

test you may wish. We use no chemicals or foreign material. We sell nothing, but work on royalty. Shall be pleased to give you any further information. "Yours truly, "_____."

At the same time we must not be too severe in our judgment of earlier churn records. Most of the cows are now dead, and we have no other means of getting at their worth. Many of them were great cows. Just what records to discount and to what per cent. can never be known. But the farce of making records of 30 lbs. and upwards is ended. The Babcock test is of wonderful accuracy, yet simple in its operation. No valid objection can be raised against it. What shall we say then of those who would continue the old game of reporting churn tests? Be the records great or small, they are no longer worthy of attention, and it seems to me an insult to their readers for our papers to publish them. It is difficult to overvalue official records made with the Babcock test. Prof. Henry points out the reasons why in a single sentence: "By means of properly-conducted official tests," he writes, "and the use of the Babcock test, the representatives of our various breeds of dairy cattle are in position to establish records which are reliable and, in time, will become immensely valuable as the data accumulates and the effects of breeding and selection are realized."

Currie's, Ont., Feb. 9th, 1899.

GEORGE RICE.

Butter-making on the Farm

To the Editor of FARMING:

At your request I send you some notes telling you how we make our butter, hoping that they may be of some benefit to the readers of your paper. It is easier work for me to make butter than to write for a paper. I have said we in my notes; Mr. Willis or some of the boys do the churning after we get the churn ready and myself and daughter attend to the butter afterwards. We got our method for making butter from reading articles in the papers.

In making butter, like everything else, you must commence right. That is, you must have everything clean as it can be, the stable, the bedding, etc. The cows also should be brushed and cared for the same as your driving-horses. Then the feed should be of the very best quality, with plenty of good pure water. The milk should not be allowed to stand in the stable after you are through milking. It should be strained and cared for at once. The sooner you get it into the creamers and into the cold water the better the cream will separate. We use the deep setting cans, placed in tanks of cold water with ice, just enough so that there is ice in the tanks all the time, otherwise you will lose some of the cream. We set the milk from fresh cows from one milking to the next.

After they have been milking a few months we set for the twenty four hours, as it takes the cream longer to rise in such milk. We skim by letting the milk run out of the taps in the cans into pails. Then we empty the cream into cans with tight fitting lids holding about five gallons apiece. The cream should be stirred each time fresh cream is added. We use buttermilk as a starter, putting about a pint in the can when we commence to put the cream in. If more than one can is used you must keep it mixed so that the cream will all ripen at once. It is one of the secrets in making good butter to have the cream ripened just right, that is, it should thicken all through and look like a piece of satin on the top, nice and glossy but not too sour.

After the cream is ripened the next thing is to get to the right temperature for churning. In the summer we bring the cream out of the cellar a little while before churning, but in the winter we place the cans of cream in warm water not more than 75 degrees. We always strain the cream into the churn through a strainer made of thin crash used for this purpose. We churn at 70 degrees by the thermometer we have, an article every dairy should have. There should be no guess-work; but have the temperature just right, and it will save a lot of labor.

We keep mostly pure-bred Jerseys (they are the cows for cream and butter). In churning cream from grade or native cows you would have to churn at a lower tempera-

ture, as we have found from using them. In the winter months we use a little butter-color; with the Jerseys not much butter-color is needed. We use the Daisy churn, and it takes about 30 minutes to churn to the granular form, or till the butter rises on the top of the buttermilk, so that it will strain and not come out with the buttermilk, when it is run off. We wash the butter in the churn, using as much water as there is buttermilk, also adding a little warm water, or the cold water will make the butter too hard to print well. If you want to pack the butter you must wash it till the water is clear. If the butter is for prints less washing will do, as too much washing is an injury to the flavor.

We salt in the churn, using one ounce to the pound of the best dairy salt, being very careful to get it mixed all through evenly. Then put the lid on the churn, and let it stand an hour to let the salt get dissolved. We work also the butter in the churn, turning slowly to let the brine off when half worked. This plan will work the butter into one large roll if it is right. In washing you must turn very fast to keep the granules apart, so that the butter will salt all right. After it is worked we take the butter out with a ladle onto a board, with one end raised a little to allow the surplus brine to drop into a pan. We smooth the mass of butter down to the thickness of the pound print; then cut out the prints just as you would cut out shortcakes, printing them out onto a board, covered with a piece of cotton to keep the butter from sticking. The board, ladle and print should be scalded and cooled before using, or the butter will stick to them. After printing we put the butter away to cool for a few hours, then we weigh each pound, and wrap it in a printed wrapper of parchment butter paper. If the butter is to be packed we work it in the churn the same as for prints; then we take it out and work it a little more in the bowl with the ladle. It is then set away over night, when it is given another good working in the bowl until it is dry, but not too much so, being careful to press and not to rub with the ladle to spoil the grain of the butter. The butter should be pressed in the jars very firmly to keep all the air out. After the churning is done then comes the washing up (a very important part). Every vessel and article used should be well washed and scalded and placed in the sun to be aired. Yours truly,

MRS. WM. WILLIS.

Pine Ridge Farm, Newmarket, Sept. 3rd, 1898

NOTE.—In the letter enclosing Mrs. Willis' article, Mr. Willis sends us some facts regarding his herd of cows, which are worth noting. In regard to the output of his dairy for 1898 he says: "Our cows last year were a kind of mixed lot, from having to buy some grades to help, after selling off some of my Jerseys. We bought these grades to help till a nice lot of heifers I have come in. Besides, several of our cows were heifers which had been milked over a year, as I have them come in when about 2 years old and let them go about 16 or 18 months before calving again. We had twelve of these mixed cows last year and made 3150 lbs. of butter. We sold 2850 lbs., for which we realized \$575 and some cents, which makes about \$40 over 20 cents per lb. the year through. I do not think this is anything very big, but it helps the farming along very well in place of selling the grain off the place. The average for each of the twelve cows and heifers was 262½ lbs. of butter, which at 20 cents makes a trifle over \$50 each. I am not such a heavy feeder as some I read about. I feed my best heavy milkers when fresh about 10 or 11 lbs. of oats and peas if I have them, or ensilage with a feed of hay night and morning, with all the clean oat chaff and straw they want at noon. I am laboring under some disadvantage in having to drive the cows to the creek in winter, about 80 rods away. I have already spent quite a sum of money in wells and boring for water, and hope to overcome this disadvantage some time." If the skim-milk and butter milk were taken into account Mr. Willis' twelve cows have certainly made a good showing. There are, we think, very few farmers in Canada who are annually making \$50 a piece in hard cash out of their cows. Mr. Willis reports that he has nine cows milking since January 1st, and one fresh cow since, and averaged 80 lbs. of butter a week during January.—EDITOR.