

will ensure perfect workmanship in all the machines sent out. The manure spreader is of very simple construction, strong and perfect in action; it can be attached to any sized cart or wagon, and spreads the manure, whether long or short, at the rate of 70 to 80 carts per day. A brief description may enable readers of this article to understand its form and method of working: The machine consists of a frame 6 feet 3 inches wide, supported on two side wheels 2 feet 6 inches high, and having a castor-wheel 14 inches high in the centre. The frame contains a traveling web, which is made to rotate by one of the side wheels, while the opposite wheel drives a vertical agitator at a rapid rate. The mode of use is thus: The loaded cart is taken into the field, where the machine is instantaneously attached to the back of the cart. The man, who usually pulls the dung out from the cart into heaps on the land, gets on to the machine and pulls the manure as fast as he can on to the traveling web, which turns it to the rear of the machine, where it comes in contact with the agitator, which in a very perfect manner separates the dung and scatters it evenly all over the land—thus doing away with all manual labor in spreading and knocking. At the same time the plows can follow immediately, thus avoiding all waste by evaporation and drying.

This invention is spoken very favorably of by the daily press of this country, as well as by the scientific and agricultural journals. It is regarded as the most labor-saving machine that has been introduced to the notice of farmers for a very long time.

[We hope our correspondent will explain how 14 pence per lb. is paid for store cattle, and only 9 pence per lb. for the fat cattle. The proportionate prices are beyond the comprehension of our farmers. When we were in England 35 years ago, one of the best farmers then informed us that he only obtained the same price for a lot of fat cattle that he paid for them before fattening; that he was satisfied if he could clear the manure for his trouble. We think the increase in weight would hardly be equal to the discrepancy in price paid or received. This is a nut for our farmers to crack.]

SIR,—Could you let us know through the next ADVOCATE how to feed buckwheat flower to bees, if needed. B. D., Bervie P. O.

[We have placed a little in the bottom of hives and let them help themselves.]

#### Breeding Horses for the English Markets.

SIR,—As the season soon will be on for the use of entire horses, and as I am interested in the exportation of horses to England, I thought I would just give the breeders of horses in Canada, through your widely circulated paper, a word of advice on the class of stallions they should use, and the class of horses necessary to realize a good price to the breeder and a good profit to the dealer.

Now, in the first place, our horses are making a name in England, and we have a good, steady market, which will take from 25,000 to 40,000 every year, and go on increasing. It does not pay an English breeder to raise a horse to four years old for less than £100; it pays him better to raise beef and mutton. It will pay a Canadian farmer well to raise the right class of horses for this special market alone. Now, what is the right class? A horse from 15½ to 16½ hands, bays and browns are preferred, is worth 20 per cent. more than any other color—unless as a hunter, and it will be some time before we can raise many of them. He must have good length of neck, and lengthy, stylish-looking horses, with plenty of bone below the knee, and any amount of high knee-action, it is hard to give an English buyer too much of.

How are our farmers to get plenty of this class of horses? Not by continuing to use the general purpose horse, or, as an English buyer called them, "purposeless horses." Nor by using the Clyde or heavy draught horse on fine-bred mares; the less of the draught you have in your mares when breeding for the English market the better, and if you have two or three crosses of heavy blood, keep on with the heavy horse—full blood every time.

The horse I and all other English buyers want the farmers to use is the Cleveland Bay or the strong thoroughbred—the first in preference, for the following reasons: For color they breed uniformly in the bay or brown shades from mares of any color; next, they will get them of more strength of bone and larger size, more of the

matched carriage horse; thirdly, they will have more knee-action, which is the most desirable point to have. The thoroughbreds and roadsters breed any color, are rather under size and light of bone. I should advise the breeder to use a good, strong roadster, of a good bay, brown or black color—a horse upwards of 16 hands high in preference to a light, small-boned thoroughbred, for the roadster may get a horse bigger and will surely get more knee-action. But if he has any racking or pacing in his trotting action, do not use him on any account, for there is no greater detriment to a horse in the English market than racking and pacing; they must be square-gaited.

Now, farmers may say that there are other markets than the English. We will take the home market: There have been two teams sold in Toronto by one man this last year for \$1,000, and such teams can be sold any day at from \$500 to \$1,000; and in New York a good carriage team is always in demand at low prices. We will take the average of Mr. Grand's sale last spring—on 400 horses upwards of \$190 each. I believe it is impossible to glut the market with a good, clean, smooth horse, weighing from 1,100 to 1,300 lbs., for there are so many purposes this horse can be put to, uses which were not in existence twelve years ago; one of these is the street-cars, which use a horse up on an average every four years. Think of that enormous consumption! Then there is another new use—express wagons in cities; 12 years ago there were only some half dozen in Toronto, and now there are some hundreds, with the number growing all the time. So breeding this class of horses is not going to be like the heavy horse breeding. You can always sell a good one, but what is to become of the common, crooked-legged, under-sized horse, with his big head and light neck? There are hundreds in this section which cannot be sold at any price, for there is no place to put them. The refuse of the coach horses—good-sized bloods or roadsters—the street cars, express and grocery wagons will take at good prices, because they can move their bones at something faster than a walk.

I hear many farmers say they want to breed for their own use. It is a foolish idea, for as soon as they want money they offer for sale at once what they bred for their own use; so they really breed for market. His neighbor, who breeds for the market, that is, selects his size with a view to selling when he has them fit, will have buyers every week at his own place to see if he will sell; the other man will be making inquiries for the horse buyer. I notice that the men who breed for their own use generally select a general purpose horse, and the man who breeds for market uses the imported or the purest bred of the class he wants to breed. And what is the difference in the money point of view? One will get \$100, the other \$200, so if the \$100 horse pays, the one bringing \$200 must pay better. So always breed for market, and never make too violent crosses.

I may say the two teams referred to were got by Canadian bred coach stallions.—I am sorry to say there are too few imported horses in the country. Lancing. W. L.

#### Wayside Jottings.

SIR,—All the way along the line of the Grand Trunk, a week ago I saw plows going in a number of places. Belleville reached, more indications of winter presented themselves, but no snow of any consequence. Montreal reached and not a particle of snow on the streets, merely a slight sprinkling to be seen on the slope of the mountain. To see at all, past the end of December, Montreal without a sleigh on the streets, and the river running perfectly free from ice is something extra extraordinary. What with the absence of snow and the presence of the all pervading hard times, the city is experiencing a dull time, which the merchants say is unprecedented in the annals of its history. Retail stores closing during the holidays at 6 p. m. to save gas, and wholesale men afraid to push agents out into the Provinces to do business. It being the Thursday before Xmas and a big market day, I visited St. Ann's and Bonsecour markets. I noticed that all the pork offered for sale had been scorched, and, on enquiring, learnt that dressed so each hog fetched fifty cents more than if scalded—certainly, they did not look so inviting to my eye. The weighing was all done on old-fashioned balances with iron weights placed in one of the scales. Apples were quoted at from \$3.00 to \$4.50 per bbl. Potatoes, 60 cents per bag; cabbage, good, 60 cents per heaped barrel; turkeys, geese, &c., 10 cents per lb., or by the lump from \$1.00 to \$1.50.

Proceeding eastward I stepped off at St. Johns, the scene of the large fire a year ago last spring. The portion of the town then destroyed is now all built up again with first-class red brick buildings, the Main street presenting many stores fully equal to anything in your own town. Here again the "demon" hard times is severely felt. Many expended large sums in re-building, and now they cannot realize the returns which their energy and perseverance in raising the town so soon again from a heap of smouldering ruins entitled them to.

The town contains 6,000 inhabitants, mostly French, if one may judge from the signs, &c., &c. One of its industries is a pottery, manufacturing what is generally known as "delf." The clay is brought from New Jersey and the flint used from England, from whence also are nearly all the operatives. Formerly it employed 100 hands; now the running force is 30. Owing to its proximity to the American lines, and its several railroads making communication therewith easy, this used to be a great point for American buyers to congregate. Horses, cattle, sheep, hay, potatoes, &c., always met with a ready sale this winter so far. With the exception of a car load or two of sheep and some droves of turkeys and geese, comparatively nothing has been done.

Some fifty miles further down the line I reached the place from whence I write, and here the first snow showed itself, extending though, as I afterwards learned, only to a radius of 6 or 7 miles around the village.

With the exception of some trading done in butter, &c., the farmers here have mainly to depend this season on the sale of bark. About 12,000 cords are annually bought in the village, 8,000 of which is consumed in a tanning establishment in the place. Formerly, the price was \$6.00, and sometimes \$7.00, per cord; now the most it will fetch is \$3.50, and there is a talk of its coming down to \$3.00. One dollar and a quarter is the price paid per cord for stripping when hired to be done, and I am told lots of it is hauled in from a distance of 20 to 25 miles.

Hard wood—beech and maple—sells for \$1.50 per cord.

In view of the above figures, is it surprising that you hear a great many people talking of following Horace Greeley's advice, "Young man go west!"

Waterloo, P. Q., Dec. 27, 1877. S. J. P. N.

SIR,—I want some information about Hungarian grass—when is the right time to sow for a crop of hay? I sowed four acres last summer on a summer fallow, and plowed down about three tons to the acre. My neighbors say that buckwheat is better. I want to sow fifteen acres to plow under next summer. Which of the two would you advise me to sow? Any information will be gladly received. G. D.

[Hungarian grass and buckwheat are both plowed under as fertilizers before they form their seed. Any green manuring so used serves the purpose, but there is none equal to clover. It is in every respect the best plant grown for fertilizing the soil from its foliage, and much by its roots.]

#### A New Method of Keeping Grapes.

Rev. E. P. Roe, author of the really good practical work "Play and Profit in the Garden," has communicated for our publication this method of preserving grapes during the winter.

SIR,—I was once informed of a method of keeping grapes which may not be known to all your readers. For two years I have tried it with excellent results. Nothing can be simpler than this method, and it is so inexpensive as to be within the reach of all. I leave the clusters upon the vines as late in the season as immunity from frost will permit, then I provide myself with large earthen crocks or pots and stiff brown or straw paper. In the middle of the day when the berries are perfectly dry, fill the pots with thin layers of clusters and a thickness of paper between them. Let them stand in some dry, cool place for three days uncovered; then put the cover on the pots and paste thin brown paper over the covers, so as to keep the fruit from the air. Select a dry knoll and bury the pots in the earth below all danger of frost; lay a broad board over the top of the pots and cover with earth, mounding the soil upon them so as to turn the water in every direction. When the ground begins to freeze hard it would be well to cover the mound with leaves or straw, so that the pots could be dug out more easily in severe weather. Those that I buried in 1876