

The Dairy.

New Cheese Factories.

To the Editor of THE CANADA FARMER:

SIR,—Having recently become a subscriber to your journal, I thought I would write to you on a subject which interests us all (especially all who live in the County of Oxford.) As you are well aware, Oxford is a great cheese-making county, and all that pertains to cheese-making is of deep interest to us here; and I, in common with many others, have read with pleasure (and with profit) the many articles which have from time to time appeared in the columns of the CANADA FARMER, and it is under these circumstances that I now address you. The cheese-makers in the Township of Norwich, where I reside, are now preparing for the summer campaign, and, judging by the new factories which are going up, we are not likely to suffer for want of adequate means to make up the milk within an area of three miles. There are three new factories, besides two old ones. Mr. Chapin, of Holbrook, is putting up a very large factory near that village, and as he is a gentleman of great experience in cheese-making, both here and in the States, I doubt not but that he will do a large business. Mr. Moore, an Irish gentleman, is putting up a new factory about two miles and a half from Holbrook. He intends to make the cheese up for a cent and a half a pound, find everything, and give two-thirds of the whey back. I bespeak for him a large business, as most of the other factories are charging two cents per pound for making up. Mr. Branchflower, a gentleman of great experience in cheese-making, also intends to put up a factory. These are the three new ones. The two old ones within the three miles area, are Messrs. Fawson and Moyer. It is evident that we shall not be at a loss for means to make up the milk. Many in this county will not sell any more milk, because, to use their own expression, "it don't pay." Others labour under the impression that milk-selling pays better than raising crops. I, for one, believe that in the long run milk-selling pays the best, and I hope to see, after this season, a great many return to this branch of farming.

NEW SUBSCRIBER.

Norwich, April 21.

[NOTE BY ED. C. F.—We thoroughly believe in the good effect of competition; but it must not be forgotten that it is quite possible materially to damage the associated system of cheese-making, by having too many factories within a limited area. In a postscript, our correspondent makes an enquiry respecting the new Postal Regulations. We refer him to the Editorial on the subject, in our issue of April 1st.]

Dairy Cattle.

THE following extract from the *Utica Weekly Herald* contains the substance of Professor Brewer's address at the annual meeting of the American Dairymen's Association held in Utica, and which, for want of space, we were unable to include in the report of the proceedings:—

Professor Brewer began by saying that cheese-making was both an experiment and a branch of established industry. When considered in its details, it seems to be merely an experiment, but when considered as to the vast pecuniary interests connected with it, it may be regarded as well established. He went on to remark that the present age is characterized by a division of labour in a remarkable degree; in agriculture, however, less than in other departments of industry. But if we would reap the greatest possible profits from agricultural industry, we must avail ourselves of improvements wherever they come from. Farmers are, indeed, very ready to accept and test improvements in farm machinery; but are slow to do so in the matter of raising stock and introducing new plants and improving land and its productive power. Professor Brewer said he was not learned in the manufacture of cheese, and he would, therefore, make no reference directly to that. He proposed to speak of the producers of the cheese-making element—cattle, and their relations with cheese and butter. There is obviously a great difference in cows. It

would seem wise in cheese manufacturers to select the animals which would make the most and best cheese from a given quantity of milk. Cattle have been domesticated from the earliest times, and from the earliest times there have been different breeds. The word breed is loosely used. What do we mean by a breed? In scientific language it has a definite meaning; in general use it has not. On a given limited area there will spring very little variety of breed from wild animals. The same wild stock would develop many varieties if allowed to spread over a large area. They are permitted to live under different conditions, and eat different kinds of food, and hence take on a different character. Man's selection is vastly more important than the agency of nature in this matter. We may "breed to a point;" that is, breed for some special characteristic in an animal. Cattle were, for instance, originally used as beasts of burden, and were required to be strong and hardy. We require that they should produce milk and beef as well as do labour under the yoke. The speaker did not think that an animal is adapted for all these uses. He thought the Devon combined more excellencies than any other breed. Breeds are local. They are derived from a particular locality. Their characteristics grow out of local wants. The mixture of two breeds will develop in the offspring the points of excellence of both. The mixture of the second generation brings no sure results. Our breeds we call "improved breeds," because we have taken them from some place and improved them. But we have not yet produced a single permanent breed of improved cattle. In England, beef has always been an important item of food. This has been the object of English breeding, and from English breeds we have derived our improved cattle. Prof. Brewer illustrated at some length the fact that so much more attention is paid to horse-breeding than to the breeding of cattle. A single horse has won its owner \$54,000 in four years. An English horse won, during his life-time, about \$1,000,000. The utmost care is therefore taken to breed horses up to the condition of achieving the greatest possible speed. This is not the case with cattle. A cow will not bring a greater price for giving a pint more of milk. The breed that has done most for American stock is the Durham; yet it has been severely criticised. But the Durham was not bred for labour or for milk, but for beef; and for that it is unequalled. Some of the finest Durhams have failed to produce milk enough for their calves. It was not intended for a dairy animal. Certain crosses in France have produced very good dairy animals, however. We raise cows for milk. The most noted English breeds raised for milk are the Alderney and the Ayrshire.

The milk of cows varies, both in quantity and richness. We may breed cattle for either of these purposes. The Guernsey Islands are peculiarly adapted for the production of butter. Great attention is paid to the milking properties of the cattle, which are of the Alderney breed. They are small, live best on short pasture, and give large messes of milk, considering their size and the quantity of food they eat. It has been found by experiments in Connecticut, that a cross of the Alderney with native cattle produces a breed that yield a large and rich quantity of milk. The Ayrshire breed of Scotland was produced by judicious crossings. They are a small breed, but larger than the Alderneys. Six hundred gallons of milk is a good average for these cows in a dairy of thirty or forty. The Ayrshires do not carry their good qualities into other lands as the Alderneys do. In France a most valuable breed has been produced by a cross of the Durham with the Alderney and then with the native cattle. The Bretons of France have an excellent breed for milk. It is small in size. One instance was mentioned in which the cow produced eight times her own weight of milk during a year. These cattle are not as valuable when taken to other localities. They derive their characteristics from the condition of that country and from the peculiar needs of the people.

Mr. Brewer referred to the cattle he had found in Switzerland. Here he found fine cattle, but when taken away from the locality where they were bred they deteriorate. When they are taken away they are placed in different circumstances and have different food, and hence they cannot remain as in their native region. So it is with cattle found in Germany and other European countries. The purport of all this is that a great field is open in this country for experiments in this matter of breeding. There never has been an attempt to make a breed of cattle, because there has not been heretofore an object for making such breed. Now such an object is presented. Cheese-making has come to be so important a branch of business, that to make a cheese-making breed of cattle is a work definite and to be accomplished. In regard to the question whether the cheese-making business is likely to be overdone, the speaker said he could anticipate the result of the discussion of the

question, and say that many would raise the cry of overdoing. Considered individually, such a cry might have some weight, but considered generally, there is no danger of overdoing the business. There is always room for the best quality of any article, and the best cheese-maker will always find market for all he can make. There is never room for a poor article, whether it be produced by the individual or by a community. To get the greatest profit in this business the farmer must do as any manufacturer does—he must produce the best article. In order to produce the best article of cheese, attention must be paid to all the different materials from which the cheese is made. It is not enough to improve the mode of making cheese from milk, the milk itself must be improved, the animal must be improved, must be made the best possible, the same as the apparatus in a factory must be the best. Attention must be paid to breeding cattle so as to obtain a cheese-making breed of cattle. The speaker closed by urging the importance of the subject upon the attention of cheese makers generally. In answer to the question whether the male should not be the best that could be obtained as well as the female, the speaker said it was of the utmost importance that the male should be cared for and improved in every particular.

On motion a vote of thanks was given the speaker for his able address.

Mr. Lewis, of Herkimer, made some remarks indorsing the arguments of Mr. Brewer. He said he had a cow which he had got by improving and crossing. She has given sixty-four pounds of milk each day for one hundred consecutive days. He thought more attention should be paid to the subject of improving the breed of cheese cattle.

Entomology.

The Wheat Midge and its Parasites.

We have long been of opinion, and have given expression to it before now, that the best mode of counteracting the evil of which so many are now complaining—the ravages of the Wheat Midge—is to use the means which Nature supplies, and destroy the foe by obtaining and encouraging its own peculiar insect enemies. It is now a pretty well ascertained fact, that the Wheat Midge was imported into this country—probably at Quebec in some unthreshed wheat—about forty years ago, and has gradually spread all over Canada and the neighbouring States. In England this pest has long been known by Entomologists and farmers, though it has never attracted any very general degree of attention, its ravages being so comparatively unimportant; the largest amount of wheat it was ever known to destroy there in a single year was five per cent. of the whole crop. In the States it has been reckoned to have frequently rendered worthless fifty per cent. of the entire crop, and sometimes even as much as eighty or ninety per cent. in a particular county. In the year 1854, the Secretary of the New York State Agricultural Society computed, from the returns of that year, that at the very least—placing everything at the lowest figure—this insect had destroyed of that season's crop the almost incredible amount of fifteen million dollars' worth of Wheat! The question at once arises, why is there this difference between the Old and the New World? Why should the Midge be comparatively harmless in England, and fearfully destructive in America? There is but one answer, and it is a plain and simple one. In England the Midge has at the least three parasites to keep it in check. HERE IT HAS NONE. Man has been the unwitting instrument by whose means the Midge has gained access to this country, and cannot man introduce also the remedy for the plague? We believe that he can. The science of Entomology, particularly in England, where it numbers its thousand votaries, has not been left behind in the advance made by all the arts and sciences in recent times; there are many men in England competent to trace out and collect the parasites that we want, while there are many on this side of the Atlantic able to introduce them to the foe. Surely, then, the experiment, even if somewhat costly, is worth