

Church of England; 310 to the Roman Catholic; 629 to the Presbyterian; 639 to the Methodist; 162 to the Baptist; 620 were reported simply as Protestants, and the remainder were divided among small denominations. Connected with the schools are 431 libraries, containing 59,877 volumes. The expense of the Normal school for the year was £3,657 1s. 3d. — *Transcript.*

FIGURES—If you multiply any given number by itself, say 8, thus: 8 times 8 are 64; then take one from the multiplier, and add it to the multiplied, the product will always fall short by one of the former product. Thus: 1 from 8 leaves 7: 1 added to 8, are 9; 7 times 9 are 63. And this rule appears to extend to all numbers, large or small. — *Journal of Education.*

Agriculture.

THE DRAUGHT HORSE.

It will readily be perceived that the qualifications, structure and movements of a draught horse, must necessarily differ essentially from those of a race-horse, and indeed from every other. And yet the draught horse, for some purpose or other, is more constantly in demand than all others, especially in our larger cities and along all our canals and railroads. It is therefore of the greatest importance that an improved breed of large draught, as well as dray horses, should be reared in our country.

To exhibit fully the requisites of a first rate draught horse, would require a more particular examination of the subject of "draught," and of the "anatomy" of the horse, than would be practicable at the present time. I will, therefore, barely remark, that a "dray horse" should have a broad breast and thick upright shoulders, (the more upright the collar stands the better,) a low forechest, deep and round barrel, legs broad and high, simple quarters, thick fore arms and thighs short legs, round hocks, broad at the heels, and soles not too flat.

The horse which can throw the greatest weight into the collar, with sufficient activity to do it effectually, and with hardihood in proportion, will doubtless constitute the best draught horse. But these are qualities difficult to combine. An approximation to this standard can only be obtained by a judicious selection in the outset, and then by crossing them by the best of such breeds as exhibit the requisite qualities. Generally, the greatest fault with large horses is their slowness, and in such cases it would be essential to cross with the strongest, the largest and most compact blood horses.

Or if you have a mare with some blood, and with decided marks of strength and power, let her be covered by a superior dray horse, and the result will probably be the animal you want. It is necessary that dray horses should be large as well as compact, that weight might be opposed to weight. Otherwise the immense loads they have often behind them, and the shaking and battering of the trails, will so throw them from side to side as to endanger their burdens or injure themselves.

And this is the only advantage in size and weight, for doubtless much of its force must be expended in transporting its overgrown mass. In England they have crossed some of their best native breeds with the heavy Flanders horse, and have thereby much improved their draught. These heavy horses are bred in the highest perfection as to size, in the fens of Lincolnshire, and a few of them are less than seventeen hands at two and a half years.

Neither the soil nor the produce of the soil is better than in other countries; on the contrary, much of the lower part of Lincolnshire is a cold, hungry clay. The true explanation of the matter is, that there are certain situations better suited than others to different kinds of farming, and to the breeding of different animals, and that not depending on richness of soil or pasture. The principal art of the farmer is, to find out what will best suit his soil and the produce of it.

Connected with the subject of draught horses on railroads, and I will just relate a fact, showing the immense power gained by the use of rails. The Surrey iron railway being completed, a wager was laid by two gentlemen that a common horse could draw 36 tons for six miles along the road,—that he should draw this weight from a dead pull, as well as turn it round the occasional windings of the road. A numerous party of gentlemen assembled near Meersham to witness this extraordinary triumph of art.

Twelve waggons loaded with stone, each wagon weighing above three tons, and a horse taken promiscuously from a lumber cart was yoked to the train. He started from the Fox public house, near Meersham, and drew the immense chain of waggons, with apparent ease, almost to Crofton, a distance of six miles, in one hour and forty-one minutes, which is nearly at the rate of four miles an hour. In the course of the journey he stopped four times to show that it was not by any advantage of descent that this power was acquired, and after such stoppage, he again drew off the chain of waggons with great ease.

A gentleman, who had wagered on the power of the horse then desired, that four more loaded waggons should be added to the cavalcade, with which the same horse set off again with undiminished pace. Still further to show the effect of the railway in facilitating motion, he directed the attending workmen, to the number of fifty, to mount on the waggons, and the horse proceeded without the least distress; and in truth, there appeared to be scarcely any limitation to the power of his draught. After this trial the waggons were weighed, and it appeared the whole weight was as follows:—

	tons	cwt.	qrs.
12 waggons first linked together, - - -	38	4	2
1 waggons afterwards attached, - - -	17	2	0
Supposed weight of 50 laborers, - - -	1	0	0
	55	6	2

—*Canadian Agricultural Reader*

FEEDING AND MANAGING MILCH COWS.

The grasses, particularly the clovers are the best summer food. When these begin to fail, the deficiency may be supplied by green corn, which is very sweet, and produces a large quantity of milk, excellent quality. The tops of beets, carrots, parsnips, and cabbage and turnip leaves, are good. Pumpkins, apples, and roots, may be given as the feed fails. Give only a few at first, especially apples, and gradually increase.

Roots are of great importance when cows are kept on dry feed. Potatoes, carrots, beets, turnips, parsnips, artichokes, and vegetable cypresses are good. The last three and cabbage and turnips keep good in the ground through the winter, and are fresh and fine in the spring, before the grass starts.

Potatoes produce a great flow of milk, but it is not very rich. A little Indian meal mixed with them, to keep up the flesh and give richness to the milk; and this is the case with beets and most kinds of turnips, as they tend largely to milk. A little oil, meal or flaxseed is excellent, in addition to the Indian meal, to keep up a fine, healthy condition, and impart a rich quality to the milk, and gives a lively gloss to the hair of cattle, and softness and pliancy to the skin.

In all cases of high feeding in winter, particularly when cows have but few roots, shorts or bran are excellent to promote digestion and keep the bowels open. Three pints each of oil and Indian meal, or two quarts of one and one quart of the other, is as high feed in these articles, as cows should ever have. On shorts, bran and roots, they may be fed liberally. Four quarts of Indian meal, in a long run, will dry up and spoil the best of cows, so that they will never recover.

Carrots are among the very best roots for milch cows, producing a good but not very great mass of rich milk, and keeping the cow in good health. Parsnips are nearly the same. Ruta-baga are rather rich, and keep up the condition, to prevent any unpleasant taste in the milk night and morning before feeding with turnips. Cabbage turnips, (or turnip-rooted cabbage below-ground) has no such effect. It resembles ruta-baga, is raised in the same way, and yields as much or more.

Some keep cows in the barn by night in the warm season. They are saved from storms, and more manure is saved. There should be good ventilation in hot weather. Cows are much better for being kept in the barn nearly all the time in cold weather. To drink freely of cold water, and then stand half chilled to death, is highly injurious. But they should go out a little while daily in favorable weather, and be driven around gently, for exercise. Inaction is death to all the animal race.