

plants. The process of respiration in plants, is supposed to be continual; and to be accompanied, as in animals, by the formation and emission of carbonic acid gas. The process of digestion in plants, on the contrary, takes place only during their exposure to the light of the sun: their digestive process consists in the decomposition of the carbonic acid gas of the atmosphere, and the absorption of the carbon from the acid which is thus decomposed. Hence a plant, under the influence of sunshine, purifies the air by digesting the carbonic acid, and appropriating the carbon; while in the dark, the digestive process of plants ceases; but they continue to respire without intermission; and carbonic acid gas is thus accumulated in the surrounding atmosphere.

With respect to the "peculiar principles of plants," these are as numerous as the individual plants themselves; so that to attempt any detailed account of them here, would be quite impracticable. Generally speaking, the peculiar principles obtained from plants may be divided into three great classes:—those vegetable principles arising from the combination of hydrogen and oxygen in the same proportions which constitute water; as in the division of *saccharine* bodies, described in a former chapter:—those principles in which hydrogen, or rather carbon and hydrogen, predominate; which generally have more or less of an *oily* character;—and