

it must be remembered that here we have a demand for land for other than agricultural purposes. The trend of things at present creates the impression that the Highlands of Scotland are to be converted into one huge sporting run. There is no way of hindering this transformation while conditions remain as at present. But in a time of national stress and difficulty many things would be altered and the end would be a vast upheaval in the conditions upon which land is here held. If the British farmer keeps in the front so far as quality is concerned, he does not need to fear any foreign competitor. He is at the door of the market, if only his stuff be the finest. After he has done his level best there is abundant room left in this big market for Canada and Britain's other dependencies. It is right to encourage these and not the strangers to feed us, and in the development of Canada Great Britain has a splendid opportunity for keeping the world at bay and riveting her hold on the Greater Britain across the seas. This she can do by the most enduring bond of mutual economical interest.

SCOTLAND YET.

Horses.

Stallion Prices.

To the Editor "Farmer's Advocate":

The exceptionally high prices which heavy draft stallions are at present commanding in Manitoba and the West strikes one as out of keeping with the ruling prices elsewhere. No doubt it is the prosperity of this country which makes such a condition of affairs possible. The wide-awake speculator in horseflesh is ever ready to float his stock where it will give the quickest and best returns for the money invested therein, and so this year more than ever we find him after a share of our rich harvest, intending to safely spout it into the granary vaults of his deep-seated pockets, and in doing so is carefully employing all the latest devices which he believes will further his purpose.

Nevertheless, it is true that this stallion business is necessarily an important one. More heavy draft stallions are required throughout this country, and that honest horse-dealers are justly entitled to a fair share of the national wealth which is freely circulating through the commercial veins of our land, no one will dispute, yet, according to prices which we believe are being paid this season for some stallions, more than a just profit is being realized by unscrupulous men. The palming off of an inferior animal, or the rating of a good one much higher than his merits entitle him, is apparently becoming more common. Thus it is that the honest, industrious but ill-informed buyer does not receive good value for his hard-earned cash.

Co-operation among the farmers when purchasing so lightens the payments individually that in prosperous times less attention is paid to this matter than it deserves, and often, for the same reason, the animal in question is accepted largely on the merits claimed by the seller. This is not businesslike to begin with. The individual conformation and value of pedigree is often not understood by a majority of the buyers, so that many serious mistakes are made in selecting suitable draft sires. The prices paid are generally sufficient to purchase the best quality going, but this is not what is usually got.

Buyers should be exceedingly careful, whether purchasing as a syndicate or as individuals, to see that the stallion is equal both in conformation and pedigree, and to the price which it is necessary to pay. The safest way is to deal only with such firms, or breeders, as are noted for square dealing.

OBSERVER.

Spring Stallion Show at Toronto.

In previous years horsemen in Ontario and Quebec have been handicapped in the trade in stallions on account of not being able to get their horses before the public in the most propitious times. Owing to this fact it was decided to hold a show of heavy draft stallions in Toronto on the 4th, 5th and 6th of February. The show came off as advertised, and those participating have no reason to regret their venture. Several horsemen from Manitoba and the Territories were in attendance, and were surprised at the immense size and splendid quality of the horses imported and bred by the Eastern breeders and dealers.

The principal exhibitors were Graham Bros., Morris & Wellington, Smith & Richardson, Robert Ness, Robert Beith, M.P., Robert Davies, O. Sorby, J. B. Hogate, H. Boag, J. G. Clark, and Geo. Isaac. Mr. Joseph Watson, of Lincoln, Nebraska, made the awards in all classes.

The Clydesdales were more numerous than the Shires (there were no classes for Percherons), but those wanting ton horses of either of the breeds exhibited had not far to seek. The sweepstakes for best Clydesdale was won by Graham Bros., with Statel City (imp.), and in Shires by Morris & Wellington, with Coronation, an immense sized colt, rising two years old, recently imported. One

of the best classes of the show was the two-year-old Canadian-bred stallions. The judge hesitated some time before he finally placed in the lead Macqueen 2nd, sired by Macqueen, with Sorby's Charming Prince next. Other classes showed more distinctly the extreme types, but taken altogether the success of the show was pronounced this year, and is assured for years to come. The prize list will be found on page 170.

Bone Diseases of Horses' Legs.

The bones of the limbs of horses are subject to a variety of diseases, some of which are liable to cause permanent and in some cases incurable lameness, hence must always be considered an unsoundness, while others are not so serious, seldom or never cause permanent lameness, and in many cases are not considered as constituting unsoundness.

While it is seldom wise for an unprofessional man to attempt treatment in a case of lameness caused by disease of bone, especially where a joint is involved, it is well that all horsemen should understand the nature of such diseases and be able to recognize them when present. In order to be able to appreciate them and understand their nature, a slight knowledge of the structure of bone and its fibrous covering is necessary.

Bone is composed of two modifications of tissue; the external portion, varying in thickness in different parts of the bone, appears hard and compact, and is called the compact tissue; internal to this is a much less dense, somewhat friable tissue, composed of plate-like structure with small spaces, called cancellated tissue. In the long bones of the limbs this tissue surrounds a space called the medullary canal, which contains the marrow. Bones that are known as flat or irregular bones do not contain a medullary canal. All bones are covered with a tough, fibrous membrane, called the periosteum. This membrane does not exist over that portion of a bone that helps to form a joint; at the same time, the surface of one bone does not come in direct contact with that of another in a healthy joint. In order to avoid the friction that this would produce, the opposing surfaces of all bones concerned in joints are clothed with a special covering, called articular cartilage. Each joint is enclosed by sac-like ligament, called the capsular ligament, the internal surface of which is supplied with cells which secrete and supply to the joint for lubrication, a fluid called synovia or joint oil. In the majority of bone diseases, especially those of the joints, inflammation is set up, by concussion or direct injury, in the cancellated tissue of the bone; this extends and involves the compact tissue and the articular cartilage, the latter is destroyed. As a result of the inflammatory process, a soft material, called an exudate, is thrown out; the articular cartilage being destroyed, the bones come in actual contact with each other, and this, with the inflammation present, causes lameness. When this

cartilage is destroyed it will never be reproduced. Lameness will continue so long as this condition exists. The exudate spoken of has a tendency to become ossified (converted into bone), thus uniting all the bones involved into one. This process is called ankylosis. When this process is completed inflammation ceases, hence pain is no longer present, and if the joint or part of the joint affected be not one of extensive motion, lameness disappears, and even a stiffness is not noticed. Nature will, in many cases, effect a cure in this way, but the process is materially assisted by what is called counter-irritation, or producing a superficial irritation by applying blisters or the hot iron (which is called the actual cautery), followed by blistering. This counter-irritation increases the internal inflammation, hastens ankylosis, and, as a consequence, the subsidence of inflammation, and in the majority of cases lameness ceases. Having briefly described the anatomy of the parts and the nature of the disease, without using more technicology than necessary, we will now speak of some of the diseases.

ANKYLOSIS OF THE KNEE.—This is not of common occurrence, but occasionally met with. Inflammation is set up in some of the bones of the knee; there is, in most cases, no swelling noticed, but the horse goes lame. If severe he will stand with his knee semi-flexed, when in motion he travels quite lame and flexes the knee as little as possible, the lameness increases on exercise and is particularly severe when trotting down hill. Manipulation of the parts causes pain and forcible flexion (by flexion we mean bending so as to fetch the bone of the forearm and that of the cannon as close together as possible) causes acute pain, so much so that the animal will frequently rear off the other leg. After a time a greater or less enlargement will be noticed, at first of rather a doughy feel, but gradually becoming harder as the process of ossification advances. In the meantime ankylosis is taking place, and when these two processes are completed inflammation ceases, and he will no longer go lame, but may go more or less stiff, according to the portion of the joint that is ankylosed. In the knee there are really three articulations. The small bones of the joint consist in seven and sometimes eight, arranged in two rows. The lower end of the large bone of the forearm articulates with the upper surface of the upper row, and here is where the greatest motion exists; in the articulation between the rows of bones there is less motion and in that between the inferior surface of the lower row and the upper ends of the cannon bones still less. The bones concerned in the lower articulation may be completely ankylosed without materially interfering with action. If the middle articulation be involved, stiffness will be noticed, and if the upper articulation, there will be a stiff knee. With a healthy knee it is an easy matter to flex the limb until the heel of the foot touches the point of the elbow; where ankylosis exists this is not possible, and the closeness to this con-



AGRICULTURAL STUDENTS, WESLEY COLLEGE.

First row.—J. W. Dunfield, Ridgeland, Man.; S. A. Sweinsson, Glenburn, Man.; A. J. Handford, Holmfield, Man.
Second row.—Bjorn Jonasson, Baldur, Man.; W. H. Hill, Minita, Man.; K. Murchison, Petrol, Man.; A. Barlett, Winnipeg, Man.
Third row.—J. Stephansson; H. Arason, Glenburn, Man.; W. H. Olson, Winnipeg, Man.