

diverse opinions. In our own journal the statement of Mr. Druce that *Saxifraga tridactylites* must be added to the list of "carnivorous plants" called forth a protest from a respected correspondent, and we have reason for believing that more than one eminent British pharmacist is at present engaged in making observations on the subject. It may therefore be of interest to lay before them and others some recent results obtained by foreign investigators.

Since the discovery of the remarkable phenomena connected with the absorption of their food by so-called "carnivorous plants," the view has been rapidly gaining ground that there is in reality but little essential difference between the processes of the assimilation of food by plants and by animals. Professor Calderon, of the Institute of Las Palmas, Canary Isles, has lately propounded the idea that plants do not, as is usually supposed, derive their nitrogen entirely from the nitrates and ammoniacal salts dissolved in the soil, but to a considerable extent also from the nitrogenous organic matter which is always floating in the air in a solid form. The purpose of the viscid hairs or glutinous secretion with which so many plants are provided, he believes to be the detention of this floating organic matter. To prove the importance of the solid particles floating in the air to the life of the plant, he deprived air of all its organic matter in the way described by Professor Tyndall, and subjected some lichens to the access only of this filtered air and of distilled water, when he found all their physiological functions to be suddenly suspended. Professor Calderon divides the nutrition of plants into three classes:—(1) *nekrophagous*, the absorption of dead organic matter in various stages of decomposition; (2) *plasmophagous*, the assimilation of living organic matter, without elimination or distinction of any kind between useful and useless substances, such as the nutrition of parasites; and (3) *biophagous*, the absorption of living organisms, such as that known in the case of insectivorous plants.

Professor Ed. Morren, of Liège, has contributed an important paper on vegetable digestion to the proceedings of the Royal Academy of Belgium. He commences by the assertion that digestion is not a function peculiar to "carnivorous plants," but that it is common to all living beings, vegetable as well as animal. Animal digestion is, he states, according to the most recent observations, a fermentation consisting essentially in a hydration, or transformation of colloids into crystalloids, this change being a necessary preliminary to absorption. It is caused by the action of certain substances known as ferments, which are especially abundant in particular secretions, such as the saliva, gastric juice, and pancreatic juice. In the same manner all plants digest, and the process is precisely analogous to that of animals, being in this case also essential before assimilation is possible. Such a transformation of a colloid into a crystalloid is illustrated in the ordinary change of starch into glucose, which takes place so commonly in plants; the active