

practical performance so as to preserve it as a previous inheritance to be entailed to other generations?

There are two causes that co-operate together to establish the trotting instinct, and preserve it to future generations of the equine family. The first cause is breeding into trotting ancestors. The second step is by bringing out the trotting gift by skilful training. Breed to fast trotters, and develop their speed by artificial cultivation. The trotting instinct is the will to put the physical powers in force. Fast trotting originated with the fast runner, coming down through great families of trotters, till the trotting propensity overuled the running instinct and became the established gait. Some running families have good trotting action, especially those that have inherited in great profusion the blood of the Barb and Turk. It is from the descendants of the oriental horse of the desert, which was gifted with fine trotting action, that our most famous trotters are greatly indebted for their wonderful speed.

The breeder must propagate the trotting action to his young scions from a line of trotting ancestors. The hereditary gift of speed will lay the foundation for its future developments. They will trot fast because their parents were gifted with great speed, provided they are not injured in the grand preparation. Ignorant, ill-tempered, or unskilful trainers may spoil the most promising young trotter. The reckless driver will overtask them, which will cause them to "shut up" in a race, or get them to bolting the track or some other foolish habit that will depreciate their value. Any vicious habit once contracted will cost a good trainer time and patience to work over and correct.

Good temper and a sound constitution are powerful stimulants to fast trotting. Where the trotting instinct is bred in and the subject has the resolution to put forth his utmost exertions, they will continue to improve by cultivation, so long as they stand training, and will ultimately attain great speed. The leading faculty bred in the bone will come out in the flesh. Cultivation brings the natural powers into practical use. The high-bred trotter will not stand harsh treatment. He will revolt at the cruel treatment of heartless drivers. Brutal trainers have proved lamentable failures. They appear to be rank poison to the trotter. They never have, with brutal force, developed the full motive powers of young trotters, and probably never will. It is not in the nature of things to elevate the brute creation by appealing to the lowest passions of the human mind. Man was endowed with reason to domesticate the dumb brute, improve and make him an agent of industry, to contribute to the support of mankind.

Kindness is the leading instrument to educate and improve the horse. Force begets resistance. It compels the oppressed to fight back to protect himself from oppression, and he contracts the habit of rebellion. It destroys that mutual confidence between the horse and his driver that must exist to have the former respond to the call in every emergency. Patience and perseverance will accomplish wonders. It has brought many young trotters of moderate promise to the highest round in the temple of fame. The skilful trainer uses reason for his guide and steers clear of those breakers that have wrecked so many young horses. He adopts intelligent instruction to educate the trotter. He has added incalculable value to the breed by developing the full powers of some of their choicest scions. Few persons ever heard of Hambletonian till his sons Shark and Dexter appeared upon the turf. The inherited trotting powers of the colt can be developed to their utmost extent by kindness united with firmness.

POTATO FLOUR.—Few persons in the United States, says the Agricultural Report, are aware of the demand, and the great extent of the market that can be found for this product, which is simply the dry, evaporated pulp of the ordinary potato, the whiter and more free from black specks the better. It is used for sizing and other manufacturing purposes, and with the aid of precipitation and acid is converted into starch. In Europe it meets a large and increasing demand, in its primitive state, as potato flour; and in Lancashire alone 20,000 tons are annually sold, and as many more would be taken if put into the market. When calcined, it is largely used for silk-dressing and other purposes. At this time the quotation for potato farina in Liverpool is a little over four cents a pound, while wheat flour is about two and one-sixth cents a pound; so that potato is worth nearly double that of wheat at the present rate. Consignments to Liverpool are solicited by the brokers there, who promise to take all that can be furnished.

Correspondence.

To the Editor of the FARMER'S ADVOCATE.

On Watering Fruit Trees.

SIR,—The subject of watering large fruit trees has frequently been discussed, and different opinions expressed thereon. Probably the Dutch way of applying liquid manure would be found beneficial. They use a stout stake about five feet long and three inches in diameter, pointed with iron, and a piece of wood nailed on one side to place the foot on. With this, holes about 12 or 15 inches deep and about two feet apart, are made all round the tree, just within the circumference of the outermost branches, and liquid manure poured into them about once a week. In wet seasons the liquid manure alone is used, but in dry weather it is diluted with one half water. Care must be taken not to commence using the liquid manure until the fruit has acquired some size, otherwise the leaves will rob the fruit and cause it to fall off. The use of the liquid manure must be discontinued as soon as the fruit begins to show signs of maturity, so as not to injure the flavor. For young trees water alone would be sufficient, as liquid manure would cause too rapid a growth of wood, which would probably not ripen properly, and be more liable to be winter killed.

I would recommend as a good way of watering cabbage or cauliflower plants, that a small sized flower pot should be sunk in the ground on the north side of each plant, and filled with water, which will escape through the hole in the bottom no faster than the earth can take it up. Where small flower pots are not at hand, a stout stick may be used to make four or five holes round the plant, and pour the water or liquid manure into them, so that the roots will get the direct benefit of the water, and it will not be dried up by the sun or the ground become baked hard, as in the usual way of watering them. I have found this a good way of applying liquid manure to the hills of pole beans and also to vines, for which purpose I use soap suds with fowl droppings stirred up in them.

For flowers a better way to prepare the liquid manure would be to stir up the fowl droppings with water in some convenient vessel, and when the droppings have settled down, pour off the clear water, which will be found equal to guano water. For window plants in towns, where fowls are not kept, a tablespoonful of ammonia in a pint of water may be used to water the plants twice a week, but it should not be used till the flower buds are formed, or the leaves would grow so luxuriantly that no flowers would be the result. To clear the vermin from house plants, I have found no better way than to catch a few of the small brown snow birds which are common in the spring, and may be easily snared by placing a little chaff on the snow with some horse hair loops amongst it. Let the birds loose in the room, when they will naturally fly to the windows and perch on the plants, and soon pick off every insect from them, and when their mission is accomplished I give them their liberty again. I have seen a lady employ her pet canary for the same purpose, first expelling everything in the shape of a cat from the room, and then opening the cage door and letting the canary hop about the plants for an hour or two every day, when the insects will soon be exterminated. It is pleasing to watch Master Dicky peeping under the geranium or rose leaves, and seemingly enjoying the treat which the insects afford him.

CHAS. JULYAN.

Stocking a Farm with Horses.

SIR,—A gentleman living somewhere on the border between England and Scotland writes and asks me how I think it would pay to raise nothing in the stock line but horses, excepting a pig or two and some fowls. I told him that I was not in favor of specialties for general farming, although many had done well by it, but many had also been ruined by it. I told him that if he calculated to come to Canada to farm, that he had better do as he saw other people doing for the first two or three years. He says he is doing very well where he is, only he has to pay an extra high rent, and it is not convenient for him to rent as much as he wishes. His idea is to get about three hundred acres of cleared land if he comes to Canada. This is the way he proposes to do if he comes out next spring, and gets a suitable situation: He will buy

two span of working horses to manage the farm with, and then as soon as it is time for colts to be weaned, he will purchase six of the best colts for making heavy farm horses that he can find; the next year he will buy six more, and the third also, when he will have eighteen; the fourth year he will have the first three span thoroughly broke in to all sorts of farm work. These are sold and the number filled up by six more colts.

He says for the last ten years he has sold and bought and broke in horses in this way both for himself and others. He says there is no difficulty in selling them. It is very seldom he has to take any to a fair; he advertises and people soon find out that such are to be sold yearly. He wishes to know if any such method of farming in Canada is carried on in a large scale. I told him I did not know whether anything of the kind was practised here or not, but if I was informed that he would be likely to be successful, I would let him know about it.

There is one thing I am aware of. It would be a benefit to farmers if there was a farm of this kind here and there through the country. A farmer would have a chance to get a horse or a team without so much running around as he generally has. If you or any of your readers would pass your opinion on stocking a farm in this way, you would much oblige

A SUBSCRIBER.

Oneida Township, Haldimand Co., Ont.

[We do not know any Canadian farmers whose specialty is the feeding of young horses, as your friend proposes, but we do not know but that he might be successful in the business. Good horses, and none but good horses, bring good prices, and would pay a man for labor, expense and care. Some have been very well paid for raising horses, but on a small scale. Your advice to your friend was, we think, the very best—that he should for some time be guided by the experience of persons who know the country, its soil and climate, and farm as they do. If any of our readers in any part of the Dominion would offer any suggestions on the subject, we would feel obliged by their writing to us.—Ed.]

A Guide to Canadian Farming.

SIR,—I have very recently become a subscriber to the FARMER'S ADVOCATE in the hope that I may find in it what to my mind appears to be a great want. I refer to a guide to Canadian farming. It seems strange to a fresh arrival that in a country where but a small minority of the population are "natives here and to the manner born," no really good guide to husbandry exists.

In England, where it is no uncommon thing for men to live on the farm on which their fathers and grandfathers lived and died, a work on husbandry is not needed; yet guides abound, from "British Farming" by Wilson, down to "Pigs and How to Feed Them," price 6d.

The other colonies of the British Empire do not neglect this important matter. An intending emigrant can, by applying to the respective agents for Queensland, Natal, &c., obtain at a small cost a really useful book on the practice of farming in each colony.

Without going deeper into our deficiencies, could you, Mr. Editor, do anything to supply this great want? A series of short articles on the various lands open for settlement, with a description of their physical appearances, &c.; the best plan for a farm homestead, how to treat swamps so that they "may blossom as a rose," a short way with stumps, the best position for an orchard, and a hundred other kindred subjects would greatly interest your readers.

With my best wishes for the success of the ADVOCATE, I remain, &c.,

THOS. C. ROBSON.

Minden, March 26th, '75.

[Mr. Robson will see in the reply to enquiry of a subscriber, in the ADVOCATE'S present number, a brief account of the Free Grant Lands—the only information on the "various lands open for settlement" that is at present accessible to us. Short articles on subjects as suggested by Mr. R., have occasionally appeared in our journal, as we consider the supplying all who are interested in agriculture with every useful information on subjects con-