more dilute the solution, the easier would be the decomposition. Adopting Erlenmeyer's view of the position of the halhydration water in sulphate of magnesia ($HO - Mg - O - SO_2 - OH$), we might suppose the carbonic acid simply to replace the molecule of water, thus—$Mg \langle {O - SO_2 \atop O - CO} \rangle O$; but it would be contrary to all analogy for such a body to be more stable in dilute than in moderately concentrated solutions of the same temperature. If, on the other hand, we suppose the CO_2 to interpose itself between the Mg and the basic HO, we have a body of this form: $HO - CO - O - Mg - O - SO_2 - OH$. It is conceivable that such a body would in the process of concentration become dehydrated, when the anhydrous salt $Mg \langle {O - SO_2 \atop O - CO} \rangle O$ would be formed, which would then split up into CO_2 and $MgSO_4$. Assuming now that the body formed has this constitution, it is evident that, for a given mixture of sulphate of magnesia, water and carbonic acid, the amount of the above body formed will be a function of the temperature, the pressure and the duration of their action upon one another. Now, at great depths in the sea, where atmospheric influences are insensible, these conditions are most completely fulfilled. The temperature is low, the pressure high, and the time practically unlimited. Sea-water contains on an average about two grammes of crystallized sulphate of magnesia in the litre; and if the reaction were complete, the two grammes of sulphate of magnesia, or one litre of sea-water, would absorb 181·4 cubic centimetres of carbonic acid. Supposing only one-fifth part of the sulphate of magnesia to be thus saturated with carbonic acid, we have provision in one litre of sea-water for the removal of over 36 cubic centimetres of carbonic acid. We have thus in the sulphates (for the lime-salt appears to act even more energetically) an agent which in the ocean depths performs one of the two important functions of plants in shallow waters and in the air, namely, the removal of the carbonic acid eliminated by the animals; the task of replenishing the oxygen supply is accomplished by the system of ocean circulation. Moreover, it would be difficult to conceive