The Dairy.

"We say, then, that the lessons of these conventions are in the true interests of our country, and like bread cast upon the waters, their influence and effect will be seen and felt not only now, but in many days to come." This beautiful simile is used by our Ingersoll correspondent in the last number of the JOURNAL, when speaking of the lessons of the Dairymen's Conventions. The impulse they have already given the cheese-making industry in Canada has placed it on the pedestal of peerless attainment in the world's keen competition, and great as have been the strides made in this industry, we fully believe that this success is in the main attributable to the knowledge disseminated at these conventions, and to the impulse that an annual gathering at such a meeting generates in men of the same craft. It is the bounden duty, then, of dairymen to sustain in ever-increasing vigor institutions that are so important. They should look upon it as one of the grand occasions of the year which they cannot afford to miss if they are to keep abreast of the times. Some may be ready to conclude that the summit of attainment in cheesemaking has been attained, and that perfection in dairying has been reached Far from it. The dairy cow is not half perfected, and the dairyman (the model one) is yet in a very crude condition.

"SOME little thing will come out at dairy conventions from men who don't know half as much that will be of great service to others." So spake a man to his fellow while conversing in the St. Lawrence Hotel, to which the dairymen thronged while in convention at Morrisburg. Amid the din of that crowded room the words fell almost confusedly upon the ear, but we thought them too trite and full of meaning by far to let them sink down into forgetfulness. That is one of the grand objects to be obtained by holding dairy conventions. It is not so much to teach the dairy world what it does not know as to gather and centralize with a view to utilizing all the different scraps of knowledge that may be in possession of certain individuals which may hitherto have been of use only to themselves or to a very limited group of neighbors. This information by being inscribed in the annual records becomes the common property of all dairymen to use as they may see fit. In this way the brains of every man are kept working for the whole dairy commonwealth instead of exhausting their energies solely to advance self. From this it is very apparent that it is most unwise to so occupy the time with papers and addresses, that but little opportunity is given for discussing them. Without discussion the "man who does not know half so much" has no chance at all. His words are left unsaid, and the benefits that would result are lost. It is also apparent that it is not wise to press the practice too far of having every man upon the platform who wishes to ask a question or desires to say a word. Some men would rather work a day than speak for five minutes on a platform; and they are usually of that class whose words are well worth hearing. Let them understand that they may say what they please by rising in their seats, and many fine utterances will reach the light, though it be but in homely phrase. The happiest convictions are those which foster a family feeling, and in no way can this feeling be so readily begotten as by encouraging every man present to furnish his quota toward interesting the meeting.

"We consider your paper an admirable publication, and certainly a credit to Canada."—B. G. TISDALE, Brantford, Ont.

Dairy Inventions.

While attending the convention of the eastern dairymen at Morrisburg we were much taken with the dairy apparatus invented by Mr. D. M. McPherson, of Lancaster, Ont. We were minded to give a description of these in the March number of the JOURNAL, but through pressure upon our space were necessitated to defer till now. The articles we more particularly refer to are a milk cooler, curd mill and curd stirrer. We describe each of them:

THE MILK COOLER

is made up mainly in two parts. The base or large cone is used for holding the cold water, or ice combined. The large pail on top of cone is a milk reservoir with a strainer attachment inside. This pail is sufficiently large to hold a quantity of milk (5 gallons) so as to prevent any delay in emptying the milk pails, when full, during the process of milking. The bottom is a pressed concave pail bottom, with small holes around the outer edge, three-fourths of an inch apart, the size of which is one-sixteenth of an inch. These holes in the bottom act as a distributor to allow the milk to pass down on the outside of the tin cone holding the cold water, in a thin sheet, all particles thereby being uniformly aerated and partially cooled. The milk is then held in a reservoir at base of cone to further the cooling process, and as the coldest particles settle to the bottom. These are forced out at the spout into the milk-can by the weight of milk added from time to time from the milk-reservoir above. All of the milk is thereby thoroughly strained, aired cooled, and emptied into the milk-can in a perfect degree, without labor or attention, at the rate of six hundred pounds per hour.

This is truly a wonderful invention, and yet very simple. The "cooler" stood in a hall of the large room where the convention was held, and was most of the time surrounded by a crowd of admirers. It must surely prove a very great boon to dairymen, and must certainly expedite the work in a very marked degree.

THE CURD MILL

is a circular tin disk having an iron rim. In this disk are eight knives pressed to form and sharpened, having cross small knives attached to these eight knives, all of which is for the purpose of cutting the curd in small pieces or thin strips, the size of which is usually one quarter of an inch thick, and one inch wide. This circular disk is attached to an axle and crank, whereby it is either turned by hand or power. The outer side of the wheel is attached to (the hopper for receiving the curd to feed it) the cutter. By this operation the curd is cut easily, and by a sharp cutting edge, thereby not liberating the cream, and at the same time freeing the gasses and giving the greatest surface for aeration. One hundred pounds of curd can be passed through per minute with ease. The curd can be passed through the mill several times without injury, creating no loss by liberating the cream or butter.

THE CURD STIRRER

is a simple device for stirring milk in the cheese-vat, mixing the rennet and agitating the curd during the process of heating; it consists of a long handle with cross head, this head having several long teeth, broad and thin at the bottom, gradually narrowing to top where they enter the head. This peculiar form of the teeth when being used produces a boiling motion in the milk and curd from bottom to top. It is used by being pushed down one side of the vat and pulled up the other, thus creating two distinct motions in the milk or whey and curd—a current with a boiling motion is effected down one side of the vat and up the other, these motions giving a very uniform heat to the curd, and at the same time they do not fracture its surface to produce loss of cream in the whey. Whey can be made as clear as water by this implement properly used. The hands are not needed tobe put into the vat of curd at any period of the heating or stirring.

We trust this fertile brain may long be spared to still further aid in perfecting the machinery required in the dairy.

FOR THE CANADIAN LIVE-STOCK JOURNAL.

The Care and Improvement of Dairy Stock.

I am perfectly well aware that I am pursuing what some may call a threadbare subject, but it is nevertheless one which every intelligent dairyman believes to be of the utmost importance, not only to himself, but to the general weal of the country; one which, if acted upon, not only lays the foundation of his own prosperity, but by example and practice encourages his brother farmer to "go and do likewise."

There are scarcely any in our day but who will admit that the herd of the average Canadian dairyman is susceptible of a vast amount of improvement, both as regards the manner of caring for the stock the owner already possesses, and the infusion of new blood by systematic crossing with a view of increasing the future productive capacity of his dairy. Both of these objects are laudable, and are equally important, for without care and abundant attention no cattle owner can expect to thrive.

In travelling over many of our dairy districts we find that in many cases the farmer's main means of subsistence—his cattle—are but poorly cared for during our long severe winters. If by chance his milch cows came off the pasture in the autumn in fair condition, the cold stable, too often in a filthy condition, with an illiberal allowance of hay or straw, without any extra feed of any kind, soon brings them to a condition of the utmost poverty. Or in the case of young stock, how often their only protection from the inclemency of the weather is the leeward side of the barn or straw stack, where, lank, drawn up, and shivering from every blast, they scantily subsist. It is no wonder, then, that when spring approaches, and with it the calving season, many of the cattle are lost through sheer want of vigor and strength to withstand the trying ordeal. The closely cropped pasture, often unsupplied with water, in summer, tells the same tale of inattention and neglect as the cold stable and empty manger does in winter. Often the most poorly bred and worthless scrub of a bull is kept for use, while more promising animals are sent to the butcher or otherwise disposed of. The young calves conceived and born amid such surroundings are generally of the weakliest and most miserable sort. If, fortunately there should be any exceptions, vermin and want of proper food and care soon dwarfs and stunts them, so that they are no better than the most miserable runt. It is an old law of nature that "like begets like." Is it any wonder, then, that the consequence of such treatment, with hap-hazard breeding of the kind mentioned above, is a constantly deteriorating race of scrubs, scarcely paying their way?

The farmer who desires to improve his herd must, to commence with, be a liberal feeder. The milch cow has been compared to a steam boiler; no matter who the maker may be, unless the boiler is well supplied with water and good fuel, also well attended to, the supply of steam will be short, or it will be in ratio to the amount of fuel and attention. So, also, with