

would also have known that a balanced ration does not mean a certain amount of corn, oats, hay, silage, or wheat bran, but deals with protein, little matter what the feeds used to obtain it. Science does not teach that a farmer should use a perfectly balanced ration regardless of cost. It simply tells him what a balanced ration is, and the percentages of the different substances composing a balanced ration, contained in the different feed stuffs, so the farmer may know how to apportion the bran, hay, corn, oats, etc., to get the best results. Very often it will pay better to come as near a balanced ration as possible with foodstuffs on hand than to buy and haul something he has not which may be dear, and sell something he has which may be cheap. After science has done all it can by acquainting the farmer with absolute truths, there is abundant room for the exercise of good judgment in adapting the means at hand to the ends in view. There are animals possessing a natural or artificial peculiarity that calls for a variation from the standard. For best results the preference of the animal should be considered, and an unpalatable food should not be given merely because it contains the elements needed to balance the ration. An unpalatable ration is never a well balanced one. Science is all right, in farming as in any other business, but to be used successfully it must be used understandingly.—Farm and Ranch.

FARM SEPARATOR CREAMERY BUTTER SCORES HIGH.

During the month of June many of the receivers in New York City have their everyday receipts scored by Mr. Healy for the purpose of assisting the buttermakers or shippers by giving them pointers as to what their faults may be.

In this way they claim that oftentimes they have been able to offer suggestions to their shippers, which have resulted in a much better and higher grade of product. One of the receivers had a lot of 81 packages from a creamery where the cream from the hand separators was used exclusively. The whole lot without any exception, scored 96.

This fact would seem to indicate that as good butter can be made from the farm separator gathered cream as from whole milk.

ADVANTAGES OF SEPARATING AT HOME.

Though I am supposed to be a fruit grower, I am also a little interested in dairying, and I have recently installed a skimming plant that is so satisfactory that I want to tell others about it. For several years we have been hauling milk to a creamery to be separated, but it was never very satisfactory, and I have been on the lookout for something better. The hand separator is better than a long haul to a creamery, but the objection to it is the lack of steam and hot water. Not long ago I ran across a description of a Sharples steam turbine separator and determined to try one. It has exceeded even my expectations and seems as nearly perfect as a machine of this kind can be made. A 1½ H. P. boiler furnishes steam to operate the machine, heat water and scald the utensils. We operate the machine after every milking, thus securing best possible separation, warm milk for feed, and save having to rewarm milk for separation.

The actual time required is as follows: Starting fire and getting steam enough to begin heating water in wash tank, 15 to 20 minutes; heating water, setting up and starting separator, 8 to 10 minutes; running through 175 gallons milk, 10 to 12 minutes; cooling cream, washing and scalding all parts of the separator, milk buckets, strainers, cans, etc., 20 minutes. Thus we have two hours' time per day for one

man, and the best possible condition of milk and cream, against our old method of a man and team hauling milk a total time during the year of almost four months; then one man an hour washing dirty cans after each trip, besides milk buckets to wash at house after every milking, and a very poor condition of cream, and the worst possible condition of skim milk. Any one can figure out the expense of the two systems for himself.

The coming method of handling milk is to use a separator on every farm, then gather the cream and make butter at central points. The steam turbine separator is superior to all other styles, for it is not only the best power for high speed machines, but you have an abundance of steam, a necessity for cleanliness in the dairy.—Wilbur K. Newell, Dilly, Ore., in Oregon Agriculturist.

Further reports on the experiment of curing cheese at a low temperature—about 60 degrees—are furnished in a bulletin from the New York experiment station and show that cheese so cured scored five points higher in flavor than those cured in a higher temperature.

2000 DISBROWS

We have reached and passed the Two Thousand mark, and the orders are coming in faster than ever. Stop a minute and think of it. Six years ago the majority of creamery men firmly believed that combined churns were not practical machines—today over Two Thousand Disbrows have been sold, and the rush is just commencing! No wonder the Disbrow is known as "The Churn That Works."

Owatonna Manfg. Co.,

SOLE MANUFACTURERS

Owatonna, : : Minn.

Creamery Pkg. Mfg. Co.

General Sales Agents,

CHICAGO, ILL.

Waterloo, Iowa.

Kansas City, Mo.

Minneapolis, Minn.

Omaha, Neb.

RAGTIME IN THE DAIRY.

Co boss! Co boss! Come git yer bran mash here—Come Sue!

Who in Sam-hill broke this stool—did you?

So there! don't ye go to havin' fun, My meal puddin's dern near done.

Hist! Hist over just a little bit—There—stan' still, there, Sue—that's jist about it.

I swan! you act's if you wuz mad; Must be cuz the flies is bad.

Keep yer durned old burr tail still; I'll take the axe to it—so I will.

If you'll keep quiet 'bout two minutes yet—

The sooner we'll hev our suppers et. There—you dad-durned simpleton cow,

You've upst the milk on me—but now I'll show ye who'll run this shed;

I won't let a cow o' mine raise Ned—I'll fix ye—oh, you'll come to grief—

I'll sell ye—oh, you fool—fer beef!

—Leopold B. Fletcher, Mich., in Elgin Dairy Report.

As often as once in twelve months—as we remember it—for the last fifty years, there has been the announcement of a new churn that "is the wonder of the century; a new principle in

churning discovered, time distanced, and a complete revolution in butter making introduced." Now before us is the 51st one, a churn that is the most simple of any yet invented, no labor required to churn or work the butter, and among the recommendations was one from a noted Jersey breeder who had bought one of these two minute churns, and was enabled to increase the butter record of his cows over a half pound a day to the cow, and adds: "This phenomenal increase is invaluable to every thoughtful Jersey breeder." Just think of it, If Princess 2nd with her record of 40-and-over pounds of butter in a week, could have had it made with a double cavoutin' extractor, and had a fifth more added, making 56 pounds in the week—eight pounds a day—she could never have had a rival. No wonder the bright people are tumbling over each other buying up county rights, that promise not only a fifth more butter from the same old milk, but without labor, and sells for an advance of about 8 cents over market prices. Who says—until the next invention in churns strikes the earth—that dairying has no future.—Hoard's Dairyman.