

"Defects in the Factory itself. In new or modern factories there are not likely to be any grave defects in the building; but in some of those constructed years ago there may be defects in construction, or needed repairs may be neglected. Probably the commonest defects are:

(1) Leaky floors, which allow whey or other liquids to drop through and decompose, giving rise to bad odors and very undesirable kinds of germ life, that get into the vats and cause serious trouble.

(2) Flies, which are a great nuisance in factories, as they feed or walk upon all kinds of decomposing materials, and then visit the cheese factory, crawling over or dropping into the milk, and depositing various kinds of germ life, which are thus placed in situations favorable for further growth and development.

To avoid the trouble from leaky floors, many of the best factories in the United States are putting in cement floors.

Faulty Equipment. Great care should be taken in buying good utensils and seeing that they are kept in repair. The joints of tinware are often badly soldered, and in some places not soldered at all. All joints should be made by lap-jointing, and soldered flush with the tin. If this is not done, small spaces are left which it is impossible to keep clean and sweet; and these become so many crevices for the development of germ life.

Bad Drainage. Several examples of bad-flavored cheese, caused by germs in drainage filth, have occurred during the last two years. In these instances the drains have usually been blocked, or have not had sufficient fall to take away the drainage quickly. Consequently, masses of putrid material, whey, or buttermilk have collected in certain parts of the drain and have given rise to trouble in the factory.

In connection with the making of cheese the chief difficulties in this line are gassey formations, bad flavors and color or pigment in cheese. These defects are almost if not all due to bacterial infection of the milk. As a preventive it is recommended that, before milking, the cow's udder, thighs, flanks and side next the milker should be brushed and that the udder and teats should be rubbed clean with a damp cloth. The growth of undesirable germs in cheese which produce bad flavors is hastened by the high temperature of curing rooms during the summer months.

In the manufacturing of butter the defects due to bacterial infection are lack of flavor, putrid butter, lardy butter, bitter butter, etc., the last three of these being due largely to undesirable bacteria in the cream. Samples of impure water are asked for examination, and specific instruction given as to the method of sending samples.

This work is under the direction of F. C. Harrison, Bacteriologist, at the College, who has made a number of investigations into matters of this kind during the last couple of years. Mr. Harrison is anxious to come in touch with the makers, and it is hoped makers will co-operate in this work by availing themselves of this opportunity of overcoming many of the difficulties they have to contend with in the way of bad flavors in milk, butter and cheese.

American Horses in Europe

Prof. C. F. Curtiss, director of the Iowa Experimental Station, favorably known to Canadian breeders, is at present in Europe at the request of Secretary Wilson, of the United States Department of Agriculture, investigating the market for American horses, live stock and dressed meats. In a recent cable from Germany he has this to say in regard to horses, and though it may apply directly to American horses, it will be of advantage to Canadians in showing the kind of horses the European markets demand:

"I am much encouraged. My special mission concerns horses. There is a good outlook for draft and carriage horses and hunters.

"I shall make especial inquiry in Ireland as to the

breeding of hunters. Ireland has a practical monopoly now.

"American breeders have good blood for breeding hunters in their racers and trotters, and there is no limit to the price for a good hunter.

"Already in the Dublin horse show an American has captured the first hunter prize, and Brussels last week gave an American the first prize in the carriage class.

"The market is constantly improving in Berlin, and a dealer says American horses are in high favor.

"I shall endeavor to secure information to guide the breeders and shippers to meet the wants of the different markets, and to get their horses into the right hands."

Butter-Making in Sweden

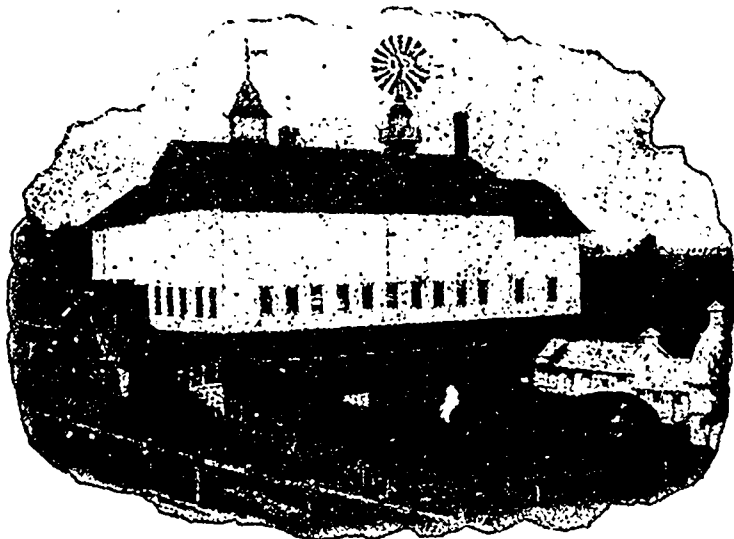
One of Canada's strong competitors in the English butter market is Sweden. Special attention is given to improving the quality of the product, and every effort is being made to develop the export trade. The following, translated from one of Sweden's leading dairy papers, and describing some of the faults found in the butter made in that country will prove of value as well as of interest to butter-makers here:

RAW BUTTER.

Raw butter, we herein mean that butter which is made from raw or non-pasteurised cream. The demand for raw butter has considerably decreased within these latter years. In 1895 only 30 per cent. of the Swedish butter factories made butter from pasteurised cream, while in 1896, 60 per cent. pasteurise their cream, 25 per cent. occasionally pasteurise, thus leaving only 15 per cent. wholly engaged in the manufacture of raw butter. When the pasteurised and raw butters are compared the difference is most marked, the pasteurised being much finer and milder, hence the term "raw" for the coarser butter made from non-pasteurised cream.

COOKED FLAVOR BUTTER.

As the raw and coarse flavor in butter is objectionable, so on the other hand is a cooked or burnt flavor. All properly pasteurized butter must of necessity have a slightly boiled or scalded flavor, which is quite pleasant to the taste, this flavor being the test of its pasteurization, showing that it has been heated to the proper temperature. Butter made from properly pasteurized cream is a guarantee that you secure a well-keeping, fine-flavored article, absolutely free from bacteria. There is a difference of opinion as to what degree of heat the cream can stand before reaching that objectionable flavor point. As during an exposure of the cream to, say, a temperature of 165° Fahr.



Barn of the Dentonia Park Farm Rear view. East and south extension.