

that almost exclusively employed in the country for the preparation of the dairy produce the following remarks apply more particularly to his kind of milk. We shall better understand these remarks by first observing the general composition of milk, which may be represented as follows:—

COMPOSITION OF MILK.

	Cow's Milk.	Ass's Milk.	Human Milk.	Cream.
Water.....	87.04	91.65	88.80	62.50
Caseine.....	4.26	1.80	3.82	5.62
Sugar.....	3.13	1.12	3.04	30.58
Salt.....	4.77	5.03	4.20	trace.
Im. constituents	.80	.40	.14	1.30
	100.00	100.00	100.00	100.00

is the fat or butter of milk that imparts its characteristic white, opaque appearance. The fat occurs in a multitude of little globules, which, distributed throughout the substance of the milk, gives rise to its peculiar white colour. The globules being slightly lighter than the fluid in which they float, slowly rise to the surface on standing, and form a layer, more or less thick, which we call the cream. By suitable means, the whole of the fat-globules can be removed, and a transparent liquid obtained, which contains the other constituents of the milk. It is often supposed that the cream is not the essential part of the milk, and we hear of its being given to children in the belief that it is a kind of concentrated milk of superior nutritive value. This, however, is not the case; cream is only composed of fatty substances, and its use in our system is much the same as is performed by the fat in meat. Indeed, we may say, that cream or the butter is to milk what fat is to meat—viz., that the cream which furnishes respiratory material. We may, however, regard it as a superior and more highly-organized kind of fat, since it approaches more nearly to the kind of fat occurring in our own bodies. The market prices of new milk and cream are quite disproportionate to the relative nutritive value; since the latter, having nothing but its cream (a material for which other substances could be easily substituted) is little inferior in point of feeding qualities to the milk; and where, as in many country districts, the milk, of better quality than that frequently supplied in town as new, can be had for a penny a quart, a more extended use of it amongst poor persons would be greatly to their advantage. In milk from which the cream has been removed, the other constituents may be separated as follows:—On the addition of a few drops of hydrochloric acid, or of vinegar, the caseine, or cheesy matter, separates in flocculent masses. When this is removed by straining, we are left in solution the sugar and the greatest part of the mineral salts, which may be obtained by evaporation, or boiling off the liquid in a water bath until it dries up. The caseine is,

perhaps, the most interesting of the above-named constituents of milk. Caseine is one of the group of plastic elements already spoken of as the flesh-forming materials of food. It resembles very closely, in its chemical properties, the gluten of grain, or the fibrine of flesh. We have also mentioned the close relation that exists between the caseine of milk and the vegetable caseine of peas, beans, and other leguminous products. The mineral elements of milk are exceedingly rich in phosphoric acid, a substance especially necessary in the development of the bones of the young animal it is intended to feed, with the other salts of food.—*Gibson's Every-Day Chemistry.*

The Royal Dairy, Frogmore, Windsor.

A new dairy has been constructed at Frogmore, near the lodge, for her Majesty and the Prince Consort. It stands upon the site of an old cottage, and contiguous to the Royal Aviary and Model Farm. The dimensions within the walls are 37 feet 7 inches long, 23 feet wide, by about 23 feet high to the flat of the ceiling. The walls to the spring of the sloping part are 15 feet high. The length is divided into four bays, and the breadth into three bays, by six columns of an octagonal form, made of timber, as is all the frame work, neatly coloured, decorated, and enamelled. The capitals of the columns are carved, and enriched with colour. The walls are surrounded with white marble tables, supported on marble shafts, inlaid with English and Belgian marble. Beneath these are reservoirs of a bluish encaustic tile; these reservoirs are to contain a flowing stream of cold water. The walls are lined with tiles of a delicate tint and pattern, surrounded with a green border. There are ten windows, each filled with stained glass, carrying a border composed of the may-blossom, daisies, buttercups, primroses, &c. Opposite the windows, on the side, are slight recesses, made to correspond in richness. Between these, and between the windows, are delicate bas-reliefs in majolica, of agriculture subjects, and the four seasons. Below these bas-reliefs are a border of richly coloured tiles, which continues round the heads of the windows and recesses. Above this is an elegant frieze in majolica, having a rich scroll pattern with medallions, containing portraits of her Majesty the Queen, H.R.H. Prince Albert, and the whole of the Royal Family, at equal distances, and relieved by shields, with monograms. The ceiling above the cornice is painted with a delicately-pencilled pattern, enamelled, to correspond with the frame work. There are two fountains, one at each end of the room, in majolica ware, of similar design, composed of a large shell supported by a heron and bulrushes. In this shell rises a Triton, supporting another