

Oleomargarine.

The annexed engravings cannot fail to be interesting to our readers, representing as they do the difference between pure butter and oleomargarine, its counterfeit. It is to the interest of the farmer and dairyman, and not to them only, but to the purchaser and consumer of butter and cheese, that the article offered for sale be precisely what it is said to be—that pure butter should be sold as butter; and that fat—caul fat—however prepared and disguised, should be branded as such. It is but common justice that the purchaser be made aware of what the article really is that he may be induced to purchase. It is possible that a sample of oleomargarine may be manufactured from clean and healthy fat, and consequently be less deleterious than if made from unclean and unhealthy fat; and in this is the evil that we cannot guard against. We are choosing blindfolded, and (to use the words of an old proverb) "buying a pig in a poke."

Plate 1 represents pure butter as seen through a microscope of high magnifying power. The circular globules are composed of butter-fats; the other forms represent salt-crystals. The butter-fats sometimes present irregular or oval forms.

Plates 2 and 3 represent oleomargarine, two specimens, also seen through a highly-magnifying glass. They differ from each other but not to such an extent as they both differ from Plate 1. Differing as the oleomargarine plates (2 and 3) do from each other, they both have—instead of the butter globules seen in Plate 1—crystals similar to those seen by the aid of a microscope in the fats of cattle, sheep, hogs, and other animals. Pieces of animal tissue are present in Plate 2, together with salt-crystals and suspicious rounded forms of various kinds.

When Plate 3 was placed in the slide in the first place the shreds of animal tissue, salt and fat crystals and spores were seen, and also a number of peculiar forms frequently met with in foul water. Of the objects many active forms, together with fungi, were found after all the material had been boiled in water, and also after it had been dissolved in sulphuric ether. Such is oleomargarine!

In the use of oleomargarine, as well as in all rancid and putrefying butter and in unsound animal fat and meat, there is extreme danger that no preparation and no culinary art can guard against. There can be no doubt they are the cause of much disease and of many deaths. Could the gnat plague that has carried off so many thousands in Russia be traced to its source there is every probability that it would be found in impure and unsound meat. In such substances these little-known spores or eggs of trichina and other organisms are nurtured, and from them they are transmitted to human beings.

The English dairy farmers get immense returns from their grass lands by a free use of bone manure. One Cheshire farmer says that by this he can feed forty cows from land that formerly gave product sufficient to feed only twenty. English farmers believe in "boning" the grass land especially.

It is related of a Kentish farmer that he condensed his practical experience into this rule: "Feed your land before it is hungry, rest it before it is weary, and weed it before it is foul."

Effect of Exercise and Excitement on Milk.

The dairyman's pocket is sensibly affected by a proper understanding of this question. But there are very few, comparatively, who have discovered

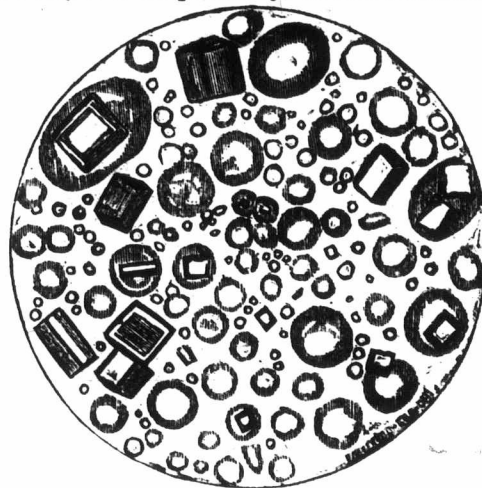


PLATE 1.

the real effect of exercise upon the milk product. Many suppose that severe exercise in the cow simply affects the quantity and not particularly the quality; and a still greater number have never

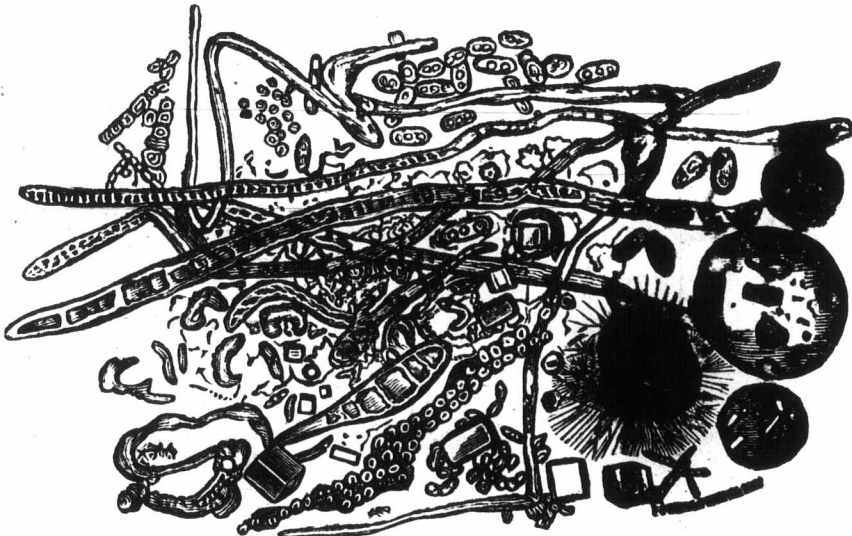


PLATE 2.

given the matter any consideration, but evidently do not think it has any bad effect, as witness those who worry their cows with dogs. Many allow their cows to be driven on a run to and from pasture, no doubt regarding this as so much gain in time. But any violent exercise has a serious effect upon the most valuable element in the milk—the butter. Liebig observed that the milk of the cow had a much larger proportion of casein when subjected to much exercise. Dr Carpenter suggested that this comes from the breaking down of the

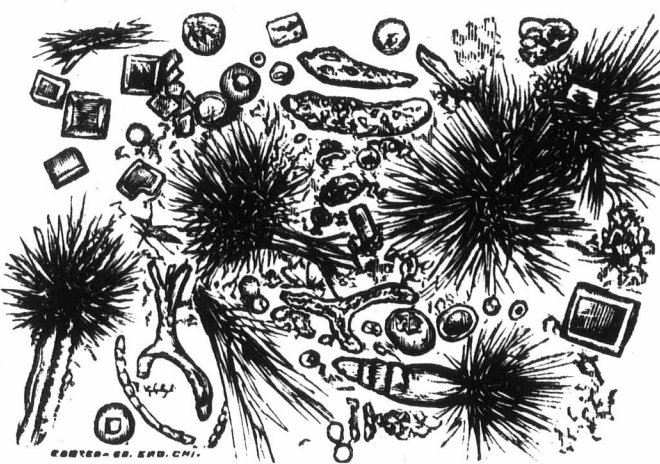


PLATE 3.

nitrogenized tissues. He also states that cows in Switzerland that pasture on the sides of steep mountains, and are obliged to use great muscular exertion, yield a very small quantity of butter, but a large proportion of cheese; yet when the same cows are stall fed the reverse is the result.

Miscellaneous.

ROOTING OF CUTTINGS.—The rooting of slips I have found a very easy matter in a double pot. I take an eight inch pot, cork up the bottom hole, and put into it enough clean sand (about four inches) to raise the top of a four inch pot to the height of an eight inch pot when placed therein. I then place the four inch pot in the centre without corking, fill around it with sand, place in a warm sunny position and fill with water by pouring into the small pot. Slips placed in the sand near the outer pot will root rapidly if kept warm and plenty of water is kept in the small pot. In the summer I place the pots on a fence in the hottest place I can find, and in winter in a south window of a warm room. As soon as rooted, the slips must be transferred to good soil. I have never found any trouble in rooting anything in this way.

In England forty bushels of wheat per acre is not an unusual yield, and fifty or sixty bushels per acre is often realized as the result of high farming. Nevertheless, England is obliged to import each year about 100,000,000 bushels in addition to her own crop to feed her people.

The sugar crop of Louisiana will amount this season to 225,000 hogsheads, or 250,000,000 lbs., worth \$14,625,000, and the yield of molasses to 300,000 barrels, worth \$3,000,000. Last year the production of sugar was less than 15,000,000 lbs., and that of molasses in proportion.

Gas-lime varies so much in composition, according to the length of time it has been made to do duty in the gas-works, that no safe opinion can be given as to its value. At the best, it would not probably be worth more than a third as much as good fresh lime, and it might not be worth more than a tenth as much. In any case it must be left exposed to the air in small piles for a few weeks for the conversion of certain poisonous compounds that it contains into harmless ones, and it may then be applied at the rate of sixty bushels to the acre. By mixing it with muck the muck might be improved by the action of the lime, but the gas-lime would be none the better for the mixture.

MANURE is as essential in fruit growing as it is for grain and grass. Those orchards that have

received the most abundant supply of barnyard manure have yielded the largest crops of fruit. Pear trees should be manured principally with ashes, salt, bone meal and lime.

Professor Lazenby, "after numerous experiments and very careful trials," commends the following as "safe, cheap and effective applications" for the cabbage worm—using either, two or three times during the season: 1. A pound of whale-oil soap in about six gallons of water; 2. A few quarts of tar in a barrel of water.

A company is being formed in Holland for the purpose of importing American live cattle, and dead fresh meats, to Holland, and for the German markets. English capitalists furnish the steamships, and Hollanders the operating capital.

Too early planting of flower-seeds in the open ground, while it is cold and wet, is a prolific source of trouble, and it is to be avoided. Seeds thus planted are liable to fail of germination; or should they start, the plants at best grow feebly, linger along and finally drop off one by one, until another planting becomes necessary, causing much care, loss of time, and with no further advancement than if the planting had been deferred until the soil had become mellow and warm.

While the country and suburbs afford most space for gardens and the display of floricultural beauty, many flowers may be grown in the city, and the limited space afforded may be used to great advantage. Most city houses have a front plot of ground under the parlor windows, seldom containing less than two hundred square feet; and have back yard, a portion of which could be advantageously used for a flower garden.