

it will be partly because o' this war. It had to come, in the nature o' things. Man created the conditions that made it a necessity, but at the same time it isna' rimmin' ahead by chance, by any means. As I said, we're juist gaein' tae continue takin' oor medicine till it mak's us better, or kills us entirely, an' I'm not one o' those that look for any such endin' up as that tae the British Empire. Na, Na, we'll win oor yet, although it's gaein' tae be by hard scratchin', I can see that."

"I wis juist readin' a chapter in the Book, the ither day," Jean went on, "an' I cam' across one verse that might d'oe a lot o' good if ilka minister in the country wad tak' it for his text some time, an' preach a sermon frae it. It wis juist this: 'Return unto me and I will return unto you, saith the Lord.' There's the answer tae the hale question, as I see it. When we're ready to d'oe that we'll be in sight o' the end o' oor troubles, but until we are I dinna see a chance for us."

"Weel Jean," says I, when she had quit speakin', "I see ye hae been dacin' some thinkin' for yersel' in yer spare time. I winna say ye're richt in all yer conclusions, but on the ither hand I winna say ye're wrang. Na," says I, "I winna say ye're wrang. There's mair people o' yer way to thinkin' than ye may imagine, an' that's one reason why we hae good grounds for our hope o' something better on ahead. I'm no' one that believes in gettin' discouraged aboot anything on this auld planet, but at the same time I always pit a guid deal o' stock in a proverb that said tae be in one o' the school-books lang ago. It wis this: 'Be sure you're right, then go ahead'. We're on the richt side in this war, I'm no' in twa minds aboot that, but hae we been richt in all we hae done or said in connection wi' it?" "Ye had better leave it at that, Sandy," says Jean.

## THE HORSE.

### Diseases of the Feet—I.

There is no subject that calls for more attention by the horseman than the consideration of the feet of his horse. The horse's feet are subject to many diseases, many of which are due to inattention or mismanagement. Before discussing the various diseases of the feet it may be wise to discuss measures that tend to prevent disease. Attention to the feet should be commenced the first winter of a colt's life. It is probable that all horsemen know that under normal conditions there is a constant growth of horn which forms the wall of the hoof, that portion seen when the sole rests upon the ground. This growth is from a band or ligament called the coronary ligament, which is situated in a groove in the wall. The secretion of this material and its deposit upon the upper margin of the wall, is constant, hence the wall grows from above downwards. It can readily be understood that, as this growth is constant, there must be some wear or waste, else the foot would continue to increase in size. In the unshod adult horse the wear on the lower margin of the wall is about equal to the growth from above, hence the foot remains about the same size. In the horse that is wearing shoes, the shoeing-smith cuts or rasps off the lower margin of the wall an amount equal to the growth from above, hence the foot is kept about the normal size. In the young animal the growth is in excess of the wear, hence the foot continues to grow until adulthood. During the early months of the lives of a large percentage of colts, they are at large in the fields with their dams, hence the wear is sufficient to prevent the feet becoming abnormal in size, but after they are weaned they are generally kept in the stable most of the time during the winter months, hence while the growth is constant the wear is little and the feet become abnormally large and often ill-shaped. The growth of horn is often stimulated by allowing the animals to stand in stalls, either box or single, that are not regularly cleaned out. When from any cause the growth exceeds the wear to a marked degree, the feet must attain too great size, and in many cases the heels grow below the frog and have a tendency to turn inwards, the toe grows quite long, and the animal will be noticed treading largely upon the heel, and in many cases the toe turns upwards, not coming in contact with the ground until the animal commences to lift the foot to take another step. This, or other peculiarities of form of overgrowth of horn causes too great tension on some ligaments and tendons and too little on others. If conditions of this nature be allowed to continue for any great length of time, there is a danger of the future usefulness and value of the animal being greatly reduced; hence we repeat that "attention to the feet should be commenced the first winter of the colt's life." The feet should be examined regularly and every few weeks, as needed, the wall and heels should be pared or rasped down until the foot is the normal shape, and about the proper size. This, in addition to keeping the feet clean, is good training for the colt, as it teaches him to stand handling and to submit to control. This attention to the feet should be continued until it is necessary to shoe him, after this the shoeing-smith, provided he understands his business, will attend to the shape and size of the feet. Writers upon the management of the horse's feet and upon shoeing are very numerous, and all have apparently looked upon the feet as a simple and a complex piece of mechanism, and in so doing they are forgetting that no matter how complex the foot is, it is enclosed in a simple horn, and that the art of shoeing should be directed to preserve the foot in a normal condition, and that its position upon the ground should not be altered by the shoe. In preparing a horse's feet for shoeing, the sole, frog, and bars should not be pared

except sufficiently to remove any partially detached portions. The paring and rasping should be done on the bearing surface the wall and heels, and, if necessary, the toe shortened. In a healthy foot the wall and heels should be rasped off until the frog comes in contact with the ground when the foot is planted or when a flat shoe is put on. As little burning as possible should be practiced. The wall should be pared or rasped until the bearing surface is level. As this is hard for the average shoeing-smith to do by sight, it is often necessary to place a hot shoe on, this will scorch any elevations that are present, and the smith can then pare them down a little, but they should not be burnt down. Most modern shoeing-smiths know what weight of shoe a horse should wear. Where flat shoes can be worn with safety, they should be worn as this tends to allow the frog to sustain its share of weight and tends to prevent disease, but during winter in this country and even during the summer months, with horses that travel on paved streets, it is necessary to wear shoes with calkins to avoid accidents from slipping. Probably the greatest fault that can be found with the modern shoeing-smith, is the tendency to make the calkins too high. They should not be any higher than is necessary to provide reasonable safety, as the nearer the foot comes to the ground when the foot is planted, the better, the more comfortable the horse will feel, and the more sure-footed. Shoes should be removed and re-set, or new ones applied at most every five or six weeks. During the interim between settings the foot should be cleaned out at every grooming, in order that all foreign matter may be removed. This prevents the accumulation of dirt, and also provides for the removal of any solid matters, as stones, etc., that may have become fixed between the shoe and the bars or frog, also the removal of nails or other substances that if not removed would probably be forced in more deeply and cause trouble. The feet of horses that are kept in



Gainford Matchless.

First-prize Shorthorn senior bull calf at the Canadian National, 1917. Exhibited by Gerrie Bros., Elora, Ont.

the stable at all seasons, require special attention during dry, hot weather. Moisture is necessary for the proper growth and condition of horn. Horses that spend the night or even a few hours daily on pasture will, in most cases, get sufficient moisture for the feet from the normal moisture of the ground and the dew, but some means should be observed to provide moisture to the feet of stalled horses when conditions are not such that they receive it on the roads or streets when in harness or saddle. The various hoof-dressings that are on the market have very doubtful value, water is required. This is to be supplied in various ways. The forefeet especially require attention. Moisture can be supplied by standing the animal for a few hours daily in a tub of water (called tubbing) or in wet clay by the application of potholes; by placing pads of thick felt or other material, that have been soaked in water, over the feet and attaching by buckling a strap around the pastern or by filling the sole of the feet with some substance that retains moisture. A form of rock or clay that answers the purpose admirably is on the market, and stocked by most of the up-to-date harness dealers and some hardware men. It absorbs many times its own bulk of water, a quantity can be prepared at once, and the soles filled every evening. While the above precautions will not necessarily prevent disease, they largely tend to do so. We hope to discuss the various diseases of the feet in our next numbers.

Wm.

The Food Controllers in both the United States and Canada have stated that they have no intention of fixing the price at which the farmer sell his stock. However, they are, by providing to control the price of the products of the farmer, and the consumer will get a fair price for his product.

## LIVE STOCK.

### The Market Classes and Grades of Cattle.

There has been a slight change in the classification of market cattle since the time of the heavy export bullock. Latterly, too, there have been occasions when butcher stock was in such small supply that what ordinarily went as feeders were diverted to the block. The supply and demand are controlling factors deciding as to what use shall be made of cattle differing in quality but in normal times the line of demarcation is more distinct between the classes. One might argue that the slaughtering of a feeder does not make it a butcher animal, and that it went to the shambles in feeder condition and form in order to meet an emergency call. A light butcher steer as now classed on Canadian markets may range between 700 and 1,000 pounds in weight, while feeders (good and fair) range between 800 and 1,000 pounds. Thus it will be seen that quality, condition and conformation go a long way in deciding the relative position wherein different groups of cattle may be classed. In some cases there may be little difference between a good feeder and a poor butcher beast. We wish to emphasize this point in our attempt to describe the market classes and grades of cattle, which is an important subject now in view of the fact that so much activity exists in live-stock circles and farmers are being encouraged to purchase stockers and feeders to consume the grain and roughage, produced so abundantly last season, and return them to the market in condition to meet the demand of the Allies for product of this kind.

Before going further we should distinguish between a market "class" and a market "grade." The market classes as we have them now include such as shipping steers, butchers, heifers, cows, bulls, canners and cutters, oxen, calves, stockers and feeders, etc. The grade refers to the quality, condition and general character of the offering within the class. A steer may be prime, choice, good, fair or common. While choice cattle are coming forward practically all the time, the two grades—good and common—comprise a heavy percentage of the offering.

#### Shipping Steers.

There is no definite range of weights to include shipping steers. If New York and Boston happen to be particularly short of product they will take well-finished stuff that might ordinarily pass as heavy butcher on the Toronto market. However, the well-fleshed, smooth cattle which are picked up in some of the good grazing districts of Ontario in late September and October and weigh around 1,300 and 1,400 pounds are considered shipping steers of first-rate quality. The same

may be said of many stall-fed steers lifted during the spring months ranging around the same weights. The finish, degree of fleshing, and quality of the offering govern the classification, and a shipping steer may at the same time be a choice butcher.

**Butchers.**—Heavy butcher steers now range between 1,000 and 1,200 pounds, while the light ones will run from 700 to 1,000 pounds. They are usually appraised as good or common in their respective places, according to their quality. The well-bred kind evenly fleshed and carrying some thickness over those parts from which the most expensive cuts are taken grade as good, while the dairy-bred stuff inclined to be paunchy and narrow or thin on top will grade as medium or common. The buyer's eye is trained to estimate the percentage of carcass that an animal is likely to yield, and those which give evidence of considerable offal in proportion to actual carcass are severely scored. It is the good or choice kinds that weather the market fluctuations best, for they are always in demand; but the medium or common ones sometimes do not bring what they are worth on an unsettled market. In the heavy steer class the difference in price between good and common may amount to as much as 75 cents to \$1.50, and the same difference prevails in the 700 to 1,000 pound class between the good and common kinds.

**Heifers.** While heifers and cows are usually termed as butcher stock they are usually quoted in a separate classification. The grades are the same as the steers, but there is usually a greater range of differences. The good butcher heifer may sell for as much as the good light steer, yet the minimum prices frequently fall far below those for common steers. Cows, too, are termed as butcher stock when of good quality but in price they are below the heifers, and as much as from \$1.00 to \$2.00 below those for light steers.

**Cutters and Canners.** There is little difference between a good cutter and the common or poor butcher