of these phenomena. This postulates, for each fibre (or cell), a semi-permeable investment enclosing a fluid of higher ionic concentration than that outside it, and so represents each tissue element plus its immediate environment as a concentration cell.

From this point of view are first discussed currents of injury and of activity—the former attributed to outward diffusion of the cell (fibre) contents ("pre-existence" in a new dress), the latter to excitatory alteration in the permeability of the "membrane." Electrotonic and thermal currents, the discharge of electric organs, and the law of electrical excitation are dealt with from the same point of view.

Nor is this all. "Electrobiology" is extended beyond the above, more obviously electrical, events. In addition, the activity of secreting and of absorbing surfaces, karyomitosis, cell-life in general, are presented as electrokinetic phenomena.

Prof. Bernstein's clearness and conciseness have enabled him to condense a wealth of detail into small compass with singular freedom from confusion. His presentation is impressive and interesting throughout, and it is to be hoped that a work so peculiarly attractive to pre-graduate as well as to post-graduate students of physiology will find its way to early translation. W. L. S.

A Vertebrate Fauna of the Malay Peninsula from the Isthmus of Kra to Singapore, including the Adjacent Islands. Edited by H. C. Robinson. Reptilia and Batrachia. By George A. Boulenger. Pp. xiii + 294. (London: Taylor and Francis, 1912.) Price 15*s*.

THIS is the first instalment of a vertebrate fauna of the Malay Peninsula of which the Federated Malay States Government has authorised the publication. The plan of the work is that of Blanford's "Fauna of British India," to which it may be regarded as supplementary. References to literature, especially in the case of species common to both fauna, have been made as short as possible, though a fairly full synonymy has been given for all forms which do not occur outside Malayan limits.

The descriptions throughout are based on the collections in the British Museum, supplemented in some few cases by specimens in the Selangor, Perak, and Singapore Museums.

Who's Who in Science: International, 1913. Edited by H. H. Stephenson. Pp. xvi + 572. (London: J. and A. Churchill). Price 8*s*. net.

SEVERAL improvements have been made in the 1913 issue of this useful work of reference. A frontispiece giving portraits of certain eminent men of science who died during 1912 has been included, a new section on scientific societies and their publications has been added, and biographies of distinguished workers in psychology and geography are given for the first time. Altogether the editor has provided men of science with a handy directory which should help to introduce them to fellow-workers in various parts of the world.

LETTERS TO THE EDITOR.

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

Breath Figures.

LORD RAYLEIGH, in NATURE, December 19, 1912, has again returned to the subject of breath figures, and his criticisms of my work on that subject call for some remarks. Lord Rayleigh holds that clean glass will give a uniform deposit of dew when breathed on, and will look black, to use his expression, and show the colours of thin plates when properly lighted. I, on the other hand, think that the character of the deposit is generally determined by the impurities on the surface of the glass, because the appearance of the deposit depends very much on the treatment the surface may have previously received. I came to this conclusion because there seems to be no way of finding out what the deposit is like on clean glass, as we have no means of knowing whether the surface is clean or not.

My reason for supposing that the black deposit formed on the track over which a blowpipe flame had previously passed was due to impurities deposited on the cold surface by the hot gases, is that we know that under these conditions fine dust and possibly some gases must be deposited on the glass, and it is this impurity which, I think, gives the black deposit. Lord Rayleigh, on the other hand, supposes that this black condensation is due to the cleansing effect of the heat. If this be the case, then heat, apart from the flame, ought to give the same result. In my letter in NATURE of June 15, 1911, it is shown that it does not. This experiment was repeated recently, using higher temperatures. The result was no change on testing with the breath; the plate still gave the white deposit. A part of the plate was then passed over the flame, and, though not heated above what could be comfortably handled, it gave the black deposit. The black deposit in this case does not seem to be due to heat, but to some effect of the hot gases which will be referred to later.

On reading Lord Rayleigh's paper I was greatly interested in his happy idea of breaking a piece of glass and testing the broken surfaces before they got contaminated by any impurity. The solution of the question of the nature of the deposit on clean glass seemed at hand, but on further inquiry it became elusive, as we shall see. Following Lord Rayleigh's example, very thick plate-glass was first experimented with. When observing the condensation, in place of breathing on the glass, the plate, with the newly broken edge upwards, was pressed into pounded ice. By causing the condensation to take place in this way we get plenty of time for observing what is taking place. The surface was watched, while the condensation was forming, by means of a strong magnifying lens. My tests of the newly broken surfaces were slightly different from Lord Rayleigh's. He got both kinds of condensation—both black and white—while in my tests scarcely any white was observed. Practically all the surfaces gave a black condensation; they acted as Lord Rayleigh thinks clean glass will act.

Other kinds of glass were also tested. The finest results were obtained with the glass of a common black bottle. The deposit in this glass gave very fine colours, the black background showing them up brilliantly.

Having arrived at the conclusion that practically