

four feet, which must suffice under this head; and we think every candid reader will be convinced that, by this single operation of lowering the water-table, many soils, hitherto sterile, and consequently much under-rated, may be made into useful agricultural land.

Water can only get into drains by gravity, which only acts by descent—technically, by fall; the fall must be proportioned to the friction which the water encounters on its passage.

Suppose drains four feet deep to be placed twelve yards apart on level land, it is plain that water at that depth, lying at the intermediate point between the two drains, will not get into either of them.

A fall of some inches will be required to enable it to overcome the friction of six yards of retentive soil. In order, therefore, to lower the water-table to four feet at all points, the drains must be some inches deeper than four feet.

If the land lies on a slope (say four inches to the yard), drains of four feet, if driven on the line of steepest descent, will effect the object; because, though water at four feet, lying at the intermediate point between two drains, in a line at right angles to them, cannot for want of fall get into either of them by traveling six yards; it will find a fall of four inches at less than seven, and of eight inches at less than eight yards.

If we must speak quite correctly, this intermediate water will never get into the drain till there is a fresh supply; it will descend perpendicularly, pushing out that which lies below it, and will be itself displaced by a fresh arrival from the heavens.

In order that the whole soil, if homogeneous, or nearly so, may be drained evenly, it is manifest that the drains must be parallel. Extra friction in the soil must be met either by making the drains deeper, or by placing them nearer.

On this point, which is one of practice rather than of principle, each case must be left to the sagacity of the operator. We doubt whether in any natural soil the friction is so great as to resist a fall of one inch in a yard.

If we are right in this point, we should always attain the object of lowering the water-table to four feet by four feet six inch drains, parallel, and twelve yards apart.

a moderate supply daily, or occasionally. In the absence of coal ashes, clay or brick dust is a good substitute. He says—"If you do not supply ashes, they will gnaw or eat the brick walls of their sheds. It is notorious that coal dealers, where pigs have access to the coals, are successful pig feeders.

HOW TO MAKE WIRE FENCE.

WIRE FENCES are extensively used on the prairies of this State, and are, when substantially and properly made, better, all things considered, than any other fence, the Osage Orange Hedge excepted.

As they are sometimes made, they are the most miserable and unsightly of all fences. They would be invaluable by the roadside in a country subject to drifting snows, and I am at a loss to know why they are not more generally used in such places.

The main essentials to a good fence are strong and durable posts, well set in the ground, on which to strain the wires, and wire not less than No. 8 and annealed by heating to a red heat, and allowed to cool gradually.

The wire usually sold as annealed wire is generally not sufficiently annealed to render it tough and limber. The posts should be the size of ordinary fence posts for board fence, and eight feet apart—ten feet will do where posts are scarce.

The straining posts should be set an angle of 30 deg., and well braced to prevent pulling out. If set perpendicularly, the brace inclines to draw them out of the ground. The top wire need be no more than four feet from the ground, as no animal will attempt to jump over.

A good way to fix the rollers for straining is to set two posts two inches apart, or make mortices through one large post—one for each wire; bore a two-inch hole through the posts, or through the mortices in the large posts.

A good way to fix the straining apparatus is to set a large post, in which a mortice two by four for each wire has been made; bore two-inch holes through the post at right angles with the mortice, and passing through the center of the mortice.

With a chisel square the auger hole on one side of the post to the depth of one inch, make pins of hard timber to fit snug into the post, and leave one end square, to take on an iron wrench with a handle two feet long; bore a gimlet hole in the pin to insert the end of the wire, put on the wrench and turn up till the wire is sufficiently tight, and with an axe drive the square part of the pin into the square part of the auger hole, which will hold it securely.

It is prudent to keep an eye open for "small matters." First—Look well to the "line fences," and if not "bunkum," make them so, and ask neighbor A (in a very friendly manner) if he will not go and do likewise, as you do not want your stock eating up his crops (and you may think, but don't say, "vice versa.")

Secondly—Never turn anything in the highway to pasture; and if you keep chickens, ducks, geese, and little pigs or big pigs, do, for the sake of peace, keep them on your own premises.

Thirdly—If you are obliged to borrow anything, return it as soon as you are through using it, and as clean and sound as when you got it. If you borrow grain, flour, or groceries, return as good, and good measure well pressed down and heaped up; but I repeat, avoid borrowing if you can possibly get along without.

Fourthly—If you borrow you must expect to lend. Most people have some things that they do not like to lend; for instance, the RURAL, books and horses, &c., but remember this, never refuse anything you wish to borrow; and when obliged to refuse, do it kindly.

Fifthly—When you buy or sell, do so on the Cash System. If you cannot, let each party keep a book and put down both debtor and credit, and let no account run longer than the 31st day of December. This will avoid many lawsuits.

Sixthly—Remember the truthful saying, "If a man wants friends he must show himself friendly." Be ready and willing to assist your neighbor to do such small jobs as takes two or three to do, and he will help you in return.

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Rural Spirit of the Press.

Will Blood Sheep Pay? A WRITER in the Wisconsin Farmer thus gives his experience:

Five years ago next October, we purchased of Eben Porter, of West Rutland, Vt., 63 full blood Spanish Merino ewes, bred by himself; since we came in possession of them, we have used Mr. Hemenway's stock buck "Matchless," and his stock to the "Robinson Rich." We have sold from that stock over \$1,000 worth of sheep, and have on hand a flock of 150, twenty of which are the original ewes.

They average 6 pounds; the increase, 80 ewes, (having lambs,) averaged 7 1/2 pounds; 20 yearling ewes averaged 7 pounds 8 ounces, all clean washed wool; 10 bucks, 7 of which are yearlings, averaged 12 pounds; 20 wethers averaged 9 pounds, making an aggregate of 1,047 1/2 pounds of wool from 130 sheep, or an average of a fraction over 8 pounds per head.

In conclusion, I will say that the cost of keeping the above flock is no more than one that shears two-thirds the amount per head. Hence I am compelled to think that Blood pays.

How Long should Cows go Dry? In answer to this query the Boston Cultivator remarks: When cows are kept for the manufacture of butter and cheese it is not desired to have much milk in cold weather, as neither butter nor cheese can generally be made to advantage on a large scale except under a mild temperature.

Hence the object is to have all the cows "come in" near the commencement of the butter or cheese-making season, and they are usually dried up at its close, or at the recurrence of cold weather. By this course the cows do not require so high feeding as they would do if milked longer.

Good hay, in connection with proper shelter and care, will be sufficient to sustain them in fair condition. Their constitutions will not be impaired, their calves will be born strong and healthy, and all the essential requisites of a thrifty and profitable stock secured.

We might say, then, that where it is intended to rear stock, and the keeping of the cows is not superior to any good hay in winter, and grass in summer, both the cows and their progeny will do better to go dry not less than two months.

Inquiries and Answers. NEW AND GOOD CHURN.—Please permit me, in answer to an inquiry in a recent number of your paper, to make the following statement for the benefit of "A Subscriber," and others who may be interested.

Vertical text on the left margin, likely bleed-through or a separate column.

REMEDY FOR SCRATCHES IN HORSES.—Please tell Mr. HOWARD that if he will wash the legs of his horse with strong vinegar a few days it will cure the animal of the scratches. Use it twice a day.—EDGOMBS, Lima, Ind.

FLAX BREAKING MACHINE WANTED.—Permit me through your columns to inquire of yourselves or some of your numerous readers where I can obtain a Flax-dressing machine, what would be the probable expense, about how many horse power, and how much it will dress in twelve hours, &c.

FLAX FACTORIES.—Can you inform me where there is a flax factory now running, on the new plan of breaking the flax without rotting?—Geo. L. CRANDALL, Picher, Okonango Co., N. Y.

OUR FREE LIST.—We are in constant receipt of requests to send the RURAL free to the reading rooms of Colleges, Academies, &c., and to various religious and benevolent institutions. It would give us pleasure to comply, in most cases, if able to indulge in the luxury, but we cannot afford to increase our free list during the prevalence of the "paper famine."

ILLINOIS STATE FAIR.—TRIAL OF IMPLEMENTS.—The Illinois State Agricultural Society has located its Fair for 1883 at Decatur, to commence the 28th day of September, and continue during the week. The Board at its meeting the past week, have, in accordance with a regulation previously adopted, provided for a trial of implements for farm culture, to be held the week previous to the Fair at Decatur—commencing the 21st of September.

AMERICAN INSTITUTE.—At the annual election, held in New York on the 12th inst., the following Board of Officers was chosen: President—WILLIAM HALL. Vice Presidents—Dudley B. Gregory, Edward Walker, Sylvester R. Comstock. Rec. Secretary—Thos. McElrath. Cor. Secretary—John Torry. Treasurer—Benedict Lewis, Jr. Finance Committee—Thos. M. Adrians, Jno. M. Read, Wm. S. Slocom, Thos. Williams, Jr., Geo. Peyton.

MAIN BOARD OF AGRICULTURE.—The Maine Board of Agriculture, consisting of one delegate from each county, at its late meeting in Augusta, made choice of the following officers for 1883: President—Hon. SAMUEL F. PERLEY, of Cumberland. Vice President—Samuel Wasson, of Hancock. Secretary—Stephen L. Goodale, of York. Messenger—James L. Martin, of Danville.

UNION AG. SOCIETY OF WILSON, PORTER AND NEWFANE.—On the 2d inst. a number of citizens interested in the matter met at this place, (Wilson, Niagara Co., N. Y.), pursuant to previous arrangement, and organized the "Union Agricultural Society of Wilson, Porter and Newfane." This Society was organized under, and according to the general law of this State "to promote the forming of Agricultural and Horticultural Societies," and we intend to make it one of the permanent and progressive institutions of the country.

"SWEET POTATO CULTURE."—Under this head I gave, recently, the statement of S. W. ARNOLD, of the product of an acre and a half of ground. I find that my notes read a half acre, which Mr. A. informs me is the amount of land from which the crop was taken.—G. B.

