. I just gathered about a bushel, and fearing that the tree may fail entirely by another year, I will take buds from it now. The part of the tree bearing seems healthy and has made fresh wood.

STRAWBERRIES UP TO DATE.—Crescent, Champion and Bubach are all old varieties and out of date with the people who wish to secure the best prices, says L. J. Farmer, Pulaski, N. Y. The Bubach is spoken of as the latest, etc. The fact is that the Bubach is not a late berry. It is rather early to medium in ripening. The bulk of our own shipments this year were of the Seaford, Clyde, Ridgeway, Barton, Glen Mary, Atlantic, Star and Ruby. It was quite frequently remarked by other shippers that they were behind the times on varieties and that is why our berries sold several cents ahead of others right along, day after day. Our varieties were up to date.

WOLF RIVER APPLE.—A. D. Barnes, Waupaca Co., Wis.—“This is the largest apple grown in America. It originated in this county, and the original tree is 51 years old and still alive. It takes from 56 to 64 apples to make a bushel.” D. F. Thompson, Stephenson Co., Ill.—“The tree is very hardy here. The apples are almost as large as pumpkins, but rot on the tree before maturing.” M. S. Kellogg, Rock Co., Wis.—“This is our best commercial fall apple. It is extra large in size and the tree is a very heavy bearer. The tree is iron-clad.” W. H. Ragan, Putnam Co., Ind.—“This is a valuable large apple of the Russian type. The tree is hardy, but, like many of its class, is inclined to twig blight some seasons.”

COLUMBIAN RASPBERRY.—J. T. Thompson, the originator of the Columbian raspberry, handles the plants in the following manner: The Columbian does not “sucker,” and to produce new plants, bend down the new canes and bury the tips three or four inches in the ground, nearly perpendicular; this is done between August 20 and September 5, and substantially covers the first season's management. I leave the field in this condition through the winter. The second year, in early spring, I dig the tip plants, preparing the best for market, and rest are reset for transplants; I trim the bushes two or three feet high, the lateral branches about ten inches from the main stem. At this time, fertilizers can be applied broadcast. Give thorough cultivation to within a few days of fruiting time, follow with straw mulch at the rate of two tons per acre.

IOWA'S APPLE INDUSTRY.—Secretary Wesley Greene of the Iowa State Horticultural Society figures that the decline in the apple industry in the state during the past fifteen years is at least one-half. He is working on a table which will give accurate statistics on this subject for the first time in the history of the state. Mr. Greene attributes the falling off to the fact that the nurserymen of Iowa have not given their attention to the cultivation of hardier varieties, and says until the horticulturists realize that they must grow an apple which they can use for both the home market and shipment out of the state, the industry will remain in a state of decline. The falling off in the bearing trees from 1885 to 1895 is estimated at two to one, and the falling off in non-bearing trees at three to one. There has been a decline of 66½ per cent. in the planting of nursery stock.

ALL-SUMMER APPLE.—This is frequently asked about, says Samuel Miller, Bluffton, Mo. It is in no catalogue, but is in my possession. It is to my notion about the most valuable summer apple we have. It commences to ripen in June and usually lasts until September. One good sized tree will supply an ordinary family for over two months. Size, a little below medium; white, with sometimes a blush; quality good. It originated in Conestoga Center, Lancaster County, Pennsylvania, some forty years ago, brought into notice by Casper Hiller, a horticulturist of long experience. Of this variety I have had trees in the nursery where the roots had been cut by digging trees up beside them, loaded with fruit when three years old. As stated before this I cannot understand why it has no place in the nurseries. I furnished the Pomological Department, Washington, D. C., with specimens in which they took a lively interest.

STRAWBERRY-RASPBERRY.—The strawberry raspberry (*Rubus sorbifolius*, from Japan), has developed characteristics as the plantings become more thoroughly established, that promise permanent value, for amateur planting, at least, says the editor of the Rural New Yorker. A few short rows, set in 1894, in rather moist, loamy soil, have formed a dense mat several times the original area, holding their own against all weeds and other growths, and producing annually a really immense crop of strikingly beautiful fruits. They receive no fertilization and practically no cultivation, as the innumerable suckers have long since blockaded the furrows. I may sum up personal conclusions as follows: Merits: 1, absolute hardiness in this latitude; 2, great vigor and permanence when established in favorable locations; 3, ease of culture, requiring but trifling care; 4, productiveness, and beauty of fruit and plant. Defects: 1, lack of generally agreeable flavor; 2, berries too soft for transportation when fully ripe; 3, early blooms much marred by rose chafers, causing imperfect setting of fruits; 4, difficulty of extermination when once established in the soil.

DAWSON HYBRID ROSES.—For the past fifteen years Jackson Dawson has been experimenting in rose hybridization, giving special attention to the natural species as grown at the Arnold Arboretum, and it is only recently that, encouraged by the progress he has made with multiflora, rugosa and Wichuriana, others have also taken up a similar line of work. The future now appears very promising for this type of roses, whose hardiness, vigor and variety and beauty of flower and foliage are sure to make for them an unprecedented popularity for garden and park decorative purposes, says the American Florist. The two varieties illustrated are among the best of Mr. Dawson's productions up to date. W. C. Egan is a hybrid between *Rosa Wichuriana* and *General Jacqueminot*. The flower is double, pink, closely resembling *Souvenir de la Malmaison*. Minnie Dawson is a single pink hybrid between *Rosa multiflora* and *Mme. Gabriel Luizet*. Mr. Dawson uses multiflora, *Wichuriana* and *rugosa* for seed parents invariably, his experience being that the crosses of the second generation forms are never so vigorous or hardy as those from the original parents. This is in line with Waterer's method in hybridizing rhododendrons. Mr. Dawson has now some five or six hundred young seedling roses as yet unflowered.

RIGA PINE.—Regarding this type of White pine, Professor J. L. Budd, Ames, Ia., says: Such evergreen growers as Douglas, of Waukegan, Ill.; Hill, of Dundee, Ill.; Charles Gardner, of Osage, Iowa; Hoyt, of Scotch Grove, Iowa, and Bragg, of Waukeg, Iowa, now grow the Riga type of White pine. At Riga, Russia, more tons of pine seeds are put on the market each year than at any other point in the world. We have seen over fifty wagons with high side boards coming into Riga in solid line at one time loaded with Riga pine cones. The seeds are taken out by placing the cones, a wagon load at the time, in immense revolving cylinders with perforated sides. These revolve in a steam heated room with a temperature of over 100 degrees Fahrenheit. The dry heat opens the scales of the cones, letting the seeds drop through a slatted floor to a lower and less heated floor. On this floor the seed is packed for shipment to all parts of the temperate zone. The relatively worthless Scotch pine seed is gathered in the Province of Alsace, Germany. The sandy tract on which the cone producing pines grow, has in time developed a scrubby, worthless type which has no market value in Europe. It has been almost wholly sent to the United States, but, as stated, our leading evergreen nurseries of the West now use the Riga seed. When young it is difficult to detect any material difference in the two varieties, except that the Riga is upright and its foliage has less of the blue tinge than the scrub variety from Alsace.

ORLANDO HARRISON.

Herewith is presented a portrait and sketch of Mr. Harrison, a member of the American Association of Nurserymen and a member of the firm of J. G. Harrison & Sons, of Berlin, Md., vice-president of the Exchange and Savings Bank of Berlin and director of the Berlin Building and Loan Association of Berlin. Mr. Harrison was born in Sussex county, Delaware, January 27, 1867, and when in his teens started in fruits. When at the age of 17, he with his father moved to Berlin, Md., where they have since grown nursery stock, making a specialty of peach trees, strawberry plants and asparagus roots and for the past few years have added apple and pear trees.

Their planting started from only 2,000 trees for orchard purpose and now their annual budded list of peach for the past three years has exceeded any other in the United States. Starting on one farm of 170 acres, to-day they have six small farms of the choicest land in that vicinity. Their sales in strawberry plants run into the millions and in asparagus roots hundreds of thousands.

In 1893 Mr. Harrison married Miss Ada H. Long and to them were born three children, a daughter dying at one year of age, and two boys now growing up with the business.

THE WATERERS' NURSERY.

One of the most noted of English nurseries is that of the Waterers, Knaphill, Surrey. On the uplands of Woking, approached from the town by a hilly drive across picturesque common and through shady lanes, says Country Life of London, is the Knaphill Nursery of Anthony Waterer, a Mecca for all interested in trees and shrubs. When the history of British progress in horticulture is written, the Waterers of Knaphill will fill an interesting place for their work accomplished in raising new shrubs and encouraging plantings in forest, woodland, and pleasure ground of kinds known to withstand severe frosts. This may appear a rash statement. The general reader probably presumes that no one would be unwise enough to cover acres with things likely to succumb to a hard winter. Many woodlands reveal, however, that in the past planters were little concerned about the hardness or otherwise of trees and shrubs used to adorn the landscape, especially when untried conifers were first introduced from Japan, delicate shrubs quickly afflicted by an ordinary English winter.

The nursery occupies 250 acres, and has been established about a century. It is noted for its azaleas and rhododendrons.

When the azaleas are in flower the rhododendron is veiled in color, and we think no richer collection exists than that of Knaphill. By the margin of the long drive huge leafy masses rise up, walls of foliage, here a noble specimen of the *R. catawbiensis*, there the original plant, we believe, of the pure white variety Mrs. John Clutton, with seedlings in thousands, the pretty dwarf rhododendrons, myrtifolium, and the familiar *R. ponticum*, planted extensively where game is preserved, and

one of the few shrubs disliked by hares and rabbits. Relieving the heavy masses of the shrubs are standard rhododendrons, many of them between twenty and thirty years of age, and of considerable circumference.

The hardy conifers abound on all sides, and the silvery coloring of the variety of blue spruce called *Argentea* is conspicuously beautiful. Knaphill is renowned for its spruces, and *Abies pungens*, the most vigorous and hardy of the whole tribe, is represented by noble specimens. One is told that the plants are seedlings, not grafted upon the common spruce tree, and another shrub, the golden yew, is raised in the same way. To those who know little of woodland planting, it may appear of small moment whether a shrub be grafted or raised from seed, but this is not so. It is one of the most important points in shrub culture to get them upon their natural roots, not upon some stock that asserts its own superiority, to the disgust of planter and destruction of all schemes for the embellishment of the landscape. A seedling shrub is safe; and Mr. Waterer was one of the first to upset the old and careless way of grafting anything and everything, without regard to fitness of relationship, with the result that the shrubs died wholesale, victims to a cheap and objectionable practice. The silver Atlas cedar (*Cedrus atlantica glauca*) is very beautiful at Knaphill, and amongst silvery-toned conifers none is handsomer than this, its branches as if covered with hoar frost, and the growth extremely rapid. There are spurious imitations of the Knaphill form, which, however, is silvered over from apex to base, a distinct and effective shrub.



ORLANDO HARRISON.

FRUIT TREES FOR AFRICA.

Consul General Stowe of Cape Town recently reported that a representative of a United States nursery had been there eight weeks and sold more in that period than he could have sold in the United States in twenty-four weeks.

He had only been canvassing the city and suburbs. Fruit of nearly all varieties can be cultivated there, but as there no frosts, the insects and their larvæ are not killed as in countries where frost occurs; consequently a large number of trees die.

ROOT GRAFTING THE CHERRY.

In reply to the question "Can pieces of the roots of a seedling cherry be grafted to a cherry scion, and made to grow, as is done with the apple?" Professor Van Deman says in Rural New Yorker:

"Root-grafting the cherry is very difficult, and rarely pays for the trouble of doing it. I have tried it several times, but always on whole roots. If pieces of roots were used I think that the failure would have been still more pronounced. All kinds of stone fruits are much more difficult to graft than the apple and other pome fruits, and are propagated by budding."

The next meeting of the Northwest Fruit Growers' Association will be held at Tacoma, Wash., January 16, 17 and 18, 1900.

kinds of trees. And this must be considered a marked victory for Mr. Stringfellow in view of the fact that horticulturists had been taught all their lives the necessity for keeping the root system of a young tree as nearly intact as possible when moving it from the nursery to the orchard.

It has been thought that in the Middle and Northern states severe root pruning of nursery trees when planting in orchard would result in failure. Experiments in Rhode Island, Nebraska, at Columbia, Mo., and at Ithaca, N. Y., the last named by Prof. L. H. Bailey, indicated that the trees with untrimmed roots gave best results. Professor Bailey says that in the case of plums the closely pruned roots gave good results; but that moderately pruned pear and apple trees were superior. We publish in this issue the result of experiments in Oregon which should cause reflection again.

We do not argue for the endorsement at this time of Mr. Stringfellow's method for all sections, but we suggest, that as this subject is of so great importance to the nurseryman, it is worthy of intelligent investigation and continued interest.

In a communication to the NATIONAL NURSERYMAN under date of November 19, 1899, Mr. Stringfellow says: "Short root pruning is being adopted everywhere and is saving a world of money and labor to fruit farmers, and to nurserymen especially. A root-pruned 5 or 6 year-old tree is better than a 1 year, as it will grow off as readily and bear at once. A long-rooted 5-year-old is absolutely worthless.

"For the life of me I can't see how any nurseryman can fail at first glance to see the truth of the whole thing. If he ever grew a root graft, he has grown a stub root-pruned tree, for they are practically identical. Every one must know that the finest orchard trees are grown from root grafts with one or two inch root. Nurserymen have so much transplanting that the method is of immense importance to them.

"The Delaware experiment station is out with a bulletin claiming that 1-inch roots are no good but that 3-inch make the finest trees. This is absurd in view of the behavior of the root graft. Also, if three inches are good, why should not six or twelve be better?"

HORTICULTURAL SOCIETIES.

During December, January and February the horticultural societies will hold annual meetings. These are attended by many nurserymen and indeed in a majority of cases the societies are officered by nurserymen. These meetings afford an excellent opportunity for grower and purchaser of nursery stock to come together and exchange ideas of mutual benefit.

In the lists of meeting dates for horticultural societies we have long noticed the names of organizations which pay little attention to fruits or even to ornamental trees. These are societies which hold exhibitions of and discuss flowers. Yet they are styled horticultural societies.

Horticulture is a comprehensive term. According to Professor Bailey it may be classified as follows: I. Pomology, the art and science of growing fruit, including viticulture, orchard culture, small fruit culture and cranberry culture; II. Olericulture, the art and science of growing kitchen garden vegetables; III. Floriculture, the art and science of cultivating ornamental plants for their individual uses; IV. Landscape horticulture, the art and science of growing ornamental plants, especially trees and shrubs for their use in the

landscape. Generally confounded with landscape gardening

In England there are no florists; all are nurserymen.

To be proper and useful, says the editor of Meehan's Monthly, horticultural societies should be not only founded on a broad basis, but should maintain a general interest in all subjects that come under that head. In an address before the Germantown, Pa., Horticultural Society, Albert Woltemate said:

"We, as a society, in the present management of our affairs, can advance but small claim to our title of horticultural society. We might more properly be termed a floricultural society. Our efforts in the way of discussions, exhibitions, etc., are almost all directed to the ways and means of cultivating flowers; far more attention should be given to the cultivation of fruits and vegetables (and even broader subjects of general gardening) than at present. I would not have less flowers, by any means; let us have more, if possible, but also have more of those other products of the earth which our title commits us specially to encourage."

NAMING PRICES IN ADVERTISEMENTS.

When the NATIONAL NURSERYMAN was established seven years ago, the publishers laid down, as one of the principles upon which it was to be conducted, that no prices were to be named in the advertisements. Equality for all is essential to a fair conduct of business.

It is a source of gratification to us that the nurserymen have unanimously upheld the position we have taken in this matter. We have received numerous letters from prominent nurserymen commending the plan.

In this connection we quote the following sound opinion of L. J. Farmer, Pulaski, N. Y., as expressed in Agricultural Advertising:

I am opposed to allowing prices to be quoted in advertisements. It may be all right for city dailies to allow big dry goods firms, etc., to take big space and quote prices, yet we believe the papers are worse off for it in the end. In the seed and nursery business we see special collections of seeds offered at prices too low to admit of any profit. Different houses offer different collections, and many people never buy anything else in the seed and plant line outside of these special collections. Worst of all is allowing an advertiser to quote prices on a standard article. We notice in some of the agricultural papers strawberry plants offered at \$1, \$1.50, and \$2 per \$1,000. These advertisers never use over four to ten lines of space, and cannot profit the publisher. They offer the plants so low that there is nothing in it for them, and they kill the business of the nurserymen, who use a good-sized space, at the same time. The argument cannot be made that these cards are accepted because they encourage new advertisers, for, in fact, they do not. The writer never has known a catchpenny nursery advertiser to develop so that he used a good-sized space in the farm papers. We do know that it has driven away much of the business of the men who do not like to see ruinous prices quoted. The proper place to quote prices is in catalogues, or by mail, and the sooner farm papers establish a rule forbidding the mentioning of prices in advertisements, the better for them and their business.

It is the belief in California, where the subject of refrigeration in connection with fruit is of greatest importance, that liquid air will replace ice as surely as gas and electricity have replaced the oil lamp. At Professor Tripler's laboratory in New York city oranges were placed in liquid air and frozen solid; then they were pulverized like a piece of marble. After thawing somewhat the juice was extracted by squeezing, then concentrated by cold produced by liquid air in the following

manner: First, Mr. Tripler froze the water contained in the juice, and removed it as ice. Certain acids contained in the juice froze at a lower temperature, and these also were removed in the form of ice. Subsequently the purer juice itself froze at a still lower temperature, leaving an acid which required a much lower temperature for freezing. The acid was poured off, and the frozen syrup, absolutely pure, in a concentrated state, was used for making ice creams, etc.

Niagara County, N. Y., apples have attracted the attention of European royalty. There is an orchard in the town of Newfane that supplies the royal families of England and Germany. A Lockport dealer has been informed that Queen Victoria and Emperor William have expressed especial satisfaction with the Niagara county fruit. Special care in marketing the crop is taken.

An exchange joins the ranks of the advocates of the Kieffer pear on original lines, calling attention to its decorative features: "Almost invariably a few trees will remain dark green until the leaves drop, while others take on deep tints of golden russet, dark wine or mulberry, and many bright intermediate shades. It would be interesting to know if these peculiarities of leaf coloring lie in the grafts from original trees of the same tendency, or modifications caused by individual stocks."

AUSTRALIAN CHRYSANTHEMUMS.

The French seedling raisers have had many competitors in their day, but none seem to be more formidable than our cousins in the Australian colonies, says a writer in the *Gardeners' Chronicle*, London, Eng. To-day I have just seen a new batch of colonial novelties, many of which are from a firm of growers in Melbourne. Of these, Sydney Brunning, a large Japanese, with long, broad florets, slightly incurving in the center, color deep reddish terra-cotta, with bright golden reverse, is a striking flower. Then Marjory, a pretty bright rosy-pink flower, with narrow florets, comes next. Sir H. H. Kitchener has flat, medium-sized florets, is a bright reddish-crimson, with a golden reverse. Hector Brunning is a Japanese, color dark, deep, velvety crimson, with a metallic reflection; reverse golden. Mrs. Frank Gray Smith is a large, globular flower, with narrow grooved florets, close and compact—deep golden yellow, shaded crimson.

SCHUYLER WORDEN.

In a recent issue of *Farmer's Fruit Farmer*, Pulaski, N. Y., appeared a photo-engraving of Schuyler Worden, the originator of the Worden grape and the Worden Seckel pear, the latter being disseminated by the Smiths & Powell Co., Syracuse, N. Y. Referring to the Worden grape, Professor L. H. Bailey says:

"Of all Concord seedlings, the most famous is the Worden, which originated at Minetto, Oswego County, N. Y., on the grounds of Schuyler Worden, who, although over ninety years of age, still takes the liveliest interest in the variety. The old vine, about thirty-five years old at this writing (1898) is still healthy and productive. The seed from which it came was taken from an isolated Concord vine, and the plant bore at

four years from the seed. The variety was named by J. A. Place, a prominent citizen of Oswego, and an acquaintance of Worden."

Pomologists concede that the Worden-Seckel pear is of high quality. The fruit is highly colored, fully double the size of the ordinary Seckel, ripens somewhat later, and has the Seckel flavor. The tree is more upright and a better grower than its parent. It is a heavy bearer and comes into fruit early.

THIS YEAR'S APPLE CROP.

The apple crop of 1899 by states with comparisons, according to the *American Agriculturist* is as follows:

	1899 Barrels	1898 Barrels	1897 Barrels	1896 Barrels
Maine	880,000	1,210,000	675,000	2,419,000
New Hampshire...	750,000	1,604,000	855,000	2,257,000
Vermont.....	380,000	690,000	450,000	1,072,000
Massachusetts...	450,000	635,090	690,000	1,925,000
Connecticut.....	750,000	448,000	690,000	1,244,000
New York.....	2,850,000	2,100,000	2,410,000	7,400,000
Pennsylvania.....	2,350,000	1,900,000	1,986,000	6,100,000
Michigan.....	3,150,000	3,750,000	1,880,000	7,170,000
Ohio.....	2,220,000	1,143,000	2,100,000	4,715,000
Indiana.....	2,100,000	1,400,000	2,100,000	4,525,000
Illinois.....	2,380,000	855,000	2,900,000	4,100,000
Missouri.....	2,440,000	925,000	3,100,000	4,487,000
All others.....	14,700,000	12,000,000	27,700,000	20,084,000
Total.....	85,100,000	28,570,000	41,538,000	67,571,000

Recent Publications.

Number 2, volume XI of the *Experiment Station Record*, contains a digest of a large amount of matter relating to botany, the soil, horticulture, diseases of plants and entomology in addition to the other departments.

Director Frederick J. H. Merrill, of the New York State Museum has issued bulletin 24, volume 5, a supplement to the fourteenth report of the state entomologist, Ephraim Porter Felt. It consists of a memorial of the life and entomologic work of the late Joseph Albert Lintner, who was state entomologist from 1874 to 1898; also a complete index to the entomologist's reports, volumes 1 to 13, and to the supplement of volume 14. Price 35 cents. Albany: UNIVERSITY OF THE STATE OF NEW YORK.

The *Youth's Companion* has long held a leading place among periodicals for the young. The announcement for the seventy-fourth volume, that for 1900, is very attractive. The publishers have assembled as contributors, not only many of the most popular story tellers, but also distinguished authorities in science, education and affairs, travelers, musicians, statesmen, soldiers and sailors. A new departure will be several groups of stories which are entirely separate, yet with the same character appearing at different periods of his life in all the stories of a group. There will be serial stories, noteworthy stories of adventure, tales of presidential campaigns, short stories for all readers, adventures of linemen, the best of reading for girls, astronomical photography, submarine boats, the next world's fair, the chance of collegemen, seeking fame and fortune, incidents in foreign lands, the old ways of the old days, the life of the musician, stories for lovers of national history, an editorial page provided by the ablest writers, and other favorite departments, including current events, nature and health articles, with two thousand and more carefully selected miscellaneous pieces of humor, information, travel and adventure, the best of poems, and an attractive children's page. Subscription, \$1.75, including handsome calendar for 1900. Boston: PERRY MASON & Co.

A GREAT HELP.

R. R. HARRIS, Harrisville, W. Va., Nov. 14, 1899.—"Enclosed please find one dollar to renew my subscription for 1900. In establishing my nursery I find your journal to be great help."

PLANTING SMALL FRUITS.

H. C. Irish, of the Missouri Botanical Garden, says: Experiments are now in progress at the Missouri Botanical Garden to find out, so far as possible, the behavior of the small fruits and various other plants when transplanted in different seasons of the year. So far as my experience and observation go strawberries taken up from one bed and reset in another without being out of the ground more than a few hours, do best when moved in September or October; not later than November in If the plants are to come from a distance, however, early spring is far preferable.

Black cap raspberries are safer planted in spring unless carefully mulched with coarse litter at the time of transplanting in the fall. The other common small fruits, red raspberries, blackberries, currants, and gooseberries seem to pass the winter in good condition even when planted as late as December 1 and make a better growth the following season than if planted in the spring. It is a safer plan, however, to do the work the latter part of October or first of November.

APPLES FOR THE NORTHWEST.

An apple for the Northwest as prolific as the Ben Davis and as hardy as the Duchess is greatly desired. Wealthy Regal and N. W. Greening have been tried.

The need of a hardy race of apples for our northern border was recognized forty years ago, says the Fruitman. The possibility of something valuable for us in Russian fruits could only be realized by practical tests.

Ellwanger & Barry, of Rochester, and A. G. Tuttle, of Wisconsin, imported scions in the sixties. The Agricultural Department at Washington began the work in '69 and '70. The Iowa Society secured scions as rapidly as possible and had 400 varieties on trial at Ames in '78. It appropriated money for this work in '75, and later sent Professor Budd on a mission to Russia.

The uncertainties of experiment work were well understood. But it was believed by all that if we found four or five good keepers as hardy as Duchess for Northern Iowa and the regions beyond, the expense of the effort would be well repaid. Some hoped and some doubted. But the universal feeling among our fruit men was well expressed by Captain Watrous, of Des Moines, who said in his address as president of the society in '79: "Of final good results from this infusion of new and vigorous blood in the body of our fruits, I have no possible doubt."

CARE OF ROOT GRAFTS.

Prof. J. Sexton, of the Iowa Agricultural College, gives the following directions regarding the care of root grafts:

"We have the best stand of grafts that I have ever seen—90 per cent. of plums and 60 per cent. of cherries are growing and doing well. Some of the plums are almost four feet high and the cherries from two and a half to three feet. To grow 60 per cent. of root-grafted cherries is something uncommon; in fact, some cannot grow them at all. Our method of treating them is as follows: In the first place, keep all roots and scions before grafting in a dormant state, by keeping the temperature at freezing point. When you take the

roots of scions into the grafting room do not take too many to lay around and dry out. They should be kept from drying by placing a wet cloth over them. After they are grafted and before they are wound dip the roots in water. Be careful not to dislocate the scions where they are inserted into the roots. Wind and wax them as quickly as possible and pack away in clean boxes in half sand and half earth.

"A common cellar under a building is too variable in its temperature and moisture; a dirt cave gives the best results. Put your boxes of grafts into the cave as soon as you have a box filled. The cave should be kept cold by opening during the early part of the night, and keeping it closed during the day. During a large part of the winter last year our cave was so cold that the exposed earth in the graft boxes was frozen. In fact, through our forgetfulness the cave was left open about one week during the latter part of winter, after we had got through grafting, and everything was frozen solid. We then closed the door and the cave was not opened till we were ready to plant out the grafts in the spring. Not knowing what the result was going to be after everything had been frozen solid, we were a little anxious, but I can say that I never saw grafts looking as well as when taken out of the boxes as these, and we never had grafts do as well afterwards. Not a particle of mold was found in any of the boxes. The freezing prevents the growth of the fungus which injures the grafts. Keep everything dormant. Pack away in the cave as soon as the grafts are made and keep below the freezing point all the time. Plant in the spring as soon as possible. If these directions are followed out I guarantee that better results will be obtained. Try it."

Obituary.

M. A. Thayer, founder of the Thayer Fruit Farms, Sparta, Wis., is dead. He was up to 1894 a member of the American Association of Nurserymen, and was for years the president of the Wisconsin Horticultural Society. He issued berry bulletins which were published in many papers.

Georges Warocque, a celebrated horticulturist of Belgium, died last month in Pekin, China. Mr. Warocque was one of the most prominent men in the horticultural societies of his country. His collection of orchids and other rare plants has acquired the reputation of being the finest and largest private collection in the world.

Peter M. Gideon, the well known horticulturist, died at Excelsior, Minn., October 27. He was born in Champaign County, O., in 1820, and resided there until 1841, when he removed to Clinton, Ill. From Clinton he went in 1853 to Excelsior. The following year he began experiments and investigations in fruit growing, and has since done more than any other man in the Northwest to advance the cultivation of apples and other fruits. He was the originator of the Wealthy apple, which he named after his wife, Wealthy Hall, whom he married in 1849. In 1873, when the state established an experimental fruit farm, he was made superintendent and continued in that capacity for several years. Recently, in Iowa, a movement was started in which it was proposed that the owners of Wealthy bearing fruit orchards should contribute one cent per tree to a common fund for Mr. Gideon's benefit.

The new fruit experiment station provided for South Missouri will be located at Mountain Grove, Wright county. It will consist of 190 acres.

WOULD NOT MISS IT.

J. O. NEVINS, BLUE RAPIDS, KAN., Nov. 17, 1899—"Find enclosed \$1 on subscription. I beg your pardon for neglecting so long to remit. Should be very sorry to miss a number of the NATIONAL NURSERYMAN."

CYCLOPEDIA OF HORTICULTURE.

As we go to press we receive advance sheets of the Cyclopaedia of American Horticulture, which is to be published in 1900 in four illustrated volumes. Professor L. H. Bailey, of Cornell University, is the editor, and Wilhelm Miller is his assistant. The first volume will be issued on January 1st.

This is to be the largest work of the kind in the English language. Time and space preclude an extended reference to the work now. The reputation of Professor Bailey is ample assurance that the work will be thoroughly reliable, up-to-date and complete. The advance sheets indicate that it will be admirably arranged in durable style, easy of reference, and invaluable, because it will cover the broad field of horticulture in all its classifications, and because, like Johnston's Cyclopaedia, the articles will be signed by the experts who prepared them. As we have already announced, the services of Alfred Rehder, a noted expert, were secured for the articles on trees and shrubs. Among the contributors to the first volume are the following whose names are familiar to our readers: Oakes Ames, Cambridge, Mass.; S. A. Beach, Geneva, N. Y.; Professor F. W. Card, Kingston, R. I.; Professor John Craig, Ames, Ia.; Professor B. E. Fernow, Ithaca, N. Y.; J. H. Hale, South Glastonbury, Conn.; Josiah Hoopes, Westchester, Pa.; Professor F. H. King, Madison, Wis.; J. Horace McFarland, Harrisburg, Pa.; T. V. Munson, Denison, Tex.; Professor G. Harold Powell, Newark, Del.; Professor P. H. Rolfs, Lake City, Fla.; Professor C. S. Sargent, Jamaica Plain, Mass.; Henry A. Siebrecht, New York city; W. A. Taylor, assistant pomologist, Washington, D. C.; Dr. William Trelease, St. Louis; William Tricker, Riverton, N. J.; Professor H. E. Van Deman, Parkersley, Va.; Professor F. A. Waugh, Burlington, Vt.; H. J. Weber, Washington, D. C.

The illustrations are in half tone and line drawing, on plates and in the text. The type is clear, in two columns, on heavy paper, pages 7 x 11 inches. A more detailed reference will be made to this monumental work in the near future.

FOREST TREES FROM SEED.

The propagation of forest trees either for decorative plants, windbreaks or forests is a comparatively slow process, according to Bulletin 38 of the Virginia experiment station. The horticulturists of that station have been making extended tests along these lines and find that the seeds of such trees as the silver maple and other species which ripen seed early should be gathered and sown at once. They can be planted in the same manner and grow as rapidly as peas. Seeds which ripen late in the fall should be sown in autumn and then taken up and planted in spring. Nuts like walnuts can be planted several bushels in a heap and then taken up and planted in rows in spring with perfect success. It is usually practical to plant nut seeds where the trees are to stand if nothing interferes with their growth thereafter. On rich soil they grow with great rapidity.

All forest tree seedlings should be grown on a mellow soil, so as to encourage the development of strong root systems. They should be transplanted into nursery rows at the end of the first or second year. Slow growing plants like oaks should remain two years in seedling beds, while the more rapid growing varieties should be planted when only a year old. Most forest trees do best when set out from five to eight feet tall.

The tulip poplar tree does very well if not permitted to stand in the nursery too long. At the end of the first year it should be transplanted to its permanent location. The following list of trees can be grown with comparative ease from seed: Black walnut, bur oak, hackberry, honey locust, box elder, green ash and pecan.

OSAGE ORANGE HEDGE AND TIMBER.

We have in this locality many miles of Osage hedge, planted 25 to 35 years ago, that is a most effective fence from a practical standpoint, and adds much to the beauty of the landscape, writes E. Y. T., Green's Fork, Ind., in Country Gentleman. The trimming is done in June, with sometimes a second clipping in late August. Professional trimmers charge one cent per rod for trimming. My neighbor, who has a string 100 rods long, says he can easily trim it in a day. So the labor, even in a busy time, is not very great.

Not one-half the Osage hedges planted in this country were ever properly cared for, and in consequence they became unsightly nuisances, except those totally neglected, which have grown up 20 to 30 feet high, and now furnish most excellent fence posts for setting elsewhere. Osage timber is one of the most durable of all our trees, rivaling the red cedar in that respect, and, being a rapid grower, may be profitably planted by the acre for posts and other uses. I believe an acre of fair farm land, planted in Osage, say 4 by 6 feet, will pay better in 15 to 25 years than any ordinary farm crop, say \$10 to \$25 per year occupied, without any cultivated after the first year, and a little trimming each year or two to promote erect growth

Long and Short.

- If you can't find it, try Storrs & Harrison Co., Painesville, O.
 Special prices on apple seedlings by J. W. McNary, Dayton, O.
 Apple seedlings are a specialty of F. W. Watson & Co., Topeka, Kan.
 A first-class nursery hand is wanted at the Emporia, Va., Nurseries.
 An assistant gardener is wanted by George C. Roeding, Fresno, Cal.
 A special list for spring is announced by Albertson & Hobbs, Bridgeport, Ind.
 American arbor vitae and Irish juniper can be had of Phoenix Nursery Co., Bloomington, Ill.
 Field-grown own root roses, both tender and hardy, at the Howland Nursery Company's, Los Angeles, Cal.
 Ellwanger & Barry's Nurseries, Rochester, N. Y., have been declared the most complete on the American continent.
 Roses, clematis, evergreens and horticultural specialties from France are offered by Hiram T. Jones, Elizabeth, N. J.
 California privet, apple and peach trees, roses and shrubs, are specialties at the F. & F. Nurseries, Springfield, N. J.
 Peters & Skinner, North Topeka, Kans., can supply apple seedlings in large lots, fine grades; also apple, peach, pear and plum trees.
 Strawberry plants by the dozen or by the million can be procured from J. G. Harrison & Sons, Berlin, Ind. These plants are fresh dug, well rooted, well graded and well packed to reach any part of the United States. Peach, apple, plum and asparagus are also specialties.
 A special surplus list of desirable fruit and ornamental stock can be had of Jackson & Perkins Co., Newark, N. Y. These well-known nurserymen are growers of choice specialties. Roses, clematis, ornamentals, grape-vines and small fruit plants are specialties. They are importers of French grown fruit tree stocks and ornamentals, English grown industry gooseberries and raffia.

NURSERYMAN'S OPINION OF GIRDLING

Charles G. Patten, Charles City, Ia., makes the following report in the Minnesota Horticulturist regarding Mr. Dartt's system of girdling trees at the Owatonna, Minn., horticultural station:

"Mr. Dartt seems to be as thorough in his work as he is definite in his ideas as to how it should be done. The conception and management of this station is unique; it is entirely Mr. Dartt's. Some might complain that he has been too heroic in his treatment of his seedlings and the new varieties that have been submitted to him for trial. But whatever one may think of his method of testing varieties, everything has had an equal chance; there has been no petting of special sorts; and whatever passes the ordeal to which he subjects them no one need fear to plant.

"The application of a liberal quantity of manure to young orchard and nursery trees, and the girdling process to which these new sorts, from two inches and above in diameter, have been subjected is a trial of the most thorough nature. Most men who are personally interested in new varieties would shrink from such a test. It appears to me, at least at first sight, that the manuring and girdling for two and three years in succession are almost too much to expect a young tree to endure. But what are experiment stations for if they are not to develop new ideas and processes and results.

"Mr. Dartt conceived the idea that he could test the hardiness and vitality of new sorts as much in five years as been done heretofore in fifteen to twenty years by the old way of waiting for cold winters and blighting summers. Hence he used the manure to blight, and the saw to test the vitality of the tree. And while at the first inspection I had my doubts, it looks now as though he was going to demonstrate, at least to a large extent, the value of his practice. Of course, in experiments one has to vary seasons and methods as new developments appear."

THE RED JACKET GOOSEBERRY.

There being in existence an inferior English gooseberry (some of which are in America) which is named Red Jacket, the Committee on Nomenclature of Western New York Horticultural Society at Rochester January 25, 1899, to hereafter prevent confusion in varieties, renamed the American Red Jacket "Josselyn" in honor of the introducer.

TREE PLANTING IN CITIES.

The value of well-directed, concerted action is well seen in the matter of street tree planting in New York City, says American Gardening. Owing to the activity of the Tree Planting Association, much more interest is now being taken in the setting out of trees on the streets and avenues of the city than was the case till lately. Many builders now arrange for the

planting of trees in their specifications for buildings. In the upper part of the city this is especially true, and in some cases each new block is furnished with trees to carry out the line of shade already there.

THE CUSTOM HOUSE AGAIN.

Editor NATIONAL NURSERYMAN:

I think it well to call to your attention and that of the readers of the NATIONAL NURSERYMAN a recent ruling, or decision, of Examiner Lersner of the New York Custom House, classifying Ligustrum Ovalifolium (California Privet), a deciduous shrub, as an evergreen and consequently subject to the duty provided for evergreens by the Dingley tariff bill.

That such a ruling is absurd and a travesty upon justice is patent to every intelligent nurseryman.

In this connection let me add that T. C. Worden appraiser of the tenth division, also decides that wharf examinations of nursery stock as provided for by a recent ruling of the treasury department are impracticable.

Is it possible for the nursery trade to secure reasonable service at the largest port of entry in the U. S.? It seems not.

Elizabeth, N. J., Nov. 29, 1899

H. T. JONES.

ALBERTSON & HOBBS,

BRIDGEPORT, (Marion Co.) IND.

FOR SPRING 1900.

In car lots, assorted car lots, or smaller quantities.

European Plums.

Standard and Dwarf Pears and Peaches—incomplete assortment of varieties and grades.

1st Class Medium No. 2 and lighter grades.

Also general line of nursery stock, as Apples, Cherry, Keiffer Pear, Japan and Native Plums, Small Fruits, Vines, etc.

LARGE CELLARS stored full for early shipment.

Carolina Poplar—1 to 2, 2 to 3, 3 to 4, and 4 to 5 feet, 1 year and larger sizes.

Maples, Norway, Silver, Rock, Schwedleri, etc.

Elms, Lindens, Sycamore, Mulberries, etc.

Weeping Trees, Hardy Shrubs, Evergreens, Roses, etc.

Apple Seedlings, Imported Seedlings, Supplies, Spades, Etc.

Order early and secure assortments wanted. It will be hard to do later. Prices on application. TRADE LIST issued about February 1st.

LEVAVASSEUR & SONS,

Nurseries at USSY and ORLEANS, France.

Growers of the Most Complete Line of Nursery Stock in France. Best grading, quality and packing. When you buy of us you deal with first hands. We are Growers. If you have not yet bought of us, give us a trial. Send your list of wants to

HERMAN BERKHAN, SOLE AGENT,

Sole Agent for United States and Canada.

39 AND 41 QORTLAND STREET, NEW YORK.

W. T. HOOD & CO.,
Old Dominion Nurseries,
 RICHMOND, VA.

We offer for Fall 1899, and Spring 1900,

Apple and Peach

As fine stock as can be grown, and a very full line of
 General Nursery Stock, Fruit and Ornamentals.

200,000 Peach Seedlings from Beds of Natural Seed.

NATURAL PEACH PITS.

We hope to have pits to offer in October, Crop of 1899.

ROSES Field Grown, on own roots. Both
 Tender and Hardy sorts. Extra
 heavy two-foot La France. Fine
 two-year Mar Niels (budded). Send
 us your list of wants and quantities in other sorts. Our No. 1 Boston
 Ivy, with tops two to six feet, will please you. All prices net cash
 with order. Come quick if you wish fine La France and Niels.
 Prices on application.

The Howland Nursery Co., Los Angeles, Cal.

P. Sebire & Sons, Nurserymen,
 USSY, CALVADOS, FRANCE.

A general assortment of Fruit Tree Stocks, such as Apple, Pear, Myro-
 bian Plum, Mahaleb and Mazzard Cherry, Angers, Quince, Small
 Evergreens, Forest Trees, Ornamental Shrubs, Roses, &c. The largest
 stock in the country. Prices very low. Packing secured. Send for quotations
 before placing your orders elsewhere. Catalogue free. Agents for
 U. S. America and Canada.

C. C. ABEL & CO., P. O. Box 920, New York.

High Grade Nursery Stock for Spring of '98.

Apples, Standard and Dwarf Pears, Cherries, Plums, Quinces,
 Cut-Leaf Weeping Birch, Purple-Leaf Birch, Silver Maple,
 Elms, Catalpa, Black Walnut and Butternut.

Write for Special Prices.

JAY WOOD, KNOWLESVILLE, N. Y.

F. & F. NURSERIES,
 Springfield, New Jersey.

SPECIALTIES:

CALIFORNIA PRIVET, APPLE AND PEACH TREES,
 ROSES, SHRUBS.

Apple, Peach, Standard Pears, Plum, Apricots, Grapes, Shade Trees, Evergreens, Shrubs,	<p>HEADQUARTERS FOR NURSERY STOCK.</p> <p>Baltimore and Richmond Nurseries, BALTIMORE, MD.</p> <p>FRANKLIN DAVIS NURSERY CO. 50 YEARS. Tennessee Natural Peach Pits and selected Smock. 1000 ACRES. LOW PRICES ON PEACH TREES FOR EARLY ORDERS.</p>	Strawberries, Nut Trees, Japan Pear Seedlings, Gooseberries, Roses, Ramia, General Supplies, &c., &c., &c.
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Established 1852.
 600 Acres.
 13 Greenhouses

WE have an unusually fine stock of American Arbor Vitæ, transplanted, 2 to 3 ft., 3 to 4 ft., and 4 to 6 ft., and Irish Juniper, 2 to 3 ft., and 3 to 4 ft. Prices low on application. We also have a large and complete stock of Fruit and Ornamental Trees, Shrubs, Evergreens, small Fruits, Vines, Roses and Greenhouse Plants. Send your list of wants for prices.

PHOENIX NURSERY CO.,
 P. O. BOX 625. BLOOMINGTON, ILLINOIS.

NURSEYMEN
 Can best extend trade by advertising in

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Published every Saturday, from 2 Duane St., N. Y.

FACTS TALK:

Hundreds of satisfied advertisers say **The Florists' Exchange** is the best paying trade medium for wholesale business in the stocks handled by nurserymen, florists, seedsmen and the allied industries.

We offer until Dec. 31, 1899, a Special Advertising Contract Rate which it will pay you to investigate.

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When writing to Advertisers mention The National Nurseryman.

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W. M. PETERS & SONS, Proprietors.
 P. O. WESLEY, WORCESTER COUNTY, MD.
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Our Budded List of PEACH TREES Represents more than a Million.

Information as to varieties, quality, grade and price, cheerfully given. Your personal inspection invited.

EIGHT ACRES IN ASPARAGUS PLANTS,
 One and two year old.

Donald's Elmira, Columbia Mammoth White,
 Barr's Mammoth Palmetto, Conover Colossal.

30 Acres in Strawberry Plants, representing over seventy varieties.

PEACH BUDS.

In any quantity, cut from strictly healthy trees. Send us a list of your wants. Will make a special price on same.

Trade List and Descriptive Catalogue mailed free.

W. M. PETERS & SONS.
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NORTH TOPEKA NURSERIES.

STRICTLY WHOLESALE.

I offer to the trade for fall of 1899 and spring of 1900 a full line of stock, including

APPLE, **Apple Seedling,**
PEACH, **French and Japan**
CHERRY, **Pear Seedling.**

A LIMITED AMOUNT OF KEIFFER PEAR.
GOOD STOCK. GOOD GRADES.

A. L. BROOKE, - North Topeka, Kan.

NURSERY STOCKS

OF ALL KINDS AND VARIETIES.

Such as Maples, Alder, Althea, Aucuba, White Birch, Catalpa, Honeysuckles, Nuts, Japan Quince, Deutzia, Ash, Broom, Walnut, Ligustrum, Philadelphus, Acacia, Currants, Willows, Sambucus, Spirea, Lilacs, Tamarix, Viburnum, Weigelia, and all sorts of *Fruit Tree Stocks*, all 1, 2 and 3 years old or stronger plants, now offered at very low prices by

Transon Brothers Nurseries

BARBIER & CO., SUCCRS., ORLEANS, FRANCE.

For Price List Apply to

KNAUTH, NACHOD & KUHNE, 13 William St., NEW YORK

THE Geneva Nursery

Established in 1846.

Headquarters for :

ORNAMENTAL TREES—Birch, Elms, Horse Chestnut, Norway and Sugar Maple, Lindens, Poplars, Magnolias, EVERGREENS.

Superb Collection of :

SHRUBS—Upright, Climbing and Standard.
ROSES—Hardy Dwarf, Tea, Climbing, Rambler, Tree.
RHODODENDRONS—Ponticum, Catawbiense, Named Hybrids.
PÆONIAS—Large Assortment, Named Varieties.
DAHLIAS—New Cactus, Large Flowering, Ponpon.

full Assortment in :

Apples, Pears, Plums, Cherries and Quinces, CURRANTS
GOOSEBERRIES. RASPBERRIES.

We give special attention to Dealers' complete lists.
Fall trade list on application.

W. & T. Smith Co. GENEVA, NEW YORK.

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ESTABLISHED 1780.

ANDRE LEROY NURSERIES,

Brault & Son, Directors, Angers, France,

Beg to announce to the trade that their extensive spring sowing will enable them to supply for the Fall 1899 and Spring 1900, large quantities of first-class, well-grained FRUIT SEEDLINGS at lowest market prices, also a fine and complete variety of ORNAMENTALS, ROSES, SHRUBS, Etc. Apply for special quotations to

ANDRE L. CAUSSE, Agent,

105-107 Hudson St., NEW YORK.

Rate, including all shipping charges from Angers to F. O. B. New York, given on application.

200,000 Peach Trees, | 100,000 Blackberry,
2,000,000 Strawberry Plants, | 500,000 Raspberries.
Eldorado, Maxwell and Lucretia Blackberries.
MILLER, LOUDON and TRIUMPH,
COLUMBIAN . . . GREENSBORO and EMMA,
Raspberries. and a full
Wickson, Red June and Giant **Peaches**
PLUMS. . . . AND OTHER FRUIT.

It will be to advantage of those in the trade to correspond with us.
Our Catalogue will save you money.

MYER & SON,
BRIDGEVILLE, DELAWARE.

WANTED.

A single young man, as assistant gardener. Also one who is a good budder and grafter who has had experience in growing all kinds of fruit trees. State age and give references. Position permanent with a chance to advance. Address

GEO. C. ROEDING,
Proprietor Fancher Creek Nursery, Fresno, Cal.

Everything in SMALL FRUIT PLANTS.

W. N. SCARFF, New Carlisle, O.

Catalogue and Price List ..Free..

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Is now ready, revised and corrected to date, with 1886 names of new concerns. This book, issued every year at great expense, contains the names and addresses of all the Florists, Nurserymen and Seed Merchants in the United States and Canada. Price, \$2.00.

AMERICAN FLORIST COMPANY, Chicago, Ill., U. S. A.

APPLE SEEDLINGS

Name, number and grade wanted, and get special prices on same, also samples if desired, from

J. W. McNARY, DAYTON, OHIO.

When writing to Advertisers mention The National Nurseryman.

LET US MAKE YOU PRICES ON

CHERRY, 2 years, $\frac{3}{4}$ to $\frac{1}{2}$.—May Duke, Ey. Richmond, Hoke, Eng. Morello, Com. Morello, Wragg, Reine H. Olivet, Empress Eugenie, Ostheim.

PLUM, 2 years $\frac{3}{4}$ to $\frac{1}{2}$.—Willard, Wickson, Red June, Kelsey, White Kelsey, Mikado, Normand, Bailey, Hytankio, Berckmans, Yeddo, Wild Goose, Gol. Beauty, Forest Rose, Shropshire Damsen, Tenant Prune, Mrs. Clifford, Mo. Apricot, Roberson, World Beater.

CHALCO, 1 year, 3 feet.

HALE, 1 year, 4 to 5 feet, strong.

APPLE: York Imperial, 2 years, $\frac{3}{4}$ to $\frac{1}{2}$; Bonum, 2 years, $\frac{3}{4}$ to $\frac{1}{2}$; Staymen's Winesap, 1 year, 3 to 4 feet, budded stock.

PEACH TREES, Leading Varieties.

PEACH PITS, CROP 1899.

GENUINE MOUNTAIN NATURALS. Write for sample and delivered price.

J. VAN LINDLEY NURSERY CO., POMONA, N. C.

WRITE FOR PRICES.

White Elm, 1 yr., Barberry, all sizes, Horse Chestnut, Soft Maple, 1 yr. Paeonies, Currants, Poplar Leaved White Birch, 6 to 8 ft. Mt. Ash, for lining out, Gooseberries.

A full line of Evergreens in seedling and transplanted stock, including a large percentage of the beautiful **COLO BLUE SPRUCE**.

GARDNER & SON, Osage Nurseries, - OSAGE, IOWA.

JAPAN PLUMS

A large stock Abundance, Burbank, Hale, and all standard varieties. New Varieties: America, Apple and Chalco a specialty.

FREIGHT PREPAID

to Philadelphia on all Northern and Eastern Shipments.

Peaches, Persimmons, Pecans, Mulberries, Figs, Field Grown Grafted Roses; both Teas and Hybrid varieties, and a general line of fruit and ornamental trees grown in large quantities.

High Grade Trees and Low Prices.

THE GRIFFING BROTHERS COMPANY,
POMONA NURSERIES. MACCLENNY, FLORIDA.

APPLE SEEDLINGS.

WE OFFER THE FOLLOWING GRADES:

First Class, 3-16 inch and up, straights.

Second Class, 2-16 to 3-16 inch, straights.

Branched, 3-16 inch and up.

These Seedlings are equal to any on the market. We are selling them at Reasonable Prices. First Come, First Served.

Address

F. S. PHOENIX, Bloomington, Ill.

Apple, Peach and Japan Plum Trees.

Louden and Miller Red Raspberry.

BUDS IN SEASON.

40 kinds Japan Plums. 50 kinds Apple. 70 kinds Peach.

WEST JERSEY NURSERY CO.

STANTON B. COLE, - Bridgeton, N. J.

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Can You Meet the Demand

For Plum and Peach Trees when it comes? The unprecedented winter killed trees that must be replaced, and it takes but little judgment to see the demand that is bound to come.

Raise Your Own Plum Stocks

The race to get a little share of imported stocks this year and last should carry a lesson home. Myroblan is easily raised from seed. Don't get left entirely. We have the seed. No more Mariana stocks.

Natural Peach Seed

Is scarce—many persons ignorant of the facts say there is none—but we have a few bushels fresh seed collected in a non-yellow section.

Write at once for quotations.

Full line of Imported and Native Fruit Stocks and Seeds

THOMAS MEEHAN & SONS, Germantown, Phila., Pa.

A few thousand of Campbell's Early Grape Vines.

A large stock of Clematis, leading varieties.

Not Quite a Million but an Immense Quantity.

Write for Prices.

P. W. BUTLER, East Penfield, N. Y.

PEACH PITS CROP 1899

We have secured a limited quantity of extra good seed. Write for prices, stating amount wanted.

STARK BRO'S NURSERY, Louisiana, Mo.

Get our prices on the following Surplus Stock:

10,000 DOWNING, 2 yr. No. 1.	5,000 VICTORIA, 3 yr. No. 1.
10,000 VICTORIA, " "	2,000 L. B. Holland 2 " "

Address **PRAIRIE CITY NURSERY,**
RIPON, WIS.

Rattan Hot-Bed Mats.

OF GREAT VALUE TO EVERY NURSERYMAN.

For particulars address

Heywood Brothers and Wakefield Company,
BUFFALO.

FOR APPLE SEEDLINGS

New land grown, Address

A. E. WINDSOR, Havana, Ill.

WANTED!

A first-class nursery hand, energetic man, single or married. One that knows all about propagating nursery stock and that would make a good foreman and carry on the nursery when owner is absent. No drinking man need apply. reference required. Address

EMPORIA NURSERIES, Emporia, Va.

State price of Wages wanted.

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The Pomona Currant



The best specialty for the Agents. Why? Because it is the best money maker for the people to plant. It is best in quality. Its returns come in the quickest and surest. These being the qualities the planter is after, he buys it. With hardly an exception, though thoroughly tested in the leading sections and beside the new highly praised and older sorts has the POMONA proven its superiority in quality, vigor and productiveness, showing it to have no superior, if an equal, for profit to planter, and general adaptability to different sections.

One grower in 1898 picked from 13 acres of Pomona, 3 to 5 yr. set, over 5000 24 qt. cases, realizing a net profit of over \$180 per acre. Compare this with what you have realized for your fruit or from crops grown under ordinary field culture. Introduced and for sale by us.

Send for circulars, plates, terms, etc. Prices on application.

Address **Hilbertson & Hobbs,** BRIDGEPORT, Marion Co., INDIANA.

25 New Plate Books for Sale.

ROSES AND ORNAMENTALS ONLY.

Address,

"PLATE BOOKS," care National Nurseryman.

- 250,000 Miller Red Raspberry Plants.
- 300,000 Early Harvest Blackberry Plants.
- 150,000 Lucretia Dewberry Plants.
- 125,000 Strawberry Plants, from best leading sorts
- 100,000 Peach Trees, one year from bud and June budded in surplus.
- 20,000 Japan Plums, one year from bud, also in surplus.

WRITE FOR PRICES.

MILFORD NURSERIES,

Alex. Pullen, Prop. Milford, Delaware.

GRAPE VINES AND CURRANT PLANTS

Highest Standard of Grades.

LARGEST STOCK AND LOWEST PRICES.

Correspondence Solicited.

WHEELOCK & CLARK, FREDONIA, N. Y.

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From Anywhere East

To Everywhere West

The Great Rock Island Route

IS THE BEST LINE.

The Great Cities of

Northwest—West—Southwest

Reached quickly and comfortably in up-to-date through Pullman Sleepers and Free Reclining Chair Cars operated on fast trains.

Tourists en route to the resorts of the Rocky Mountains, to California, the North Pacific Coast or to the

Great Convention cities throughout the country.

should write the undersigned for rates, folders and literature.

Chas. Kennedy, G.E.P.A., Jno Sebastian, G.P.A.,
305 Broadway, NEW YORK. CHICAGO, ILL.

PIONEER NURSERIES CO.

ROSSNEY PEAR.

The best, handsomest and most delicious of all pears. Ripens just after Bartlett when there are no good pears in the market.

WHY NOT TRY IT?

For colored plate, testimonials and price address the originators.

Eastern Agents, PIONEER NURSERIES COMPANY,
PHOENIX NURSERY CO., Salt Lake City, Utah.
Bloomington, Ills.

We also grow a full line of Budded Apples, Pears, Cherries, Plums, Peaches, Roses, Shrubs, Ornamental Trees, &c.

PEACH TREES.

We have for fall and spring trade a fine block of well-grown peach trees; all the leading western varieties.

APPLE SEEDLINGS

grown on new land and free from Aphs.

SHADE TREES,

large and small, together with a general line of nursery stock, including Forest Tree Seedlings, Osage Hedge Plants, Ornamental Trees, Shrubs, Etc.

APPLE GRAFTS MADE TO ORDER. PRICES RIGHT

Correspondence solicited.

YOUNGERS & CO.,
GENEVA, NEB.

When writing to Advertisers mention The National Nurseryman.

The Syracuse Nurseries

...THE WORDEN SECKEL PEAR...

One of the most beautiful, productive and delicious pears ever offered to the public. For description, testimonials and price, address the Disseminators,

SMITHS & POWELL COMPANY,
SYRACUSE, N. Y.

Also a general assortment of budded Apples, Standard and Dwarf Pears, Plums, Cherries, Peaches, Roses, Ornamental Trees, Shrubs and Vines. All of superior quality and carefully graded. We issue no Trade Price List, but will make low prices by letter. Write or come and see us.

GRAPE

An extra fine stock of CURRANTS at very low prices, including the valuable new WILDER. Also DOWNING GOOSEBERRIES, very cheap. Other small fruits.

T. S. HUBBARD CO.,
FREDONIA, N. Y.

ALL OLD AND NEW VARIETIES.
Immense Stock, Warranted True
QUALITY UNSURPASSED.
A fine stock of Campbell's Early
vines at low rates.
Send list of wants for prices.

VINES

100,000 PRIVET

1 1/2 FEET.

2-3 FEET.

3-4 FEET.

4-5 FEET.

Prices given on application. Usual assortment of Roses, including Crimson Rambler.

HIRAM T. JONES, UNION COUNTY Elizabeth, N. J.
NURSERIES.

The Sparta Nurseries have to offer their Usual stock of dry baled Moss, both butrap and wired bales, and of the finest quality on the market. Also a full line of small fruit plants, high bush Cranberry, Juneherry and Huckleberry
Z. K. JEWETT & CO., Sparta, Wis.
included. Ask for prices and terms.

R. H. BLAIR & CO.,

Office N. W. Cor. 11th and Walnut, KANSAS CITY, MO.

PROPRIETORS OF THE

LEES SUMMIT NURSERIES.

A full line of stock for wholesale and retail. Correspondence solicited.

The only practical Box Clamp in use at low price.

[ESTABLISHED 1876]

ALLEN L. WOOD,

Rochester, N. Y.

EXTRA FINE

PLANTS

At .. Wholesale.

The Largest Stock of
CURRANTS, GOOSEBERRIES,
RASPBERRIES, BLACK-
BERRIES, Etc.
In the United States. . . .

I will enter your order for ten plants, up to a carload, of any varieties. It will pay you to get my prices.

CHARLES DETRICHE, Senior,

ANGERS, FRANCE,

Grower and Exporter of Fruit Tree Stocks, Forest Trees and Ornamentals.

Extra Large Assortments of Shrubs, Conifers, etc.
Prices on Application.

JACKSON & PERKINS CO., NEWARK, N. Y.
Sole Representatives for the United States.

Mr. Detriché would be glad to receive any horticultural catalogues or papers. When writing to advertisers mention The National Nurseryman.

SAN JOSE SCALE, CURL LEAF,

And other orchard and garden pests can absolutely be controlled by using

"U. S. STANDARD"

Caustic Potash Whale Oil Soap.

A positive Insecticide and Fertilizer. Recommended by Entomologists, and a guaranteed article. Send for circular and price list.

MANUFACTURED ONLY BY

W. H. OWEN, CATAWBA ISLAND, O.

F. JAMES,

NURSERYMAN,
USSY, (CALVADOS) FRANCE.

Offer in large quantities for this fall or spring delivery :

Fruit Tree Stocks, Forest Tree Seedlings, Norway Spruce, American Arbor Vitæ, Ornamental Shrubs, etc.

NO AGENTS, which permit to offer at lowest possible rates. Kindly send your lists of wants. You will surely save dollars.

Ornamental TREES

LARGE
SMALL

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

SAMUEL C. MOON, Morrisville, Bucks County, Pa.

NURSERYMEN Should read this, I have just what you want. Always in stock, a nice clean article of dry baled **SPHAGNUM MOSS.** No delay or freight charges from branch roads. Orders for less than large car load shipped the first day received.

L. G. THOMPSON,

Write me for easy terms and prices.

TOMAH, WIS.

Wabash R. R.

Offers Unexcelled Service to the WEST.

4

Daily Vestibuled Trains,
BUFFALO—to—CHICAGO.

3

Daily Vestibuled Trains,
BUFFALO to
ST. LOUIS, KANSAS CITY and OMAHA.

FREE RECLINING CHAIR CARS.
WAGNER SLEEPING CARS.
WABASH DINING CARS.

Full information regarding rates, etc., cheerfully given.
...Address,

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St. Louis, Mo.

JAMES GASS,
N. Y. S. P. A.,
287 Main, Buffalo, N. Y.

R. F. KELLEY,
G. A. P. D.,
287 Main, Buffalo, N. Y.

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P. J. BERCKMANS.
L. A. BERCKMANS.

ESTABLISHED IN 1856.

R. C. BERCKMANS.
P. J. A. BERCKMANS, JR.

FRUITLAND NURSERIES,

P. J. BERCKMANS CO., (Incorporated.)

AUGUSTA, GA.

Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

20,000 Standard Pears—Extra good Stock.

2 years, 5 feet and up, branched.
2 years, 4 to 4½ feet, branched. Get our prices.

5,000 Everbearing Peach Trees—3 and 5 feet. \$10.00 per 100.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Cherries, Mulberries, Apples, Figs, Nuts and Peaches.

ORNAMENTAL DEPARTMENT.

100,000 Amoor River Privet—Unsurpassed as an evergreen hedge plant.

50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stand 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel, budded upon Manetti, 18-24 inches.

Two Acres in Canna.

BIOTA AUREA NANA

Best of all the dwarf Biotas; a perfect gem. Was not injured in the least by the February freeze—while the old Biota Aurea (its parent) was badly injured. We have an immense stock and can supply it by the thousand in sizes 12-30 inches.

100,000 Palms—An especially fine lot of Latauias, Phoenix, and Kentias.

4,000 Fancy Caladiums.

Ficus, Crotons, and 1,000 Camphor Trees, Sub-Tropical Fruits, Etc.

Send for Trade List and Descriptive Catalogue.

ALBERTSON & HOBBS,

BRIDGEPORT, (Marion Co.) IND.

OFFER FOR FALL 1899

AND SPRING 1900.

In car load lots, assorted car load lots, or smaller quantities.

Standard Pears—Complete assortment, including liberal portion Keiffer, Bartlett, Henry, Arnold, etc.

Dwarf Pears—Complete assortment.

Plums—European, Japan and native, assorted.

Cherry—Assorted.

Carolina Poplar—All sizes; extra fine young stock.

Norway, Silver and Rock Maples.

Weir's Cut Leaved and Schwedlerii Maple.

American Elms, Weeping Elms, Lindens, Sycamore, Mulberries, etc.

Hardy Shrubs—Good assortment; also Evergreens, Roses, Vines, Small Fruits, etc.

Apple Seedlings and Imported Seedlings, Peach Pits, supplies, etc. (Prices on application.)

SEE TRADE LIST FALL 1899.

Spade and supply orders should be sent in early.

PETERS & SKINNER,

North Topeka, Kansas.

CAPITAL NURSERIES.

We offer for

Spring of 1900 _____

APPLE, PEACH, PEAR
AND PLUM TREES.

We can supply

Apple Seedlings

in large lots. Fine grades.

OSAGE, BOX ELDER,
RUSSIAN MULBERRY, SOFT
MAPLE and ELM SEEDLING.

KANSAS RASPBERRY. BLACKBERRIES.

WRITE US FOR PRICES.

Peters & Skinner.



When writing to advertisers mention The National Nurseryman.

.. FOR ..

Apple Seedlings

From French Crab seed,
Grown on new land,
Carefully packed in
Paper Lined Boxes,
Handled by experienced
workmen, and
Shipped promptly when ordered,
Try us.

Samples and prices upon application.

F. W. WATSON & CO.

TOPEKA, KAN.

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**EARLIEST
PEACH.....**

STRAWBERRY

**HARRISON'S
NURSERIES**

Plants by the Dozen or Million

PLANTS | PLANTS | PLANTS

Fresh dug, well rooted, well graded and well packed to reach any part of the United States.

— LEADERS —

Peach

Leading
Varieties.

ASK FOR WHOLESALE
PRICE LIST.



EXCELSIOR. (Per.)

The originator says: "We are proud in being able to offer to our patrons this extra early, large, firm, high-colored, well-shaped berry. It is immensely productive and will take the place of Mitchel's Early wherever tried. It was originated in the state of Arkansas, where all good things come from. We strongly urge all our patrons to get a start of them for they are great early berries for profit. It is a seedling of Wilson crossed with Hoffman. Wilson shaped and Wilson colored; plant resembles Hoffman, but larger and more robust. On our grounds this gave a few berries the past season, which were extremely early, large, good color, firm, and in every way showed to be the very best extra early berry we have ever seen."

Plums

Abundance,
Burbank,
Hale,
Berckman,
Chabott,
Normand,
Satsuma.



Apples

Ben Davis,
M. B. Twig,
Wine Sap,
York Imperial.

Asparagus

Now ready
to book
Orders for
Spring.

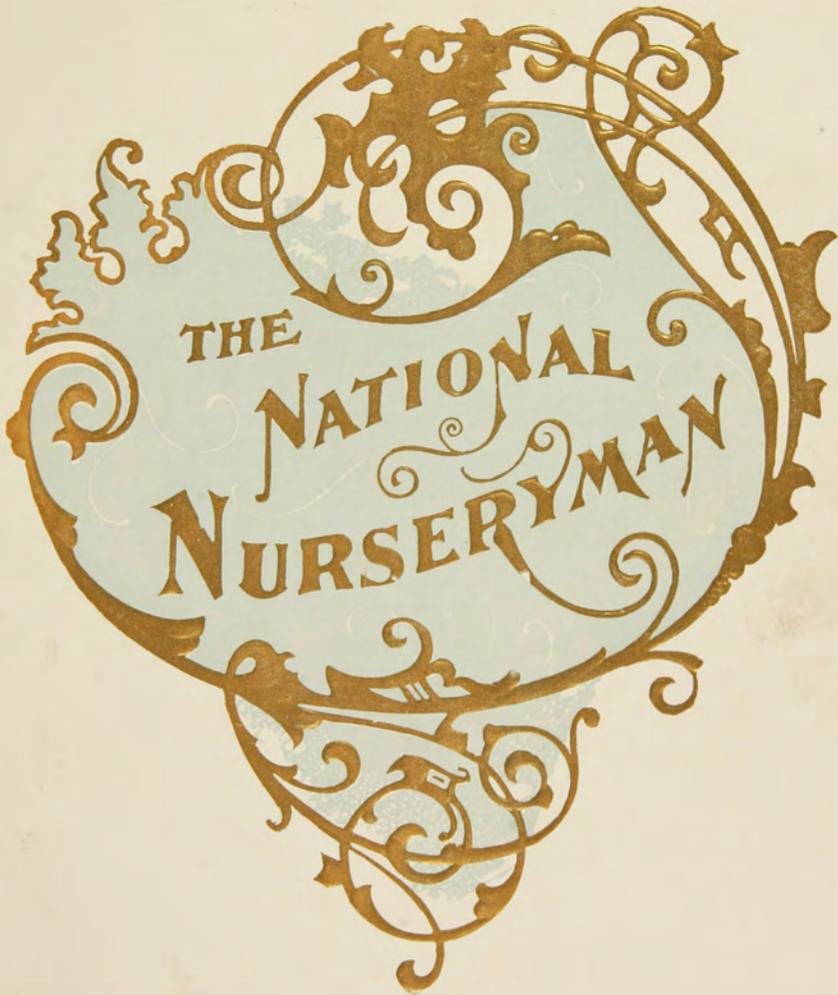
Buy direct from the Grower. Send for estimate to-day. We want your order.

J. G. HARRISON & SONS,

**BEST
ASPARAGUS**

**BERLIN,
M D.**

**KEIFFER . . .
PEAR TREES**



January, 1900.

The Painesville Nurseries.

Located on the shore of Lake Erie, thirty miles east of Cleveland, grow as healthy, hardy, thrifty nursery stock as can be found between the oceans, consisting of one of the most complete assortments of

FRUIT AND ORNAMENTAL TREES.

**Small Fruits, Nut Trees, Grape Vines, Shrubs, Roses,
Hardy Herbaceous Plants, Climbing Vines, Bulbs and Greenhouse Plants.
Large Blocks of Standard and Dwarf Pears, Plum, Cherry, Apple, &c.**

Peach Trees—We have made these a specialty for years and have an immense budding on the bank of Lake Erie, two miles from any peach orchards, and guaranteed free from any borers, scale, yellows, aphids, etc.

Small fruits—Very heavy in **Gooseberries and Currants, Raspberries and other.**

Headquarters for Ornamental Trees and Shrubs.

Will have the largest and finest stock of large **Carolina Poplars** for the coming fall trade which we ever offered. This is the tree for quick growth and to resist the smoke and gas in village, town and city.

Weeping Trees—Especially heavy in **Teas' Weeping Mulberry, Kilmarnock, Wisconsin, Babylonica and New American Weeping Willows, Camperdown Elm, Mountain and European Weeping Ash**, and a good stock of other weeping trees. Fine stock of high top **Rose Acacia**.

Roses, Roses, Roses—Forty acres in nursery rows, own roots and budded. None better. Greatly superior to the imported.

Greenhouse Department.

Consists of **Forty-four** houses filled with **Roses, Palms, Ferns, Ficus**, and other things too numerous to mention.

Holland Bulbs—Have large lots contracted with best growers that cannot fail to please customers.

Personal inspection and correspondence solicited.

TRADE LISTS AND CATALOGUES FREE.

THE STORRS & HARRISON CO.,

PAINESVILLE, OHIO.

"The most complete Nurseries on the American Continent."

THE
**MOUNT
 .. HOPE ..
 NURSERIES,**

ROCHESTER, N. Y.

ELLWANGER & BARRY, Proprietors.

Established over fifty years ago, and still under the same management.

The largest and most complete collections of General Nursery Stock ever offered; the most approved varieties of FRUIT TREES, new and old, Grape Vines, Raspberries, etc.

Superb collections of ORNAMENTAL TREES and SHRUBS, both deciduous and evergreen. HARDY ROSES, HARDY HERBACEOUS PLANTS, HERBACEOUS PÆONIES. HARDY PHLOXES.

Wholesale catalogue mailed free on request.

BRAGG'S
Common Sense...
Tree Digger



AT THE
 FRONT.

WE SHIP THE DIGGER ON TRIAL.

Our Stock is fine for Spring, 1900, including 200,000 Peach in Cellars.

L. G. BRAGG & Co.
 KALAMAZOO, MICH.

When writing to Advertisers mention The National Nurseryman.

Jackson & Perkins Co., NEWARK, N. Y.

HEADQUARTERS FOR

ROSES, CLEMATIS,

ALSO GOOD STOCKS OF

Ampelopsis Veitchii, *Chinese Matrimony Vine*, *Wisteria*, Purple,
Deutzias, *Forsythia Fortuneii*, *Fringe*, Purple,
Fringe, White, *Halesia Tetraptera*, *Herbaceous Plants*,
Hydrangea Pan. Grand—2 to 3 ft. *Snowball*, Japan,
Hydrangea P. G. tree form, *Spireas*, *Samac*, cut leaved,
Tree Paeonias, *Weigelas*, *Xanthoceras*.

Acacia, Mexican, *Alder*, European, *Beech*, American,
Cytissus Laburnum, *Euonymus*, European,
Magnolia Acuminata, *Magnolia Speciosa*, *Willow*, *Kilmarnock*,
Arbor Vitae, Siberian, *Fir*, Nordman's Silver, *Larch*, European,
Spruce, Norway.

CURRENTS—2 yr., No. 1, Black Champion, Cherry, La Versailles, Fay's. 2 yr., medium, Black Champion, Cherry, Fay's.

GOOSEBERRIES—Columbus, Houghton, Industry, Red Jacket.

PEARS—Standard and dwarf. **PLUMS.**

Send for our price list which gives low quotations on the above and upon many other items of interest—too numerous to mention here.

WANTED for mailing: 2,000 to 3,000 Bismarck Apple, 1 yr. grafts or buds (grafts preferred). Send sample and price.

BREWER & STANNARD,
 OTTAWA, KANS.,

Offers to the Trade a Large and Complete Assortment of

NURSERY STOCK

APPLE,
PEAR, Std. and Dwarf,
CHERRY,
PLUMS, Japan and European
PEACH,
APRICOT,

Gooseberries, Grape Vines, Currants, Raspberries, Blackberries, Apple Seedlings, Forest Seedlings, and Osage Hedge Evergreens, 18 in. to 3 ft.
 Ornamental Trees, Shrubs and Vines.

When writing to Advertisers mention The National Nurseryman.

The National Nurseryman.

FOR GROWERS AND DEALERS IN NURSERY STOCK.

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"Fruit culture is a great national interest."—P. BARRY.

VOL. VII.

ROCHESTER, N. Y., JANUARY, 1900.

No. 12.

FEDERAL INSPECTION BILL.

Re-introduced in Congress Last Month by Representative Wadsworth of New York, Chairman of Committee on Agriculture, at the Request of C. L. Watrous, Chairman of Legislation Committee of American Association of Nurserymen.

The federal bill to provide rules and regulations governing the importation of nursery stock which was introduced in Congress on February 16, 1898, by Congressman Charles A. Barlow, of California, and which failed of passage because of the more urgent measures before Congress attending the Spanish-American war, was re-introduced December 4, 1899, by Congressman James W. Wadsworth of Geneseo, N. Y., chairman of the committee on legislation of the House of Representatives.

The bill was introduced at the request of C. L. Watrous, Des Moines, Ia., chairman of the committee on legislation, of the American Association of Nurserymen. It is the same bill that was introduced in 1898, even to the phrase "after October first, eighteen hundred and ninety-eight," and the section, "this act shall take effect on and after the thirtieth day of June, eighteen hundred and ninety-eight." It is endorsed by members of the committee on legislation of the American Association who are working hard for its passage. The NATIONAL NURSERYMAN has obtained the following

REPRESENTATIVE OPINIONS.

Chairman Watrous—"The bill is the nurseryman's bill of two years ago, re-introduced. Acting under orders of the American Association of Nurserymen, at Chicago last summer, I asked Mr. Wadsworth to re-introduce this bill and I have been trying to secure such an agreement that we could all work together for what the nurserymen want. This co-operation was secured two years ago by correspondence exactly as I am trying to do this year. The committee appointed by the American Association will be called together in Washington during the latter part of January."

Silas Wilson, Atlantic, Ia., of the American Association committee on legislation—"Congressman Wadsworth introduced the new federal San Jose scale bill at the request of Chairman Watrous of Des Moines. The legislative committee of the American Association of Nurserymen expects to push this measure this winter, as we believe this federal law is needed badly. There is scarcely a month in the year that some state in the Union is not passing some legislation on this question and in such legislation barring nursery stock from adjoining states. The State of Montana has recently passed a state law that amounts in effect to a little monopoly, making it impossible to ship nursery stock into Montana. A strong federal bill, such as has been introduced by Congressman Wadsworth, will fully cover the ground sought to be covered by the nurserymen of the country. I think the committee on legislation regards the securing of a federal law on this ques-

tion of very great importance. Yes, I might say it is regarded as an absolute necessity, in order that we may not as nurserymen be in a state of fermentation such as we are in now in many sections of the country, every state having a law of its own regarding this scale and these state laws continually clashing with each other."

Irving Rouse, Rochester, N. Y., chairman of the executive committee of the American Association—"I know that there is a general sentiment among nurserymen that there has been too much San Jose scale talk and that there has been too much legislation upon the subject. It should be remembered, however, that the scale talk has been on the part of those outside of the nurserymen and the nurserymen have discussed the subject only so far as it was necessary to look out for their interests.

"As to legislation, if we could get rid of the varied scale laws of many of the states I should oppose any further legislation on the subject. But inasmuch as there are conflicting laws in so many of the states, I believe it is the best plan to urge federal legislation which will result in uniform regulations regarding the shipment of nursery stock into all the states. It is for this reason that I am in favor of the passage of the federal bill as introduced in 1898."

BILL STRONGLY FAVORED.

The bill as introduced in 1898 was favored strongly by the American Association of Nurserymen; Secretary of Agriculture James Wilson; Professor William B. Alwood, of Virginia; Congressman Barlow, of California, President Watrous of the American Pomological Society, and others. The committee on agriculture reported as follows upon the bill: "We urgently recommend that the bill do pass. Your committee respectfully state that in their opinion only the most rigid enforcement of this or a similar law will save our fruit and ornamental and many of our forest trees as well."

At the annual meeting of the American Association of Nurserymen in Chicago, last June, Mr. Watrous reported: "Your committee went to Washington one year ago and had favorable hearings before the senate and house committees on agriculture, but the Spanish war prevented the completion of the work on the bill. Last winter we had more correspondence on the subject with congressmen and others and everyone said that if should go before the next congress, making the same showing that we did, we might expect to get anything that we reasonably ought to have, and get it easily."

The Iowa Horticultural Society last month adopted the following resolution:

WHEREAS, Great damage threatens our orchards by the introduction of the San Jose scale insect; therefore be it
Resolved, That we respectfully ask our senators and representatives in congress to use their best efforts to secure a judicious federal law to prevent the shipment of infected fruits and plants from foreign countries and between the states.
Resolved, That our secretary be instructed to forward a copy of these resolutions to each of our senators and representatives in congress.

"The Association of Horticultural Commissioners of Southern California," says the American Florist, "has drafted a bill to be submitted to Congress proposing the establishment of a national quarantine against infested nursery stock of all kinds imported from foreign countries. The bill contains provisions of similar nature to operate as an interstate law."

The Niagara Fruit Growers' Association met at St. Catharines, Ont., December 16. Discussion of the embargo on American nursery stock brought out a resolution for its removal, which received scant support. It was stated that if removed, prices of Canadian stock would at once be raised.

THE FEDERAL BILL.

Following is the text of the bill:

A BILL

To provide rules and regulations governing the importation of trees, plants, shrubs, vines, grafts, cuttings, and buds, commonly known as nursery stock, and fruits into the United States, and rules and regulations for the inspection of trees, plants, shrubs, vines, grafts, cuttings, and buds, commonly known as nursery stock, grown within the United States, which become subjects of interstate commerce or exportation.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be unlawful for any transportation company, after October first, eighteen hundred and ninety-eight, to offer for entry at any port in the United States any trees, plants, shrubs, vines, grafts, cuttings, and buds, commonly known as nursery stock, unless accompanied by a certificate of inspection by a government official of the country from which the exportation was made, which certificate shall be made in the manner and form prescribed by the Secretary of Agriculture, certifying that the contents have been examined and found apparently free from all insect and fungous diseases dangerously injurious to nursery stock. In case any nursery goods are offered for entry without said certificate, it shall be the duty of the collector immediately to notify the Secretary of Agriculture, who shall arrange for inspection, and said collector shall not allow them to pass within the jurisdiction of the United States until proper certificate of inspection has been received. And after the aforesaid date, October first, eighteen hundred and ninety-eight, all nursery stock imported in accordance with the aforesaid regulations shall be free from all further inspection, quarantine, or restrictions in interstate commerce; but the Secretary of Agriculture may at any time relieve such articles from inspection by a specific order.

SEC. 2. That whenever it shall appear to the Secretary of Agriculture that any variety of fruit, grown in an infested district outside of the United States or District of Columbia, is being, or is about to be, imported into the United States or the District of Columbia, and such variety of fruit is infested by any seriously injurious insect or disease, and which insect or disease is liable to become established in the United States and seriously affect any variety of fruit grown therein, he shall have authority to quarantine against any such importations and prevent the same until such time as it may appear to him that any such insect or disease has become exterminated in the country or district from which such fruit is being, or about to be, imported, when he may withdraw the quarantine; and this shall operate to relieve all such fruit from further quarantine or restrictions, so long as the conditions of freedom from seriously injurious insect or disease shall continue.

SEC. 3. That all trees, plants, shrubs, vines, and buds, commonly known as nursery stock, grown within the United States, may become subjects of interstate commerce under the rules and regulations as hereinafter provided. The Secretary of Agriculture shall cause to be inspected by a qualified entomologist and vegetable pathologist all trees, plants, shrubs, vines, and buds, known as nursery stock, which are subjects of interstate commerce, and which are about to be transported from one State or Territory or the District of Columbia into another State or Territory or the District of Columbia. This examination shall be made, so far as possible, prior to September first of each year, in the manner provided for and prescribed by the Secretary of Agriculture;

and if such nursery stock is found to be apparently free from dangerously injurious insects or diseases, the certificate of the officer making such examination and finding shall be issued to the owner or owners of such nursery stock, a copy of which certificate shall be attached to and accompany each carload, box, bale, or package, and when so attached and accompanying shall operate to release all such nursery stock from further inspection, quarantine, or restriction in interstate commerce.

SEC. 4. That it shall be unlawful for any person, persons, or corporation to deliver to any other person, persons, or corporation, or to the postal service of the United States (except for scientific purposes or by permission of the Secretary of Agriculture), for transportation from one State or Territory or the District of Columbia to any other State or Territory or the District of Columbia, or for exportation to any foreign country, any trees, plants, shrubs, vines, or other nursery stock which have not been examined in accordance with the provision of section three of this Act, or which on said examination have been declared by the inspector to be infested with dangerously injurious insects or diseases. Any person, persons, firm, or corporation who shall forge, counterfeit, or knowingly alter, deface, or destroy any certificate or copy thereof as provided for in this Act and in the regulations of the Secretary of Agriculture, or shall in any way violate the provisions of this Act, shall be deemed guilty of a misdemeanor, and on a conviction thereof shall be punished by a fine not to exceed five hundred dollars nor less than two hundred dollars, or by imprisonment not to exceed one year, or both, at the discretion of the court.

SEC. 5. That the rules and regulations herein provided for shall be promulgated on or before the first day of July of each year.

SEC. 6. That the sum of one hundred thousand dollars, to be available on the first day of May, eighteen hundred and ninety-eight, or so much thereof as may be necessary, is hereby appropriated, out of any moneys in the Treasury of the United States not otherwise appropriated, to carry into effect the provisions of this Act.

SEC. 7. That this Act shall take effect on and after the thirtieth day of June, eighteen hundred and ninety-eight.

SEC. 8. That the provisions of this Act shall not apply to florists' greenhouse trees, shrubs, plants, bulbs, and so forth, commonly known as florists' stock.

CANADIAN NURSERY LAWS.

The Independent of Grimsby, Ont., opposes a contemplated change in the existing regulations regarding the importation of foreign nursery stock. It says:

The San Jose scale commission made the discovery that the orchards most infested with the scale were those nearest the Niagara frontier. In this section some stock was planted that had been procured from New York state where the scale was prevalent. The unrestricted admission of such stock into our country would produce untold disaster to the fruit industry and utter demoralization to the fruit trade. The present condition of affairs is much preferable. One pernicious feature of the nursery business that the embargo has wiped out is the "jobbing business." Jobbers cannot buy across the lines, the Canadian nurserymen will not sell to them, and so they have passed—never to return—we sincerely hope. The Canadian nurserymen are not afraid to meet the Americans in direct competition, for as a matter of fact the price of nursery stock is higher in the United States to-day than it is in Canada, but what our nurserymen do object to is coming into competition with jobbers selling third class American stock.

We are working up a good fruit trade with Britain. The possibilities are great. No risks should be undertaken that would, in the slightest degree, imperil our prospects in this direction. We trust the government will turn a deaf ear to any propositions having for their object the unrestricted entry of fruit stock into Canada.

NOTICE TO CALIFORNIANS.

The California horticultural commissioners have received notice from Alexander Crow, of the State Board of Horticulture, calling attention to the dangers of importing diseased nursery stock and advising them to caution nurserymen and others against ordering peach and other stone fruit from eastern and southern states, as unless an absolutely clean bill of health can be produced the stock will be condemned.

Among Growers and Dealers.

There is said to be a heavy planting of apple in the West Smith & Reed are successors to A. M. Smith, St. Catherines, Ont.

J. Cole Doughty, manager of the Jewell Nursery Co., Lake City, Minn., will spend a portion of the winter in New Mexico.

Frederick W. Kelsey, New York, has secured the contract to supply 4,000 shade trees to be set out in Highland avenue, Passaic, N. J.

G. H. Miller & Son, Rome, Ga., write: "We never were so entirely sold out of stock as we are to day. Our trade has been exceptionally good for this season."

The Southern Trade Journal heartily commends, editorially, the Pomona Nurseries, Griffing Brothers Co., Jacksonville, Fla., for complete lines of trees and shrubs for southern planting.

The 89d birthday of George Ellwanger, of the firm of Ellwanger & Barry, Rochester, N. Y., was observed, as usual, at a dinner party at which there were thirty distinguished guests besides the venerable host.

Joseph H. Black & Son, Hightstown, N. J., have constructed a suitable house for fumigating nursery stock with hydrocyanic gas. They are also making a determined effort to propagate everything they catalogue.

Ex-President Irving Rouse, of the American Association of Nurserymen, returned late last month from a trip to France where he purchased pear seedlings. He says there is a scarcity of seedlings in France. The stock of Myrobolan is very short, due to frosts.

The nurserymen in Angers, Orleans and Ussy, France, have been favored by the season for their ground work and business. Fruit stocks are in great demand and nearly exhausted in every place. Ornamentals and forest stocks are still obtainable in quantities; the season has been favorable for them.

The co-partnership heretofore existing between William Flemer and O. H. Felmy has been dissolved by mutual consent, Mr. Felmy retiring and Mr. Flemer becoming now sole owner of the Springfield property and business which will be continued under the name "F. & F. Nurseries." The agency department will henceforth be conducted under the name "North Jersey Nurseries," by E. D. Pannell, manager.

DEVELOPMENT OF FRUIT BUDS.

In most fruit states the autumn weather was very favorable to the proper ripening of new wood of fruit-bearing trees and the development of blossom buds for the fruit crop of 1900. Responses to our inquiries, says American Agriculturist, as to the condition of all kinds of fruit-bearing trees and shrubs show that where these were not severely injured by last season's cold spell everything is in first-class condition.

SCHOOL OF HORTICULTURE.

If the number of applications warrant the undertaking, a short school of horticulture will be held at the R. I. College, Kingston, R. I., beginning Feb. 26, 1900, and continuing two weeks. The plan will be to crowd all the clear-cut practical instruction possible into this brief space of time. To that end the aid of practical men who have made a success in different lines of horticulture will be elicited. Special effort will also be made to familiarize students with horticultural literature in order that they may know where to look for information when needed. The work will include a study of soils, fertilizers, plant life, fruits, vegetables, ornamental gardening, propagation, spraying, etc. Especial attention will be given to bush-fruits. Expenses moderate. Information may be obtained of Fred W. Card, professor of horticulture, Kingston, R. I.

THIRTY YEARS AGO.

Henry Schroeder, Sigourney, Ia., well known to the trade—read a paper at the Southeastern Iowa Horticultural Society meeting at Mt. Pleasant, November 22d, in which he said:

Thirty years ago I came through Mt. Pleasant, where we now meet, with \$7.00 and a ticket to Fairfield. My father had borrowed it and charged the interest to me. But five years later when 22 years old I collected my labor, what I had saved, and bought eighty acres wild land for \$800 and paid for half of it, ten miles north of Sigourney. But before I got any land broke tree agents got after me; but to stop this trouble I made a contract with this clause written in, that if I did not get ready I would not have to pay and take the stock. Now after they swindled others their company broke up and the agent told me I would have no trouble, they only wanted my name to get others. After that, I went to the nearest home nursery without troubling the nurseryman any with his prices and stock by leaving good deal selection to him. He treated me well. I got good varieties, planted them good, and they all grew, and after that I helped my good neighbors.

From Various Points.

The office of experiment stations points out the need of stations in the new possessions—Porto Rico, Hawaii and the Philippines, adding that \$15,000 could be wisely appropriated for Hawaii, \$10,000 for the Philippines, and \$5,000 for Porto Rico.

The Mexican orange maggot, *Trypeta ludens*, was found in a shipment of oranges from Panama to San Francisco, November 19th. The oranges were destroyed promptly. California horticulturists now demand that oranges from Mexico be barred from the United States.

The U. S. Division of Botany has established a testing garden where observation may be had of plants introduced from foreign countries, so as to avoid new plant diseases. The acquisition of tropical islands by the United States has brought many inquiries to this division regarding the cultivated plants of the tropics.

Why are orchards unfruitful? asks Professor L. H. Bailey in a recent bulletin of the Cornell University, and in answer to his question he states that the contributing causes are: (1) Lack of good tillage, particularly in the first few years of the life of the plantation; (2) lack of humus and fertilizers; (3) uncongenial soils and sites; (4) lack of systematic and annual pruning; (5) lack of spraying and attention to borers and other pests; (6) bad selection of varieties; (7) trees propagated from unfruitful stock.

During the year the U. S. Division of Pomology distributed 2,700 lots of fruit-bearing trees, plants and vines to about 275 experimenters in various portions of the country. Experimentation under the direction of the division is being conducted in North Carolina and Florida, with a view to the successful production of the finer table grapes of Europe. One hundred and nineteen varieties grafted on phylloxera resistant American stocks have been planted by the experimenters, as well as 43 varieties of "direct producers" and "resistant stocks."

The Broadway, New York city, florist, Fleiselman, has brought out a carnation grown in competition with the \$30,000 Lawson. The flower is pronounced by connoisseurs to be the most beautiful product of its kind in existence, far surpassing the Lawson carnation in color, delicacy of tints, formation and durability. Mr. Fleiselman says it will retain its bloom for ten days at least. The flower averages about six inches in circumference, and its fundamental color is white, with a delicate tint of pink and cerise spreading out from the veins of the petals. The stem of the flower is also thicker and stronger than the Lawson carnation, and the foliage much richer. Thomas W. Lawson offered a wager of \$10,000 that the Lawson carnation could not be equaled in six months.

BUDD AND KENYON, DIRECTOR, N. Y., Dec. 12, 1899—"Please find enclosed a Post Office Money Order for one dollar for the NATIONAL NURSERYMAN for the year of 1900. We are well pleased with it."

W. K. WELBORN, TUCUMSEE, OKLA., Dec. 11, 1899—"Enclosed \$1 renewing my subscription to your valuable journal for one year. Could not well get along without it."

THE NURSERY PATRONS.

Horticultural Societies In Eight States Hold Annual Meetings—Nurserymen as Officers—Iowa Congressmen are Asked to Favor Federal Scale Bill—Maryland Inspection—Hardy Apples for Canada—“Sorrrows of the Tree Peddler.”

The twenty-fourth annual meeting of the Iowa Horticultural Society was held at Des Moines, December 12-15. It was resolved that the sense of the society is that orchards should be cultivated until July 1, and that the cultivation should be followed by a good suitable crop. C. L. Watrous, of the executive committee of the American Association of Nurserymen, started the discussion by reading a paper on the management of orchard and nursery land. He said:

It is our misfortune instead of our sin that for the past ten or fifteen years we have been handicapped and distracted among ourselves by discussion and heart burnings over foreign fruits, which have finally been rejected, instead of being free to solve problems of interest like this one of tillage and enrichment of fruit lands, so that with the least outlay of labor and money we may secure the most and the best fruits which means in the end the greatest return for our labor.

There is one comfort to us in Iowa—our soils are originally of the very best. If we will treat them with a moderate amount of intelligent care, they will last us in fertility and friendly helpfulness much longer than the soils at the command of fruit growers in the East and the North. There must be rotation in tillage, and rotation of clover crops. Lands in the worse condition must have cover crops that will thrive under difficulties. Rye, corn and peas may succeed where clovers could not, but clovers may come later after the soil has been somewhat improved.

Silas Wilson, formerly president of the American Association of Nurserymen, said the Iowa society should declare itself upon this subject. The society appropriated \$300 for a display of fruit at the Paris Exposition. Prof. Craig reported that the abnormally hot weather of last May interfered with the plant breeding experiments, but that the crossed seeds are stratified and will be sown in carefully prepared beds next spring. The object of the work is the production of hardy export varieties of apples; of improved varieties of hardy plums; of pears better adapted to prairie conditions than those we now have. Plant breeding stations were established as follows: C. G. Patten, Charles City; R. P. Speer, Cedar Falls; A. Branson, New Sharon; B. A. Mathews, Knoxville; C. L. Watrous, Des Moines.

A resolution was adopted asking Iowa's congressmen to work for a law to protect fruit growers from imported (foreign or interstate) insect pests, San Jose scale or other.

W. H. Lewis, Winterset, said regarding the Iowa inspection law:

It appears like requiring a large and useless expense for inspection, when it is asserted that no scale is or ever has been in this state, when we consider in the case of the first infection, the scale is so minute and so difficult to be seen that to so examine as to be able to safely assert that no scale existed therein, all the inspectors that have ever been in this state could not inspect within the time required by the law, even one of the larger commercial nurseries. In states farther east the pest has been spread by infected stock from inspected and certified nurseries, so it seems official inspection can not safely be relied upon.

It seems to this writer, that the most efficient means of protection against this pest, is the constant watchfulness of every citizen and especially of the horticulturists and nurserymen. If it is objected that a lack of knowledge prevents this vigilance from being effective, it is pertinent to ask if it is possible that legislation can supply this want of knowledge.

A legislative committee, composed of C. L. Watrous, Silas

Wilson, A. L. Plummer, J. G. Berryhill and M. J. Wragg, was named. A resolution endorsing M. J. Wragg for a fifth term as superintendent of the horticultural department of the state fair was adopted.

NORTHWESTERN IOWA.

A small but enthusiastic band of fruit growers gathered at the eighth annual meeting of the Northwestern Iowa Horticultural Society at Spencer, December 5-7. The officers were M. E. Hinkley, president; W. B. Chapman, secretary, and B. Schoutz, treasurer. As at the Southeast and Northeast meetings, the topic of greatest interest was the root killing of nursery and orchard trees. Professor Craig advised surface protection of orchards and cover crops.

The subject of hardy stocks drew out considerable discussion. The general opinion favored own-rooted trees in the case of cherries and plums; next to own-rooted trees in plums in hardiness stood Americana stocks. For cherries the Morello stock had given better satisfaction than Mahaleb or Mazzard. The latter appeared to be somewhat more tender than Mahaleb. Prof. Hansen, of South Dakota, told of the Russian practice of using the true Siberian crab, *Pyrus baccata*, as a stock for the cold regions. This crab is found here and there throughout the Northwest. He recommended collecting the seeds for the purpose of growing hardy seedlings. Although the year had been a severe one, the losses heavy, fruit growers were hopeful that next spring would see a large setting of trees.

MINNESOTA.

A poet and several enthusiasts enlivened the thirty-third annual meeting of the Minnesota Horticultural Society, at Minneapolis, December 5-8. J. T. Grimes furnished the poetry and also started the enthusiasm by referring to the finding of a catalpa on the shore of Lake Minnetonka. Close upon this came the statement of the success achieved by J. A. Cummings, of Eden Prairie, in growing sweet potatoes in the frigid climate of Minnesota and his remark that if he lived long enough he would see peanuts and dates grown on farms in that state. Among those at the meeting were J. M. Underwood, A. W. Latham, E. H. S. Dartt, and Wyman Elliott; also C. G. Patten, Charles City, Ia.

The legislative committee, Chairman Wyman Elliott reported that the legislative bill for inspection of nursery stock was killed at the last session of the legislature mainly through the efforts of members of the association, who did not understand it. The trouble was that the nurserymen in Minnesota could not do business in other states, for the reason that there were inspection laws in force, and no provision for inspection in Minnesota. If a bill had passed providing for such inspection, all nursery stock which left Minnesota tagged by the inspector could be handled in other states having inspection laws. It was advised that the bill be presented again at the next session of the legislature.

The Jewell Nursery Co. won first and second premium on apples. There were eulogies of Peter W. Gideon, and flowers and specimens of his Wealthy apple were offered in great number. The question whether the numerous Wealthys had departed from the style of the parent was raised and a large number of shoots from the original tree were brought by Mr. Gideon's successor to be distributed and grown in various parts of the state, the fruit to be tested at a future meeting.

A novel exhibit was contained in some very short large

necked bottles, where, preserved in alcohol, were numbers of "apple berries" from Russia. These have the long stem of the crab apple, with the bud end of the same, but they are as small as large blue berries. These had been brought from Russia by Prof. Olson, and it is claimed that these little berries are the original of the apple; that these little berries were all the world at first knew of apples, and since that time, by progression, seeding and propagation, the apple has grown to be what it is.

MICHIGAN.

The Michigan Horticultural Society held its twenty-ninth annual meeting at Holland, December 5-7. The society took steps to institute village improvement societies throughout the state, the committee submitting a form of constitution and by-laws suitable for such organizations, and urging their establishment in every Michigan town and village. Papers were prepared by Charles W. Garfield, Prof. L. R. Taft, C. J. Monroe, R. M. Kellogg, Walter Phillip and others. Among the subjects discussed were: Value of tree culture in rural districts, ornamentation of highways and school yards, science with relation to horticulture.

VERMONT.

The fourth annual meeting of the Vermont Horticultural Society was held at Burlington, December 12. President Kinney in his address urged Vermont growers not to fear competition from the West in the apple business.

Prof. Perkins of the experiment station reported the discovery of the San Jose scale in Vermont.

L. M. Macomber spoke of pear culture. He said that in some ways pear culture is now more promising than apple. The great difficulty with pear-growing has been the dissemination of so many varieties bearing small and early fruit. What we want is large late-keeping varieties, just the same as we have found them essential to the commercial apple business.

Luther Putnam spoke of the northern apple, and told of the progress which has been made in the introduction of hardy varieties into the colder parts of the state.

E. C. Brown described "The Sorrows of the Tree Peddler." He told how many of the miscarriages charged to tree agents are really due to the carelessness, ignorance and cupidity of the farmer who buys the trees. Considerable discussion followed, in which the opinion was freely expressed that profound and inexcusable ignorance on the part of certain farmers alone explains the success of the fruit agent in most of his tricks.

County vice-presidents reported a small crop of fruit last year, but high prices. The prospect for small fruits next year is not the best, but orchard fruits promise well.

OHIO.

The thirty-third annual meeting of the Ohio Horticultural Society was held at Newark, December 6-8. There was a large display of fruit; of apples 200 plates. President E. H. Cushman in his address said that complaints were frequently coming to the officers from distant points, saying that fruit-tree agents were claiming to work under the sanction of the society, and working off spurious and over-praised varieties at an enormous price upon innocent and unsuspecting purchasers. The society should clear itself of such charges, and plainly make known that it was behind no tree-selling schemes of any party whatever.

W. G. Farnsworth, from near Toledo, had a fine crop of peaches. Elberta brought 60 cents per one-sixth bushel. Crosby and Salway averaged \$2 per bushel. The Crosby is hardy in bud but tender in root and many trees were killed by the cold snap. They leaved out and bloomed, but soon withered and died. In digging them out, the collar and upper roots were black, with loose bark, while roots lower down were fresh and apparently unhurt. As communication was cut off between the top and roots, the tree of course died. N. H. Albaugh, Phoneton, said they took advantage of the fact that there was to be no peach crop, to cut back all their trees. They cut limbs of all sizes from two inches down, but those where the place of severing was about one-half inch did better than larger ones. Keiffer pears were the only variety which did anything in the pear line. They produced abundantly and sold for \$1 per bushel.

COLORADO.

The annual meeting of the Colorado Horticultural Society was held in Denver, November 27-29. President Brothers in his address noted the scarcity of fruit during 1899, except in favored localities. He emphasized the importance of selection of varieties and winter protection. Secretary Martha Shute reported that the fruit show during the Festival of Mountain and Plain included 700 exhibitors and 2160 square feet of tables. The estimated planted area of the state in fruit trees was 142,500 acres, with increase of 20 per cent. in planting and 30 per cent. in bearing, making 56,000 acres in bearing. The figures of last year were 8,330 acres of small fruits, 6,250 acres pear trees, 81,250 acres apple orchards, 22,920 acres stone fruits; in all, 118,752. Value of fruit, \$6,000,000. In 1893 Colorado brought back from the world's fair 25 medals of award; in 1898 she brought from Omaha 7 gold, 20 silver and 16 bronze medals.

ONTARIO.

The thirty-first annual meeting of the Ontario Fruit Growers' Association was held at Whitby, December 5-6. An example of dishonestly packed apples was exhibited. Canada apples have acquired a bad name in England as compared with those sent from the United States. Prof. Saunders, superintendent of the Central Experimental Farm, Ottawa, exhibited some new varieties of apples, believed to be hardy enough to stand the climate of the Northwest, produced by cross fertilization of hardy Siberian wild crab with the best hardy apples under cultivation in the East. A resolution was unanimously carried approving the action of the department of agriculture in taking measures to stamp out the San Jose scale, and regretting that there should be any relaxation of the law.

MARYLAND.

The second annual meeting of the Maryland Horticultural Society was held at Baltimore, December 6-7. Prof. W. G. Johnson, state entomologist, reported that he spent nearly nine months of the year in field work, inspecting nurseries and orchards. As reported to the American Agriculturist, forty-eight nurseries have been inspected. These nurseries contain 6,000,000 fruit trees, to say nothing of small fruit plants estimated at 28,000,000. The system of fumigation adopted has worked successfully, and Prof. Johnson considers it the only adequate protection from the San Jose scale, and of great value in other respects. Experiments have been made to show

what strength of hydrocyanic acid gas can be used on nursery stock without producing injury. Low grade and June budded peach trees are injured by gas stronger than 16 grains per cubic foot, while well-matured, dormant peach will stand four times this strength—25 grains are used in all regular nursery fumigation. Apples resisted six times this amount under an exposure of one hour. Still, all work should be done by accurate measurements of the fumigating enclosures and by the weighing of fumigating materials, for no guesswork can be allowed. The system has been adopted by the Province of Ontario, Prof. William Lockhead having visited Maryland to observe its workings and learn its details, and putting it into operation by starting 60 houses within 30 days after his return; and he reports recently that it is working nearly to perfection.

MISSOURI.

The forty-second annual meeting of the Missouri State Horticultural Society was held at Princeton, Mercer Co., Mo., Dec. 5-7. A number of papers were read on practical methods in the various lines of orchard work, cherry planting, pear orchards and vineyards.

Trees for street planting formed the topic of a valuable paper by Prof. H. C. Irish of Shaw School of Botany. Visitors present were Major F. Holsinger, Rosedale, Kans.; L. H. Callaway, delegate from the Illinois State Horticultural Society; E. J. Baxter, Nauvoo, Ill.; Prof. R. T. Emerson, of the horticultural department of the State University, Lincoln, Neb., and J. T. Stinson, professor of horticulture in the State University at Fayetteville, Ark.

HORTICULTURAL SOCIETY OFFICERS.

VERMONT HORTICULTURAL—President, T. L. Kinney, South Hero; secretary-treasurer, Prof. F. A. Waugh, Burlington.

NORTHWESTERN IOWA HORTICULTURAL—President, M. E. Hinkley; secretary, W. B. Chapman; treasurer, B. Schoutz.

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MARYLAND HORTICULTURAL SOCIETY—President, James S. Harris, Coleman; vice-president, Richard Vincent, Baltimore county; secretary-treasurer, Prof. W. G. Johnson; county vice presidents, Orlando Harrison, J. W. Kerr and nineteen others.

ONTARIO FRUIT GROWERS—President, W. M. Orr, Fruitland; vice-president, G. C. Caston, Craighurst; directors, W. A. Whitney, R. B. Whyte, Harold Jones, W. Boulter, Thos. Beale, Elmer Lick, Murray Pettit, A. M. Smith, James S. Scarff, J. I. Graham, T. H. Race, Alex. McNeil, C. L. Stevens; auditors, A. H. Pettit and Geo. E. Fisher.

OHIO HORTICULTURAL—President, E. H. Cushman, Euclid; vice-president, W. N. Scarff, New Carlisle; secretary, W. W. Farnsworth, Waterville; treasurer, N. Ohmer, Dayton. Ad interim committee: W. G. Farnsworth, Waterville; N. H. Albaugh, Phoneton; A. Shirer, Dayton; W. H. Owen; R. J. Lussing, Canal Winchester; E. G. Cox, F. E. Carr, L. B. Pierce, Tallmadge; E. A. Brawley, Amesville; C. L. Whitney, Warren.

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MICHIGAN HORTICULTURAL—President, Hon. C. J. Monroe of South Haven; vice-president, Hon. R. D. Graham of Grand Rapids; secretary, Charles E. Bassett of Fennville; treasurer, Asa W. Slayton of Grand Rapids; librarian, O. C. Howe of Lansing; C. E. Hadsell of Troy; and Thomas Gunson of Agricultural College, members of executive board for three years. The most important changes were in the retirement of Mr. Tracy who had been a member of the executive board many years, and of Mr. Reid, who had served continuously as secretary since 1886.

Recent Publications.

The Youth's Companion is all that its name implies, a wholesome, entertaining, instructive weekly whose regular appearance the young people eagerly anticipate. The bound volumes afford almost unlimited entertainment long after they are past the current date. \$1 75 per year. Boston: PERRY MASON & Co.

Recent publications by the U. S. Department of Agriculture include the report of the secretary; Experiment Station Record, No. 8, Vol. XI; Practical Forestry in the Adirondacks. Prof. L. H. Bailey has issued a bulletin on "The Problem of Impoverished Lands." Prof. William B. Alwood, Virginia, has a bulletin on "Two American Systems of Grape Training," with notes on varieties. Prof. G. Harold Powell, Delaware, has a bulletin on "The Pruning of Young Fruit Trees."

The twelfth annual report of the Maryland Experiment Station contains a report by Prof. Willis G. Johnson, entomologist, on the San Jose scale in Maryland, and remedies for its suppression and control. The report is illustrated with engravings of peach orchards in which thousands of trees have been killed by the scale. Fumigation is recommended and the process is described with illustrations. The distribution of the scale in the counties is noted. A list of 41 nurserymen of Maryland is given.

THE FLORISTS' MANUAL, by William Scott, a reference book for commercial florists, has considerable interest for nurserymen. It gives, as its name implies, cultural directions, adaptability of purpose, choice of varieties, etc., regarding the leading plants handled by the florist. It is based upon thirty years' experience in nearly every branch of the business, from selling a bunch of violets over the counter to planting a tree, seeding a lawn or building a greenhouse, and the author has therefore touched on several features of the business besides the growing. The volume is profusely illustrated with photo-engravings which form an attractive and valuable feature. The book is firmly bound and is printed on heavy paper with wide margins. Greenhouse building, store management, fertilizers, floral arrangements, fungicide and packing plants and flowers are among the subjects treated. These and the cultural directions for each plant are alphabetically arranged. A photo-engraving of the author is the frontispiece. Half leather, 4to. pp. 285. \$5.00. Chicago, FLORISTS' PUBLISHING Co.

The proceedings of the eleventh annual meeting of the Association of Economic Entomologists have been officially published by the U. S. Department of Agriculture. At the outset is given in full the annual address of the president, Prof. C. L. Marlatt, first assistant entomologist of the U. S. Division of Entomology. Prof. Marlatt's subject is: "The Laissez-faire Philosophy Applied to the Insect Problem." This is the address which caused animated discussion at the convention, reference to which has been made in the NATIONAL NURSERYMAN. It occupies 14 pages of the report and is an able discussion of an important subject. The views expressed in the discussion which followed, as recorded by the secretary and subsequently revised by the participants, are given. They occupy 4½ pages. Members of the association feared that the term laissez-faire might be misunderstood. Chief Entomologist Howard thought that on the whole the San Jose scale alarm had been productive of great good. A. D. Hopkins congratulated the president upon his most interesting and suggestive address. He fully agreed that many of these national problems were

beyond the control of human agencies and that the let-alone policy would in most cases, as applied to them prevent a vast amount of wasted energy, time and money. At the same time he thought that all new problems should be investigated by specialists. Prof. W. G. Johnson said he feared the deeper meaning of the address would not dawn upon the average reader. He could not indorse the address in any way; it would tend to discourage economic workers. Prof. Marlatt, in closing the discussion, recalled the object of the address as explained at the outset, namely to attempt to separate the work in applied entomology that is deemed practicable and profitable from work that is deemed impracticable and unprofitable, and so benefit the former by preventing needless waste of effort. He said that a misunderstanding was evident in the minds of several as to his attitude under inspection and quarantine, but he felt sure that an examination of the portions of the address relating to this subject would indicate that legitimate quarantine to check or limit as far as practicable the transmission of notoriously infested stock was distinctly included in the field of useful effort. He had urged the concentration of energy on all fields of local work which promise direct and practical results. He expressed the belief, however, that entomologists had of late shown too much readiness to become alarmists.

STRAWBERRY FRUITING SEASON CHANGED.

Editor NATIONAL NURSERYMAN:

A point overlooked by many northern strawberry plant growers in cataloguing, is the change in fruiting season produced by transplantation from northern latitudes to the South.

Nick Ohmer variety shipped to us from Medina, O., this year, fruited here Dec. 2d, while Excelsior, which is a much earlier variety, did not fruit until Dec. 9th. The Excelsior plants used, were from Judsonia, Ark. Have had same results in 1898.

Conversely, it may be possible that plants grown here and transplanted to the North, would be later in fruiting than the same variety grown there for a period of three years, and this might be equally valuable to northern growers if tests are made to prove this theory.

We have the following acclimatized varieties, which we will exchange with northern nurserymen, per prepaid mail, at the proper transplanting season in 1900: Warfield No. 2, Cloud Seedling, Brandywine, Clyde, Howell's Seedling, Aroma, Laxton's Noble, Arizona Everbearing, Hoffman, Michel's Early, Lady Thompson and Neunan. Those sent in exchange should be of same variety as any one of the above, and should have been on the home grounds for at least three years.

This test would probably bring out some interesting facts, as we have already arranged for twenty exchanges.

Transplanted plants will be placed on the test plats of the Texas State Experiment Station, which were put in here this fall.

We are on the same latitude as Galveston, 15 miles from coast.

C. W. BENSON.

Alvin, Tex., Dec. 21, 1899.

Obituary.

William Henry Protheroe, senior member of the well-known London auctioneering and real estate agency, Protheroe & Morris, died December 2, aged 53 years. His father, Alexander Protheroe, and Thomas Morris founded a nursery in 1830 at Highbury. In 1840 the firm acquired the American Nurseries at Leytonstone which from that time occupied a prominent position. In 1885, on the death of Alexander Protheroe, the nurseries were broken up for building purposes. Since then the firm has been in the auctioneering business, handling large quantities of orchids.

COLORADO CONIFER BRINGS \$15,000.

Regarding a feature of the Colorado Horticultural Society meeting the Denver Republican said:

That the sum of \$15,000 was paid for one Colorado evergreen tree and that 40,000 Colorado evergreens were shipped East in one year by one man was the news which was received with interest by the 200 persons who were last evening in the offices of Mrs. Martha A. Shute of the State Horticultural society. It was the second day's session of the State Horticultural convention. Governor Thomas was present. The feature of the evening session was an article on "The Conifera of Colorado," by C. S. Harrison of York, Neb., who has spent the better part of ten years in searching through this state for rare evergreens. It was he who said that for one handsome Colorado tree shipped to a Boston millionaire last year he secured \$15,000. Mr. Harrison was not present and his paper was read by Secretary Shute. It referred to J. N. Bartels of Pueblo and said that he had gathered and shipped to New York and Boston last year 40,000 evergreens for decorative purposes. The blue spruces of this state are the best in the world, said he, and are in great demand.

Foreign Notes.

An international horticultural congress will be held in Paris May 25-26, 1900. The programme and rules can be obtained from the general secretary of the organization committee, 84 Rue de Grenelle, Paris.

On November 5th the monument at Brussels erected to the memory of the celebrated explorer and botanist Jean Linden, was unveiled in the presence of the local authorities, many leaders in horticulture and of the members of the Linden family.

The National Rose Society, Great Britain, has issued the fourth edition of its descriptive catalogue of garden and exhibition roses. About eighty-eight hybrid perpetuals are enumerated among the kinds suitable for the exhibition-table, together with fourteen hybrid Teas and forty-four Teas and Noisettes. In addition there are lists of so-called "garden" roses, summer-flowering and other, some of which are quite equal in beauty to the exhibition varieties, and for the most part more interesting. Altogether there are upwards of 370 varieties brought under the notice of the rosarian.

A bill has just reached the Bundesrath, Germany, imposing a number of restrictions on imports, because of the pest danger. Dr. Dohrn, the well-known expert, in an article in the Berlin Nation, says: "Since our government experts themselves now acknowledge that the scale cannot spread here, it is high time to abolish measures that are still enforced against American fruit, measures which heighten the price. There are instances in which the cost of inspection amounts to one-eighth of the market value of the fruit. If the imperial government, of its own accord, will not stop this nuisance, let us hope that the Reichstag will."

In Europe the cultivation of fruit trees along roadsides has given great satisfaction. On the Wurtemberg roads, for instance, the fruit harvest from this source produced in 1878 over £40,000, and last year the returns had more than trebled. The annual revenue derived from the national roads of Saxony planted with fruit-trees, rose from £1800 in 1880 to £8400 in 1892, furnishing a total sum of £68,000 for the thirteen years. In Belgium, according to the statistics of 1894, over 2875 miles of roads were planted with 741,571 fruit-trees, which furnished the large sum of £400,000. In France, the production of fruit-trees is estimated at £12,000,000. In Westphalia, in the Duchies of Baden and Saxe-Weimar, in Alsace-Lorraine, Switzerland, &c., the employees of the Administration of Roads and Bridges, and the road supervisors, are instructed in fruit culture. In some of the southern departments of France the roads are bordered with cherry-trees, producing the small fruit called Merise (Wild Cherry), much appreciated for making wine sui generis, preserves, and even alcohol. In the Touraine, plum-trees predominate; while in the Allier, the walnut-trees flourish the roads into shady walks. In Auvergne the chestnut-tree flourishes; while in Normandy, place is naturally given to the apple-tree.

The National Nurseryman.

C. L. YATES, Proprietor.

RALPH T. OLCOTT, Editor.

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Correspondence from all points and articles of interest to nurserymen and horticulturists are cordially solicited.

AMERICAN ASSOCIATION OF NURSERYMEN.

President, Wilson J. Peters, Troy, O.; vice-president, D. S. Lake, Shendoah, Ia.; secretary, George C. Seager, Rochester, N. Y.; treasurer, C. L. Yates, Rochester, N. Y.

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Annual convention for 1900—Chicago Beach Hotel, June 13-14.

Entered in the Post Office at Rochester, as second-class mail matter.

ROCHESTER, N. Y., JANUARY, 1900.

FEDERAL LEGISLATION.

The subject of federal legislation on the transportation of nursery stock is again before the nurserymen. Pursuant to instructions by the American Association of Nurserymen at the Chicago convention, Chairman Watrous of the committee on legislation caused the re-introduction of the bill of, 1898 in the present congress by Congressman Wadsworth of New York, chairman of the house committee on agriculture.

With the cessation of alarm about the spreading of the San Jose scale, many nurserymen hoped that there would be no further talk of legislation upon the subject. But there stand the state laws, with their varied and perplexing provisions; and so long as they remain in force, there is argument, from the nurserymen's point of view, in favor of the passage of a federal law which will tend to make uniform the provisions regarding the shipment of nursery stock between the states. This, we

think, is conceded. It is for this reason that the American Association of Nurserymen and the NATIONAL NURSERYMAN, as the official journal of that association, favor the bill now before congress. The bill will probably be amended, at an early date, as to the time when the enforcement of its provisions will begin, the time as now stated in the bill referring to 1898.

Nurserymen who are desirous of reducing to the minimum the delays and the inconvenience attending the shipment of nursery stock, as the result of inspection, should write to their representatives in congress and urge the adoption of this measure. The legislative committee of the American Association will do all in its power to advance the interests of the bill.

The federal bill empowers the secretary of agriculture to retaliate for the damage to nursery interests of the United States caused by the Canadian exclusion act. If, as is reported, the Canadian authorities should take steps to remove the ban from the nursery stock of the states, the secretary of agriculture could refrain from exercising the powers conferred by the federal bill under consideration.

EMBELLISHING RAILROAD GROUNDS.

From time to time we have called attention to the avenues of trade that may be developed with profit. At the meeting of the Philadelphia Florists' Club last month Paul Huebner, the landscape gardener for the Reading railway outlined the progress made in the embellishment of the stations along that line. In the case of the Reading it was decided that for the sake of economy the corporation would have a nursery of its own. Mr Huebner says that he plants every season 100,000 flowering and foliage plants and some hardy nursery stock. He uses geraniums, cannas, alternantheas, scarlet sages, begonias, ageratums, echeverias, coleus, abutilons, acalyphas, petunias zinnias, vincas, etc.

A special feature of his work is the planting of privet hedges, as a live snow fence for the protection of the lines from snow drifts. In shrubbery he used deutzias, forsythias, spiraeas, wiegelias, dogwoods, Hydrangea paniculata, etc.; also some evergreens.

"I am free to say that the horticultural trade in general are under a debt of gratitude to the railway corporations which have done good work in beautifying the stations along their lines," says Mr. Huebner. "This work is a grand public educator and brings custom to everyone in the business. I get letters from all over the country from people who are desirous of planting and whose first impulse in this direction was received from the picturesque and pleasing appearance of the stations along the line of the Reading railway. And when economically managed there is no more cheaper nor more effective means than this of advertising a line, and I hope the practice will be extended until every line in the country shall be of artistic as well as practical utility to the public at large."

NEW YORK STATE LAW.

An effort is being made to secure the amendment of the New York State law regulating the shipment of nursery stock. The amendment proposes two things: That all nursery stock shall be fumigated before shipment and that owners of nurseries and orchards shall be reimbursed for the value of nursery

stock or orchard trees which it may be deemed necessary to destroy because of the scale.

A prominent nurseryman of Western New York said to a representative of the NATIONAL NURSERYMAN: "The amendments are entirely unnecessary and would work unjustly. In the first place, it is my firm opinion that there will be no scale in New York State where there is none now. The inspection of nurseries in this state is very thorough. An inspector spent nearly a week in my nursery, going over all the stock. The nurserymen are thoroughly alive to the importance of examining their stock closely, realizing that it is to their interest to keep free from the scale. As to payment for stock destroyed, the state would very likely be called upon to pay large amount; for comparatively worthless stock to those who saw in this provision of the law opportunity to make a good thing out of a brier patch. The New York state law works well as it is, protecting the orchardist and the general public."

The proposed amendments must have the sanction of Commissioner of Agriculture Wieting whose reappointment by Governor Roosevelt was urged by the nurserymen of the state. The nurserymen of New York State constitute an important industry. They should express their views on this subject to the commissioner of agriculture at once, so that he may have all the facts before him and be thereby enabled to act intelligently.

WESTERN WHOLESALERS.

The Western Association of Wholesale Nurserymen held its annual meeting at Kansas City, December 13th, with President Brooke and Secretary Pearsall in their respective places. The secretary's report shows the association to be in a healthy financial condition. Twenty-one firms answered to their names, only a very few being absent. The official report of members present showed a shortage in all lines of stock except perhaps peach, and no great surplus of these.

Quite a discussion was had over shipments into the State of Colorado, and the general opinion prevailed that stock shipped into that state was subject to the whims of local county inspectors who as a rule knew little if anything about their business, men out of a job, some of whom acknowledged that they must condemn stock to earn their salary. The result to the state is, that the trade is not sought after by western nurserymen or sold at such prices as they can afford.

The amount of stock to be planted next spring of apple grafts and grape vines will be about the same as last year, but owing to the inability to procure propagating stock from Europe the number of pear and cherry trees will be diminished at least one-third.

Officers elected were the following: A. L. Brooke, North Topeka, president; U. B. Pearsall, Leavenworth, secretary and treasurer; R. H. Blair, Kansas City, vice president. Executive committee: A. Willis, chairman, Ottawa, Kans.; Peter Youngers, Jr., Geneva, Neb.; E. S. Welch, Shenandoah, Ia.; J. L. Bagby, New Haven, Mo.; E. J. Holman, Leavenworth, Kans.

Peter Youngers, Jr., J. H. Skinner and F. H. Stannard were appointed by the president a committee on transportation for the ensuing year.

It no doubt will be interesting in this connection, to the many friends of Colonel U. B. Pearsall to know that he has been appointed to the position of captain of commissary, at the Leavenworth Soldiers' Home. This position is a very

lucrative one, furnishing the colonel a good home with a very competent income. His friends in the association extended him hearty congratulations.

The following firms were represented at the meeting: Bates Bros., Floral, Kan.; Blair & Kauffman, Kansas City; R. H. Blair & Co., Kansas City; Brewer & Stannard, Ottawa, Kan.; A. L. Brooke, North Topeka, Kan.; A. H. Griesa & Co., Lawrence, Kan.; Holman & Bente, Leavenworth, Kan.; D. S. Lakt, Shenandoah, Ia.; New Haven Nurseries, New Haven, Mo.; Peters & Skinner, Topeka, Kan.; Stark Bros.' Nursery and Orchard Company, Louisiana, Mo.; L. R. Taylor & Son, Topeka, Kan.; Sedgwick Nursery Co., Sedgwick, Kan.; E. S. Welsh, Shenandoah, Ia.; A. Willis, Ottawa, Kan.; J. Wragg & Sons, Waukeo, Ia.; F. W. Watson, & Co., Topeka, Kan.; Youngers & Co., Geneva, Neb.

The next meeting will be at Kansas City, on July 10, 1900.

A BUSINESS NECESSITY.

When the NATIONAL NURSERYMAN was established seven years ago it entered a field then unoccupied and it was necessary to educate the members of the trade to the necessity for such a journal as it was proposed to produce. The long line of unsolicited testimonials that has extended around the world, letters endorsing our efforts coming from all parts of this country and Canada, from Japan and New Zealand, proves that there was a place for the journal to fill.

At first it was difficult for nurserymen to realize the difference between a journal published for their entertainment and one published for the direct advancement of business. The state of trade, cultural directions, news from nursery centers, prospects for coming seasons, the opinions of purchasers of nursery stock, the opinions of the leading nurserymen on the topics of the day, photo engravings and sketches of the men continually heard of, full reports of conventions and association meetings, the interchange of ideas under the head of open correspondence and the announcements of offerings to the trade are some of the features of the NATIONAL NURSERYMAN.

This journal is declared by the leading men in the trade to be a necessity to their business. No matter how many or how few other journals may be on the nurseryman's desk, it would seem that he cannot afford to miss the regular appearance of the NATIONAL NURSERYMAN. The subscription price is but \$1 per year. The new volume begins with the next issue.

Long and Short.

Small fruits are a specialty with J. S. Lithicum, Wellhams, Md. Peach trees by the thousand or carload at D. Baird & Son's, Baird, N. J.

Strawberry "Rough Rider" is the latest offering of L. J. Farmer, Pulaski, N. Y.

Tree diggers are shipped on trial by L. G. Bragg & Co., Kalamazoo, Mich. 200,000 peach in cellar.

Norway maple especially grown for the American trade, can be had of John Palmer & Sons, Ltd., Aunan, Scotland.

Hale plums and Fay currents at attractive prices, is the announcement of the Whiting Nursery Co., Boston, Mass.

Millions of evergreens for the spring trade, any size or kind, are offered by D. Hill, evergreen specialist, Dundee, Ill.

Peach and plum are specialties with the J. Van Lindley Nursery Co., Pomona, N. C. Japan chestnuts, all sizes and ages.

Clematis, hydrangea, rhododendron, azalea and H. P. roses are specialties with Bobbink & Atkins, Rutherford, N. J.

The Eagle plum is a specialty with Baker Brothers, Fort Worth, Tex.; declared to be perfectly hardy and a regular bearer.

Josiah A. Roberts, Malvern, Pa., has a surplus of Osage orange, Norway spruce, American arbor vitae and Norway maples.

Emporia, Va., Nurseries have 3,000 American arbor vitae to clear from land. 1,000 cherry seedlings are wanted in the spring.

European plums, cut leaf birch, Carolina poplar, pears, purple beech, Kilmarnock willow, yuccas and paeonias, at H. S. Taylor & Co's., Rochester, N. Y.

Sugar maples in immense stock, in several sizes, straight and handsome, can be had of Hoopes Bro. & Thomas, Westchester, Pa.

Apple, commercial sorts a specialty, are offered by A. Willis, Ottawa, Kan.; also cherries, pears and small fruits. All stock carefully graded. Seedlings—evergreen, apple, elm, silver maple and black cherry—are in surplus at the Sherman Nursery Company's, Charles City, Ia.

Special low prices on apple are offered by E. S. Welsh, Shenandoah, Ia. Apple grafts of any style are made to order by him. A general line of nursery stock.

C. L. Whitney, Warren, O., again offers to the trade a large and fine stock of evergreens. Sweet chestnut seedlings and a large stock of Colorado Blue spruce.

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INDEX TO VOLUME VII.—FEBRUARY, 1899 TO JANUARY, 1900.

Advice to Planters,	49	Connecticut Fruit Growing,	17	Griffing Brothers,	112
Advertising Experience,	121	Convention, 19, 20, 28, 29, 43, 45, 54,	56, 61, 68	Grimes, D. S.,	26
Advertisements, Prices In,	135	Cotta, J. V.,	123	Grosch Apple,	115
Africa, Fruit Trees for,	133	Craig, John, Paper by,	116	Hardy Fruits,	43
Alburger, P. H.,	111	Crop Conditions,	74, 79, 95	Harrison, Orlando,	133
American Association, 19, 20, 28, 29,	54, 56, 61, 68	Cuba, Nurserymen In,	37	Hedge Plants,	66
American Pomological Society, 24, 96,	101, 109	Custom House,	58, 66, 72, 73, 85, 90, 139	HORTICULTURAL SOCIETIES:	
American Rose Society,	26, 93	Czar Plum,	76	Colorado,	145
American Seed Trade Association,	69	Damage to Fruit,	18	Connecticut,	13
Among Growers and Dealers, 5, 15, 25,	36, 56, 69, 84, 92, 106, 117, 131, 143	Dansville, Sales In,	114	Eastern New York,	14
Apple, 21, 30, 43, 45, 48, 50, 57, 89, 95,	112, 117, 121, 122	Dawson Hybrid Roses,	132	Florida,	47
Apple Shippers, American,	95	Dewey Cling Peach,	76	Georgia,	99
Apple Crop, 1899,	136	Digging by Steam,	128	Illinois,	1
Apple Trees, Age of,	108	Dikeman Cherry,	76	Iowa,	144
Apples for Northwest,	137	Discussion, Value,	120	Kansas,	1
Apples for Royalty,	136	Duchess of Oldenburg,	104	Maryland,	145
Apples, Transition,	123	Eastern Nurserymen,	3	Massachusetts,	33
Apple, All-Summer,	132	Emery's Paper,	77	Michigan,	145
Australian Chrysanthemums,	136	English Fruit Growers,	29	Minnesota,	144
Australian Grapes,	76	English Nursery,	103	Missouri,	146
Autumnal Glories,	120	English Orchards,	76	Nebraska,	2, 124
Azaleas,	53	English Trees,	105	New Jersey,	2
Bailey on Horticulture,	4	Entomologist,	72	Northwest,	13
Barrels, Apple,	45	Exhibits,	66	Ohio,	145
Bordeaux Mixture,	10	Fall Sales,	113	Ontario,	145
British Fruit,	121	Federal Legislation,	141, 142, 148	Peninsula,	2
Brown Brothers' Office,	10	Florists' Convention,	81, 91	Pennsylvania,	2
Budding,	104, 110	Florist and Nursery Stock,	121	Rhode Island,	2
Budding Tape,	92	Foreign Notes,	10, 39, 52, 76, 111, 147	Texas,	90
Buenos Ayres,	37	Forest Trees from Seed,	138	Vermont,	20, 145
Business Necessity,	149	Forestry at Cornell,	95	Western New York,	1
Butterfield Orchard,	129	Forestry, Tree Planting,	97	Wisconsin,	1
Canada, Sales In,	115	Freaks of Nature,	121	Horticultural Meetings, 6, 91, 124, 135*	144
Canadian Stock,	65	Freight Classification,	3, 90	Horticulture, Cyclopedias of,	138
Cardinal Raspberry,	75	From Various Points, 57, 73, 85, 98,	111, 115, 129, 143	Horticulture In Europe,	4
Catalogues,	134	Frozen Trees,	33, 45, 116	Horticulture In Schools,	59
Catalpas,	119	Fruit Bud Development,	9, 143	Horticulture, School of,	143
Charlton Grape,	104, 119	Fumigating Stock,	39, 71, 130	Hothouse Grapes,	123
Cherry Root Grafting,	133	Gardner, Clark E.,	107	Hubbard, T. S.,	80
Cherry Stocks,	65	Geneva,	113	Huntsville, Ala.,	102
Chestnut Culture,	30, 93	Georgia Horticulture,	99	Hybridization,	96, 107
Christmas Trees,	9	Gideon, Peter M.,	137	Iceberg Blackberry,	76
Chrysanthemums,	136	Girdling,	139	Imports,	52, 103, 115
Classification, Stock,	63	Gooseberry, Industry,	119	In Common Council, 3, 32, 51, 72, 83, 118, 130	130
Clean Stock,	77	Gooseberry, Red Jacket,	139	Increasing Fruitfulness,	30
Clematis, New,	104	Grafting, Effect of,	48	Indiana Law,	55
Colorado,	67, 147	Grapes,	51, 104, 119, 123	Injustice to Importers,	43
Columbian Raspberry,	132	Grless, A. H.,	79	Insecticides,	85

THE NATIONAL NURSERYMAN.

Japanese Maples, 93
 Japanese Nurseries, 24
 Japan Pear Seedlings, 180
 Kansas Fruit, 95
 Kansas Sales, 115
 Keiffer Pear, 97 136
 Lawson Carnation, 7
 Leaf Spot, 21
 Legislation, Too Much, 18
 Lelong's Discovery, 82
 Liquid Air, 135
 Local Nurseries, 128
 Long and Short, 9, 21, 33, 40, 58, 72, 79, 99, 112, 125, 188, 149
 Loudon, F. W., 123
 Mahaleb Seedlings, 119
 Maid of Honor Rose, 104
 Major Botts Peach, 93
 Mally, Prof. F. W., 53, 55
 McPike Grape, 119
 Michigan Orchards, 24
 Michigan Sales, 114
 Missouri Fruit, 49
 Missouri Insect Law, 55
 Morris, David Z., 110
 Nebraska Fruit, 117
 Nebraska Sales, 115
 New England Sales, 118
 New Hampshire Apples, 121
 New Jersey Fruit, 125
 New York Fair, 106
 Nomenclature, 37
 Northwest Business, 50
 Nova Scotia Orchards, 40
 Novelties, 31
 Nursery Business In England, 6
 Nursery Lands Running Out, 119
 Nurseryman's Enterprise, 129
 Nursery Methods, 89
 Nursery Rows, 21, 31, 49, 76, 93, 104, 119, 132
 Nursery Sales In Iowa, 130
 Nursery Situation, 32
 Nursery Stock, Growth, 16
 Nursery Test, 118
 Oaks, Old English, 107
 Obituary, 41, 55, 73, 123, 137, 147
 Officers, A. A. of N., 64
 Officers, Horticultural Society, 146
 Ohio Sales, 114
 Old Trees, 125
 Opalescent Apple, 132
 Orange, Hybridizing, 44
 Ornamental Stock, 29
 Osage Orange Hedge, 138
 Outfits, Agents', 51
 Owatonna Trial Station, 44
 Pacific Coast Order, 131
 Pacific Coast Rates, 90
 Papaw, 104
 Peaches, 14, 50, 51, 104
 Pennsylvania Report, 124
 Pest, Profit In, 97
 Peters, Wilson J., 70
 Photographing Plants, 121
 Planting, 44, 51, 121
 Plums, 3, 5, 60, 73, 93, 104, 110
 Plum Stocks, 110
 Potted Fruits, 50
 Prairie Fruits, 124
 President Wilder Currant, 76

President's Address, 61
 Price Lists on Cards, 20
 Prices, 54, 97
 Programme, 29, 43, 45
 Protection for Originators, 80
 Protective Associations, 66
 Protheroe, William Henry, 147
 Pyrus Baccata, 89
 Question Box, 29
 Railroad Grounds, 148
 Raspberries, 27
 Recent Publications, 21, 31, 44, 59, 74, 84, 98, 103, 124, 186, 146
 Red June Apple, 104
 Riga Pine, 132
 Rivers, T. F., 111
 Riverside, 32
 Roadside Trees, 115
 Root Grafts, Care of, 137
 Root Pruning, 40, 127, 134
 Rose Budding, 104
 Rosedale Nurseries, 94
 Rose Grafting, 93
 Rose Improvement, 119
 Roses, Names of, 80
 Rossney Pear, 15
 Rubus Morifolius, 93
 Rural Mail Delivery, 134
 Sandy Land, 53
 SAN JOSE SCALE :
 Alabama Requirements, 37
 American Agriculturist, 9
 Bailey on Scale, 3
 California, 142
 Canada, 30, 41, 55, 81, 142
 Control of (Gould), 8
 Dart's Opinion, 8
 Delaware, 8
 Federal Bill, 141, 142, 148
 Fumigating, 39, 42, 71, 130
 Georgia Rules, 7
 Goff's Opinion, 73
 Harrison, Orlando, 118
 Idaho, 123
 Indiana Bill, 20, 45, 55
 Illinois Bill, 23
 Kansas Bill, 14, 23
 Kelsey's Summary, 131
 Legislation Proposed, 131, 141
 Massachusetts Bill, 17
 Michigan Law, 23, 69
 Minnesota Bill, 20, 23
 Missouri, 55
 Montana Law, 23, 123
 Natural Enemy, 68
 New York Law, 15, 148
 New Zealand Law, 5
 Passing of Scale, 9, 109
 Practical Information, 64
 Publishing Both Sides, 121
 Schroeder, Henry, 143
 Scions, Apple, 10
 Secretary's Report, 62
 Seedling Apple Prize, 121
 Seedling Grapes, 119
 Selection, 108
 Shipping Regulations, 23
 Siberian Crab, 89
 Silken Leaf Apple, 104
 Silver Spruce, 10

Small Fruits, 30, 137
 South, Sales In, 114
 Southern Association, 68, 92
 Southern Nurseries, 70, 81
 Southern Stock, 76
 Spaulding, Irving E., 27
 Spraying, 25, 115
 Spring Sales, 35, 38, 42
 Standing Committees, 66
 Starting Nursery, 47
 Steam Digging, 128
 Stearns Apple, 132
 Sterility of Fruits, 111
 Strawberry Fruiting Season, 147
 Strawberry-Raspberry, 30, 132
 Strawberries up to Date, 132
 Stringfellow Theory, 40, 127, 134
 Sutton Beauty, 10
 Tape for Budding, 93
 Teas, Edward Y., 6
 Texas Horticulture, 90
 Thayer, M. A., 137
 Tobacco Ornamental 119
 Trade Outlook, 7, 47, 113, 120
 Treasurer's Report, 62
 Treeless States, 97
 Tree Planting in Cities, 139
 Tree Values, 119, 130
 Truth Is Sufficient, 83
 Vice-Presidents, 63
 Vilmorin, Henri L. de, 111
 Wabash Railroad, 30
 Waracque Georges, 137
 Waste to Orchard, 11
 Waterers' Nursery, 133
 Watson's Nurseries, 94
 Waxed Cloth, 10
 Wentz, Jacob, 123
 Western New York, 113
 Western Wholesalers, 75, 149
 White Imperial Currant, 76
 Whitney Claim, 63
 Winchester, Tenn., Nurseries, 81
 Wilson Strawberry, 76
 Winter Budding, 44
 Wintering Stock, 7, 69 78
 Wolf River Apple, 132
 Worden, Schuyler, 136
 Yellow Wood, 10
 ILLUSTRATIONS.
 American Association, 60
 Baird, David, 59
 Boggs, Nelson, 136
 Brooks, A. L., 75
 Cardinal Raspberry, 74
 Gardner, Clark E., 107
 Grieas, A. H., 79
 Harrison, Orlando, 133
 Mally, Prof. F. W., 58
 Peters, Wilson J., 70
 Rosedale Nurseries, 88
 Rossney Pear, 12
 Spaulding, Irving E., 27
 Watson Homestead, 94
 Watson, John, 94
 Watson, Stanley H., 94
 Watson, William, 94

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EIGHT ACRES IN ASPARAGUS PLANTS,

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30 Acres in Strawberry Plants, representing over seventy varieties.

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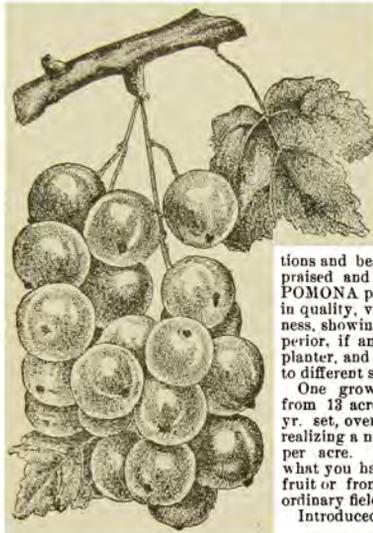
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GRAPE VINES —AND— CURRANT PLANTS

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We have for fall and spring trade a fine block of well-grown peach trees; all the leading western varieties.

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grown on new land and free from Aphs.

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Immense Stock, Warranted True
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A fine stock of Campbell's Early
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1½ FEET.
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Ornamental LARGE TREES

FLOWERING SHRUBS in great variety. Descriptive Catalogue and Price-List free.

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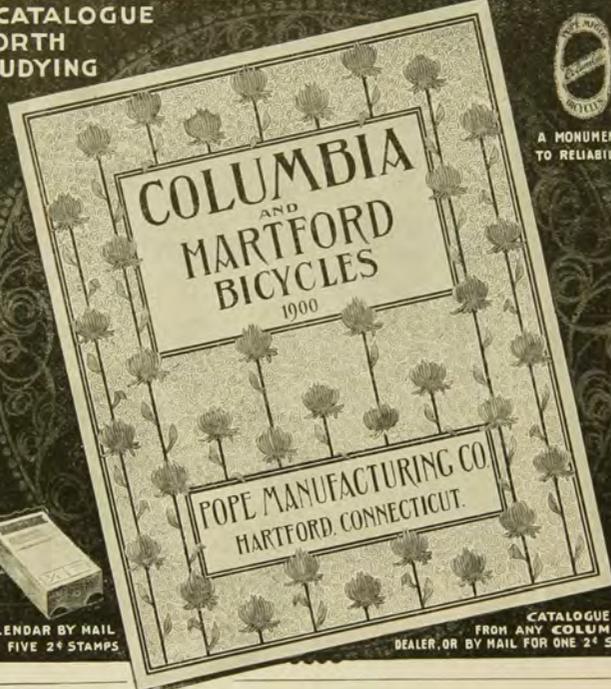
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Over ONE ACRE under glass. 360 ACRES in Nursery Stock.

20,000 Standard Pears—Extra good Stock.

2 years, 5 feet and up, branched.
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5,000 Everbearing Peach Trees—3 and 5 feet. \$10.00 per 100.

A valuable novelty. Specimens of fruit showing three stages of maturity were exhibited at the meeting of the Georgia State Horticultural Society, at Americus, Ga., Aug. 3d, 1898, and attracted much attention.

Cherries, Mulberries, Apples, Figs, Nuts and Peaches.

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100,000 Amoor River Privet—Unsurpassed as an evergreen hedge plant.

50,000 Citrus Trifoliata—Japan Hardy Lemon; best defensive hedge plant, stand 15 degrees below zero.

10,000 Roses—Field grown; including 5,000 Marechal Niel, budded upon Manetti, 18-24 inches.

Two Acres in Canna.

BIOTA AUREA NANA

Best of all the dwarf Biotas; a perfect gem. Was not injured in the least by the February freeze—while the old Biota Aurea (its parent) was badly injured. We have an immense stock and can supply it by the thousand in sizes 12-30 inches.

100,000 Palms—An especially fine lot of Latanias, Phoenix, and Kentias.

4,000 Fancy Caladiums.

Ficus, Crotons, and 1,000 Camphor Trees, Sub-Tropical Fruits, Etc.

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CAPITAL NURSERIES.

We offer for
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APPLE, PEACH, PEAR
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We can supply

Apple Seedlings

in large lots. Fine grades.

OSAGE, BOX ELDER,
RUSSIAN MULBERRY, SOFT
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a general assortment of nursery stock, and this season have a surplus above the requirements of our usual trade in

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Currants, Raspberries and Blackberries from Root Cuttings, Asparagus, Street Trees, Flowering Shrubs, Ornamental Vines, Roses, Hedge Plants. Also an assortment of other stock.

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.. FOR ..

Apple Seedlings

From French Crab seed,
Grown on new land,
Carefully packed in
Paper Lined Boxes,
Handled by experienced
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Shipped promptly when ordered,
Try us.

Samples and prices upon application.

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Strawberry Plants and Peach Trees

...BY...

Dozens or Thousands



Peach Trees

Kieffer Pear

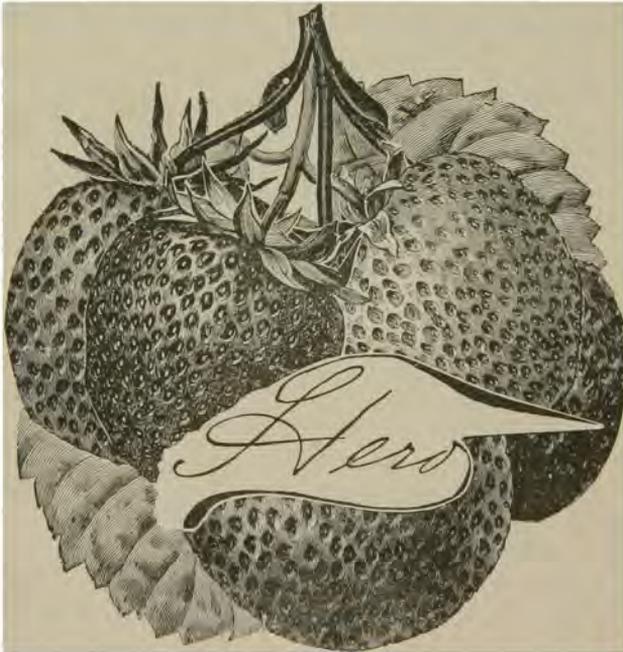
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Red Raspberry
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Asparagus
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Budded or Grafted.

Plum Trees

On Plum and Peach Root.

Earliest Peach

HERO

George Washington proved himself to be the greatest hero among American people; even so will this berry prove itself to be the greatest hero among strawberries.

The fruit is large, well formed, of dark red color and shows its color through and through. It is of most excellent flavor, not only tastes delicious while eating but leaves such a pleasant after affect that makes one feel like wanting more. Surely the most fastidious epicurean cannot find any fault whatever with this fruit when it is placed upon his table.

This new variety was originated in Arkansas. We have purchased the entire stock and have full control of same and there is no other firm in the United States that have any of these plants; therefore, do not be deceived by unscrupulous persons who should claim to have this variety. The fruit is solid and will stand long shipment. Season of ripening about May 25th. We are offering them at a nominal price considering the quality and small quantity which we have to offer. We have placed the prices very low for such a desirable variety and to be sure your order will be filled it should be placed at once and the stock will be reserved, otherwise, you may be too late. Get our prices.

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