

Preservation of Cheeses.—Accidents to which they are Subject.

(Translated from the *Maison Rustique, Paris.*)

The preservation of cheeses is a most important point to those engaged in their manufacture, especially when they are intended for export.—Their consistence and their state of fermentation more or less advanced in the store-houses or cheese rooms, should serve as a guide. The method of manufacture also affects largely their preservation. Those cheeses which have received pressure in a too fresh state, and from which the whey is not entirely separated, are liable to raise and have their centres, holes or reservoirs of air, which give to the paste a spongy and disagreeable look. When this accident arises during the manufacture, and if the fermentation is considerable, they place the cheese in a cool and dry place, and pierce it with skewers of iron in the places where it rises the most; the air or the gas escape by these openings, the cheese subsides, and the interior presents fewer cavities. To prevent this accident, the English make use of a powder, which is sold under the name of cheese-powder; it is composed of a pound of nitre and one ounce powder of Armenian bole, intimately mixed. Before salting the cheese, and while it is about being placed in the press, they rub it with an ounce of this mixture; a stronger dose would produce a bad effect.

The part that the salt plays is very important. We have seen, indeed, that the casein in the dry state exists in an indefinite condition; but it then possesses only a weak flavor, and not agreeable. The addition of the salt on the one hand, and the preparation or perfection in the store-house on the other operations which require the greatest care and vigilance—succeed in procuring a gentle fermentation, or a gradual reaction between the elementary substances of the cheese. This reaction proceeds so much the more rapidly, as the cheese is softer and as the place is warmer and more moist. In proportion as the fermentation has been gentle, so much the more is the flavor of the cheese sweet and agreeable. It is at this precise moment when the reaction between the elements has produced combinations agreeable to the taste, that it is necessary to perfect the cheese—sooner than this it is not finished; later it is in a state of decomposition more or less advanced. When the cheese is in the right condition, it is put in a cool place and not too moist, in a good cellar which does not contain any liquor in fermentation; those where wine will keep well, are equally good for cheese but the two together in the same cellar will mutually exercise a bad influence.

Some cheeses with soft and fine paste, as those of Epoisse, of Langres, of Brie, and of Gerome, are put in boxes tightly, and giving them a coat or two of paint, the cheeses will be preserved for a longer time and in a better condition. CHAPTAL and others claim that cheese after transportation is never so good as when it is just taken from the cellars. The fact is, it decomposes during its transportation, and it is for this reason that in a tight varnished box the cheese will retain those qualities which constitute its excellence.

The cheese of Holland are usually covered with a coating of linseed oil varnish: this preparation is doubtless one of the principal causes of their preservation on long voyages; their small bulk may also be adduced as a reason. In making the Gruyere cheeses of a small size, and in covering them with this same varnish, they will be entirely impervious, even if thrown into the sea. The varnish forms an

united coat solid and dry, which prevents the access of air and moisture, the most active agents of fermentation. As to the action of heat, one can secure himself against that by a coating of powdered charcoal.

The insects which attack cheeses are, 1st the flesh-worm or cheese mite, (*Acaus siro*) which devour them when partly dried. These animals are so much the more dangerous, because they hatch beneath the crust, whence they spread throughout the interior, causing great injury. When one is careful to brush the cheese frequently, to wipe it with a cloth, to wash with boiling water the shelves on which they lie, one can protect himself against these mites. But the most certain way is, after having rubbed the cheeses with a brine, to let them dry, and smear them over with sweet oil. It is in this way that they treat Gruyere cheese when it is attacked by this destructive insect.

2d. The larvæ of the gilded green fly, (*Musca cesar*), of the common fly [*Musca domestica*], and above all of the fly of putrefaction, (*Musca putris*). These larvæ introduce themselves into the cheese and make great ravages. The presence of these vermicular insects which denote an advanced state of putrefaction, excite much repugnance with the great number of consumers; some persons, on the contrary, prefer the cheese in this state, because it is then stronger and of a more pungent flavor.

They destroy all these animals by vinegar, the vapor of burning sulphur, or by washes of chloride of lime. When the store-house contains these insects in abundance, they take up the cheese and scrape and wash the shelves with water holding in solution chloride of lime; they scrub at the same time the floor, and apply to the walls a coating of whitewash. When the cheese room is dry, they replace the cheeses, which have been previously washed with a weak solution of chloride of lime, dried, wiped with a cloth, or scraped, if they need it, and finally rubbed, as has been said, with a cloth soaked in oil.

If the cheeses have arrived at an advanced state of decomposition, they are put in powdered charcoal, mixed with a small quantity of chloride of soda, which destroys their offensive odor, and haste must be made to finish their manufacture before they become entirely putrid. As to mould, this can be prevented by scraping the cheese, by brushing it, and by rubbing it with the oil.

To give the new Gloucester cheese the taste and appearance of old cheese, with a probe they take from the two sides and centre—penetrating as far as the middle in each case cylinders of the paste, which they replace by similar ones from an old and fine cheese. After keeping the cheeses thus prepared for a few days, they will have acquired all the agreeable qualities of old Gloucester.

CLAY FOR SANDY SOILS.—Clay as a constituent of soil is not sufficiently appreciated. Its affinity for moisture, when thoroughly pulverized, is very great. It also absorbs ammonia to a greater extent than ordinary soils, and should therefore, form a part of every garden soil, sufficiently mixed with sand to be easily pulverized. A few loads of sand applied to a strong clay soil, or a few loads of clay applied to a sandy soil, makes the best of manure. Sufficient attention is not paid to the right composition of soil. Nature will take offence if we undertake to correct her mistakes, and we can well afford to do it, especially in our gardens, or where we bestow a good deal as on root crops.