

But if the farmer contrives to steer clear of the draught horse, he is almost sure to fall foul of the trotter. In this he is more apt to succeed in getting a good animal, and, of course, he may strike a bonanza. Much depends on the character and breeding of his mare. If she happens to have trotting action and fairly good breeding she may nick finely with a well-bred trotting stallion, and if the union does not produce a trotter, it will be very apt to produce a thoroughly good roadster. If, however, the mare be inclined to be sluggish or cold-blooded, the propriety of coupling her with a trotting stallion would be very questionable. The thoroughbred would make a much safer cross, and should the produce be a filly, she would ultimately grow into an admirable mare upon which to cross a trotting stallion. Such mares are just what our farmers need if they wish to be successful in the production of trotting horses.

ARTIFICIAL MANURES.

It is a matter of surprise to every experienced agriculturist that farmers throughout the older portions of Canada do not make more use of manure, both ordinary and artificial. So far as barnyard manure is concerned it is probable that a large majority of Canadian farmers imagine that they avail themselves of it to as great an extent as a due regard for economy will permit, but the idea of making any use of artificial manures never seems to enter their heads. They go on year after year, taking crop after crop off the farm and never give it anything in return save a very scanty supply of badly leached barnyard manure. Every year Canada ships to the Old Country large quantities of mineral phosphate, and a little—a very little—of this comes back to us in the manufactured superphosphates. This is exporting the raw material with a vengeance, and yet there seems to be no way of stopping it. The Canadian demand has been so small so far that no one cares to take the risk of going to any very great expense in erecting works for the reduction of mineral phosphate (apatite) to a marketable condition. Besides this, we are told the cost of sulphuric acid is so much less in England than it is in this country that it pays to ship the raw material (apatite) and have the manufactured superphosphates brought back in its place. This is certainly an anomalous state of affairs, and one that should be looked into. With the immense deposits of mundic that we have lying useless in the Laurentian Hills it would seem strange if we could not produce sulphuric acid at a very moderate cost.

But this is not all. There is not a city, town, or village in Canada where immense quantities of slaughter-house refuse do not go to waste, which would be invaluable for the production of superphosphate, while bones are scarcely worth picking-up, and yet the few intelligent farmers who carefully study the wants of their land find it profitable to buy artificial manures from Great Britain and the United States. The *Farmer and Mechanic* published in Cincinnati, furnishes the following description of the manner in which superphosphate is manufactured direct from animal matter in that city:—

"Cincinnati produces annually about 75,000 tons of this material, supplying the States of Indiana, Illinois, Kentucky and Ohio to a large extent.

"First of all it is necessary to state that fertilizers are usually made from dead animals. These are obtained from this city, and are also shipped from the Western plains. The animals are skinned, the hide is sold to the tanners, and the carcass is cut up and put into a large tank, where as much of the grease is cooked out as is possible with extreme heat. When this matter is taken out of the tank, however, there is still a large proportion of grease and water in it.

"Before all this can be taken out the matter must be subjected to another process, called desiccation. In other words, the animal matter is loaded upon iron cars that run on tracks in the factory. The cars are fitted with perforated shelves, which hold the meat, bones, etc. The car is then run into the extractor, a horizontal shell made of boiler iron, 36 feet long, 9 inches in diameter, and weighing from 8 to 12 tons. The head of this boiler is then bolted on and made perfectly airtight. Naphtha vapor is then let in and allowed to permeate the interior for 72 hours. At the end of this time all the remaining moisture is driven out, and the matter is left perfectly dry.

"When the cars in the different shells are wheeled out, the large bones are separated from the other material, and the particles of meat, muscle and blood are piled up in great heaps upon the floors of the warehouses. At this stage it looks like great banks of sand, and is fully as dry. In this condition it is allowed to remain 18 months, during which time it is thoroughly cured. Then it is run into the chutes, ground up by the mills into a fine flour, and put into 200-pound sacks."

OBSERVATIONS IN ENGLAND.

"Fidelis," in Wallace's Monthly.

During a recent visit to England we had an opportunity of making some comparisons—although to one party or the other comparisons are odious—yet there is surely no immorality in making them. The mind grows by observation and reflection. These involve comparisons. In June last I went with a friend to the Horse Show at the Agricultural Hall, Islington, London. This building is specially adapted for such exhibitions. Its grand size—the way in which it is lighted—the facility for ingress and egress; these and other features make it specially attractive for such exhibitions as those of last June.

Every class seemed filled with specimens whose excellence was unmistakable; hunters, gentlemen's roadsters, trotting cobs, mostly under fifteen hands, and horses capable of making showy and well-matched teams in double harness—these were the animals most in repute. Ponies for children were also well represented, and spirited, sturdy fellows they were, too. Beauty seemed to be desiderated as well as power and usability. Strength, apart from beauty, never carried off the blue ribbon. I presume that pedigree was also taken into account, as the catalogues were very precise on this point. In three cases out of every four I managed to spot the horse which was afterward invested with the blue ribbon, so that I have reason to suppose that the judging was free from bias or taint of favoritism. Everything seemed to be conducted in a strict business fashion, as it was proved when behind a proud-stepping chestnut team a lady appeared as

the evident owner, intending possibly to captivate by her presence the judges, as she assuredly did the multitude. After her groom had exhibited the team and had won the prize (I forget whether first or second), he dismounted, and the lady undertook to show how skilfully she could drive those horses, but the exit gates were soon thrown open and the way out emphatically indicated. Sentiment had no place there; it was business. And this was as it should be. As soon as sentiment, or bias, or favoritism is suspected in these exhibitions, there is an end to their value. Let the blue ribbon on all occasions go to the best, even when my lord's horse has to follow the steed of one of the most obscure of his tenants, and the public are satisfied and gratified. There is more necessity for justice in the world than mercy.

A good head and a graceful neck seemed almost equally necessary. And in that Horse Show were some of the most beautiful equine heads, and some of the most captivating of equine necks. The trotting cobs were all short steppers, and all but one or two broke very easily at a gait which would have brought a blush on the face of a three-minute American trotter. I longed to see an American trotter, say one of the prettiest of the Lamberts, smuggled into the ring. What a sensation it would have made! I said so to my friend, but he only remarked how easily Yankees like myself fell into the habit of tall talk. I offered to give him \$10,000 if I could not, within two months, introduce an American trotter into that Hall which would go round the ellipse twice while the best of those present was going round once. My remark did no other good than to evoke a sceptical laugh. So I was fated to be disbelieved. Some of these small horses showed an amount of temper which, in my judgment (not worth much, certainly), ought to have disqualified them for competition. Yet one of the ugliest in this respect gained a ribbon. Surely docility and easy usability ought to be considered in awarding marks of merit. To breed to a horse of the kind to which I refer would have been not only unwise but something worse!

I made it my business to notice particularly the harness horses in the London streets, and was impressed, not favorably, by their want of size. Heavy "traps," as they are called, are often drawn by mere ponies. It seemed cruel to compel these little fellows to pull such murderous vehicles; sometimes half a dozen people will be crowded into one of these ugly carts, in front of which was a pony of fourteen hands high. The Society for the Prevention of Cruelty to Animals might safely interfere when a thoughtless inhumanity shows itself on the public thoroughfares, overtaxing the strength of a dumb little Welsh pony.

Singular to say, the finest-bred animals in all London, so far as one meets them in harness, are to be found in some of the best of the Hansom cabs. This two-wheeled vehicle, which hangs on a very low axle, and is designed to carry two people—the driver perched on a little seat behind overlooking the hood of the cab—is the most comfortable of all carriages for hire.

On enquiry I found that the most unpromising of the thoroughbreds found their way into the stables of the owners of the Hansom cab. Some of them seem too good for this kind of work, but they do it without showing any signs of restiveness. I often took a Hansom cab when an omnibus would have served me as well, simply for the pleasure of riding behind a horse which looked "something like," and had an aristocratic lineage.

"Blood will tell," even in a cab horse. There was an additional pleasure in the discovery that these London Jehus dare not apply the lash of their long whips to these horses as frequently or unmercifully as to the common cab horse.

It would naturally be assumed that in order to see the finest specimens of English harness horses