most important points to look to are: Constitution, pedigree and temper.

Never breed from a sow that shows evidence of a weak constitution, but rather, when choosing a young sow out of a litter, to be kept as a brood sow, be sure to select one that shows plenty of depth and width in the chest, and that is not at all inclined to be slab-sided, but has the ribs well sprung with a good back and loins, and, last but not least, remember that it is very important that a brood sow should have a mild gentle disposition. Another thing that must not be overlooked is the pedigree, for it is by this alone that we can form any certain idea as to what the progeny of our sow will be like. The old adage that "like begets like" is a very true one, but we must also remember that there are several other rules to be remembered, and that not the least important of these is that form of heredity commonly called "Atavism" or "Reversion," in accordance with which we often find the offspring exhibiting some peculiarity not in the parent, but which can be traced to some ancestor more or less remote. I may add here, that one of the most important characteristics that we find to be hereditary is fecundity, or the faculty of reproduction, and I would strongly recommend that a brood sow should always be chosen, if possible, from a large litter, and almost invariably from a spring litter, as in that case we are better able to give her plenty of exercise, which, combined with an ample supply of nourishing food; such, as will be spoken of further on, will enable her to make rapid and vigorous growth during the first six months after weaning time. This brings us to the question, at what age shall we commence to breed from her? On this subject we find a great diversity of opinion. Some breeders recommend coupling the sow with the boar at the age of six months, while others again think it better to let her run till she is twelve to fifteen months old. This is a point, however, to which no hard and fast rule can be applied, as a great deal will depend on circumstances. I generally like to have my sows farrow at from twelve to fourteen months old, provided that they are well grown and of good constitution. With regard to the selection of a boar the same principles should govern which have influenced us in the choice of a sow, but in addition to this I would say, never breed to a male unless he is pure-bred, and when selecting him mark well the points in which your female is lacking, and be sure that he shows you these points sufficiently strong to warrant you in supposing that they will counterbalance the defects in your female; but at the same time do not allow the excellency of any one of these points to cause you to overlook any serious defect in him elsewhere.

With regard to the treatment of the sow while carrying her pigs, if it be summer time, there is no place better for her than a plot of clover, with a nice dry pen to lie in at night, while in the winter give her a good, large, roomy but warm pen, and in fine weather let her run out of doors at her will. Nothing is worse for a sow during gestation than close confinement; her food should be nourishing but slightly laxative in its nature. We find that in the summer our sows do very nicely on grass and clover, with a small ration of bran and shorts three times a day; in winter we feed, in addition to the bran and shorts, a little corn or peas, and oil meal. We also feed them a few mangolds daily, always, however, stopping them at least four weeks before farrowing. We run our brood sows in lots of two or three together, and two weeks before farrowing we separate them and put them in a nice warm, comfortable pen with a board or railing around it, about eight inches from the floor, so that she may not lie upon the little pigs.

After farrowing there is nothing better for the sow than skim-milk warmed and mixed with a little shorts and bran. If you have no skim-milk scald your bran and shorts with boiling water and feed it at about the heat of new milk and in a slop; after four or five days increase her rations by adding a little corn, or barley meal, or ground peas and oats, but be very careful never to overfeed her.

After the little pigs are three to four weeks old they will begin to feed themselves. It is a good plan then to give them the run of an adjoining pen with a shallow trough in it, out of which they will have no difficulty in feeding themselves. The best supplementary food that we have found for young pigs is skim-milk warmed and thickened with a little middlings. When we have no skim-milk we mix a little ground flaxseed or a few finely ground oats and peas with the shorts; scald the mixture with boiling water and feed it in a thin slop at about the heat of new milk. When seven to eight weeks old the little pigs will be fit to wean, and they should now be sorted out and put up in lots to fatten. What I mean by sorting out is this: in all litters we find some pigs smaller and weaker than others; I find it a good plan to separate these pigs into two or even three lots, putting pigs about the same size in each lot. It is a good time to select the sows we need for breeding purposes then, and to separate them from the others which are intended to be fattened; these latter we should endeavor to have fit to butcher at from seven to nine months old, and to do this it is necessary that they never be allowed to get a check. There is no better food for them, that I know of, than skim-milk or buttermilk, mixed with shorts, to which should be added, later on, peas, barley and cornmeal, together with potatoes, which I need hardly say must always be cooked.

With this treatment we have no difficulty in making our improved Yorkshires weigh from one hundred and fifty to over two hundred lbs. at seven months.

In conclusion, I must apologise for the meagreness of this paper. I have passed over many very important questions, such as the value of clover in fattening pigs, the relative values of cooked and uncooked food, &c., both of these will, I hope, before long, be more fully tested and reported on by Canadian pig-breeders; but, as you are aware, each speaker is supposed to be limited to fifteen minutes and I am afraid I have already exceeded that time, still, I cannot close my paper without saying that, although I and my partner are engaged in importing and breeding pure-bred horses, cattle, sheep and swine, there is nothing on the farm that we find pay us so well as our pigs, and I for my part would be very sorry to attempt to farm in this or any other country without the aid of this most useful animal. However, perhaps you will say I have given you a good reason for this when I tell you that I am an Irishman born and brought up on the old sod; and, as you all know, an Irishman without a pig is like a fish without water.

The English Agricultural Gazette says:—"We have found out, rather late, unfortunately, that a too implicit belief in artificial manuring has led to much waste of money. Let us remember the lesson and not make the same mistake with regard to the feeding of our live stock. After all, practical experience must be our main guide. The analysis of a food is far from a complete statement of the properties of that food. Just as each animal we possess has an individuality of its own, so each article of food has some special and peculiar property not revealed by chemical analysis—a physiological property, we presume."

Veterinary.

Tuberculosis in Cattle.

BY C. H. SWEETAPPLE, V. S.

(Continued.)

As heretofore remarked, it is now generally recognized by scientific men, that tuberculosis can be transmitted from the lower animals to man, and vice versa, from man to the lower animals; also, from man to man, and from animal to animal. With regard to the mode of transmission, experiments on the lower animals have satisfactorily demonstrated, that the virus of the disease (the microbe producing it), can enter the body through the medium of the breath, thus coming into contact with the air passages and lungs; by swallowing tubercular matter in the food; also, by direct introduction beneath the skin from a scratch sore, or wound. It is also believed to be hereditary; and this can scarcely be doubted, as tubercular deposits are frequently found in the fœtus at birth. Some have claimed that "in-and-in breeding" will produce it; and, certainly, that process will intensify any hereditary tendency to it that may exist.

Different species of animals show differences in their liabilities to contract the disease. Man is probably the most susceptible to it; then, the ox tribe, particularly milch cows; the common fowl is also quite liable to it. Then comes rabbits, pigs, sheep and horses, in about the order named; dogs and cats but seldom, though it has been frequently produced in the dog by way of experiment. It is believed that the disease is more readily produced in omnivorous, or herbivorous anima's, than in the carnivora. Young animals of all species are more liable to contract the disease, and females are much more apt to suffer from it than the male sex. Also, anything whatever of a debilitating character may induce a pre-disposition to imbibe the poison and cause the development of tubercular deposit, such as an excess in secretion of milk, bad keep, breathing impure air, or any defective hygienic conditions.

The discovery and identification of the contagious principle (the microbes) of tuberculosis, has placed the subject of its contagious character beyond dispute; still, it must be admitted, that it is only recently that this has been recognized; and even yet, some are skeptical. Most certainly, the dangers of its dissemination from one animal to another, by the ordinary courses of infection, are very much less than in most other diseases of a well-known and long-recognized contagious character, which experience has proved to be contagious long before the discovery of the microbes of disease.

With regard to the "caseous and calcareous tumours," not recognizable prior to death, "the grapes of the butchers," described in my last article, although they may not be of a true tubercular nature, many of them undoubtedly are; and there cannot be a doubt that, during the time of their deposit, disease existed that would be readily recognized and located by a professional observer; but it would probably have been the merest guess-work for the most acute practitioner to have designated the cause of the trouble as a tubercular deposit. And undoubtedly many animals apparently perfectly recover, lay on flesh and fat, and are butchered in the primest condition, leaving no trace of dis-