

first ten volumes are lying unbound at the offices of the printers, but the eleventh was entirely consumed. To replace the latter a vast amount of correspondence will have to be carried on with every breeder in the country. Seven volumes of the Clydesdale stud book have been published, and half the eighth was in the printers' hands. The other half, comprising pedigrees, descriptions, and records of the produce of mares, fed the flames.

The Agriculture and Arts building was built in 1861 by the late James Fleming, who was then, and for many years afterwards, a well known florist. He was a member of the Agriculture and Arts Association, and as that body was reaping a revenue of four or five thousand dollars a year at that time from the Provincial Exhibition he offered to advance money for a building, if the association would allow him to rent the lower floor for a seed store. An agreement was arrived at, and the site on the corner of Queen and Yonge streets secured at \$30 a foot, or thereabouts. A substantial brick building was erected at a cost of a little over \$15,000. This was the structure that was burnt. It consisted of three stories and a cellar. When the local government first formed an agricultural department it secured accommodation in the building, spending some \$10,000 in alterations, the accommodation extending up to the time when the new parliament buildings were opened in Queen's Park. From the erection of the structure until its destruction the Agriculture and Arts Association, of which Mr. Henry Wade is the secretary, had its offices, board rooms, and extensive library on the middle floor. The only insurances were: On building, \$5,000 in North British, and \$5,000 in Norwich Union; on Shorthorn herdbook, \$1,250 in Wellington; on Agriculture and Arts library, \$2,500 in North British.

### Let Others Benefit by Your Experience.

There must be a great many of our readers whose methods of farming are far superior to those of the greater number of their neighbors, and who could, if only they would, enlighten them in many ways in the various branches of farming. Breeders who have been breeding for years could benefit the beginners in that business by giving them their experience, and those farmers who have superior methods of growing the various crops grown on a farm could tell them to their less fortunate brethren. It should be the aim of every one engaged in farming to do what he can towards benefiting his fellow-creatures, and in no better way can he do so than by using the columns of an agricultural paper. The pages of THE JOURNAL are ever open to receive letters on various subjects of interest from such as care to send them in. Let those of our readers who can supply us with anything of interest in farming occupations do so, and by so doing they will assist many others who have not the advantages that they have.

### Shires and Clydes.

This issue contains the concluding portion of Mr. Alex. Macneilage's paper on "The present position of horse breeding in Great Britain," read before the Edinburgh University Agricultural Discussion Society. We have given the portion of the paper devoted to the requirements of contractors as regards heavy draught horses for street work, as we consider that in breeding this class of horse

our breeders would find in Great Britain a ready market for all they can raise for some time to come. Mr. Macneilage reports contractors as saying that such horses are scarce and hard to be obtained, and he urges Scottish breeders to cultivate that market. Let our breeders do the same.

In discussing the means by which breeders can most quickly produce the heavy draught horse required for commercial purposes, Mr. Macneilage somewhat astonished his hearers by advocating the crossing of Shire mares with well bred Clydesdale stallions. He, however, carefully guarded the position he took by stating that this crossing was for commercial purposes only, and that he would still preserve the characteristics of both breeds distinct. He also expresses the opinion that Clydesdale breeders can, if they breed carefully, in time produce sufficiently heavy geldings to suit the requirements of contractors from straight Clydesdale sires and dams.

It will thus be seen that Mr. Macneilage has somewhat modified the opinions he has previously expressed on this subject, though not to the extent that some of his critics thought he had. There is a good deal of agitation going on in Scotland at the present time in favor of the amalgamation of the Shire and Clydesdale studbooks, and there can be no doubt that Mr. Macneilage's address will do much to encourage those who are thus agitating. Our own views on the subject are in favor of this amalgamation, which we believe to be in the interests of both breeds, each giving fresh blood and renewed vigor to the other. Then the produce from Clydesdale sires out of Shire mares, instead of being only crossbred "commercial" horses, would be purebreds that could be used for the perpetuation of the breed, if so desired.

### Rock Salt for Stock.

Most farmers nowadays are convinced of the advisability of giving salt to their stock both in winter and summer, but they are not all agreed as to the best method of salting them. The majority of them use ordinary salt, but a large and increasing number, having become convinced of the superiority of rock salt for that purpose, now will have no other.

Rock salt possesses numerous advantages over the common salt so generally used. When a lump of it is put in the manger in the winter time, it can easily be distinguished and left in when the manger is being cleaned out, and thus the animal has salt before it to lick whenever it feels inclined. When animals are at pasture, it is best to put a large lump in one or more boxes in the field. In this way, the animals will come and lick it when they feel the need of it, and, as they cannot take too much, there is not the purging that accompanies loose salt, when, as so often happens, animals take too much of it.

Rock salt is economical, too, and saves labor. It is now sold very cheap, and that fact ought to influence all to buy it in preference to the ordinary salt. It saves labor because, when one or more lumps are distributed in the pasturefield, there need not be so many trips made thither with salt for the stock. A good sized lump will last a good while.

With the common salt, it is, in many instances, the rule to salt the cattle once a week, Sunday being very often the day selected. The stock at once gorge themselves on it, and scour, in consequence, and it is nearly the end of the week before they recover from the effects, which are visible in reduced flesh and

lesser milk production. In a day or two more they get a fresh supply and the same results ensue.

With rock salt such a state of affairs cannot happen. The animals get a steady, regular supply sufficient for their needs, and are benefited accordingly. We have tested it ourselves on the farm and know what an excellent thing it is, and we have no hesitation in advising all our readers to do the same.

### Feeding Skim-Milk and Whey to Pigs.

Ontario is a great dairy country. Of this fact we are all proud. Quebec is following nobly in the wake. The Maritime Provinces are also giving more and more attention to this great question, and even Manitoba is fast waking up to the great importance of dairying. Dairying is also associated very intimately with pork production, because much milk and whey mean much pork. Immense quantities of pork are already being produced in Canada, as in Denmark, largely by the aid of these by-products. But it is a fact, nevertheless, that very much of the food value of the skim-milk is lost, and also of the whey, by making too large a proportion of the ration to consist of these products, or, it may be, by feeding them in unsuitable combinations, or in an unsuitable condition.

One of the commonest mistakes in feeding these products is to feed them in proportions altogether too large. When thus fed much of the food is lost. It passes through the animal undigested. Great care, then, should be taken to feed the milk along with meal. The proportions that have been found very suitable are 100 pounds of milk and whey to 30 pounds of meal. Cornmeal is excellent as the meal adjunct. But peameal is also very good, as are also shorts. Rye meal is also valuable. When good skim milk is fed along with cornmeal or peameal, it has been affirmed that 100 pounds of it is worth a bushel of corn or a bushel of peas; that is to say, when the system of feeding, as a whole, is judicious. If these statements are true, these by-products are of great value, relatively, as a food for swine.

These products could easily be fed in unsuitable combinations; that is, it would be easily possible to feed them too largely along with nitrogenous foods. Skim-milk may be spoken of as a nitrogenous or flesh-forming food. Because of this, it is largely used in feeding calves to be reared for the dairy. It makes them grow without bringing them into a fat condition. Corn is a fat-producing food; hence, when fed along with skim-milk to swine, the combination is an excellent one.

One of the commonest mistakes in feeding these by-products is allowing them to sour before they are fed. This is a very great mistake. Sugar is one of the valuable elements of these products. When either becomes sour, the sugar is lost. The effects of feeding sour food in large quantities are also injurious to digestion; hence the aim should be to feed them before they become sour. Notice how rapidly young pigs grow when they are being nursed by the dam. One reason of the rapid growth is the sweet condition of the milk. When skim-milk and whey are fed to pigs, the conditions which surround them are oftentimes not of the best. In instances not a few, these products are conveyed to them by pipes which lead from the creamery or cheese factory, as the case may be, to a plot of ground with a trough in it. The place soon becomes very foul, and oftentimes muddy and miry in

rainy weather. Under these conditions there is grievous waste. There is, first, waste of food, owing to the too large proportion of milk given with the meal. Then there is waste of fertility. Thirdly, there is waste from the uncomfortable condition of the quarters. Where hogs are fed in a wholesale way, it would pay well to feed them so carefully that the best results could be obtained from the food given.

The plan of keeping the pigs in a field and changing the place of feeding every two or three days has its advantages. It may involve more labor in feeding, but is excellent for the health of the pigs, and it is also excellent for bringing fertility to increased areas of land.

### Food and Care of Brood Sows in Summer.

After the pigs have been weaned in the spring, the food required by brood sows will be to some extent dependent upon the number of litters to be reared in one season. When but one litter is reared, they do not want so much food given to supplement the pastures. But in any case they should be kept in good flesh. It is a great mistake to conclude that brood sows bring forth superior litters when they are emaciated in flesh. If the sows are to do well for their young, they must be so fed as to nourish the fetus while it is in process of development, and they must also possess flesh to enable them to stand the drain on the system during the milk-giving period.

The brood sows that rear but one litter a year may be turned on to pasture after the pigs have been weaned in the spring. Any kind of pasture will answer that is juicy and succulent, but usually clover will be found to answer the purpose best, as, when a proper system of pasturing is adopted, it will generally be found to maintain its freshness better than other kinds of pasture.

But they should have some food along with the pasture. Where a number of sows are kept, there is no simpler mode of giving this food than in the form of corn or peas. But where only one or two sows are kept, they may be given swill where it can be spared, but it should have some body in it to build up and sustain the frame of the sow. The same kind of food would also answer quite as well for a large number of sows, but usually there would not be a supply unless it was specially prepared for them. To throw them a little corn in the cob, or to feed a few peas, would answer very well, and it is very easily given. After the stubbles are accessible in the grain fields, brood sows may not want any additional food for a time, and, if they can then pasture upon rape, they will not want much additional food other than the pasture. But in the absence of some such food, they should get more or less grain. The amount of grain, however, need not be large if they can have such food as pumpkins, squashes, or mangels thrown to them in addition to the pasture.

But when brood sows are to produce a second litter, they must be well sustained right along, for the first litter of the season is only weaned a short time before they have to nourish the embryo of a second litter. This they cannot do properly on pasture alone; hence they should get a goodly supply of meal right along from the time that the first litter is weaned. This meal should be largely nitrogenous in character, but some carbonaceous food may be fed, as the food gathered