

under certain circumstances of passing from one form to another. It is worthy of note that although the quantity of carbon varies slightly, the weight of oxygen in each is exactly eight times the weight of the hydrogen. **Oil** is found in large quantities in the seeds of some of our cultivated plants—such as linseed, hemp, and cotton seed; in smaller quantities it is found in the grain of wheat, barley, oats, and other varieties of corn.

34. The three **nitrogenous** bodies are exceedingly similar to one another in composition. It has been already stated, that they not only contain carbon, hydrogen, and oxygen, as did the several bodies of the other group; but they also contain **nitrogen**, and because they contain nitrogen, they are called **nitrogenous**. They are also called **albuminoids**, after the name of their leading representative, **albumen**. This substance occurs nearly pure in the white of the egg. It exists also in the juices of plants, especially in corn and "roots." The **gluten** which is separated from the flour of wheat in the manner described (33), is largely composed of **fibrin**, an albuminoid which occurs in blood, from which it is readily separated by gently beating the fresh blood with a few twigs. Little threads or fibres will soon attach themselves to the sticks, and these will consist of the fibrin of the blood. We shall hereafter see that fibrin, or gluten, is an ingredient which largely determines the value of food. **Casein** occurs mixed with fats in the curd of milk; it is also found in peas, beans, &c. in which case it is sometimes called **legumin**.

35. We may now proceed to notice briefly the sources from which plants obtain those substances which we find them to contain. It is not difficult to see that the inorganic matter is obtained from the soil, because there is no other source from which these materials can be obtained. It is also well known that

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