

tural colors. The 52 plant illustrations cover the whole range of weed enemies, at least one specimen of a family being reproduced from nature. Plate 28, for example, is painted from a vigorous plant of Ragwort (*Senecio Jacobaea*), the redoubtable source of the Pictou Cattle Disease, and the illustration is so perfect that one instinctively attempts to pick it up and destroy it. The treatment of each subject is exhaustive. Take this Ragwort again, in which we are all so interested; the letterpress gives the generic, botanical and local names; it describes the plant in every particular; it gives the flowering time, the method of propagation, its occurrence, the injury it does, and the remedy to be employed against it. Speaking of its history, we find the following: "The history of this plant has been worked up by Dr. W. H. Pethick in Nova Scotia, and by Rev. Father Burke and Mr. L. W. Watson in Prince Edward Island; and good work has been done by all these investigators in pointing out the danger of neglecting this weed. It would appear as if the Ragwort had been imported into the two Provinces independently, to Nova Scotia from Scotland, and to Prince Edward Island from Ireland, where it is known under the same name, Baughlan, as is used in its new home."

Dr. Fletcher accepts without reserve the findings of the Antigonish investigators into the Pictou Cattle Disease, declaring this plant, when ingested into the stomachs of cattle, to be the cause of "a curious and fatal disease of the liver (hepatic cirrhosis)," which, however, is not, as was long supposed, contagious. To get rid of the Ragwort, we are quoted—and quite correctly—as saying that a couple of mowings will usually destroy it; and, as domestic animals do not feed on it in the green stage, all are advised to adopt a short rotation as a sure way of being debarrassed of it entirely.

We have held the opinion, too, that it is not the plant, but a fungus which grows upon it, when dried with other grasses, which sets up "orange liver" in animals. The Dominion Veterinary Director-General, Dr. Rutherford, is now looking into this side of the case, and we hope for a positive pronouncement upon it within a reasonable period. Meantime, the repeated warning given to farmers everywhere to extirpate the ragwort is having its effect. This new and striking presentment in farm weeds will still further help on the admirable work. And this beautiful, permanent bulletin, intended for the libraries of our farmers and for the schools and colleges, can be had free for the asking. It is certainly worth five dollars of anybody's money. Let every farmer apply for it early, peruse it carefully, and preserve it for continual reference. Thus will the learned author give noxious weeds in Canada their surest death blow.

A. E. BURKE.

#### CANADIAN PRODUCE IN ENGLAND: LIVERPOOL'S INVITATION.

Improved facilities are being provided at Liverpool, England, for the reception of farm produce from Canada. The other week an extensive cold-storage warehouse was opened in connection with the carrying business of the C. P. R. steamship line, close to the landing-place, and adjoining branches of the several British railway systems. The new structure is a spacious building, and has a capacity of 60,000 square feet, equal, it is estimated, to the accommodation of 1,500 tons of produce. There are four separate chambers, with temperatures varying from 40 to 13 degrees, and with provision for the further extension that merchants prophesy will soon be required. The plant is equipped with apparatus which insures the renewing of the air in the cold chambers every few minutes. Produce can now be conveyed from the West right across the Atlantic to the doors, almost, of the Liverpool merchants, at a uniform temperature.

According to Mr. J. E. Worrall, President of the Liverpool Provision Trade Association, this installation makes Liverpool second to none other port in facilities for handling dairy and farm produce, and all that is wanted now is a bigger supply from Canada. The head of the Bristol Association, Mr. George Spear, said that Canadian supplies at present are quite inadequate for the demand, with the single exception of cheese. They wanted more butter, bacon and eggs to render them independent of the United States, and stated that his city would be glad to co-operate with Liverpool in encouraging the importation of Canadian farm produce.

#### IMPLEMENT PRICES IN CANADA.

With regard to the reported advance of from ten to fifteen per cent. in the price of farm implements in the United States by reason of increased cost of labor and raw materials, which is general throughout America, Canadian farmers will appreciate the fact that the advance in Canada is only to amount to from three to five per cent.



Ragwort.

The plant which causes the Pictou cattle disease.

## HORSES.

### THE VALUE OF HORSE TIME.

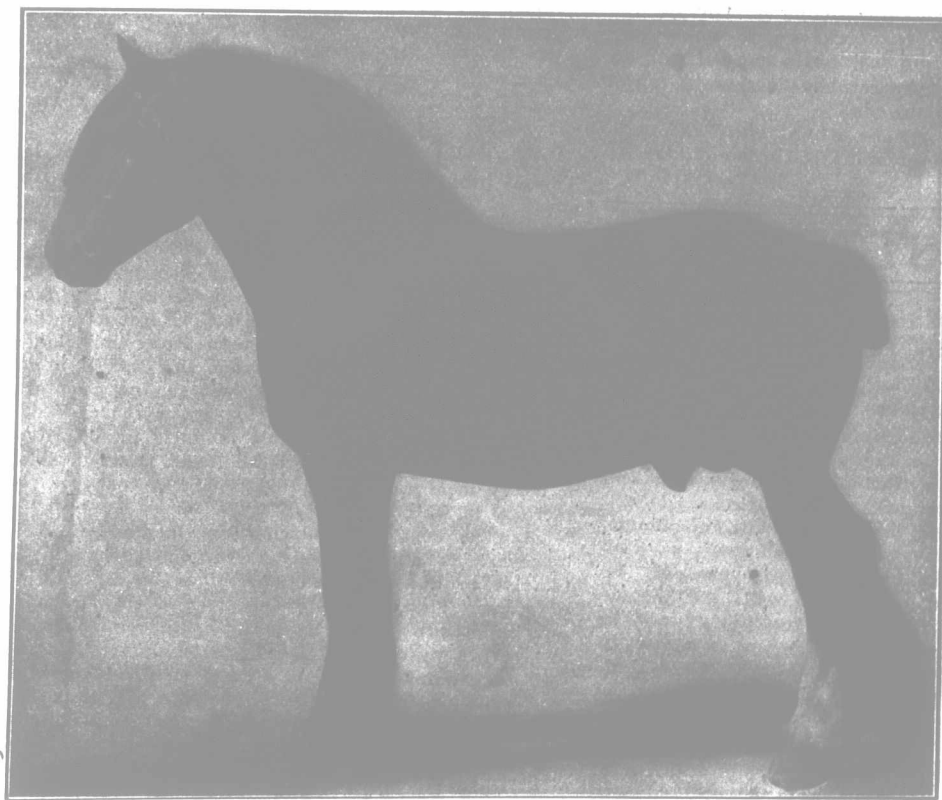
Four dollars and ninety-five cents a week is a London, Ont., merchant's weekly expenditure for the keep of a pair of delivery horses, this not counting the labor of attendance at all. Of course, on a farm the cost of maintenance is not so high, but even there the feed bill, if fairly reckoned up at wholesale prices, would bulk large in the course of a year. Yet, there will be thousands of horses out in the country trying to eat their heads off during the winter for lack of a little enterprise on the part of their owners in finding jobs of teaming at which to make them earn their board. There is far too little emphasis placed by many of us on the value of horse time. Yet, on the other hand, if the munic-

day's time of men and teams, and generally they can earn most if working together. Figure out some team work to go at when the fall plowing is over, and keep the hired man busy all winter. The provision of profitable yearly employment is one of the best ways of solving the labor problem.

### ECONOMICAL METHODS OF WINTER FEEDING.

Owing to the shortage and consequent high prices of mostly all varieties of stock food, in most, if not all, sections of the Dominion, economy in wintering horses becomes an important matter with most owners. Horses that have to perform regular work, either heavy or light, must, of course, be fed as working horses demand, and, notwithstanding the high prices of oats and hay, these must form the major part of the rations; but horses, either young or old, male or female, breeders or non-breeders, that are not to be called upon to perform regular work, may be kept in good condition on mixed rations, with only a percentage of the more expensive foods. All foods being high in price, we cannot expect to winter horses cheaply, but a little consideration and time in mixing foods will lessen the cost considerably. It must be understood that sudden or violent changes in food must not be made with any animal, as such is liable to cause digestive derangement, entail a veterinarian's bill, or probably cost the life of an animal, and thereby defeat its own object, viz., economy. For instance, horses that have been worked, and well fed on hay and oats, if, when work ceases, the ration is suddenly changed to straw, roots, and a little grain or other mixtures, are very liable to suffer from indigestion or constipation in a few days after the change has been made. This danger exists in animals of all ages; hence, when there is to be a change made, it should be made gradually. The change from hay to straw should be gradual, by gradually reducing the hay ration and giving a little straw, the supply of hay being reduced and that of straw increased daily, until, in 10 days to 2 weeks, a full straw ration can safely be given. The digestive organs of an animal become accustomed to performing certain functions or to digesting certain foods, and if a sudden change be made, even to foods that are, under ordinary circumstances, as easily or even more easily digested, the change is so sudden there is danger of disease. The same rule, of course, applies to all changes in all classes of stock, but probably more particularly to horses than to ruminants. In regard to weanlings, I do not think it is economy to limit the supply of the

very best food that can be obtained. The first winter is a very important period of a colt's life, and his development and future usefulness to a very great degree, depend upon his care and thriftiness during this period. If through want of proper food or other causes he is not kept in a healthy, thrifty condition, he does not develop properly, and he will not make as good an animal as he would have under more favorable conditions, notwithstanding his treatment during the following years of his development. Hence, we consider that he should have all the good hay (well-saved clover preferred) and oats (rolled or chopped preferred) he will eat, and also a carrot or two or a turnip or mangel daily, with a feed of



Croome Cardinal 21305.

Noted prizewinning five-year-old Shire stallion, included in the Canadian consignment of R. Moore & Sons, Beeston Fields, Nottingham, Eng. See "Gossip."

ipal council or a company wants to hire some teaming done, we suddenly become seized with a high sense of the worth of a day's team work, and, unless a good round price is offered, the horses remain in the stable. That is, we would rather board idle horses for nothing than a working team at from a dollar to a dollar-fifty per diem over and above the man's wages. And the chances are the boy or man who might have been doing the driving will be choring around to small purpose, or perhaps killing time in the village store. In these days of high wages, effort should be made to realize money's worth from every fair

bran at least twice weekly, and all the salt and good water he will take. We think rolled oats better than whole, and also consider it is well to practically cook them by putting in a pail or other vessel, pouring boiling water over them, then covering the vessel and allowing to stand for a few days before feeding. This treatment of the oats renders them more palatable and gives good results, and if the colts be turned out for a few hours every fine day, or in other ways be given regular exercise, there are very few cases in which there is danger of their eating too much. Our observations and experience have taught us that,