carbo-hydrates of food, and follow the proteids into the animal stomach where it is the special function of the pepsin contained in the gastric juice to render them soluble.

A word or two may not be out of place here regarding the digestive ferments. These are all nitrogenous bodies as is also the disatase of malt; but they are unorganised ferments or enzymes. They are quite different from the organized ferments, the vegetable or animal growths such as *Saccharomyces cerevisiæ*, which are said to provoke the various kinds of fermentations. Perhaps a good way to classify them would be to call the former ferments and the latter "varmints."

It does not appear that the digestive fluids of the intestinal canal such as the bile and pancreatic juice, are much concerned in acting upon the albuminoids of food or rather the peptones of the chyle. Their functions seem to be rather to convert sugar and fat into a condition for easy absorption. Elaboration follows absorption and ultimately these nutritive materials become part of the blood which conveys them to every part of the body, and affords to every organ and tissue a supply of the substances they stand in need of. Thus the nitrogen we have been following becomes part of the albuminoids of the blood, muscles and nervous system, and to its functions and transformations in connection with these I have now to invite your attention.

The blood, which constitutes about one twelfth of the weight of the body, and consists of the slightly yellowish colored fluid called the plasma or serum, and the blood corpuscles which swim around in it, is the fluid of life. It not only conducts to the various tissues and organs the substances which are necessary to their sustentation and growth, together with the oxygen required for changing the condition of the waste which they sustain, but it also takes up and removes from them all the substances which have served their purpose and become waste, in order to conduct them to the various organs of removal, the lungs, the skin and the kidneys, through which they obtain egress from the animal body. Formerly it was supposed that the various combinations and decompositions necessary to those operations took place in the blood itself. This view has, however, long since been recognized as erroneous, for none of the products of such decompositions are ever