

the leaves chiefly, as is supposed ; these matters are returned, along with the remaining water, to be deposited in other parts of the plant, for its future uses. It seems now to be generally admitted, that one part of the food of plants is the matter extracted from the soil ; and that this matter is taken up with the watery portion of the sap above mentioned. It seems also to be admitted, that carbonic acid gas is in some way indispensable to vegetation ; “ for it has been ascertained, that feed plants as you will, they will neither grow nor live, whether you offer them oxygen, hydrogen, azote, or any other gaseous or fluid principle, unless carbonic acid is present.” Like the other nutritious matters, this carbonic acid is partly taken up by the roots ; but under certain circumstances, it is also absorbed from the air, by the leaves. The circumstances under which this absorption, or rather decomposition, of carbonic acid, by the leaves, takes place, are most curious and important. They are understood to be as follows :

During the day, and particularly during sunshine, the leaves of plants have the power of abstracting the carbonic acid from the atmosphere. The carbon of the acid, and perhaps also a little of its oxygen, combine with the plant ; while the greater part of the oxygen remains, and is diffused through the atmosphere in a gaseous state.