

ter-milk and water. When the butter has been thoroughly worked, salted and colored, the best quality is weighed into rolls. The rolls are placed upright in wooden boxes—holding a dozen—in a linen cloth. When the boxes are filled the lid is nailed on, and they are taken at once to a freezing chamber. They remain here for three hours when the butter becomes frozen. The second quality of butter is packed in tubs.

Blending the butter may be all right for France, but the Canadian method of blending butter in the country store has not proven very satisfactory. Instead of getting a good quality, where good and bad butter were mixed together, the whole thing became bad when so mixed.

#### Making Beet Sugar on the Farm.

There is an impression abroad in some sections that beet sugar can be made at home by the farmer who grows the beets, just as he can make sugar from the maple. Although a certain quality of beet sugar can be made, yet it is very crude and in such an unrefined state as to be very unpalatable. The following letter and reply from the chief chemist of the United States Department of Agriculture, gives some idea of the value of beet sugar in this regard, and shows that only pure refined beet sugar has any commercial value:

November 2, 1897.

Dr. H. W. Wiley, Chief Chemist, United States Department of Agriculture, Washington, D.C.:

SIR,—The *Epitomist* appeals to you as authority on the subject of sugar making from sugar beets, and asks for such information as you may be willing to furnish, for publication in relation to some process by which farmers may produce beet sugar at home in a small way for their own use.

It is hoped that this information, which you are so well equipped to furnish to the public, may enable the man with a cider or fruit press and a few pots and kettles to do something for himself in this line of work, while awaiting the slow development of the beet sugar industry on a larger scale.

We have heard a story of your experiments with sorghum as a boy on your father's farm, and may there not be embryo scientists now to be stimulated by the new sugar movement?

Trusting that you will consider our appeal as *pro bono publica*, we are, dear sir,

Most sincerely yours,  
EPITOMIST PUBLISHING COMPANY.

United States Department of Agriculture, Division of Chemistry,  
Washington, D.C., Nov. 9th, 1897.

The *Epitomist* Pub. Co., Indianapolis, Ind.:

GENTLEMEN,—I have your letter of the 2nd inst., asking me for an expression of opinion in regard to some process by which farmers may produce beet sugar at home in a small way for their own use. In reply, permit me to say that the production of a crude beet sugar in a small way is an extremely simple process. Any farmer who is equipped with a cider mill for rasping the beets, a cider press for expressing the juice, and an evaporator suitable for making sorghum molasses, can produce a crude beet sugar. As a rule, this sugar will not be very palatable, because it is not refined, and contains the salts and bitter principles which make raw beet sugar and beet molasses, as a rule, unfit for table use. It will be, however, an interesting object lesson to our farmers to demonstrate the fact that the sugar beet itself contains sugar, and that the latter can be made in the crude way I have mentioned above. In this way the making of sugar in a small way by farmers may prove a stimulus to the industry and do great good. Farmers, however, should not be deceived by the expectation of being able to make their sugar in a successful way commercially. The successful and profitable manufacture of sugar can only be accomplished in expensive factories, equipped with all the appliances necessary to make a pure refined sugar. Only the pure refined beet sugar can ever become an article of commerce. In this the beet differs from the sugar cane, because the latter will give a sugar which, even in the crude state, is pal-

atable and marketable; in fact, many people prefer crude cane sugar to the refined article on account of its containing the aromatic principles of the cane, which give it an odor and flavor very acceptable to most palates. I trust that any of your readers who may undertake the manufacture of beet sugar in the crude way I have mentioned above may do so only from the point of view indicated, and not with the expectation of making it a commercial success.

I am, respectfully,

H. W. WILEY, Chief of Division.

#### The Creamery "Shark."

Of late years the creamery "shark" has not been very much in evidence in Canada. Some years ago in several sections of Ontario many farmers were "duped" by these smooth-tongued fellows into paying from \$2,000 to \$3,000 more for their creamery plant than they would have had to pay a legitimate Canadian dairy supply firm. They have learned a lesson since then, and consequently the creamery "shark" has not had so much to do of late. Prof. Jordan, of the New York Experimental Station, who is to address the Western Dairymen's Convention at London next week, describes one of the creamery "shark's" favorite methods, as follows:

"One of the worst features of this whole business is that there can generally be found local men, with whom the farmers are acquainted and in whom the farmers place more or less confidence, who are willing, after having been given a little stock, to use their influence in deceiving the farmers into a bad business enterprise. No words of condemnation are too severe to be applied to men who consent, for so small a price, to do their neighbors injury."

#### Early Maturity of Cattle in Britain.

One feature of the live stock displays at the leading stock shows in Great Britain is the early maturity of the animals as compared with some years ago. The following extract from the London *Live Stock Journal* shows what a change has come over some of the leading live stock exhibitions in this regard:

"Looking back over the Smithfield and Birmingham meetings of the last eight or ten years, it will at once be perceived that a very decided change has been effected in the aspect of the live stock displays. Within that period—a brief one in the history of stock-breeding—astonishing progress has been recorded on the early-maturity principle, and the emphatic advancement on these lines has been the means of, or has occurred simultaneously with, conspicuous changes in various diverging directions. No longer do the huge three and four-year-old bullocks occupy the prominent position and constitute the attractive feature they have done in years gone by. They are not, even now, wholly excluded from either exhibition, but in both they have been quietly shunted into miscellaneous classes in out-of-the-way corners, and offered no material encouragement. Strange as it may seem, opinion was by no means undivided as to the advisability of displacing the old mature oxen by animals of more tender years in the leading classes at these shows. Yet no evidence or argument that could be adduced in support of their retention was of any avail in staying the strongly-flowing tide in favor of the early-maturity system. Even sentiment, which probably as much as any other and more tangible reason actuated the adherents of the old customs, was ruthlessly swept aside by the rapidly moving current, and the doom of the wonder-inspiring monsters was finally sealed after the 1895 meeting. For the first time at Smithfield the old overgrown bullocks were last year relegated to the nondescript butchers' or extra classes and debarred from participating in the championship contests. At Birmingham this rule had been in force for several years previously, so that the action of the Smithfield Club was not altogether of an experimental character, and no one was in the least surprised that the important alteration passed into effect smoothly, and without apparent lamentation."

#### NOTES AND IDEAS.

Professor McLaughlin Young, Aberdeen, Scotland, is authority for the statement that tuberculosis is disseminated by infection rather than by heredity. In cases where the disease seems to be hereditary it is largely due to force of circumstances and lack of hygiene. The available figures Professor Young stated, proved that at birth, tuberculosis was rare in both children and cattle. His conclusions are that heredity plays a small part in the spread of the disease, and that the large majority of the cases are caused by infection.

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In nearly every civilized country the number of cows is increasing every year. In France the number of cows increases 200,000 every ten years. In Denmark, in 1871, the number of cows was 807,000; in 1894 it was upwards of one million. The increase in Austria in ten years was 116,000, and in Germany 127,000. In the United States the number of cows has risen from 9 millions to 16½ millions in twenty-three years. In Canada a proportionate increase is noticeable, and in Australia the horned cattle increased from 8¼ million head to 11¾ millions in five years. There is also in Great Britain a large increase every year. For the year ending June, 1897, the number was 25,000 in excess of that of the previous year.

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A definite plan is necessary in all kinds of work. It is just as necessary on the farm as in the workshop. No farmer can succeed unless he has some definite plan which he proposes to follow in carrying on his farming operations. This is as necessary in regard to the feeding, breeding, and raising of stock as in carrying out the rotation of crops. A "go-as-you-please" method of farming will never bring success.

#### CANADA'S DAIRYMEN.

##### D. Derbyshire, Brockville, Ont.

To speak of dairying in Eastern Ontario, or in fact, to speak of Canadian dairying without associating the name of D. Derbyshire is to make a very grave mistake indeed. Mr. Derbyshire has for many years been intimately connected with the dairy industry of the province. His presence is almost a necessity at a dairymen's convention in order to insure its success.

Mr. Derbyshire was born in the county of Leeds in 1846, and commenced farming at Plum Hollow in that county in 1869. Like most of the young men of his time he secured his early education at the Public School, and his present wide knowledge of dairy matters is due to his own perseverance and push. In 1873 Mr. Derbyshire began the manufacture of cheese at Plum Hollow. The business proving successful he built additional factories at South Mountain, Inkerman and Winchester, and in a few years was operating seven factories.

In 1878, an opening in a wider sphere offered itself and Mr. Derbyshire having disposed of his cheese manufacturing business, went to Brockville as the representative of A. A. Ayer & Co., cheese and butter exporters of Montreal, where he has continued to be a large operator in the butter and cheese market ever since. In connection with his business as a buyer Mr. Derbyshire established a large dairy supply business, which he still carries on.

Mr. Derbyshire has been honored many times by being elected to the principal public offices in his native county. For five successive years he was elected reeve of his native township. He served as Alderman for eight years in the city of Brockville, and for two years filled the responsible position of Mayor.

But it is in connection with the dairy organizations of the Province that Mr. Derbyshire's executive ability has been more fully recognized. In 1879 he was elected second vice-president of the Dairymen's Association of Eastern Ontario and continued to occupy a place upon the board of directors till the organization of the Ontario Creameries Association in 1885, when he transferred his energies to the latter organization. In 1883 and 1884 he was president of the Eastern Association. For nine years he was president of the Ontario Creameries Association, and it is not too much to state that the good work which that association accomplished towards developing the butter industry of the Province was largely due to the energy and ability of its president. Upon the amalgamation of the Creameries Association and the Eastern and Western Dairymen's Associations a year ago, Mr. Derbyshire was elected president of the new Butter and Cheese Association of Eastern Ontario, which position he now holds. The first annual convention of this association takes place at Lindsay, Ont., on Tuesday, Wednesday and Thursday of this week, and we bespeak for that important organization a large and enthusiastic gathering, which it richly deserves.