found in the arterial blood. Chyle, lymph and blood are simply to be regarded as the means by which the transportation is effected of the decomposable and decomposed material; the decomposition or change itself is effected in the tissues. The various substances dissolved or suspended in the arterial blood, such as albuminoids, fat, sugar, salts and oxygen diffuse themselves through the fine capillaries of the blood vessels into the fluids of the tissues and here it is that they are subjected to all sorts of changes and transformations. The products of these are gathered up into the dark venous blood, which carries them away to be discharged from the body, while another set of fine tubes, the lymphatic absorbents, pick up all healthy superfluous fluid from the various tissues and return it into the circulation.

The albuminous substances thus spread all over the system are split up into more and more simply organised bodies, the final products being urea and uric acid. Just how this transformation is effected is far from being clearly understood. But there is not the slightest doubt about the fact that the substance urea, which contains nearly 50 per cent. of nitrogen, together with small quantities of uric acid and ammonia, is the ultimate product of the decomposition of the albuminoids in the animal organism, and is completely removed from the body by the instrumentality of the kidneys. Consequently the quantity of urea produced in the animal body furnishes a measure of the quantities of albuminoids consumed. The nitrogen of 100 parts of albuminoids is capable of producing 33.45 parts of urea and if the constituents of the latter are substracted from the albuminoids thus:

	C.	H.	N.	O.
In 100 pts albuminoids ...	53.53	7.06	15.61	23.80
In 33.45 urea	6.69	2.23	15.61	8.92
There remain.....	46.84	4.83	....	14.88

which are applied either direct to sustain the animal heat or are deposited in the body as fat. Thus, while the carbon, to a very large extent, of the albuminoids in common with that of the carbo-hydrates either promotes the production of fat or finds its way in the shape of carbonic acid to the lungs, and is so discharged into the atmosphere, a very different fate is experienced by the nitrogen. In some mysterious