

but an almost tasteless butter; yet will such butter improve in flavor by keeping, though the flavor is better secured by keeping the cream to ripen—keeping it at a temperature of 50° or 52°, putting in a bit of saltpetre or glaciale to prevent acidity, and stirring once or twice a day to have it all exposed to the air, and to prevent the formation of a crust on the surface. Glazed earthenware crocks are as good as anything to keep cream between skimming and churning; while pans of the same material, or the seamless ones of enamelled iron answer well for milk-setting.

Of churns there is a great variety, but I have found none better, or easier to keep clean, than the improved barrel churn. There is also another churn, called the "Victoria," an end-over-end churn, which has no blades inside, and, by opening at the end, affords greater facility for taking out the butter, as well as for seeing that the interior is perfectly clean. I do not say that those churns are better than any other, but I do say that they are good enough for anybody, and that the finest butter can be made in them.

Assuming that the cream has remained free from sourness during the time it has been kept for ripening, and that it is not more than a week old, I may say that the principle of acidity, artificially introduced when the cream is put into the churn, will be found to do good in helping the cream to relinquish its butter, and in making the butter firmer in body and brighter in tint. And this is attained by simply adding to the cream about five per cent. of its volume of sour buttermilk from the previous churning. The cream of different days should be all mixed together an hour or two before churning, so that it may be all old alike, as it were. Fifty-seven to sixty degrees Fahrenheit is the normal temperature which it is best to have the cream when it is being churned, but it may well vary from 55° to 65°, according to the time of the year and the temperature of the room. These points set right, the churning should be done at a regular speed which is slowest at the start.

When the butter is forming in the churn, and resembles grains of mustard seed, which are just beginning to coalesce together, it is a good thing to drain the buttermilk out of the churn through a fine sieve, and to pour in clean, cold water; the churn should then have a few turns, the water be taken out as the buttermilk was, and fresh water put in; this process should be repeated several times, until the water comes clear of buttermilk out of the churn. This system of washing buttermilk out of the butter may be regarded as the simplest and most effectual that can be adopted; and as it is of the

utmost importance to the keeping quality of the butter that all the buttermilk should be got out of it, so is it necessary that it should be carefully got rid of. Butter that is riddled of its buttermilk, which to a great extent is composed of caseine—nitrogenous matter which is addicted to early decay—will keep well for some time, providing the other preliminaries I have mentioned have been properly attended to.

The butter, well washed in the way described, requires little or no purification from buttermilk after it is taken from the churn, simply because there is little or no buttermilk left in it. But it requires to be worked in order to compress and consolidate it, to compact it into a solid and coherent body, and to mix with it the proportion of salt which is thought to be desirable. If, however, the butter has not been well washed, or has been only partially washed, inside the churn, it must be washed outside of that machine; and for this purpose, as well as for compacting the butter, and for mixing the salt with it it is always desirable to use a butter-worker, and not to touch the butter with the hand. The butter-worker, properly used, does its work much better than the hand; it does not soften the butter as the hand does, and it does less injury to its grain and texture—matters which are of no little importance to the appearance of the butter. During the process of working the butter, pressure, not friction, should be employed, for friction injures the grain of the butter. The quantity of salt to use will be governed by taste, and by the length of time the butter has to be kept, but it will vary from one to five per cent. of the weight of the butter.

The points, then, to be attended to in butter-making are these: cleanliness, temperature, and regularity in the performance of details; especially with regard to washing the butter in the churn.

ENSILAGE OF PARTLY CURED FODDER.

TOO MUCH MOISTURE AVOIDED.

EDS COUNTRY GENTLEMAN.—I made my first trial of ensilage last fall, but under what I then regarded such unfavorable circumstances that I felt considerable misgiving as to the result. My necessities at the time have given me what I believe to be some good hints, which I intend to take advantage of this year. My experience is sufficiently at variance with the practices of some of your correspondents to induce me to give it to your readers.

The drouth of last year not only retarded the growth of my corn a full half but it partly cured it while standing. When I was about to procure a cutter, an old genius came along with a home-

made affair, run by a one-horse tread power, and agreed to fill my silo, of 1,500 cubic feet capacity, within twelve hours (which he did). The knives of this machine were so imperfectly fitted that the corn stalks came through in lengths varying from two to twelve inches, while the foliage was not cut at all. After the silo was filled I had no straw to place under the planks, and not wishing to use fine hay, I sent the men to the woods for a load of leaves. The ensilage was so coarse and dry that it could not be trodden with any satisfaction. Stone were put on the planks, however, to the depth of three feet, which pressed the ensilage into two-thirds its original bulk in four days. My silo is perfectly constructed with stone, laid in cement, and plastered smoothly on the inside.

The silo was opened on the first of December. The contents were simply perfect—just what I have conceived ensilage should be. The odor was fragrant and agreeable, and with perceptible alcoholic or acetic fermentation. It was the first specimen I have ever seen in which a considerable portion of the sugar was unchanged. On splitting any of the long pieces the pith was as sweet as when the corn was standing in the field. The whole mass was much less acid than I have before seen. Now, inasmuch as the result was so satisfactory the conditions must have been correct. It will be noticed that I have made six points: viz., a perfect silo, filled in one day, with partially cured corn fodder, cut very coarse, covered with forest leaves and heavily weighted. I might add another, that there were no feed rollers on this rude cutter, so that the stalks were not crushed and laid open to the air.

This year if I am not so unfortunate as to be overcome by another such drouth as has blasted New England for the last two years, I shall cut my corn one or two days before running it into the silos, and leave it in the field to cure partially. I think those who advocate the wet cutting, and even of wetting in the silo make a mistake. I have seen accounts of ensilage so wet or juicy that water ran in streams from under the silo. I suppose it is such ensilage, put into such silos, that has brought some discredit upon the system. I have seen many silos opened and it has always seemed to me that the more succulent and wet the corn at the time of cutting, the more intensely acid has been the ensilage, and the more liable to rapid fermentation after exposure to the air. A sufficient natural moisture (sap) in the stalk to generate a vapour during the period of heating, to soften the woody fibre and render it more digestible, is all that is required. More than this means labor in handling and a retardation of the heating process.