way, in a manner not yet understood by physiological chemists, it is made to form part of this substance urea and in the form of that compound it is separated from the body.

A very pertinent question, and one of the greatest importance is this: What is the special function of nitrogen in the animal economy? To what purpose is this continuous stream of it which passes through the body? Why are the albuminoids so essential to life, apart altogether from their carbon which goes partly to sustain the animal heat? Liebig's theory is well known and it is probably the one which to-day, in spite of its defects, finds widest acceptance. It is simply this: The conversion of part of the substance of the muscles into urea produces the power which the muscles require in performing movement and work. The nitrogen which is discharged from the body is therefore the equivalent of the transformed fibre, and therefore of the developed power and of the accomplished work. But there have been many objections to this teaching. It has been maintained that the muscles do not form the material by the chemical transformation of which power is produced, but only the apparatus in which the change is effected. Voit showed that, although the supply of albuminoids to an animal might remain unchanged, the mechanical work performed by that animal might be increased at pleasure, and that without provoking any increase in the amount of nitrogen discharged. Lawes and Gilbert too proved that this quantity depended entirely upon the nitrogen contents of the food, and therefore that the consumption of the muscle substances was entirely independent of the work accomplished. But since the muscular power must have come from the nourishment some opponents of Liebig's theory have sought its cause in the combustion of the non-nitrogenous nutrients, and they feel themselves the more justified in doing this because Smith, Von Pettenkofer and Voit had established beyond doubt the fact that, with the increase of muscular activity, the quantity of carbonic acid exhaled from the lungs increased also. In 1870 Liebig admitted the defects of his first theory and and brought forward a revision or modification of it. He felt himself, however, obliged to admit that even his new explanations were not entirely satisfactory, and declared that the true theory of the origin of muscular power had not yet been discovered and could only be