

above midway between the knee and chest. He then examines for the nerve that conveys sensations from the foot to the brain. It is here that the greatest care is required, for the nerve, artery and vein are very similar in appearance, and lie quite closely together, and if the artery or vein were severed, instead of the nerve, all the surgeon could do would be to make some plausible explanation, and bear the humiliation of having his patient bleed to death. The operator, therefore, is careful to secure the nerve and make a test before he severs it. Then he removes about an inch from the lower severed end to prevent any possibility of union. After both fore legs have been operated upon, the chloroform is removed and the animal released.

Nerving, as it is called, in the forearm, is a comparatively new operation. Formerly, the nerve was severed in the neighborhood of the fetlock joint, but it was found that the operation at that point frequently interfered with circulation, which set up fatty degeneration, and eventually resulted in the loss of the hoof.

On the surgeon's day several operations of nerving were performed, and all were most successful, the cure being instantaneous, but the patient required a few days to regain its normal action.

Another operation performed by the surgeon, which very much resembled that for navicular arthritis, was that of severing a portion of a tendon to prevent stringhalt. In this operation, the animal is thrown and secured, but not chloroformed. A small tendon which operates one of the muscles that flex the hock was located below that joint, and a small portion of it removed. Very little pain is experienced in this operation, the tendon being near the surface, and not so sensitive as is a nerve. A complete cure is not always effected at once, for the reason that the surrounding tissues frequently adhere to the tendon and prevent it relaxing after being severed.

Among the patients brought in was a fine-looking gray gelding, sound in every way, except that on the outside of his nigh fore fetlock there was growing an immense double cancerous wart. This growth was of about the same consistency as liver, and was continually bleeding. It gave the animal considerable pain and annoyance. Here, again, the horse was thrown, and a sharp knife removed the wart, and cut away any traces of its growth. Such an operation necessarily caused considerable bleeding, but the searing iron soon stopped the flow of blood.

Spavin and sidebones, both of which troubles cause severe lameness, the former in the hind and the latter in the fore leg, demanded considerable of the surgeon's time. The treatment of these was to touch the enlarged parts five or six times with a red-hot iron, and afterwards shave the hair off and apply a blister. Firing, as it was done by this operator, was not the severe operation that some veterinarians frequently make it. The patients were not even thrown, and after the first flinch did not even notice the treatment. Firing, to be effective, need not extend into the flesh. All that is required is to burn the outer skin, so that the blister may be more effective.

In the course of the day, two cases of hip-joint lameness came under the care of the surgeon. The seat of the disease is in the hip joint, the juncture of the thigh bone and the cavity in the pelvis. It is located behind and below the hip bones. When a horse is suffering from lameness in this joint, he shows disinclination to put his foot to the ground. He swings, rather than flexes, his leg, and the muscles of the affected limb become shrunken. The treatment consisted in putting a seton over the joint. This operation was performed by making a small incision below and above the joint, then a large seton needle was inserted at the upper incision and removed at the lower one, thus, as it were, putting a stitch of linen under the skin. This linen is saturated with antiseptic solution daily and pulled upwards or downwards, as the case might be. By the action of the seton the parts are stimulated, thus effecting a cure.

With several such cases as enumerated above to treat, and numerous prescriptions to write, the surgeon was kept employed until nightfall, but his work was by no means done then, for during the day he had consented to visit several farms in the country to pronounce upon cases that were unable to travel to town for his treatment. Forty miles were traversed during the night, and upwards of a dozen suffering equines and bovines received the benefits of professional treatment, so that when the veterinarian retired in the small hours of morning it was with the satisfaction of having exhausted his strength in bringing health and comfort to a large number of faithful but suffering brutes. The above is a short review of what one veterinary surgeon did in one town. In the hundreds of towns throughout the country similar work might be done if veterinarians would attain the necessary skill in operating, and horse owners would look more carefully to the health and comfort of their stock.

How to Throw a Horse.

To thoroughly take the conceit out of a horse, there is no better way than to throw him. It certainly requires pluck and determination to throw a horse single handed, but if done, your horse is virtually conquered for good and all. To do this, put a good strong halter on your horse, take a strap with a ring in it and buckle it round the horse's off fore leg below the fetlock joint; take a rope eight feet long and tie it to this strap; place a surcingle round the horse's body; take up your position on the right side of the horse, bring the rope over the horse's back from the off side; take hold of the rope, and pull his foot to his body; take a firm hold of his foot, holding it in that position, then take hold of the horse's halter with the left hand, pull his head to you and press against his body with your elbow, using the words "Lie down."

The majority of horses can be thrown in this way in less than a minute, while others, of course, might fight longer. As soon as the animal has been thrown, take the rope that is underneath him, bring it under the surcingle and pass it through the ring of the halter, and back under the surcingle again, and thus you have the rope in position to bring his head over his shoulder. Make him put his head on the ground, and if he makes any attempt to get up, pull his head up immediately, which will prevent him from rising. This will give him thoroughly to understand that you are master. Once a horse realizes your power over him, he will do almost anything a horse can do.

STOCK.

The Cattle Embargo.

A subject that of late years has been frequently brought to our attention is the restrictions placed on our cattle when landed on the British Isles. It is certainly a matter worthy of consideration, and I would suggest that the "Farmer's Advocate" invite discussion along this line by practical farmers and feeders. There are pros and cons to every question, and no doubt the resolution passed by the Canadian Senate, declaring the embargo to be unfair and unjust, is the fruit of their own convictions.

A great many of our people are evidently not

would be benefited personally by freer access to the British markets at certain times of the year, but let us take a broader and more comprehensive view, and look beyond the present to the possibilities of our farms under a system of feeding the produce of the soil, and selling it in the form of well-finished products that bring the highest price.

Why is it that the average yield of the wheat fields of Great Britain is 33.8 bushels per acre, while in the United States the average is only 14.5 bushels, and other crops in proportion? Mr. James Wilson, U. S. Secretary of Agriculture, very sagely solved this question, recently, by allusion to these figures. Great carrying companies are building branch lines all through our fair Province—another indication of the visions in the foreground—and Ontario bids fair in the matter of manufacture and commerce to be to her sister Provinces what Britain has been to her colonies.

Then, let us also manufacture to a finish our beef cattle, instead of continually whining about those restrictions. And also let us see that the choice cuts of our Canadian cattle are sold in the retail markets of Britain as such, and not as prime States. My object in this letter has been to throw out a few points, hoping to see this interesting question, through the "Farmer's Advocate," receive its due share of consideration.

Waterloo Co., Ont.

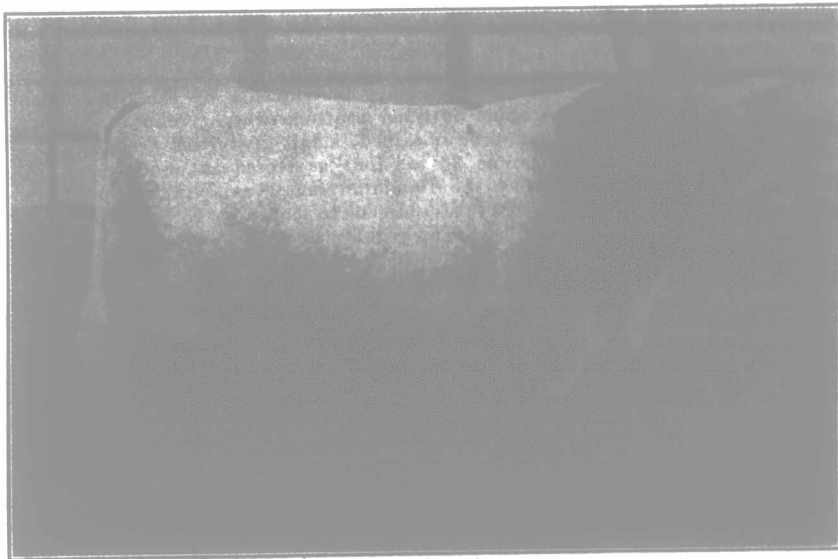
J. H. WOODS.

Is a Two-pound Daily Grain Ration Enough?

The question as to the best amount of grain, viewed from the standpoint of profit as well as from the usefulness of the cow, has been in review at the Vermont Station for five years. During the first three years the merits of low—four pound—and of high—twelve pound—grain rations were compared with those of medium—eight pound—feed. The outcome, speaking broadly, has not favored the heavier ration, which was fed at a loss. The four-pound ration, however, quite often proved as good as, or, viewed from the money standpoint only, better than an eight-pound one, when early-cut hay containing considerable clover and well-matured, well-cared corn silage were fed in fairly liberal quantities. Last year, for the first time, a two-pound daily grain ration was fed experimentally, and the trial has been repeated this year. While it was felt that this amount of grain was too small, there were good dairymen preaching and practicing the doctrine of an extremely limited grain ration as an antidote to high prices for grains, claiming that when feeding more liberally they were not getting a dollar in milk for a dollar invested in grain. Hence it seemed wise to put the query to the cows. Twelve passed judgment on the proposition last year, and fourteen this year. The verdict handed up by the jury which tried the case in 1902-03 was that, "It seems fair to conclude that in these trials the restriction of the grain ration to two pounds was made at the expense of the animal's well-being and of the owner's pocketbook."

There were, however, "extenuating circumstances" in the case, errors in feeding seriously curtailing data, poor silage, etc. Then, too, "no one trial can settle this matter; the character, quality and quantity of the roughages used, and individuality of the cows, as well as that of the feeder, enter into the problem; in short, circumstances so markedly alter cases that the outcome of these trials, or, if confirmed by further tests, of several trials, would not necessarily be duplicated elsewhere by other feeders."

The experimenter's judgment in this matter was, "That in five-week periods some degree of success seems, in this year's trials, to have followed restricted grain feeding. It is further true that the testimony afforded by the continuously low-feed cows has not been unfavorable this year to the very low ration. Yet, notwithstanding, it is thought that the continued, month after month, year after year, stinted grain ration will not, in the long run, prove as profitable with the better grade of cows as will a more liberal one. Its effect on live weight, and on the persistency of the milking habit, must needs be unfortunate. One has but to scan the records of the cows who have continuously been thus lightly fed during the past two winters, to note the general shrinkage in live weight, and to see their relatively gaunt condition, to feel at least doubtful of the wisdom of feeding such very low grain rations to good dairy cows."



Roan Conqueror (84519).

Champion Shorthorn bull at the Royal Dublin Society's Spring Show, 1905.

aware of the fact that with the immense increase of our urban population, the home consumption of our beef has more than doubled in the last decade, and, although the restrictions were at one time injurious and unjust to us as a country, owing to the imputation of the existence of disease which does not exist, the embargo has, nevertheless, been a blessing in disguise. Speaking personally, I may say that I produce about 20,000 pounds of beef in the year, and I conscientiously assert, endorsed by scores of my neighbors, that if the restrictions were removed, and the produce of our lands exported in the raw state, it would mean a case of killing the goose that is laying the golden egg. If beef production is not a profitable business, why are so many of our cheese factories compelled to close down for want of support? Simply because the patrons have bigger returns from raising stockers and fattening them on the grass, the product of which formerly went to the factory. It is a well-known fact that in the last number of years the margin on stall-fed cattle has been small (about a cent a pound), but it is not the direct profit, but the indirect profit of increasing the fertility of our lands, that counts; for, as we sow, so shall we reap. No doubt there are some with large tracts of grazing lands who