

should be enclosed between the teeth it should not be forcibly drawn out, as this is sure to make severe scarifications. It should be held quiet, and the left hand, which still holds the tongue, used to get the horse to relax his hold. If the tongue be kept well out of the right side of the mouth between the molars he will not close very firmly on the hand that is in the other side of the mouth. There are instruments called mouth speculums with which the mouth can be kept open and the safety of the hand secured, but the farmer seldom has one of these, and the veterinarian seldom requires one for this purpose. With any of these methods of giving medicines the principal danger is a waste, and, of course, if some be wasted, more can be given. In drenching we must always allow for some waste, and at the same time guard against injuring the animal. In order to drench a horse his head must be held up. He should be backed into a stall or against some solid object that will prevent him from going backwards. A hame strap or something of that sort is put into his mouth, a rope or strap attached to it and run through a ring or over a beam and pulled until his head is sufficiently high, or a stick may be attached and an assistant hold his head up in this way. The operator now puts the neck of the bottle into the mouth from the side and allows a little fluid to run out. If he swallows readily the drench may be allowed to run slowly, but if he does not swallow the roof of the mouth should be rubbed with the bottle. This usually causes him to swallow. His tongue should not be pulled out nor his throat pinched, as the latter will cause him to cough and open the valve. The point to be observed is not to pour the fluid faster than he swallows. Some people pour the fluid into the nostril, but this is very dangerous. If during the process of drenching the patient commences to cough, his head should be immediately lowered, even though the drench be wasted. There is generally more or less waste in drenching, and if the waste exceeds the allowance made for such, more should be given. A very nice way of giving fluids to horses is with a two-ounce syringe. The syringe is filled, the horse's tongue taken in the left hand and the syringe introduced well back into the mouth with the right, and the fluid forced out into the pharynx. He usually swallows it readily, and there is little waste and no danger. Several syringe-fuls can be given this way, if necessary. Under no circumstances should a horse with a sore throat be drenched in the ordinary way, but fluids may be given with a syringe.

The administration of medicines to other classes of animals will be discussed in a future number. "WHIP."

### The Thoroughbred for Crossing Purposes

To the Editor "Farmer's Advocate":

The breeders and stockmen generally of Manitoba and the Northwest do not seem to thoroughly realize the value of the Thoroughbred stallion as a means of getting salable horses and generally improving our stock.

It is a popular idea in the great West of ours that the Thoroughbred is useful only as a race horse, or that when crossed with small mares, becomes the progenitor of saddle horses. It is true that he is bred almost solely for racing, but that his usefulness ends there is a very mistaken idea, for there is no other breed of horse so thoroughly general-purpose. To this breed we owe the various Coach breeds, the Hackney, the hunter and the American trotter, or Standard-bred. Were it not for the constant crossing of the Thoroughbred upon the foundation stock of the first three types mentioned, those types would soon cease to exist. It is not found necessary in producing the trotter to use the blood of this grand old breed to the same extent as in the production of the other lighter types of horse, though the practice is still in vogue with many of their breeders, and I am safe in saying that there is not a trotter living without one or more strains of this valuable blood in its pedigree, and in many cases very close up.

These facts should be proof alone of the value of the Thoroughbred for crossing purposes, but we have still further proof in the fact that, to successfully raise horses for the cavalry and artillery, the Thoroughbred stallion must be used. Some will say, why will not some other type or breed do equally as well? Simply because no other breed has the stamina or conformation, for it is generally known that for intelligence and courage, length of neck, short, strong back, and strength of muscle and hardness of bone—all essentials in horses of this class—the Thoroughbred has no equal, and is capable of transmitting his own qualities to his offspring as no other sire, whether of the lower or higher order of animals, can. Then, as a sire of carriage

horses, when crossed with the neat, active farm mare, again the Thoroughbred stands unequalled. I do not say as high-steppers, but as carriage and coach horses, for they transmit to their offspring that elegance of carriage and easy, frictionless action that is so much sought after in the big cities, and that the Thoroughbred alone possesses.

I do not wish it to be supposed I mean these various classes of horses can be produced by crossing the Thoroughbred indiscriminately on cold-blooded mares; such is not so, but one thing is, that every time the Thoroughbred stallion is crossed with the common mare it is a step in the right direction for improvement, for a cross of "hot blood" in the farm brood mare is always an advantage where general-purpose and light horses are being bred, as it gives her offspring endurance and ambition; in fact, a cross of the Thoroughbred is essential in the brood mare if success is to be met with when using the Hackney stallion, or any of the Coach-bred or Standard-bred stallions for crossing purposes, as these breeds, or rather types, are themselves of mixed breeding, therefore they must have some of the pure or "hot" blood in their mates to give the offspring sufficient stamina and style.

To sum the whole thing up, why use sires of mixed breeding which are not strongly enough bred to reproduce themselves, when by using the Thoroughbred, which is the most purely-bred horse, and consequently strong enough to reproduce where others fail, one gets, in a measure, what they are breeding to when using the other type. When selecting a stallion of this greatest of breeds, care should be taken to have no undesirable vices or qualities in the horse selected, as, to a certainty, they will be produced in every instance, so strongly does he transmit



Senator's Roan Mina.

Champion yearling Shorthorn heifer of three counties—Essex, Kent, and Elgin—1905. Bred and owned by John Lee & Sons, Highgate, Ont. Photo by Farmer's Advocate representative at Highgate fair.

his quality to his offspring. The horse to select should be of good temper, size and quality, with plenty of substance. Substance must not be overlooked, as in all high and dry climates the tendency is to run to quality rather than substance.

If farmers would use Thoroughbred stallions with their cold-blooded mares, in a few years this great Northwest would be world-famous for its equines. It is such tactics as these that have made and kept Great Britain justly famous for producing most of the finest horses in the world.

I am sure I have said sufficient to show in some small measure the value of the Thoroughbred. But chapters could be written on their excellence and uses, and then not exhaust the supply of material wherewith to write. That these lines may help others to help the industry in the right direction, is the sincere desire of R. D. Sask.

An Old Country embargo-off advocate says: "The 'Farmer's Advocate' has not mastered its brief, but has shown its hand." Of course it has shown its hand; the "Farmer's Advocate" always speaks out, has the manliness to fight the cause of its readers, speaks its own mind, and does not fight from behind the defences. The Dundee man might as well own up, "We have a lot of money invested in wharves and lairages from which we do not get a penny in return while the embargo remains."

## STOCK.

### Dentition in Cattle.

The specification adopted in connection with the great International Show, at Chicago, for testing the ages of cattle by their teeth, is as follows, and is interesting as showing the dentition in such animals at different stages of growth:

Twelve months.—An animal of this age shall have all of its milk (calf) incisor teeth in place.

Fifteen months.—At this age center pair of incisor milk teeth may be replaced by center pair of permanent incisors (pinchers), the latter teeth being through the gums, but not yet in wear.

Eighteen months.—The middle pair of permanent incisors at this age should be fully up and in wear, but next pair (first intermediate) not yet cut through gums.

Twenty-four months.—The mouth at this age will show two middle permanent (broad) incisors fully up and in wear, and next pair (first intermediate) well up, but not in wear.

Thirty months.—The mouth at this age may show six broad permanent incisors, the middle and first intermediate pairs fully up and in wear, and the next pair (second intermediate) well up, but not in wear.

Thirty-six months.—Three pairs of broad teeth should be fully up and in wear, and the corner milk teeth may be shed or shedding, with the corner permanent teeth just appearing through the gums.

Thirty-nine months.—Three pairs of broad teeth will be fully up and in wear, and corner teeth (incisors) through gums, but not in wear.

### Contagious Cattle Abortion.

At the annual Autumn Conference of the Scottish Chamber of Agriculture, held in Perth last month, a resolution was adopted thanking the British Board of Agriculture for appointing a Departmental Committee on contagious abortion among cattle.

Mr. W. S. Ferguson, seconding, said no scourge cost the country more than contagious abortion. Some had been able to keep it in check. A great many more would be breeding stock were it not for this scourge. The late Principal Williams had taken up the subject, but he was a little in advance of his time. What he had done would be at the service of those now engaged in making enquiry. The Highland Society had at that time

voted £200 to the Principal, but that did not enable him to touch more than the fringe of the subject. For the present enquiry the Highland had given £500, and the Treasury had voted £4,000. No doubt more money would be given if it was shown that this was well spent. Hitherto they had been groping in the dark, and did not know what they were dealing with. What breeders wanted was scientific information on this subject, to enable them to know what they were dealing with.

Mr. Alex. Pottie, V. S., Paisley, was understood to say that he had an effective cure for abortion; that, provided his system were persevered in for a reasonable length of time, the scourge could be stayed. He seemed to be arguing that his system should have a fair trial from the Departmental Committee. He had stopped the disease in hundreds of places, and there was no need for elaborate investigation if this were so. It did not matter what theory he proceeded on if the end aimed at was gained. Evidence and reports of experience should be taken from all parties.

### Wanted.

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