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The Rural Publishing Company, Limited PETERBORO, ONT.

"Read not to contradict and to confute, nor to believe and take for granted, but to weigh and son-sider."—Bacon.

A Milking Machine Caution

T HE mechanical milker is now performing its twice-a-day chore satisfactorily on hundreds of Canadian farms. Its value as a laborsaver has been demonstrated. It is only a question of time until every dairy farmer with a fairsized herd will consider a milking machine as essential a part of his equipment as a binder or mower.

Just at this time when the milking machine is becoming popular, let us utter a word of caution-the milking machine will never be popular with city health officers unless greater sanitary precautions are taken in their use than has been the case up to the present. The attitude that the city health inspectors may take towards the machine is important, as an increasing proportion of the milk and cream produced in Canada is being used for city consumption. At the same time cities are extending their control over the production of this important element of their food supply, and it is only right that they should do so.

Government experimental stations have produced clean milk with the achine. The average dairy farmer has not. In New Zealand even the cheese and butter makers are becoming hostile to the machine-milker product, claiming it to be so badly contaminated that a high-class butter or cheese cannot be made from it. At Macdonald College recently bacteriological tests were taken of milk drawn by machine and by hand on farms supplying Montreal with milk. single comparison typical of others may be given. In the "agar" count 700,000 bacteria per cubic centimetre of milk were found on one farm on which the milking machine was used. The average of six farms in the neighborhood where the cows are still milked by hand showed a bacteria count of 36,000. The "colon" count showed 600 bacteria per c.c. in machine milk, as compared with 230 per c.c. as the average of the six

neighboring farms. On not one of the nine farms visited on which milking machines are used could the milk be classed as good from a . bacteriological standpoint.

It is evident that when the milking machine is adopted it must be a case of not less sanitary precautions, but more. Irresponsible milking machine agents who put forward the argument that, as the milk is not exposed to the air when passing through the machine, it is necessarily clean, give advice that must not be taken too seriously; at least, not if the milking machine is to be a factor in the production of milk for the high-class city trade in Canada.

Dollars Are Lost

WHEN half the oat crop is hailed out the unfortunate farmer pities himself, and receives the sympathy of all his luckier neighbors. So, too, when one loses by theft. A Wellington county farmer had a flock of fifty fine turkeys all ready for the Thanksgiving market. The night before they were to be slaughtered, forty of them were stolen. The whole neighborhood was up in arms with righteous indignation.

When we lose through the vicissitudes of nature, or the dishonesty of neighbors, we are not to blame. Some of us, however, are deliberately robbing ourselves. Such a one is he who allows half the value of the manure to leach away in the barnyard. Such a loss is just as true an indication of bad management as the loss of half the grain out of the bags on the way to the mill because of neglect to patch the holes. The dollars may not be lost so directly in the leeching process as in the leaking process, but lost they are. That fertility placed back in the soil would make more bushels of dollar wheat or fifty cent oats than the soil can ever make without it. Financially speaking, there is no difference between robbing yourself and being robbed by others

A Dual Purpose Enthusiast

LL breeds of cattle are dual purpose breeds. This is a point we sometimes forget in discussing the relative merits of special purpose and the so-called dual purpose breeds. The situation was so well put by Mr. Jas. Rettie in the course of a recent conversation that we reproduce an extract herewith:

"The Holstein is a dual purpose animal," said Mr. Rettie. "The only difference between we Holstein breeders and the Dairy Shorthorn men is that we put the emphasis on the milk and they put the emphasis on the beef. So far as milk producing abilities are concerned, there is no argument. In my own herd of twenty-five cows, and five of them two-year-old heifers, we realized an average of \$140 each for milk last year at condensory prices, and this in addition to the liberal quantities of milk that were used in raising calves. Now for the beef side of the argument. I sold three cows recently, which for one reason or another were of no more use in the dairy, to the butcher. He paid me \$100 to \$110 each for these cows. When I must discard cows, I can sell them for as much as the dual purpose fellows. In fact, one dual purpose fancier just told me he sold three dual purpose cows for \$160, or less than I received for mine. My experience leads me to believe that Holstein steers will grow just as rapidly as Shorthorn steers, perhaps more so. It seems to me that dual purpose cattle, with the emphasis on the milk, are the most profitable. For this class of dual purpose animal I am an enthusiast "

Advocates of the dairy Shorthorn, Red Poll, and other dual purpose breeds so-called, have a habit of talking as if cows of the more distinct dairy breeds must be sold to the fertilizer factory when their use in the dairy is past. This is a

mistake. Bairy sews may be fattened and sold for beef. Dairy steers in experimental tests bave made gains as rapidly and as cheaply as steers of any breed. If they will not realize as much a hundred when sold, we must remember that the beef bred steer would have to realize a premium many times as great as he now does to counterbalance the superior milking qualities of the dams of the dairy bred steers. Farm and Dairy does not wish to be construed as advocating the rearing of steers of dairy breeding. We are merely pointing out that they may be raised with more profit than Shorthorn steers if the production of the dams is also taken into consideration. He who has a good dairy herd would be ill advised to change to the Dairy Shorthorn because of the questionable advantage of breeding his own feeding steers

The Tarriff and Food Imports

HE American farmer, be his home in Canada or the United States, has little to fear from outside competition. He has always competed with the world in the marketing of his produce, and he can continue to do so. Leaning on the tariff is not his natural attitude. He can stand firmly on his own feet.

Take the meat situation in the United States as an instance. When Wilson talked of reducing the tariff on feedstuffs, stand pat protectionists appealed to the farmer for help. They assured him that his markets would be ruined by Argentine competition. The United States market has now been open to Argentine for many months. In October, 1913, 2,069,794 pounds of fresh and frozen meat were imported from that country. In De ober the imports totalled 9,440,448 pour , and the total for four months was 24,45 944 pounds. In the same time 17,729,621 pounds of beef were imported from other countries, except Argentine. These quantities look large, but when we consider that the present beef production of United States for one year is estimated at somewhat less than 7,000,000,000 pounds and the imports of fresh and frozen beef from all countries at the present rate would amount to two per cent. of the national production and the imports from Argentine about 1.3 per cent... we see that the competition is not so serious as would appear at first sight. Farmers who were lined up on the protectionists' side have now found that the fear which drove them into the ranks and the stand-patters, was largely illusionary.

Take another instance-corn in Canada. Protectionists would have us believe that if the barriers were removed from foreign produce our markets would be glutted. If there is any one foreign grain with which we might fear to compete, it is corn. The United States is the greatest corn producing country in the world. Argentine, too, has large quantities of corn for export. But on corn the barriers have been down for years. Corn for any purpose other than distillery uses may enter Canada free of customs taxation. And yet the corn producing counties in south-western Ontario are going ahead by leaps and bounds and the corn production in Canada is continually on the increase.

The scare cries circulated through the laud have but little basis in fact. The firm markets for both beef in the United States and for corn in Canada disprove any amount of theoretical reasoning on the necessity of tariffs to protect the former. And would not Canada be much better off if all industries were as self-reliant and independent as is that of farming?

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