

The aim of alimentation is to supply the animal economy with the principles it requires for the production of its energy, and with the primordial elements which directly or indirectly go to the repair or growth of tissues. The more an aliment contains of these elements in quality and quantity, the greater is its nutritive value.

In the admirable paper read before you last year, your worthy vice-president has made you acquainted with the principles which constitute the chemical composition of our body. Here they are briefly enumerated : Oxygen, hydrogen, nitrogen, carbon, sulphur, phosphorus, calcium, sodium, potassium, magnesium, chlorine, iron and fluorine.

These elements are found in various combinations with one another and form nitrogenous and non-nitrogenous compounds, carbo-hydrates and salts. They enter into the composition of all the tissues of the body. Since food is destined to the rebuilding of those tissues, it is evident that the ideal aliment, the perfect type, would be the one into the composition of which would enter in the meantime, all the chemical elements I have enumerated. But that ideal does not exist. There are, for example, nutrients which contain a considerable proportion of nitrogen, making them eminently proper to repair the tissues, but which, on the other hand, possess too small a quantity of carbo-hydrates to meet the wants required by respiration and the production of animal heat. Others, while they are rich in carbon and hydrogen, are very poor in azote. Hence, the necessity of a mixed alimentation to properly supply nutrition with all its requirements.

Formerly, primordial foods were divided in two classes, namely : the plastic and the respiratory aliments.

The plastic aliments were constituted by albuminous substances to which the name of quaternary was given, because they possessed a more or less great number of atoms of oxygen, hydrogen, carbon and nitrogen. They were found in almost all the tissues and fluids of the body, forming the base of muscular tissue, gelatine of the bones, fibrin of the blood, casein of the milk, albumen of the egg, gluten of the bread, etc., etc. Respiratory aliments, so called because they are used for respiration and are consumed in the body, formed the base of fats, sugars and feculents.

For this altogether theoretical division, we have nowadays substitute ð