

to easily leave the comb.

HONEY AS A FOOD.

With regard to this matter of the composition of honey as a food, honey must be classed with the saccharine foods when considering its value. In order to intelligently appreciate its value I shall have to say something with regard to the general food constituents as found in all foods. It will not take me more than a few minutes just to outline their nature and their composition and function in the animal system. We find that all foods comprise a greater or less quantity of the following classes of constituents Protein or albuminoids, fats, starch and sugar, ash nor mineral matter.

Now first of all, with regard to protein: Protein or albuminoid. These materials all contain as an essential element of their constitution, nitrogen. Now if you asked me for an example of protein or albuminoids I should at first name the white of an egg, which is pure albumen; it is one of the purest forms in which we can obtain protein; then the curd of milk, and gluten of wheat are others. There are more or less pure forms. Fat or oil I need not describe to you, because we have in so many articles such as butter and various classes of oils, materials that you are perfectly familiar with. You know what I mean when I refer to and mention the word fat. With regard to starch and sugars, those are known to the general chemist as carbo-hydrates. You have already learned from what I have said that starch and a sugar are related chemically so that all these substances which come under that head we call carbo-hydrates; then there is also ash or mineral matter which, in the body, goes to form the bone. These substances you understand are present

in greater or less proportion in nearly all our foods, though not in all; we shall see in that respect honey is not a complete food. Now I have said it is absolutely necessary that a complete food should contain these. Why? First of all the body requires something to build up its tissues continually. There is waste of our tissue due to muscular energy. Every time I speak a word or move my arm there is a certain waste of the system and this must be replaced, it is due to the protein or albumenoids that that repairing of the waste of the body takes place, and consequently in order to restore life we must have foods which contain a certain proportion of protein or albumenoid. Such have this quality of being muscle builders, body builders. They contain nitrogen, as an essential element. These other materials, fat and starch and sugar and so on do not contain any nitrogen. The chief intention with regard to protein and all albumenoids is to build up the body and repair the waste which hourly takes place.

With regard to the fat and sugar we have materials which are useful in keeping up the heat of the body. If you put a thermometer in your mouth you will find that the temperature is somewhere in the neighborhood of 100 degrees fahrenheit. How is that maintained? In the same way that heat in the stove is maintained. The wood is burned in the stove; the food is burned in the body. It is really a process of combustion; and the combustion of fat and starch and sugar within our bodies gives rise to heat. Heat is only another form of energy. We know that. Therefore we are able to convert the heat produced by the combustion of our foods into physical force or energy. So that we have in these