

sufficient. You now have the number of pounds of butter per week each cow in your herd produces, all receiving the same food and attention. You know how far each head is from calving—use your own judgment in the comparison; now offer for sale all cows which will not answer your purpose. Do not keep in your herd a cow which has a large flow of milk, but which does not produce a corresponding quantity of butter. A cow of this kind may not pay you; in fact, you may be under a daily loss; and remember that it takes one cow gaining twenty cents per day to balance a cow on which you lose twenty cents each day; or in other words, two cows kept for nothing.

Your next step is to procure the services of a competent bull. The first question in this direction is, of what breed shall he be? For he must be no scrub bull, such as, I am sorry to say, is being constantly used by a great many farmers. You can readily procure the service of a Durham, but that may be just what you have always been using. Can we not procure a breed more for our purpose, that of butter-making? Well, there are Shorthorns, Galloways, Ayrshires, Devons and Jerseys. Let us pause for one moment and carefully consider this vexed question of breed, always bearing in mind that it is butter you want, not beef, or milk, or cheese; nor yet do you want a combination of all of these. You have read of the famous butter records of the Jerseys. How the celebrated cow Mary Anne, of St. Lambert, has produced 36 lbs. 12½ ozs. of butter in seven days; but we are also told that she was purposely fed for this test for two whole months. Your present object demands cows that will be satisfied with a rational amount of food. In the April number of the FARMER'S ADVOCATE we noticed an account of a test of two Jerseys cows in Great Britain, which were found to produce one pound of butter for every twenty-four pounds of food consumed. We are constantly hearing of Jersey cows that make from twelve to twenty-two pounds of butter in seven days on grass alone. These, and many other facts of a similar nature, should lead you to the conviction that for our present purpose a Jersey bull would best fill the vacancy.

Now we proceed with the herd. Is there a Jersey bull within a reasonable distance? You find there is not, and in consequence, you will be under the necessity of purchasing. You consult the advertising columns of your agricultural paper and procure one, paying therefor from one hundred to four hundred dollars. You now have all that is actually necessary for the successful completion of our work. Time alone can do the rest. Your heifer calves should be carefully raised, and in time tested and weeded out, as in your original herd, until you are thoroughly satisfied that all the animals in the herd, without exception, are the best you can hope to procure.

You are told over and over again that the milk should be weighed daily, and from time to time apply the butter test to each individual cow, and a very careful and concise record of these figures be kept for reference; yet how few farmers have such a plan in practical operation. Right here, I might ask, is not this just where most of you are falling behind?

You know of such a thing or a plan as being good and highly recommended by those who

have tried it, yet how slow a great many are to follow suit, always doubting, accomplishing nothing of themselves, perhaps ridiculing the very men who are fast walking ahead. It will be this class of men who, on reading this article, will scornfully throw it to one side, contemptuously muttering something about "book-farming."

I have recently put into practical operation the foregoing plan of improving a dairy herd, having butter for the object, and so far with satisfactory results.

Second, for cheese.—Follow the same plan as laid down before, with the exception of procuring Jerseys. I should recommend the Ayrshire cattle for cheese-making, as I think they are usually considered to give general satisfaction for that purpose.

The Dairy.

Wife-Killing Arrangements.

BY PROF. L. B. ARNOLD.

In 1879, while giving instructions to cheese makers near Stratford, Ont., I was invited by the proprietor of the factory in which I was working, to look over his new house just completed and ready for occupying. Among its peculiarities I noticed the little cook-room, in which all the cooking was to be done, summer and winter, had its floor depressed one foot below the floor of the adjacent dining-room, in which all the meals were to be served the year round. As all the food and dishes for three meals a day, together with the weight of the cook, which was some 150 pounds, must be lifted up this rise over and over again daily, and the same weight, minus the food consumed, let down again, I objected to this depression of the cook-room floor as a wife-killing arrangement. "Oh no," said the husband, "although my wife will probably make the rise a hundred times a day, since it is divided into two equal steps of only six inches each, the ascent will be so easy I do not think she will mind it at all." "The ascent," I remarked, "will be easy in just the same sense that it may be easy for a man of limited means to pay a hundred dollars in two equal installments, when it might be hard for him to pay it in one. The fact of dividing the debt into two equal parts does not make it any less. In the end, the sum paid is the same, whether paid in one payment or two, and it is just so with this rise from one room to the other, whether made by one step or more. On the assumption that your wife will make this rise a hundred times a day, the task which she will have to perform above walking on a level floor will be just equal to compelling her every day of her life to climb a pair of stairs a hundred feet high, and let herself down again, her hands, in the meantime, being loaded with dishes full of food—all for what? To pay penance for your thoughtlessness. If such a useless task is not a wife-killing arrangement, it is not easy to conjecture what would constitute an arrangement of that sort."

This incident of thoughtless indifference on the part of this husband for the comfort and convenience of his better half, is quite illustrative of the needless tasks which farmers, and especially those having small butter dairies,

often impose upon the generally over-burdened female members of their families. From shiftlessness or a thoughtless indifference to the importance of having a dairy room, as well as a cook room, on a level with the living room, the farmer neglects to prepare a suitable place to set milk above ground, and the milk must go into the cellar all summer, and perhaps all winter, making extra work in carrying it down and bringing it up again, and in running up and down stairs to do the skimming and washing and other dairy work. In a short time the waste of labor in going to and from a room below ground would be sufficient to prepare a suitable place above ground, and thus save a multitude of fatiguing steps. But from want of appreciation, perhaps, the preparation is not made, and the dairy maid, who is generally the farmer's wife, must, like the wife of my cheese-maker friend, do a daily penance for that neglect, equal, probably, to a similar amount of climbing stairs.

Another large amount of needless work comes from setting milk in a multiplicity of small vessels, causing a waste of time and labor in filling, skimming, emptying, washing and handling so many dishes, three quarters of which might be avoided by setting cold in a few large vessels. But the farmer, failing perhaps to keep up with the advance of improvements from not reading up on what relates to his own business, fails to appreciate the labor-saving improvements in creaming milk, and hence fails to put up ice or otherwise provide means for refrigerating, and hence the modern labor-saving modes are not available on his farm. They are only availed of where the dairymen keep posted. For the farmer's failure to keep pace with the times his wife is again obliged to pay penance in hard work equal to climbing daily another flight of a hundred feet or so.

Another large item of work in small dairies is very commonly endured in the selection and operation of churns. The churning is the hardest part of the work in the dairy, and whenever it can be, this task ought to be shifted to some other power than the direct use of the human hand. Where the proprietors of small dairies do not feel able to provide any other than hand power, the easiest mode of doing this necessary work should, by all means, be selected. A certain amount of power must be employed to operate any churn, but there is a wide difference in the power required to operate different patterns which do their work equally well. Unfortunately the very hardest working one of all is more frequently found in small dairies than any other—the old dash churn. Partly from its simple structure and low cost, but chiefly from the force of custom, it continues in use, a terror to dairy maids and half-grown boys, and, very likely, will be handed down to future generations. But much as it is to be dreaded, this old relic of barbarism is as capable of making as good butter as any modern churn. To make good butter and to get out all the cream contains, the dasher must be large in comparison with the diameter of the churn. It should cover from two-thirds to three-fourths of the area of a horizontal section of the middle of the churn. But this makes hard work, for the larger the dasher the harder the churning, but the sooner and better the but-