

is, we never enquire into the public speaking abilities of the judges. Every judge, however, is urged to give his reasons for his decisions whenever the opportunity offers.

I might state that remarks such as those contained in your editorial have been made at one time and another at the conventions of the Ontario Associations of Fairs and Exhibitions, and in each case the great majority of the directors of the societies present have expressed themselves as being strongly of the opinion that the judging system inaugurated by the Department of Agriculture has been a pronounced success. This was the case this year at the meeting of the Eastern Ontario Fairs Association, when a criticism, made by one delegate, brought about a dozen delegates to their feet to support the expert-judge system.

In conclusion, I might state that a careful record is kept of the work of each judge, and if complaints are received from the boards of directors of societies at which he acts, his services are soon dispensed with. A great improvement in the system will follow as soon as more of the societies are able to engage a larger number of judges so that it will be possible to have experts in charge of each important class.

H. B. COWAN, Supt. Agri. Societies.

[Note.—Since the owners of pure-bred live stock are the ones most directly concerned in the proper placing of the awards at our exhibitions, and in the establishment and maintenance of the most approved types, it is now very evident that all the breed associations should take up the question of nominating approved lists of judges more seriously and systematically than heretofore. The other contention of "The Farmer's Advocate," that politicians, as such, should keep their fingers out of the stock-judging pie, is too self-evident to require reiteration.—Editor.]

The U. S. Sheep Situation.

The sheep situation in 1905 was one of unclouded prosperity for American breeders and flock-owners. Never was there a year when the demand for both wool and mutton was so great and prices so encouraging in consequence. The only disappointment seemed to be on the part of the buyers of feeding sheep and lambs and breeding stock, because there was not enough to go around. The demand was tremendous for every class of sheep and lambs, and the supply inadequate, notwithstanding that the number sent to market broke all records.

More than 850,000 feeding sheep and lambs and breeding ewes were purchased on the Chicago market and shipped during the year, against 690,000 in 1904. Of this number over 740,000 head were dipped by the Union Stock-yards and Transit Company, under U. S. Government supervision, before shipment. It is estimated that fully 100,000 were breeding ewes. Feeder prices were the highest ever paid—wethers around \$5, yearlings in fleece up to \$6.35 and \$6.60, and lambs up to \$6.85, with possibly 80 per cent. of the feeding lambs at a range of \$6 and \$6.60. Breeding ewes were sold as high as \$6 to \$6.25, and up to \$7 for pure-bred stock, with the bulk at \$4.50 to \$5.40, as against \$4 for the best, and bulk at \$3.25 to \$3.85 in 1904.

Owing to high prices, shipments of export sheep fell from 148,000 in 1904 to 60,000 in 1905.

In mutton sheep and lambs for slaughter, it was a year of unprecedented high prices. In a general way it may be stated that a large share of the good lambs marketed sold at \$7.50 and \$8, sheep at \$5.50 and \$5.90, and ewes at \$5.40 and \$5.80. The whole market averaged \$1.50 to \$2 per 100 pounds above 1904 prices.—Union Stock-yards and Transit Company's 1905 report.

To Remove the Afterbirth.

Editor "The Farmer's Advocate":

I note the article in a recent issue about cows retaining the afterbirth. As the removal is not a very pleasant task to one not used to taking it away with the hand, I will give you my way of proceeding, which has been effective with us up to the present, and was in use long before I was born. Take a green smooth-barked piece of wood, such as beech, two or three feet long, and, say, four inches thick. Place in the oven, and heat all you can. When hot, roll the afterbirth on the heated stick, just one roll deep, and up to her body. Keep just a little pressure on by rolling, and it will soon come away. The heat follows up the nerves, I suppose, and it soon lets go. Last summer I had a mare which had to be treated this way. She foaled early in the night, and at morning the colt was smart and running round, and she was all right but had not cleaned. I had to go away that forenoon, and at noon she had made no progress. I got a green stick, also a sack of hot salt over her kidneys, over which I put two blankets to keep the heat in, and gave her a hot bran mash. In a very few minutes it came right away. The stick alone will usually do it, though.

I think the paper gets better all the time, and I have been much interested in the "hog discussion," also the "horse we should raise," and equally as much in the dairy test. All three are vital questions to the farmer. Wishing you every success.

Essex Co., Ont.

SUBSCRIBER.

Teach the plow exercise as carefully as you do the sword exercise, and let the officers of the troops of life be held as much gentlemen as the officers of the troops of death.—[John Ruskin.]

Sour milk, at irregular intervals, results in the pot-bellied calf.

THE FARM.

Clearing Land in Algoma.

Editor "The Farmer's Advocate":

Perhaps I cannot describe the best method and implements for the clearing of land in this new district, but I will give my experience. When I came here some told me one way and others told another. My timber was a mixture of birch, hemlock, spruce, balsam and cedar. In the fall I went through and cut down all the underbrush and piled it up in convenient piles. Birch was cut in 20-inch wood, which is worth \$2.50 per cord single length. I cut the tree well up into limbs, as "no waste" is my motto. If it is convenient to have it made into lumber, so much the better, as it is valuable. Hemlock, anything that is good, is cut into logs for lumber; the poor into wood, 4 feet. Spruce is cut for pulp wood, 4 feet, worth \$4 cord. Balsam, if large, is made into lumber, small into wood, 4 feet. The best butts of cedar I saved for shingles, the balance for rails, posts, stakes and wood, 4 feet. Ash was made into 4-foot wood. All the 4-foot wood is mixed, and worth \$2.25 per cord. I wasted nothing. I cut all winter, and about June, or when dry, I burn it, and one can nearly always get a good burn, as there is so much green top in the brush. What is left is logged up, and some small stumps can be easily taken out. Next spring a crop of oats are put in with spring-tooth harrows and seeded down. You will get a good crop of hay for six years or so; by that time all the stumps, excepting pine, will pull or burn out. I have one field on which I have cut hay for nine years. Last year fire got in and burned out every stump.



Warrior.

First-prize yearling Shorthorn bull at Birmingham Show and Sale, 1906. Sold for export to Argentina for \$2,500.

After a person gets some cleared, then the best plan would be to seed down and pasture for a few years, then burn and pull out everything, making it ready for the plow. In clearing, we get enough returns to pay for our work, sometimes more. I might say that I have a lot of cedar, and am offered \$1.10 each for poles, 35 feet, 7 inches at top, to be drawn only 2½ miles. So you see it counts up. There is a good demand for all kinds of timber. In some places there is what we call burnt land, and is covered with a growth of poplars, cherry and alder. I think this is worth about \$6 per acre to cut and pile. I am sure this district is good for the poor man. A. G. HOPKINS, Algoma District, Ont.

Does it Pay to Treat Seed Grain for Smut?

One pound of formalin (costing about 75 cents in the drug store), in 32 gallons of water, will, according to Dr. Jas. Fletcher, be sufficient to treat 27 bushels of seed oats, or 32 bushels of wheat. At ordinary rate of sowing, this would mean the seed for 12 to 18 acres. A few hours in shovelling the grain is the extent of the labor item, making a total expense of, say, \$2.00. A frequent loss by smut is five to ten per cent. of the crop. This, on a 40-bushel-per-acre oat crop, in a field of 15 acres, would be 30 or 60 bushels of oats, and these, at 25 cents per bushel, would amount to \$7.50 or \$15.00. These calculations are very moderate, as we all know the loss frequently exceeds this sum. But take the lower figures, and we have \$7.50 saved by a total expenditure of \$2.00—interest equal to 275 per cent., earned in less than 12 months, to say nothing of the pleasure of having no smutty crop to handle. There is no excuse for the man who has smutted grain.

Protection from Lightning.

It will be only two or three months until we will again read in the daily papers that this, that and the other set of farm buildings had been totally destroyed by fire caused by lightning. It is no exaggeration to say that during the summer months not a week passes in Ontario without some, and often many, such disasters being recorded. The financial loss during the season must be enormous. Very seldom do we hear of any buildings except churches being struck in towns and cities, but the losses in farm buildings from lightning strokes seem to be on the increase. This is just what might be expected. The forests, which conveyed many an electric bolt harmlessly to the earth, and thus furnished a measure of protection to buildings, have almost reached the vanishing point, and old barns are being pulled down, and greater ones—greater in height, especially—built in their stead. Scarcely anything more likely to attract the thunderbolt can be imagined than these isolated, towering structures, many of them with not a tree about. It is believed also, and with reason, that the moist, warm-air current ascending from newly-stored hay and grain, furnishes a specially favorable medium for the descent of destructive fire. Certainly more barns than houses are destroyed by lightning, and these disasters generally occur when newly filled, and when the loss is greatest.

Many excellent authorities believe that these losses can be almost entirely prevented by the use of lightning rods. In this opinion I think I have reason to heartily agree. While it cannot be denied that some buildings equipped with rods have been destroyed by lightning, yet the number has been so very limited as not to break the rule that rods are a real protection.

At the house of a near neighbor, a little girl was sitting during a storm near a window, when all were startled by a blinding flash, with accompanying thunder. The little girl was of all the most alarmed, for, she said, something had struck the window. On examination it was found that the earth at the foot of an old-fashioned iron lightning rod had been plowed up by the force of the discharge, which had been safely carried off, and that it was the dirt thus thrown up which had scared the little girl by striking the window. I give this as one of several instances coming under my own observation, where a metallic connection with the earth has evidently saved the building. How many rodless buildings have been thus saved without any outward evidence of the fact can only be guessed at, but, no doubt, the number is very considerable.

It ought, in fairness, to be mentioned that while authorities are agreed that buildings can be protected from lightning, some of them think that it can be done only at a cost greater than is warranted by the results. Such believe that a single rod is of little use, that there must be a great number to be effective.

"Doctors differ." There is complete agreement on two points, so far as I have been able to learn: That rods furnish a measure of protection, and if grounded in moist earth and not disconnected, are in no degree a source of danger, and that it matters nothing whether the rods be of iron or copper. In the words of the Encyclopædia Americana, "A number of metallic points, whether of iron or of copper, is immaterial, and iron is cheaper." A third point which I would impress is, that any farmer can make and put up as effective a lightning rod as any that can be bought, and at but a fraction of the cost.

In constructing a rod, the first thing to do is to find the length of cable needed, as for any ordinary barn the full length may as well be made at one operation. Liberal allowance should be made for grounded ends, as a connection with damp earth at a sufficient number of places is of first importance. If a small well auger can be got and a hole bored to a depth of seven feet for each end entering the ground, it will be all right. If not, then a hole four or five feet deep can be dug, and the end of the rod coiled into a flat spiral. Highest lines and projecting points should be specially guarded, and it is, therefore, well to have rods on all ridge boards. For the plain barn, with one ridge and two gable ends, the rod can be run the whole length of the ridge, descending and entering the ground at both ends. Quite often barns are T shaped, a straw shed running out from the main building at right angles to it. In such a case, in addition to the rod with two grounded ends, already mentioned, another with end in the earth at the outer end of straw shed, should be run up the gable end to the ridge, then along the whole length of ridge, and connected with rod on main building. There would thus be three earth terminals, and all ridges protected. Upright points can be added afterwards. They may be five feet high, and not more than twenty feet apart. To make these, lengths of six and a half feet can be cut off, and a sharp bend made a