

MAKING OF BUTTER IS FURTHERED BY NEW AND BETTER METHODS

Best of Material, Sanitary Surroundings, Good Starter Among Prime Requisites.

By A. H. Lea.
The greatest step in the butter-making business of late years has been the adoption of more careful methods by some butter-makers, in keeping the cream in the right condition by the use of starters. Up to a few years ago, the butter-maker considered a starter necessary only as a medium of souring the cream and the use of a commercial starter was hardly known; but now, without regard to its acidity—and I regret to say that this method is being used today by altogether too many butter-makers.

The use of a good starter in butter-making is a very important factor in producing a uniform, high grade article, and it is to be regretted that so many creameries fail to see the advantage of this method.

We only have to know a few of the principal qualities of the lactic acid bacteria to understand that it is impossible to produce a uniform flavor during the different seasons of the year, without

the aid of a starter. While the lactic acid bacteria are very beneficial in butter-making, they are undesirable bacteria from the standpoint of the milk dealer or consumer. Some of the bacteria commonly classed with the lactic acid bacteria form acids other than lactic.

When possible to obtain, I would advise the use of certified milk for the mother starter, and the carrying of at least three mother starters, which should be carried at a uniform temperature and used at a uniform acidity. They can be carried in a much higher acidity than that to which the cream is to be ripened without the least danger.

Starter Is Not All.
A good starter is only the beginning of good butter. No matter how good a starter one has, it is useless without the knowledge of how to use it and the necessary equipment.

Every creamery should be provided with a starter can, cream ripener, acid test, salt and moisture test, in addition to the regular churning equipment. The churning room should be a model of cleanliness, provided with plenty of light and pure air, windows and doors should be screened, and the drainage should be of the very best.

The acidity test should be used on all the cream, and cream showing a is very near the danger line and should be of exceptionally good flavor if allowed to go into first grade butter.

The successful creamery manager is confronted with more difficult problems than any other line of business. He must in addition to knowing how to make and use a good starter, know when his butter is good or bad, sell it as cheap as his competitor, watch his moisture test so that Uncle Sam will not molest him, keep his run-over up to the limit, and remit to his patrons on an honest weight and test and keep the price within the reach of the consuming public. Butter is not an absolute necessity (with many palatable substitutes) and in order to be extensively used must be kept at a selling price within the financial reach of those who from necessity are obliged to count the cost of living.

To make good butter, the butter-maker must have good material. Science will never undo what nature has done. Nature gives us clean, pure milk twice a day, and if owing to the neglect of the producer it is allowed to remain in foul-smelling, dusty barns, allowed to cool in a can exposed to bad air, remain unprotected from the weather so that it sours and putrifies quickly, no butter-maker on earth can make good butter from that kind of stuff.

Some interesting experiments which are likely to lead to the adoption of electricity in the preparation of cream for butter-making have been made at the University of Liverpool. The question sought to be solved was: Can bacteria in food be destroyed by electricity? The experiments appear to show that by the use of a specially constructed electrical apparatus, not only can the cream be sterilized without detriment to its nutritive value, but that the tubercle bacillus can be destroyed.

The butter-maker should watch his churning temperature very closely, as a small variation will make a large variation in his moisture, and in taking sample for moisture test, take from different parts of the churn and before working has been completed. Butter-milk should be tested each day and should not (and will not) if the cream has been properly ripened) exceed five-tenths of one per cent fat.

Our state fair is near at hand and every butter-maker in the state should compete in the scoring contest, not alone for the medal he may get, but to get the criticisms of an unbiased expert and be guided by the good advice he is bound to receive.

GREATEST OF CARE IS ONE REQUIREMENT IN DISTRIBUTION OF MILK

Delivery to Consumer Is Pure Milk Factor of Equal Import With Its Production.

By Robert Ireland.
Since no form of food is more generally needed among all classes of people than cows' milk, and since the weakest of our population, infants and invalids, are dependent on the milk supply of our city for health, and even for life itself, that supply, in its origin, in its shipment to the city and in its final delivery to the consumer, demands close attention, careful consideration and rigid regulations.

We are proud to say that we have the best climate to be found anywhere to keep dairy cows and to keep milk; two very important characteristics of ideal milk. If milk is impure it matters little how high a food value that milk may have. On the other hand, even though the milk were absolutely pure, if it had not a high food value, it would do one little more good than the drinking of so much water. Thus we see that neither the purity nor the high food value of milk can be of much good to man without the other.

The human family could not exist, nor continue to increase, without

milk for the growth and development of their young. Statistics today show that 65 per cent of the babies born in this land must be raised on the milk of the dairy cow, the meek, gentle foster mother of the nation.

Certified milk has its place and its production, and its delivery is of vast importance as a clinical milk for those who are able to buy it; but milk bearing the title of certified milk must be produced under extreme sanitary conditions where every detail is carried out that intelligence can suggest. Certified milk carried with it, from the time it leaves the cow until it is delivered to the consumer, such cleanliness at every step that the only one thought we have is that it is pure and safe. However, the milk is usually sold because of the laborious efforts to keep it right, at a loss to both the producer and distributor.

Again we have perfectly pasteurized milk, which is another step toward safe milk, and probably does more to reduce infant mortality, in our large cities throughout the country, than any other, for it is produced at a price that the masses can buy. I believe that if our city board of health would pass such rigid inspection, and place competent inspectors at the different distributing stations throughout the city, the same as the government does for the inspection of meat at the packing houses, it would be the means of putting our milk supply on a higher plane, and at a price reasonable to buy.

While it is true that milk is like unto a chain, no stronger than its weakest link, and owing to its delicate composition and its adaptability to take up taints, flavors and odors, it is no cleaner than the dirtiest thing it comes in contact with. Fully do I realize that the distributors cannot deliver good, clean milk unless it is produced by dairies that have the reputation for delivering that kind of milk. Hence, my claim is that the distribution is the most im-

portant, and our health authorities should by all means give close attention to the city end of the milk supply. I believe there are hundreds of gallons of good, pure, wholesome milk delivered in our city today in fine shape that is badly contaminated after delivery. A few months ago in a little milk controversy, I asked a lady of whom she bought her milk. Her reply was, "Why, bless you, I don't know his name. He is a dirty looking old fellow, but I kind of like him." There is no food product today that is so easily contaminated as is milk, and yet people are so careless as not to ascertain who serves them with their milk.

Most dairymen today are doing things right, and I believe all that remains to put our milk supply on a higher basis is practical sanitary education, by people who know the methods necessary to bring about these results.

The producer should realize the importance of proper light and ventilation in his stables. There should be, at least, four square feet of glass per cow in every stable where cows are kept, whether for dairy or other purposes. He should build a living room for the cows, and build it so that they may have all the sunshine there is; the morning sun from the east and the afternoon sun from the west; make floors and mangers of cement and put in a good system of ventilation. The barns should occupy the highest place on the farm, not the lowest.

Some dairymen tell us that they cannot afford to go to the expense necessary to make these improvements, but in this they are mistaken. A herd of cows kept in a properly lighted and ventilated stable will be in much better physical condition, so that their increase in production will more than pay for the improvements, to say nothing of the satisfaction of knowing that things are being done right.

The consuming public must learn that

milk bottles are containers for milk, and milk only, and were never intended for jelly jars, fruit cans, paint pails or kerosene cans, and a consumer who will use a milk bottle for coal oil should have a ration of coal oil for 30 days, for it is impossible to wash coal oil out of a milk bottle, and the family who gets the bottle next says that his milk man is careless.

Inspectors As Instructors.
The inspectors should use good judgment in their work and they should be men selected for the position because of their knowledge of dairy work. You could hardly expect a shoemaker or a blacksmith or a dry goods clerk to meet with very great success in the field as a dairy inspector. In the first place I do not like the title "inspector." "Instructor" would be much better. For instance, suppose some good, honest old farmer knew that the inspector was coming. He at once thinks there is something wrong; that he has committed a crime, and that his premises are to be inspected by an officer of the law. He at once gets on his fighting clothes, and unties the dog. On the other hand, if he knew that the instructor was going to pay him a visit, he would feel that he was going to be benefited by his presence.

There are regulations intended to protect the evils in our milk supply will not accomplish much unless the instructors who have charge of their enforcements are conscientious officials and know the dairy business, so as to be able to give practical instruction and assist the dairymen to improve their conditions. We cannot expect to legislate by city ordinances or state laws to make the dishonest, crooked producers or dealers straight, nor can we expect by these laws to make the filthy, careless producers or dealers clean and sanitary. Just so long as dishonest, unclean producers or dealers are in the business, just so long we will have trouble.



Pioneers in Purity!
FOR TEN YEARS we have been INSURING the MILK you should buy.

Only the purest and best Milk from the finest and cleanest cows is bottled and delivered by us.

This PURE Milk is subjected to our process of pasteurization and made absolutely safe.

Portland Pure Milk and Cream

"For baby's sake---use it!"

There is a staff of chemists standing guard at all times over the Milk we sell. Every element of danger is eliminated. We take only the purest and best Milk and keep it PURE, PURE, PURE, from the moment it leaves the farm, until you uncap the bottle in your home.

Our booth at the Pure Milk Show at Meier & Frank's this week is of vital interest to every mother and consumer of milk in Portland. The story we tell in picture and chart is the story that you, madam, with the health of your little ones and your family to protect, should know.

*—If it's pure enough for baby,
It's pure enough for you!*

When you attend the Pure Milk Show, come to the booth with the wonderful babies, a display in the interests of Purity Milk, by the "Pioneers in Purity."

Portland Pure Milk & Cream Co.
All grocers sell "Purity" Milk, or phone your order to
Main 3182 A-1462

