

to overcome and almost extinguish host species, which of course means for the parasite and a new lease of host.

sitic larvae feed upon the host in two species taking up the lymph of the through the skin and by the mouth, attack the solid tissues such as fat. In the case of the latter species avoid the vital organs as otherwise would be killed long before the parasite was ready to pupate.

ly of these parasitic Hymenoptera is up of the Ichneumon-flies, and one of striking members of this family may be forests. This insect, which is known as the Pigeon Tremex, is shown in our illustration, as it is in the act of boring into a tree trunk to deposit its egg. This species is a remarkable ovipositor. This species, the Pigeon Tremex, an insect that bores into the trunks of trees and deposits an egg in the holes which are half-an-inch deep. The larvae which hatch from these eggs feed upon the heart-wood of the tree. The female Thalesia is two and a half inches long. When she finds a tree trunk she selects a place to make a burrow, and, elevating her body in a loop over her back, with its sharp point of the tree, she makes a derrier hole, and proceeds to drill a hole. When the burrow is reached she deposits an egg. The larva that hatches from this egg remains in the burrow until it reaches its full size, when it fastens itself upon it and destroys it. When the larva of Thalesia changes to a pupa within the burrow, the host and the adult when it emerges out through the wood and bark.

THE HORSE.

It didn't win it is not his fault, but likely he was not bred right: for he should have been.

Take money to feed the horses this year, what else can be done? It never pays to keep the live stock.

Way to avoid losing money on horses is to keep conditions as draggy as they can be, to find work for the horses.

Horses' Feet.

ry branches of most armies pay due attention to the horses' feet. The veterinary officers, if they wish to keep horses sound, they must see to it that their feet are properly shod. Persistent inspection, skilful shoeing, and trimming when necessary—even to the point of prescribing—it is all a part of the program. And it pays. To keep a horse going for a long time in the event of a man's life being in the animal's speed and endurance, it is not that he should not be handicapped. Everything ought to be just what it is as well to remember that and persistent care and attention to achieve the object indicated. A horse may do a lot of harm. Nor is it a blacksmith less efficient in his work as it occasionally under intelligent supervision. He is excellent, as a rough and ready, but nobody is a mental stimulus administered by the Stock Journal.

Helplessness is Dangerous.

the bigger danger, at the present time, is the business in Canada will suffer from the fact that the prices are low. Practically cut off. Prices are low. In the event of a man's life being in the animal's speed and endurance, it is not that he should not be handicapped. Everything ought to be just what it is as well to remember that and persistent care and attention to achieve the object indicated. A horse may do a lot of harm. Nor is it a blacksmith less efficient in his work as it occasionally under intelligent supervision. He is excellent, as a rough and ready, but nobody is a mental stimulus administered by the Stock Journal.

LIVE STOCK.

Our Scottish Letter.

Readers of agricultural newspapers during the past month will find themselves much instructed concerning legal aspects of the farmer's interests. Thirteen judges of the highest court in Scotland wrestled stoutly with the stern problem of what constituted "Temporary pasture," and whether an out-going tenant was entitled to compensation for having laid down a number of acres of such pastures. A problem of this nature is unknown in Canada. It is only possible in an old country and under conditions of land tenure, such as are neither known, nor would they be tolerated in a new country. The tenant who lays down land to pasture undoubtedly makes the farm more valuable to his successor. But in the case which gave rise to all the trouble, and in connection with which the thirteen judges had to expend their brain power, the tenant was bound to leave as much of the land in pasture as he got in that condition, and the question that arose was whether the mere fact of him laying down more was in itself an improvement for which he was entitled to be compensated. According to the ipsissima verba of the Act it seemed to the arbiter that he was so entitled and he decreed accordingly. The arbiter did not consider the question as to whether the laying down of the pasture was really an "improvement" within the meaning of the Act; that is to say, whether the pasture that he left was better than the pasture that he got. He simply said the putting down of pasture over and above what he got is something for which he is entitled to be paid, and I find accordingly.

The Court was almost equally divided on the problem, seven judges taking one view and six the other. The disquieting thing is the principle on which the majority base their decision. They say that a tenant is not entitled to compensation if he only does what he contracted to do. This is a far-reaching principle. In my view it drives a "coach and six" through the whole legislature upon which agricultural arbitrations have been based since 1883 when the first Agricultural Holdings Act was passed. Up to that time the presumption of law was that whatever was in the land or on the land belonged to the man who owned the land. Hence, when a farmer entered upon the tenancy of a holding and began forthwith to improve it by tearing out the whins, clearing away the stones, draining and liming it, at the end of his lease, of say nineteen years, he generally found himself confronted with this alternative, "You must either give me an advance of rent or leave." If he did the former he was penalized for improving another man's property by sinking his capital in it; if he accepted the latter alternative he made the proprietor a present of the unexhausted value of his labor and capital. In either case his lot was a cruel and oppressive one. To remedy this state of matters the legislation of 1883 was introduced. That legislation said in effect, whatever is in the land or on the land belongs to the man who put it there, and the Act of 1883 was passed in order to constitute a statutory title to the value of the improvement, and to determine some method whereby that value could be appraised. Various methods to this end have been devised. Let it be admitted that it has not been found an easy thing to fix one, and the Act has been amended from time to time according as experience suggested. In 1908 all the various Acts were consolidated into one, and the English and Scottish Acts were included in the consolidation. One result of this was that some provisions which were really only applicable to English agricultural practice found a place in legislation which was operative in Scotland. This provision about Temporary Pasture is one of these.

The principle hitherto recognized in applying the legislation has been that an out-going tenant was entitled to compensation for the unexhausted value of any expenditure by him, which was of benefit to an incoming tenant. If there remained in the land an unexhausted value of capital expenditure on his part, as a result of which his successor was able to pay a higher rent for the land, then to that extent the out-going man was entitled to compensation. The equity of this procedure is evident, the obvious difficulty lies in assessing the value of what remains in the land unexhausted. In the case which has now been decided the majority judges have ruled that an out-going tenant is only entitled to compensation if he does something more than he contracted to do. It is obvious that according to this principle a landlord has only to impose impossible conditions on his tenant. If the latter fails to make good these he cannot claim any compensation at all, even if he should have greatly improved the holding, and left in the land a large proportion of unexhausted value. The argument of those who are disquieted by the decision is that it does not matter whether the improvement was

part of the contract or not, if there remains in the land or on the land unexhausted value resulting from expenditure of the out-going tenant's capital he is entitled to compensation. This appears to me to be the only safe principle on which to proceed if a tenant is to be encouraged to farm his land to the best advantage and to keep up its fertility to the end of his lease.

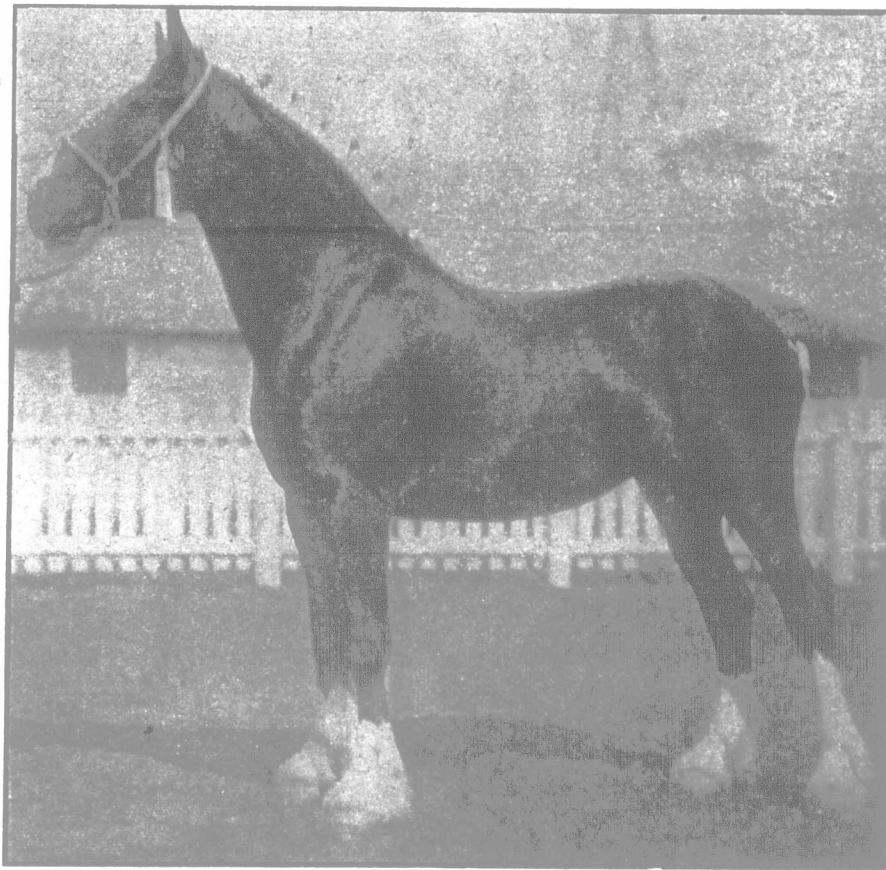
Another question that greatly concerns us is an increase of food production from the land during the ensuing year. It appears to be recognized now that Lord Kitchener's estimate that this War would last three years, that is until autumn of 1917, is likely to prove correct. In that event there is urgent need for improving the home production of foodstuffs. At present and for the better part of a twelvemonth, although we have been at war and the prices of foodstuffs have advanced about 30 per cent., there is no actual scarcity or want. We may have modified our consumption of certain articles, such as butcher's meat, but there is no evidence of anything that could be characterized as famine conditions. No one is in want, and

things as they are. The main thing to be arrived at in their view is to utilize all the grazing land in the country to the fullest advantage; to place the interests of agriculture in every case before those of sport; to encourage the keeping of pigs and poultry, and to stimulate production by the use of light manures, and the conservation of every form of plant food. Much grazing land in Scotland is given over to purposes of sport. The time for that sort of thing is not now, and the Scottish Committee urge the use of such land for the production of food and the killing of all vermin. We are up against a stern situation and the pinch has not yet been felt in this country. So far as the growing of wheat is concerned at present we import four-fifths of the wheat consumed in making bread. It is calculated that the utmost we could hope for, by cultivating every acre of wheat land in the country, would be the production at home of two-fifths of our requirements in place of one-fifth. It is therefore, obvious that to prevent famine we would need at all costs to keep the seas open in order to get in the three-fifths required. Nothing

would, therefore, be gained by fixing a minimum price for wheat at 40s. for five years. That would not make us independent of foreign supplies.

The wastage in calf life is one of the bad features of present-day British agriculture. There would appear to be some hope of remedy in this respect. There is urgent need of such. Lord Selborne has issued an extremely plain-spoken memorandum on the subject along with a new Order bearing on the slaughter of calves and in-calf cows. The extent to which this slaughter of in-calf cows is carried on is very disquieting, and no one can blame the authorities if they do something and put a stop to a practice which is as inhuman as it is uneconomical. The slaughter of calves from dairy cows goes on at a tremendous rate. It is unfortunate that a better class of bulls are not in use in commercial herds. Were such the case there would be less disposition to slaughter the calves. The War is teaching us many lessons. The unfortunate thing is that such useful lessons should only have been learned at so great a cost.

SCOTLAND YET.



Nancy Ryecroft.

Champion Clydesdale female at Toronto.

many classes of the community are for the time being making enormous wages. But in order to do this we are buying heavily from abroad, and as exports are of necessity reduced, so many of our manufacturing works being engaged in the production of munitions, the situation of the country becomes grave. Imported foodstuffs must be paid for in gold if they are not being paid for in exported manufactured goods. Therefore, the Government are anxious to improve the volume of food products at home. Two Committees of Inquiry have been investigating the problem, one sitting in England and the other in Scotland. The former has reported in favor of the Government fixing the price of wheat at a minimum of 40s. per quarter for five years; the idea being that if farmers had this guarantee they would break up much of the grass lands and grow wheat. It is highly unlikely that even should such a guarantee be given by the Government it would ever require to be made good. As a matter of fact wheat is selling at a much higher figure at the present time. The answer of the Government to this suggestion of the English Committee is in the negative. It is of opinion that encouraged by the good prices ruling farmers will increase the wheat area wherever land is suitable for growing that cereal. There can be no doubt that this is sound policy. This year there is a very large increase in the acreage under wheat in England, and even in Scotland there is a substantial increase. One grand fallacy underlies all this talk about wheat. It is that notion that men live by wheaten bread alone. They do not. A simple proposition is this: wheat is food for men only; oats are food for man and beast. There is no sounder and wholesome food than oatmeal, and a man or woman deserves no commiseration whose breakfast consists of oatmeal porridge and milk and nothing else, unless it be a second course of oatmeal cakes and butter.

The Scottish Committee has gone in for no such revolutionary proposals as the English Committee. It confines itself to grappling with

Digestive Diseases of the Ox—VIII. Dysentery.

Dysentery or Bloody Flux is inflammation of the lining membrane of the intestines, accompanied by ulceration. It occurs as a sequel to protracted diarrhoea, or may originate as a disease of itself from exposure to cold, feeding on coarse innutritious food, and almost any debilitating influence which acts slowly but persistently. It may occur as an after-effect of poisonous agents.

SYMPTOMS.—Sometimes the disease is acute but more often chronic. In the acute cases there is increase of temperature and more or less well-marked abdominal pains in the early stages. The patient stands with arched back, and strains almost constantly, passing only a small amount of watery matter tinged with blood. Sometimes little vesicles or blisters may be seen on the mucous membrane of the nostrils. As the disease advances signs of abdominal pain increase in intensity, rapid emaciation takes place, and the patient sinks and dies from exhaustion. In the chronic form the symptoms are those of extreme debility; the patient becomes hide-bound, emaciation is generally soon well-marked, coat dry and staring, mucous membranes become pale, eyes sunken, ears pendulous, eyes dull and glazed, the anus is relaxed and constantly discharging small quantities of a sanguinous substance, and the rectum generally protrudes a little. The back is arched, the gait staggering and in many cases pressure upon the loins appears to cause pain.

When faeces are passed in quantity the odor is highly offensive, sanguinous, glairy, bloody and viscid in consequence of the amount of mucus present. The animal may remain in this state for a very long time, the appetite of course