

imagine that the ions work their way through the solution by a continual series of interchanges between the parts of two solute molecules when in collision. The frequency of collision, and therefore the ionic velocity, would then vary as the square of the concentration, so that the conductivity would depend on the cube of the concentration.

(3) The potential difference at the contact of two solutions of different concentrations has the value calculated on the assumption that the ions migrate independently of each other, so that the faster-travelling ion enters the neighbouring solution first, and gives it a charge which continually increases till the electrostatic forces prevent further separation.

It is such phenomena as these, and not the numerical relations between conductivity and osmotic pressure effects, which seem to me to offer the most convincing evidence in favour of the dissociation theory.

W. C. DAMPIER WHETHAM.

Trinity College, Cambridge, April 24.

Mosquito-Bites.

AN acquired immunity from the bites of mosquitoes and "domestic pests" is not uncommon in British India, and I have rejoiced in it myself, but should not trespass on you for space for details. I can give them to any of your correspondents who may care to ask me.

There is lying before me a queer old case of mosquito-bite reported by a good witness, Pedro Teixeira, who sailed from Malacca to Mexico in 1600 A.D., and crossed the latter from Acapulco to San Juan de Ulua, on his way to Spain. Of this journey he says: "Almost all along this road is a plague of mosquitoes, so terrible and grievous that no defence avails against them, and they stung my best slave to death."

102 Cheyne Walk, Chelsea, April 9. W. F. SINCLAIR.

THE NATURAL HISTORY OF WORMS.¹

THIS is the third volume that has been issued of "The Cambridge Natural History." The previous volumes are vol. iii., Molluscs and Brachiopods (reviewed in NATURE, lii. p. 149), and vol. v., Peripatus, Myriapods, and Insects (reviewed in NATURE, liii. p. 322). In the multitude of the divisions in the animal kingdom with which it deals, the present volume differs considerably from its predecessors. It is true that one may even nowadays find most, if not all, of the many forms of life here described included in one heterogeneous section entitled Vermes; but the editors of the present book fully recognise the great distinction that exists between such forms as the Platyhelminthes or flatworms, the Oligochaeta or earth-worms, the Rotifera, and the Polyzoa, and they have very wisely distributed the various sections to authorities whom every one will recognise as among the most competent to deal with their respective subjects. Indeed it may be questioned whether the separation of the subjects has not been carried a little bit too far. It is true that pages ix. to xii. contain what purports to be the scheme of classification adopted in the volume, but this is little more than a table of contents, in which no attempt is made to show the relationships of the orders or families mentioned; and, apart from this, the only bond of union between the various sections appears to be the quotation, very happily adapted from André de Chénier, "Nous allons faire des vers ensemble." We should much like to have seen some attempt on the parts of the editors to present their readers, all of whom are not supposed to be familiar with the newest ideas of zoology, with a short introduction showing how and why it is that this "old group of Vermes" has gradually been dismembered, so

¹ "The Cambridge Natural History." Vol. II.: Flatworms and Mesozoa, by F. W. Gamble; Nemertines, by Miss L. Sheldon; Thread-worms and Sagitta, by A. E. Shipley; Rotifers, by Marcus Hartog; Polychaet Worms, by W. Blaxland Benham; Earthworms and Leeches, by F. E. Beddard; Gephyrea and Phoronis, by A. E. Shipley; Polyzoa, by S. F. Harmer. The whole edited by S. F. Harmer and A. E. Shipley. 8vo. Pp. xii. + 560; with numerous illustrations in the text. (London: Macmillan and Co., Ltd., 1896.)

that now we find not only such forms as the Platyhelminthes and the Polyzoa claiming to rank as independent phyla of the animal kingdom, but we also find, in the scheme of classification at all events, the genus *Phoronis*, the few forms composing the Dicyemida and Orthonectida, and the thirty or so genera of leeches placed on the same high level. When we are told, as

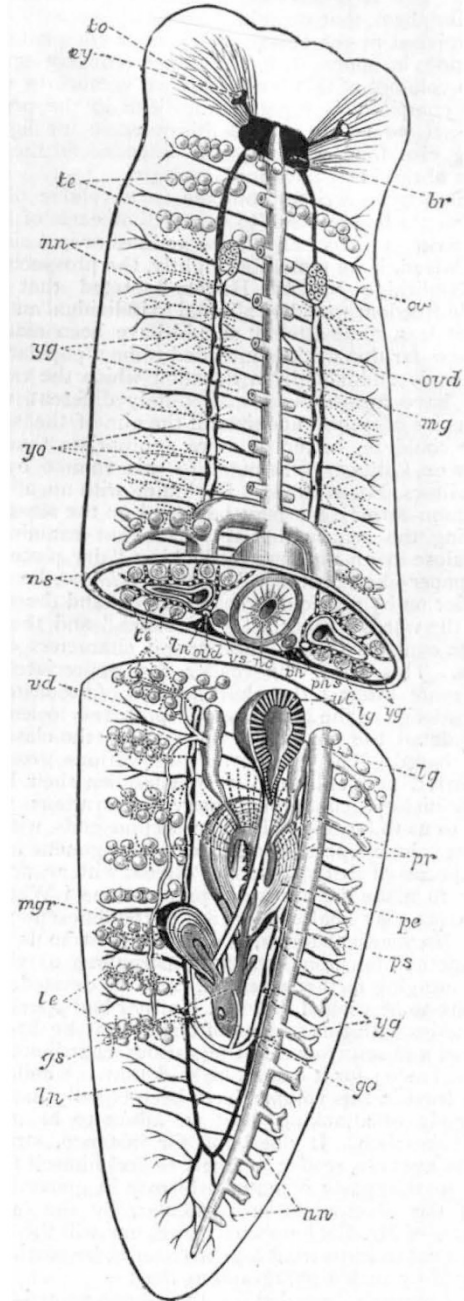


FIG. 1.—Diagrammatic view of the structure of *Planaria lactea*, a Turbellarian. $\times 7$. The body has been cut across and a portion removed.

Mr. Gamble tells us, that the Turbellaria "occupy the lowest position in the whole group of worms," that they "are most closely allied to that great extinct group from which they, the Nemertinea, Rotifera, and even the Annelids, offer increasingly convincing evidence of having been derived," then we ask, What are we to