

the limit of wheat growing, that thenceforth the king of cereals would mark time only, and bread eaters would be obliged to look about them for a substitute for their favorite grain. We have had croakers in our own age prophesying the same kind of thing, and while thinking men must admit that the wild land of the world available for increased wheat production is becoming circumscribed, it is difficult yet to foresee where the limit on our own continent is to be reached, or how large the areas are in other parts of the world where wheat growing may be profitably carried on.

Probably the largest area of agricultural land yet untouched lies in Northern Asia, or Siberia, as the Russian Empire there is called. The wheat growing possibilities of the vast area lying between the Ural Mountains and the Pacific Ocean, are as yet unknown. Immigration for some years has been pouring into the country from the West, and the agricultural exports from it are steadily increasing.

It is estimated that the world, taking it all over, could just about double its present annual wheat yield if all the land available for use in growing this cereal were called into use, that is, the land already producing wheat, and the unoccupied lands that might be brought under cultivation. It is estimated that the yield from every acre of that land could be doubled, in some cases trebled by proper methods of cropping and cultivation and that there is opportunity in sight for increasing by fourfold the annual supply of the king of cereals. Against this increased supply there must be charged up a possible doubling, trebling or increasing by fourfold the army of wheaten bread eaters. Figure the matter out along whatever line you will, and it comes back to about the same thing. The world, for as far back as history records, was producing, except in famine years, about as much wheat as was required for human consumption, and generally a little over to spare. There are no indications at present to show that it will not go on doing it indefinitely, or for as long at least, as most of us now alive need bother ourselves about.

## HORSE

A photogravure of the prince of Clydesdale stallions, Baron's Pride, 7½x11 inches in size may be had by getting a new subscriber to the FARMER'S ADVOCATE at \$1.50. The picture when framed makes one of the most appropriate ornaments of a horseman's home. We would like to have the subscriptions and give good value for work done.

The Russian government will, during this coming winter, offer some \$260,000 in prize money for horse racing. Horse racing is becoming popular in Russia, another argument that it is quite an unsuitable form of pastime for more advanced civilization.

At the Iowa state fair there were twenty-three horses in the aged Percheron stallion class, and thirty in the two-year-old-class. The champion was Brilliant, owned by Taylor and Jones. Mr. Alex. Galbraith and Prof. Kennedy made the awards. The Clydesdales were not by any means as numerous. The champion stallion was Galbraith's two-year-old Heather Blossom.

Market prices of grain very seldom bother the horseman who cares for the farm power. It matters little to him if wheat or barley are cheaper than oats. The farm has produced oats enough for the horses, and that is all there is to it—without horses there would be no oats, what further argument is needed to secure for the horses all the clean heavy oats that is good for them. This is a grain country, and a country of the best grains, therefore the horses shall have oats. But from all appearances, oats are to be very valuable property this year. The crop is light all over America. Farmers who have to generate so much horse power might well stop to consider if they cannot do so with cheaper fuel than oats. There is a lot of small low grade wheat in the country and also a lot of barley that will make better stock food than beer, all of which might be used to take the place of oats. But in feeding wheat and barley one needs to be careful. It is better to feed only a small proportion with oats than to try to do without oats

altogether. It's an easy matter to lose the value of several hundred bushels of oats by over-feeding a horse on wheat, but it is not very hard to be careful and save the price of a horse by feeding low grade grains and selling good sound oats.

The Irish Horse-Breeding Scheme has done much to promote the interests of the different breeds in the Emerald Isle. In 1901 the Department registered, and so, in a manner, subsidised 97 Thoroughbreds, 23 Clydesdales, and 8 Shires, or, in all, 128. Last year the Department subsidised 161 Thoroughbred, 51 Clydesdales, 26 Shires, and 38 Half-Bred—that is what are called Hunter sires—horses not eligible for the Racing Calendar or General Stud-Book, but to all intents and purposes purebred. The total was 276, and it will be observed that there is quite a considerable relative increase in the number of Shires. Clydesdales have only about doubled in the six-years, while shires have fully trebled. In respect of the nominations of mares almost the same proportions hold. In 1901 there were 1102 nominations for Thoroughbred sires, 328 nominations for Clydesdales, and 114 nominations for Shires or 1544 in all. In 1907, the relative figures were 2404, 727, 226, and 315 for half-bred sires, a total of 3672. Consequently, while the number of subsidised Shire stallions has been trebled, the number of mares nominated for them has only doubled, whereas, while the number of Clydesdale stallions has only been doubled, the number of mares nominated for them has doubled plus 72. The amount paid in premiums for horse-breeding in 1907 was £8061.

More and larger range horse sales are being conducted in the territory west of the Mississippi river than in any year in the history of the range-horse industry. The range country is being opened to homesteaders and the breaking up of the ranges into cultivated farms is forcing many western horsemen out of the business. Cattle and sheep are crowding out the horses from government land ranches and horse breeding is again reverting to the general breeding operations of farmers. Blooded bulls and pedigreed rams are crowding out the range stallions and their bands of mares.

### Judging at Alberta Fairs Explained

EDITOR FARMER'S ADVOCATE:

I trust you will give me space in your valuable paper to ask Mr. Bryce Wright, De Winton, Alta., a question.

I could have written and asked him personally, but as his judging—in placing "Gold Flake" first in his class, medal for best draft horse, and the Smith and Graham cup for the best animal on the ground at Macleod fair; the next week taking the sixth prize horse at that fair, and giving him first prize in his class and sweepstakes with "Gold Flake" second—baffled the public in general, and has caused considerable discussion so I thought it better to ask him through the press.

I trust you won't think this letter too personal, but in cases such as this, we Clydesdale men are at a loss to know what constitutes a good horse and when we ought to show, and when we ought to keep our horses at home.

INTERESTED.

To this, Mr. Wright replies:

I am in receipt of yours, requesting through The FARMER'S ADVOCATE, an explanation, for the purpose of enlightening a gentleman from Claresholm, "why the Clydesdale stallion Baron Sorby was placed sixth in a class of six at Macleod, and first and champion at Lethbridge the following week, defeating the first prize horse of Macleod at this show."

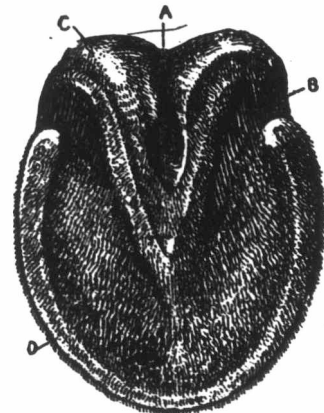
Any observant and intelligent spectator that was watching my decisions at Macleod could easily see that I left Baron Sorby unplaced altogether in his class as I considered him in his condition there, unfit to be brought into any show ring, owing to his shoes pinching the frogs of his feet and causing him to travel quite unnaturally for a sound horse. I told his owner I would not place him at all and recommended that he should have the shoes removed at once and the horse properly shod, as it was too bad to have a good horse like him in that condition, as he was easily an outstanding winner. He then took the advice I gave him, and the horse appeared the following week at Lethbridge show in perfect condition, and thoroughly substantiated my opinion about him, as he was just what I wanted. In fact his action was the admiration of everyone who saw him move. He is a horse of beautiful quality and conformation and makes a nice close, steady mover with sound feet and legs, and showing any amount of blood character. He is the only place for him at Lethbridge show was a very good one.

W. W. B. W.

### Internal Structure of the Hoof of Horses

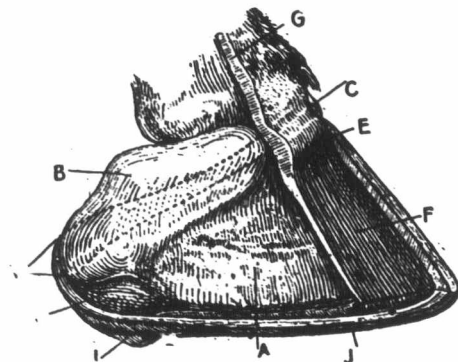
(From Professor Wortley Axe's book, "The Horse in Health and Disease.")

Although the hoof is a firm, strong, protecting covering to the sensitive foot within it, very serious injury to the horse results from defects in its structure, which are often overlooked. These will be appreciated more readily when it is known that within the hoof is a particularly delicate and complex arrangement. When a hoof is removed with care, a beautiful, sensitive structure is exposed, having a contour exactly matching the inner surface of the hoof. The inner surface of the wall is covered with rows of thin, horny plates running from above downwards, parallel to each other, all sloping forwards, like the fibers of the



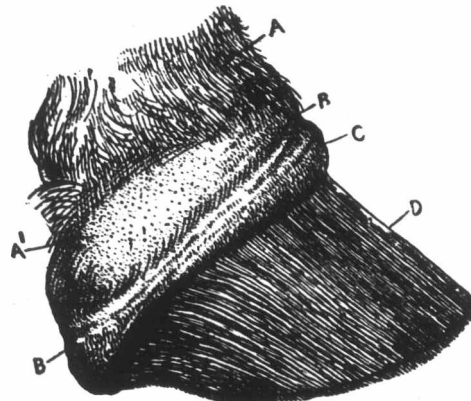
THE SENSITIVE FOOT: SOLE AND FROG.

A, median cleft of fleshy frog; B, laminae of the bars; C, velvety tissue of the frog; D, velvety tissue of the sole.



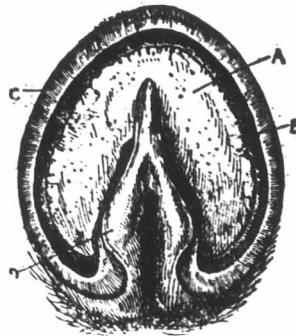
LATERAL CARTILAGES, ETC., OF THE FOOT.

A, os pedis; B, lateral cartilage; C, peripole; D, peripole band; E, coronary cushion; F, sensitive laminae; G, fleshy leaves; H, section of skin; I, fleshy frog; J, horny sole.



THE SENSITIVE FOOT: SIDE VIEW.

A, skin; B, skin devoid of hairs; C, peripole band; D, coronary cushion; E, sensitive laminae.



UNDER SURFACE OF THE COFFIN BONE, SHOWING ITS POSITIONS WITHIN THE HOOF.

A, os pedis; B, sensitive and insensitive laminae; C, wall of hoof; D, horny frog.

The corresponding portion of the sensitive foot presents hundreds of similar parallel projecting leaves of soft, velvety, fibrous tissue. These are called the sensitive laminae, and in the living foot are dovetailed between the horny laminae of the wall, so as to afford a firm, secure attachment between the two. The sensitive frog and sole are firmly attached to the corresponding horny parts, but instead of plates, the connecting medium here is a mass of little papillae, so closely arranged as to give a velvety appearance and