

man who looks on the dollars and cents side of the question we believe that with the right kind of farming and careful operation of the car it may be made a financial improvement to the farm. There are one-hundred-and-one ways in which it may prove useful and valuable. The larger the farm the greater the need of a car. In the country to the south a large percentage of the automobiles sold are owned by farmers and the percentage is increasing gradually. Over there it is considered that businessmen and farmers are the mainstay of the automobile business. Business men use their cars for profit as well as pleasure; farmers have the opportunity of doing the same thing.

Observers have noticed that in districts where automobiles are common farmers have succeeded in getting the best hired help; and, provided they did not let the automobile run away with their will power were the most up-to-date farmers making the best success of their occupation. As a social factor the automobile has proved a success. Some of the old-time social spirit, when neighbor visited neighbor, when picnics and socials were common has been resurrected by the horseless carriage. The chief reason for the lack of social intercourse in the country has been the want of time; the automobile is a time-saver.

Out in Kansas it is claimed that automobiles are used to run almost every machine requiring power from cream separators and circular saws up to threshing machines. They carry milk, deliver butter and eggs, haul freight to the depot and are making further developments. It has been found there that the auto is a contributor to prosperity not a destroyer of it, and some have figured that it costs them less to operate a car than to keep up a team of horses, and much more work can be accomplished by the automobile than by the horses. Some day a great majority of our farms will support automobiles. Prejudices against them are passing never to return and more and more the horseless carriage is being recognized as just as applicable and just as necessary to farm conditions as it is to city ways. Farmers already have rural free delivery and telephone service; the automobile will complete the system which should leave very little to be desired in farm life. With the automobile should go a greater agricultural efficiency and despite the fact that the snow on the country roads in winter prohibits its use for a part of the year there is a place for the car on the farm and a machine is worthy of the consideration of all farmers so situated as to be able to profitably and without prejudicing their business run a more efficient and time-saving outfit than horse and buggy. The automobile is no more a nuisance, it is a necessity.

### A Question of Economy.

Editor "The Farmer's Advocate":

Permit me to draw your reader's attention to certain flaming posters now adorning Canadian bill-boards. The stoney heart of the passer-by is melted by the evident distress of the poor workman and his family, while the hardest-headed are convinced by the unanswerable logic of the attached legend: "Out of work! Why?" Surely even the untutored mind must realize that, if the 1,350 million dollars spent in buying foreign goods were kept at home and used to pay our own workmen to manufacture these goods we should have both the money and the goods, and the wolf of famine would not besiege our workmen's doors! It is all as plain as a pike-staff!

But wait! Some considerations of importance may have been omitted! Where did we get this 1,350 million dollars? Did we steal, borrow or earn it? Let us put the most charitable construction upon the situation and assume that we earned it; for, even if we stole it or borrowed it we should have to earn it some time. If, then, we earned it, we produced goods which we gave to foreigners in exchange for the money. And then, having the money and wanting to buy goods with it, we gave it back again to foreigners in exchange for what we wanted. Essentially the transaction has been the exchange of goods produced here for goods produced abroad. In fact, under modern conditions practically no money figures in the transaction at all; a record of mutual obligations having been kept it is seen that these obligations cancel one another, and that the net result is the exchange of one set of commodities for another.

Now suppose that we Canadians, instead of earning the 1,350 million dollars by exchanging native productions for the money, had set ourselves to manufacture all the goods we formerly purchased from abroad. Not being able to do two different things at the same time we should have to sacrifice either the actual doing, or the prospect of doing, something in which we had been engaged for the doing of something hitherto performed by foreigners. Take a case in point. We have been paying money to foreigners for bananas. Should we decide that we would establish the banana industry in Canada we should have to withdraw labor from other occupations (actually or potentially), and then it

becomes a question as to whether we are not losing more than we can possibly gain. Under Canadian climatic conditions banana growing is admittedly a costly business, and it is altogether likely that we should be money in pocket by letting the foreigner grow our bananas for us, and by confining our efforts, say, to the growing of wheat, which the foreigner will gladly accept in exchange for his bananas. In fact international trade does not differ in essence from trade between individuals. Both arise, in the process of social development from the division of labor and from the variety and unequal distribution of nature's resources; and both are, by common consent and by universal practice, judged to be of advantage to all parties concerned.

The designers of the aforementioned flaming posters have, however, enunciated a new doctrine; and have implicitly, if not explicitly, called in question the whole practice of exchange. But, before we accept this new doctrine it must be demonstrated that we were unwise in paying out the aforesaid 1,350 million dollars for goods not made in Canada. One would want to know what the goods were for which we paid this money, and then whether or not we could produce them in Canada as cheaply as we could buy them abroad. What would our new economic prophets say of a Manitoba farmer who should neglect his wheat fields for the sake of orange culture? Or of a nation who should set itself to grow or manufacture everything it wanted, irrespective of natural facilities or difficulties!

"Oh, but we don't want to go to extremes," say our new economists, "we want to be reasonable; we admit that there may be some things which it would not pay us to manufacture in Canada. Moreover, see how many idle workmen there are! We must find something for them to do!" Very good; we will be reasonable. How can we determine what industries can be profitably followed in Canada? Obviously banana culture is not one of them. Why not? It could be made quite a profitable business—to the growers—if it was adequately bonussed and protected; of that there is not the slightest doubt. It appears, therefore, that we shall have to re-



Good Machinery for Milk Production.

move artificial support in order to find out which industries are profitable—to the nation—and which unprofitable. Those in which we get the maximum result from the minimum expenditure of labor are the most profitable, while those—like banana growing—in which we get the smallest result from the greatest expenditure of labor are the least profitable. For us to grow one dollar's worth of bananas whereas we might, with the very same expenditure of labor, grow ten dollar's worth of wheat were folly indeed; but less foolish in degree only than the prosecution of any industry which cannot exist unsupported by public subventions. And, so far as the idle workmen are concerned we need only remember that they may be employed growing wheat as well as bananas, and that they will be entitled to better wages in an industry which survives by virtue of its own merit than in one which can only exist by state support.

Therefore, until we know what it was for which we paid out this fabulous sum of 1,350 million dollars, and until we are shown that it would have been national economy for the labor of Canadian workmen to have been diverted to the production of these things, we may safely infer that those who purchased these things abroad considered that they were "getting the worth of their money"; and that the transaction was essentially a profitable one for this country. We may infer also that the maximum economic advantages will be obtained by providing "a fair field and no favors," so as to ensure the "survival of the fittest." Only thus can we discover which industries we can engage in with maximum profit, and which industries are merely a burden upon the whole people. It isn't individual economy for a man to make everything for himself and buy nothing from anyone else; similarly it isn't political economy for a nation to buy nothing from foreigners—notwithstanding anything our flaming poster designers may say to the contrary.

Brant Co., Ont.

W. C. GOOD.

## THE DAIRY.

### Best Percentage of Fat in Cream.

Editor "The Farmer's Advocate":

For a number of years purchasers of cream, and creamerymen generally, have been urging upon farmers the advantages of skimming a "rich" cream. This is to be commended, as there are many things to be said in favor of a cream containing a high percentage of fat, among which may be mentioned—more skim-milk to feed on the farm, less danger of the cream souring, less cost for hauling or transportation by rail per pound of fat, less room required in vat or churn to hold a given number of pounds of butter. All these are strong arguments in favor of rich cream, but there is a danger now of going to the other extreme. One of the creamery managers reports in a recent monthly letter to patrons that a certain patron was paid \$21.31 for 122 lbs. cream, which is at the rate of nearly 17½¢ per lb. cream, not fat. At the ordinary price paid for cream-fat at that time, this cream must have tested over 50 per cent. fat. What we desire to call attention to is the comment of the creamery manager: "We refer to this as being unusually high returns for the weight of cream, still we feel satisfied that Mr. ——— requires to exercise very special care in order to avoid a waste both in his skim-milk and in the separator bowl when producing such very rich cream."

There is a very strong point here for cream shippers or sellers to consider. Among some farmers there is a great rivalry to see who can send the richest cream to the creamery. This is all right up to a certain point, but beyond that the rivalry becomes a useless and senseless competition which is likely to cause a great deal of waste.

With some types of cream separators the waste of fat in the skim-milk takes place with a grade of "rich" cream sooner than with others. This term "rich" cream is a relative one—what one person would consider "rich," another would call "ordinary" or "average" cream. Rich cream is got by increasing the speed of the separator, by decreasing the feed, or by adjustment. As there is a limit of safety in increasing speed, and as decreasing the feed reduces the capacity of a machine, the more common plan of obtaining cream with a high percentage of fat is to adjust either a "cream screw" or a "skim-milk screw." In the former, the size of the opening is decreased

to such a point that very little skim-milk can get out with the milk-fat; or the point of outlet for the cream is made so near the centre of the bowl where the richest cream tends to collect, that only the milk-fat with a small amount of milk-serum or "plasma" can get out. While this is being done, the whole milk is running in at full feed from above and because one of the outlets (cream) is partly or almost entirely obstructed, the natural tendency is for more of the milk, containing more or less fat, to go out the skim-milk tubes or outlets. On the other hand, if it be a machine of the skim-milk screw adjustment pattern, and we open the skim-milk outlets wide in order to get a rich cream, the conditions are also favorable for more fat to get away with the skim-milk than should go there for best results. It is undoubtedly true that a thin cream by adjustment is a favorable condition for "close" skimming and many manufacturers formerly acted on this principle when adjusting their machines. But the cry for rich cream caused them to change, or perfect their machines to produce a cream with a high percentage of fat and we are now running to extremes in the other direction.

Then, too, there is more waste in handling very rich cream—it is more difficult to "flush out the bowl"; and every time such cream is transferred from one vessel to another, more or less of the cream sticks on the inside which is difficult to remove, causing loss of fat in handling. The tendency is to rinse this with water which tends to spoil the flavor of cream for direct consumption causing a "flat" flavor, and if warm water be used for rinsing the pail or can, this starts undesirable fermentations.

Very rich cream is difficult to sample properly for a Babcock test and if the person who does the testing, measures, instead of weighing the sample on a fine scale or balance, the cream shipper will lose about .7 per cent. on 35 per cent. cream, 1.36 on 40 per cent. cream, 2.25 on 45 per cent. cream, and 2.65 on each reading where the cream