

with pork, that mutton is more healthy, and that only about 5 per cent. died from disease, while about 20 per cent. of hogs died.

Hon. L. B. Wing, President of the Shorthorn Breeders' Association, delivered an interesting address before the Association. Among other things of interest he said, that about 3,500 Shorthorn cattle were disposed of during the last year at public sale in the West, and the price was an average of about \$200 per head. In Great Britain 1,600 head were sold at thirty-five different sales, at an average of \$175 per head. The demand for young bulls for the great cattle ranches of the Territories is greater than the supply, and it is likely that all other beef breeds will find there a ready market for their breeding animals, for a long time to come. He said that while a believer in and a breeder of the Shorthorn, he would welcome the breeder of every improved grade. He ventured to suggest that the present is an excellent time for a beginner to invest in the Shorthorns. Beef is high and likely to remain so, and the sort that yields the greatest profits to the producer, that which is in greatest demand for export and for home markets, is that which requires the pure Shorthorn to produce. For many years after the first importation of Shorthorns, those of the largest size, even when rather coarsely made up, were preferred. Experience, however, has taught that those of more compact form and finer points mature earlier, have less waste and are in every way more desirable. To breeders who own herds of considerable size, he suggests that it would be a wise policy to provide thoroughbred steer calves each year, to be raised for future exhibition, or fat animals; something that would exemplify the capacity of their stock in the way of excellent beef and early maturity. A few such steers about their farms would be a source of increased pride in their herds, and would be a most excellent advertisement of their breeding animals. Often a prospective purchaser, hesitating and doubtful of his own judgment as to what is best for his use, would buy at once upon view of the sort of beef animals the herd does actually produce. I have made reference, so far, to the Shorthorn as a beef producing animal only, but I do not forget that, for the general purposes of the farm, the Shorthorn cow is as much superior to those of any other breed as she is for beef.

The U. S. Agricultural Society, the oldest in this country, will meet in this city on the 23rd inst. This Society was organized many years before the war, and included then, as it does now, many leading men in this country among its members. The war suspended their meetings and labors, but after many years they re-assembled with new zeal and energy. Among the interesting and practical addresses to be delivered are the following, of which I shall hereafter give you a synopsis:

"The Manual Labor System for the Farm," by Prof. T. C. Abbott, Mich. Agricultural College; "Swine," by T. B. Curtis, of N. J. and Ezra Stetson, of Illinois; "Breeding and Feeding for Beef," by John Scott, of Iowa; "The Transportation of Cattle and its Relation to the Propagation of Contagious Diseases," by Prof. Jas. Law, Cornell University, N. Y.; Cattle Husbandry and the Demand for Beef," by Hon. J. B. Grinnell, Iowa; "On Sheep," by Wm. G. Markham, N. Y.; "Agricultural Education," by Prof. Conrad, of Va.

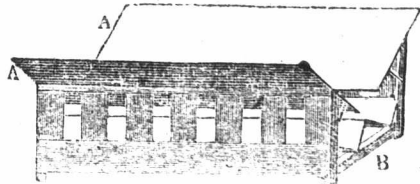
The Entomological division of the U. S. Department of Agriculture reports that the introduction and cultivation in this country of the pyrethrums is a success. These were known to have great value as insect destroyers, and the powder from which is variously sold under the name of "Persian Insect Powder," "Buharb," &c. The entomologist ascertained by experiment that preparations of this plant might be used successfully in the field against several of our worst insect pests, and its cultivation over as wide an area as possible was therefore desirable. A circular giving information about the two species having this virtue was sent out with seed that had been imported from Russia and the Caucasus. Reports, received from those to whom the seeds were submitted for experiment, show that they flower profusely in this country, and give a powder equal in its insecticidal qualities to any previously tested. It is adapted to the latitude of Canada, and would doubtless be equally useful against some of the insect pests of its fields.

LOTTES.

Soints and Shelps.

Feed Rack for Stock.

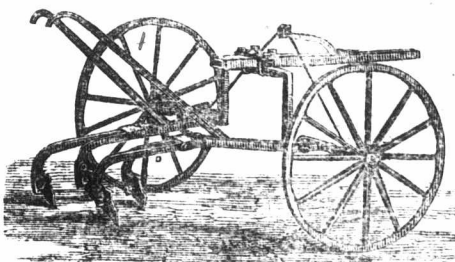
Feed racks are indispensable articles of the furniture of the sheds and yards. We give a cut of one which may be suggestive to some of our readers. It is designed especially for sheep, but it may be used for larger stock. The dimensions are 30 inches high, 28 wide, bottom formed by nailing together four boards, 8 or 9 inches wide, in the



shape of two troughs, or the letter W, resting on the crosspiece B. The novel feature, perhaps, is the cant-boards A A, which are hinged, and then fastened to movable braces. These boards serve as partial shelter to sheep, both from snow and chaff from fodder, and by moving the braces they assume a vertical position, and thus keep out the sheep while one is filling in the grain.

An Improved Cultivator.

An improvement in cultivators, by which a plowman is enabled to so adjust his cultivator that the shovels, when brought close together, will not be turned away from the plants, is shown in the annexed engraving. The wheels, the arched axle, tongue, plowbeams, and the shovels are of the ordinary construction. Couplings, which are made in the form of wide hooks and with flanges at the upper side of the openings, are placed upon the axle at the outer sides of its arch. Upon these couplings are flanges, to which are secured a cross-



bar, which crosses the lower part of the arch of the axle at its rear side, and to the crossbar are secured couplings attached to the forward ends of the plowbeams. The couplings are so secured to the crossbar that they may be adjusted to any desired width. With this improvement the shovels can be brought close together for cultivating small plants, and will be in proper position for throwing the soil around the plants.

PRIZE ESSAY.

How Shall We Best Eradicate and Prevent the Growth of Ragweed?

BY E. J. YORKE.

Such is the question proposed by the FARMER'S ADVOCATE for discussion by its readers, and while attempting to answer the above query, we do not deem it either advisable or necessary to enter into a full and minute history of the plant itself, but will rather assume in the outset, either that it is now an inhabitant of the soil, or is liable to become such.

Many of the readers of the ADVOCATE may be quite ignorant both of the appearance and annoying habits of Ragweed, in which case we say rejoice and clap your hands on account of the want of such information, and pray to be delivered from any future practical experience with its pestiferousness.

Past experience with Ragweed leads us to regard it as a wet weather, a dry weather, a hot weather, and a cold weather weed, as well as an early inhabitant and late tenant of the soil. Under

favorable conditions, and in good soil, it will grow to an enormous size, and mature millions of seeds. The writer has owned one farm that appeared emphatically to be the home of the Ragweed. Here, in 1872, it grew so very rank that while viewing the land preparatory to a purchase, we were forced to the conclusion that the land must be first-class, and that when rid of this pest it would certainly produce something that would prove more satisfactory and useful, and we were not disappointed either. Why, sir, after that season's crop of corn had been harvested it was a puzzler to find even an ox in some portions of the field, so thick and stont had this weed grown. Here, indeed, we had a fine opportunity for testing our method of exterminating it; in fact it was this that occasioned us to evolve the method itself. Hence, in 1873, we resolved to summer fallow this particular field, but since the previous season's crop of seeds was chiefly upon the surface, and the ground otherwise in favorable condition, we decided to utilize the proceeds of their growth as a fertilizer; therefore the plowing was delayed until the weeds had obtained such a growth as to form an excellent coat of green manure. This was then carefully turned under, and the surface subsequently kept clean. By this means we got rid of the seeds in two sides of the soil. We conceived that there were two objects to be aimed at, while cultivating soil containing foul seed, with a view of eradicating it, viz., first, to keep the surface as open, mellow, and thoroughly stirred as practicable so as to permit the air, light, heat and moisture to enter and permeate it as fully as possible, so as to encourage the germination of the largest conceivable number of seeds in one season; and secondly, to prevent all re-seeding. Having secured these conditions as nearly as convenient, we at the proper time seeded a portion of the field to fall wheat and timothy, and the balance to timothy only, and followed in the spring with a liberal sprinkling of clover. The following summer we reaped a magnificent crop of wheat, with long, bright straw and free from Ragweed, and a fair crop of hay. We made it a point to cut early, so as to prevent whatever Ragweed might put in an appearance, from maturing seeds, and the sheep then effectually disposed of the after-growth. The same treatment of the hay and land, viz.: early cutting and after pasturing with sheep, was observed year after year, and no further trouble was experienced with the Ragweed on that field. Had we been pasturing that particular field, and had the Ragweed gotten any advantage of the black-faces, which would be, in a manner, impossible, unless they were too few in number, we would, during the season, have run the mower once or twice over the ground, so as to assist them in preventing the maturity of seeds. And here let me remark, once for all, that, while any sheep are good for this purpose, the Southdowns are pre-eminently the helpmates of man in eradicating weeds, since they are much less exacting in the kind and quality of their food than the long wools are. The same season our oats yielded handsomely, and having been cut somewhat early, all re-seeding was prevented on that ground. Our next field came under the three-course system of oats, wheat and grass treated as before. We do not, by any means, recommend this as the best method of securing a large yield of wheat, but it is most certainly a very effective mode of dispensing with foul weeds. The next season we were enabled to enter upon a full course of corn, oats, wheat, grass, together with the sheep, and the work was thoroughly done. Some may suggest peas as an advantageous crop in this regard, but allow me to warn them against trusting too implicitly to the smothering power of peas for the destruction of Ragweed. Because we tried them the first season along side of the oats, and, sir, while it may appear almost incredible, it is a fact all the same, that while the oat ground was comparatively