

MUCH CONSTERNATION is caused in Ireland by the appearance among the cattle of the deadly and intensely contagious disease called "Charbon." It appears to be a blood disease and the effect of it is to thicken and darken the blood. Portions of the flesh of a dead cow were fed to ducks, and the result was their death in less than five minutes. A case is mentioned which occurred four years ago. An Antrim county farmer lost all his cattle. They were not buried deep, and dogs carried the bones over his grass, which he believes was the cause of his cattle becoming infected. Two cows which were in perfect health at eight o'clock at night, were dead at four on the following morning. In twelve days he lost in all, fourteen cattle. His opinion is, that if the disease gets two hours' hold of a cow nothing would save her. The rigorous laws in force in Britain with respect to diseased cattle ought to be sufficient to keep the disease from spreading. If the English authorities were half as snappy about the exportation of cattle as they are (on the pretext of preventing disease) about the importation, no cattle disease would be likely to escape from their country.

AN INTERESTING EXPERIMENT in feeding has been made by a Frenchman. He undertook to find out the relative value for feeding purposes, pound for pound, of light and heavy oats. He was a postal contractor and had some 300 horses under his care. Selecting out of them two teams of twelve each, in all respects alike, and undergoing precisely the same work, one team was fed for six months on the lightest oats that could be procured, and the other, for the same time, on the heaviest obtainable. The difference in the weight of the oats was about thirty-three per cent; that is the same measure that would hold 77 pounds of the lightest oats would contain 117 pounds of the heaviest. The oats were fed to the horses by weight, the same quantity to each. At the end of the experiment, both teams were found to be in the same condition, good working order. The moral deducible is that it will pay best to buy light oats by weight, and heavy oats by bulk.

AT THE ROYAL SHOW at Birmingham, specimens of the new plant for cattle feeding—Caucasian Prickly Comfrey (*Symphyltum aspernum*)—in growth attracted great attention. It is expected to take a very prominent place amongst forage plants, and is said to have produced 120 tons per acre, and to be a great preventive of foot-and-mouth disease. Should such prove to be the case, its introduction will be a great boon to the agricultural community. Elsewhere in this issue some information is given as to the properties and mode of cultivation of this plant.

ON THE FIRST PAGE of our last issue the words "Plaster of Paris" were by mistake used instead of simply "plaster." Of course every one knows that it is gypsum, or land plaster in its raw state, that is used in agriculture, and that plaster of Paris is the same article calcined in which state it is used for indoor plastering, moulding, etc.

SINGULAR PROPERTY OF TOMATO LEAVES.—I planted a peach orchard, writes M. Siroy, of the Society of Horticulture, Valparaiso, and the trees grew well and strongly. They had but just commenced to bud when they were invaded by the curculio (*pulgon*), which insects were followed, as frequently happens, by ants. Having cut some tomatoes, the idea occurred to me that, by placing some of the leaves around the trunks and branches of the peach trees, I might preserve them from the rays of the sun, which were very powerful. My surprise was great, upon the following day, to find the trees entirely free from their enemies, not one remaining, except here and there where a curled leaf prevented the tomato from exercising its influence. These leaves I carefully unrolled, placing upon them fresh ones from the tomato vine, with the result of banishing the last insect and enabling the trees to grow with luxuriance. Wishing to carry still further my experiment, I steeped in water some fresh leaves of the tomato, and sprinkled with this infusion other plants, roses and oranges. In two days these were also free from the innumerable insects which covered them, and I felt sure that had I used the same means with my melon patch I should have met with the same result. I therefore deem it a duty I owe to the Society of Horticulture to make known this singular and useful property of the tomato leaves, which I discovered by the merest accident

### Picking and Drying Hops.

At a late meeting of the hop growers at Clinton, N. Y., a committee of seven practical growers was appointed to make reports regarding the best methods of harvesting, curing, and marketing hops. This committee reported to another meeting held recently. G. E. Morrow, of Knoxboro, was the first member heard. An abstract of his interesting and practical paper is as follows: After dwelling upon the importance of great care in harvesting, and upon the desirability of the grower owning a kiln of his own, so that he may be independent, the speaker urged growers to pick their hops well; and to do this it is necessary to treat the pickers with consideration, serving all alike. Not more than one box should ever be put in a sack, and not less than three yards of burlaps should be used in making the sack. Thus scalding of the hops before they reach the kiln will be avoided. Hops should not be permitted to remain in the sack more than three hours after picking, and persons should not be allowed to sit upon them. If it is necessary to store the hops in the sacks for a long time, untie them and let them stand open, thus permitting odours and dampness arising from heat and vermin to escape. The kiln should not be overloaded in drying. If the hops are green or rusty, the fire should be slow at first. The speaker alluded as follows to this important topic: "Commence burning brimstone as soon as the heat strikes the hops; close the draft, but not too tightly, as there is danger of scorching the hops." He had not found it advisable to make a large cowl. He recommended a circular door in the cowl, and a small cord and pulley attached; while bleaching, this door should be closed; when the process of bleaching is ended, raise the door in the cowl, and also the drafts below. In this way the air may pass through the layer of hops, rendering them sweet. "If you have a kiln of hops," he continued, "that is very ripe and red after drying, and if you find that there were not green hops enough among them to steam them through for a good sample, shove the hops to one corner of your dry room; and if there are 30 or 40 boxes in the heap, throw upon them four or five pails of water; mix them thoroughly; spread them on the kiln; start a slow fire; start the brimstone burning as soon as you start your fire; if the stove is not hot enough, place some live coals in the brimstone. If you do this you will have a sample of hops that may go with the first picking, be sure to close the trap-door while bleaching."

The speaker strongly recommended the "late style ventilator." He preferred it to the old fashioned cowl or hood. It consists of a box with a roof, and it is large enough to let the steam escape. The aperture in the ordinary cowl is too large, the draft being too strong, and causing the brimstone to pass through the hops, thus being of little use. The steam should be confined while bleaching, and the hops should be turned before they are husky and crisp on the surface. If there are green hops on the surface when the layer is turned, they will do no harm if brimstone be burned as soon as they are turned. Those already bleached will thus retain their colour. Never mingle hot hops with cold ones in the dry room; a bad flavour will thus be generated. The speaker concluded as follows: "Do not press your hops too soon after drying, as they are then more likely to heat; do not use too large pins in the bales, as they do not add much weight to them, and they add nothing to the quality of the beer. Keep yourselves well posted in regard to the prices of hops, and sell when you get a good price. Sell when buyers are buying; do not wait until they have filled their orders and do not wish to buy."

### Hand-Hoeing Matches in Scotland.

A correspondent writes to a Scottish paper. "Before we were out of our teens we played the part of a successful competitor at more than one hoeing match. That, to be sure, was fourteen or fifteen years ago, but we know that these hoeing competitions are still conducted in the same simple yet effective manner as they were when it was our lot—our pleasure we may say—to take part in them. The procedure is simply this: The hoeing force in a district or parish—at any rate the bulk of it—assembles after six p. m. at the field fixed upon. The turnip drills are numbered, and tickets corresponding to these numbers are drawn from a bonnet by the competitors. Each competitor goes to the drill with the number represented on his or her ticket and hoes (including singling with the hoe) the allotted space, generally at the rate of fully 100 yards an hour. Seldom more than 200 yards are set aside to each hoeer. Three gentlemen (farmers or stewards) act as judges, and in making their awards they are guided—1. By the regularity of the plants left. 2. By the strength of the plants (keeping in view the size of the plants from which the hoers had to select. 3. By the thoroughness with which the weeds are cleared away with the hoe. 4. By the uniformity with which the ridge or drill is preserved. 5. By the manner in which the blades of the selected

plants have been saved. In other words, the object is to have the distance between the plants as uniform as possible; to have powerful plants left as nearly intact in the blades as can be; to have the drill left pretty high, and the weeds thrown into the intervening space so that the drill-harrow or horse hoe will get at them. Prizes are generally given at the rate of one to every three or four competitors. Often money, from 7s 6d downwards, is given as prizes, but sometimes nothing, except the dry order of merit is awarded. The prize money is generally subscribed by farmers and others looking on.

### The Angora Goat.

A correspondent of the California Rural Press who has been observing the Angora Goat in El Dorado County, writes about that domestic animal, and says:

"This animal browses more than the sheep or the cow, and can make its way through the chaparral without losing its fleece, so that many places both higher in the mountains than this and along the foot-hills, in places not suited for other live stock, can be utilized. It is said that there are thousands of acres in our mountain counties that can be occupied by the goat that is fit for nothing else. Here is occupation for idle hands and idle capital. I called upon Mr. Gilmore, Superintendent of the Goat Breeding Association, two miles south of El Dorado, who has under his charge about 2,000 head, full bloods and grades, all told, of the former 150. To say that the sight of this flock, nearly all white in color, and many rich of fleece—the skipping of hundreds of kids, and novelty of the whole, gave me pleasure, is a tame expression—I was a boy again. It is estimated that the number of goats on this coast will reach 200,000. Of this number there are not more than 600 pure breeds. The clip of pure breeds and grades, from fourth cross upward, will reach from four to six pounds, bringing from 85 cents \$1 per pound; lower grades yield from one to three pounds, worth 20 to 40 cents. The whole clip of the coast this season will probably reach 40,000 pounds, produced principally in the counties of Monterey, Santa Cruz, Santa Clara, Mariposa, Calaveras, Amador, El Dorado, and Placer. The Gilmore Association have already shipped this season to the Jamestown manufactory 9,000 pounds, 2,000 pounds of which are from the band here. Many are engaged in the business to some extent in this county. In addition to this flock of 2,000, which is the largest, Mr. Cummings, of Georgetown, has 1,260; Dr. Shaw, Pleasant Valley, 800; Mr. Schleiffer, Latrobe, 800; Mr. Clark, Shingle Springs, 600; Mr. Litten, Green Valley, say 250, and other flocks larger and smaller than the last, making in the aggregate for the county about 15,000 head.

### Collie Dog Trials.

The London Standard of June 30 has the following:—"It occurred to the Kennel Club, a body of gentlemen who are interested in the improvement of dogs of all breeds, that the collie trials which had proved so successful in Wales might be carried on a little nearer the metropolis, and they therefore organized a meeting in the Alexandra Park, which commenced yesterday and will be concluded to-day. The mode in which the trials are conducted is as follows:—A flock of Welsh wethers, one hundred in number, have been brought up to the park, and were penned near the grand stand on the race-course. From this flock three animals were taken at hazard and conveyed to the side of the hill on which the palace stands, and set at liberty. On the circular cricket ground, some half mile to the west, a triangular pen of hurdles, with an opening in the base, formed a sort of station, about which are grouped the judges and officials of the show, and from which the shepherd with the dog that was about to be tested took his departure. The man and dog walked together along the race-course until the sheep were sighted, when he gave a sign or a word to his four-footed companion, and the intelligent brute at once started off at a gallop and sought first to drive the sheep down the hill toward his master. When he had succeeded in doing this, the man walked toward the pen, and the dog drove the sheep after him until they were near enough to operate in getting the sheep inside. Twenty minutes was the maximum time allowed, the prizes being won by those who succeeded in penning their sheep in the shortest time, while those which failed to pen them in the allotted time were disqualified. It was not difficult to discover that dogs and sheep were working under great disadvantages, and animals which have no doubt a well-deserved reputation on their own hills, failed to distinguish themselves under totally novel conditions, though enough was demonstrated to make it apparent that these collie trials are likely to become a very interesting annual performance. Though a space of ground was marked off by ropes and stakes, which was respected by the spectators, the sheep felt under no restrictions, and the poor collie, therefore, that had been used to the clear view of a Welsh hillside, with no human being but his master within miles of him, had to dodge his charges among visitors and round plantations, which frequently hid them altogether. The sheep were many of them very wild, and ran like deer, their disinclination to proceed in the direction of the pen