

proportion of reduced hæmoglobin in the blood. In the paper the results are given of investigations involving determinations of the oxygen capacity and degree of oxygen saturation of the venous blood of persons suffering from pneumonic influenza; in some cases the acidity and reactivity were determined by means of the hydrogen electrode. The samples of venous blood from cases of pneumonic influenza showed no indication of decreased oxygen capacity or of deficient oxygenation. The concentration of hydrogen ion produced by the addition of a measured quantity of acid showed no indication of acidosis; the alkaline reserve was not reduced.—Dr. R. J. Tillyard: The Panorpid complex. Part 3: The wing-venation. Amongst the new discoveries may be mentioned the proof that the basal cell of the forewing in the butterflies is an *areocol* of very specialised construction, and that all the higher groups have had the venation of the anal area of the hindwing reduced, not by loss of 3A, as hitherto supposed, but by loss of 1A after fusion with 2A to form a Y-vein. A summary is given of the phylogenetic results, and a phylogenetic table with the positions of the more important fossils marked along the lines of descents. The Trichoptera and Lepidoptera are shown to be very closely allied, being a true dichotomy from a common ancestral stem, probably in the Trias. The Megaloptera and Planipennia are even more closely allied, and can only doubtfully be kept as separate orders. The Diptera are traced back to the Triassic Paratrachoptera, themselves an early offshoot of the older Mecopteran stem. The three orders Mecoptera, Paratrachoptera, and Diptera differ from all the rest in having the cubitus only two-branched, and thus lie outside the main line of advance of the complex.

BOOKS RECEIVED.

Calculation of Electric Conductors. By W. T. Taylor. Pp. 34. (London: Constable and Co., Ltd.) 10s. 6d. net.

The Present Position of the Theory of Ionisation. Pp. 178. (London: The Faraday Society.) 12s. 6d.

Action de la Chaleur et du Froid: Sur l'Activité des Êtres Vivants. By G. Matisse. Pp. ii+556. (Paris: E. Larose.)

The Theory of Relativity. By H. L. Brose. Pp. 32. (Oxford: B. H. Blackwell.) 1s. 6d. net.

Timbers and their Uses. By W. Winn. Pp. vii+333. (London: G. Routledge and Sons, Ltd.) 10s. 6d. net.

The Adventurer's Handbook: Being the Manual of the Order of Woodcraft Chivalry. Pp. xiv+119. (London: The Swarthmore Press, Ltd.) 2s. 6d. net.

The Hill of Vision: A Forecast of the Great War and of Social Revolution with the Coming of the New Race. By F. B. Bond. Pp. xxv+134. (London: Constable and Co., Ltd.) 7s. 6d. net.

The Coal Consumption of Power Plants, and Bonuses for Coal Saving. By R. H. Parsons. Pp. 23. (London: The Electrical Review, Ltd.) 1s. net.

Musings of an Idle Man. By Sir R. H. Firth. Pp. xii+359. (London: John Bale, Ltd.) 7s. 6d. net.

Engineering Descriptive Geometry and Drawing. By Capt. F. W. Bartlett and Prof. T. W. Johnson. 3 parts. Pp. vii+206; v+207-374; v+375-617. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd.) 27s. 6d. net.

The Psychology of the Future. By E. Boirac. Translated and edited, with an introduction, by W. de Kerlor. Pp. xiii+322. (London: Kegan Paul and Co., Ltd.) 10s. 6d. net.

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Pictorial Atlas of English History. Arranged by E. J. S. Lay. Pp. 48. (London: Macmillan and Co., Ltd.) 1s. 6d.

Experiments with Plants. By J. B. Philips. Pp. 207. (Oxford: At the Clarendon Press.) 3s. net.

DIARY OF SOCIETIES.

THURSDAY, DECEMBER 18.

ROYAL SOCIETY OF ARTS, at 4.30.—P. J. Hartog: Some Problems of Indian Education.

ROYAL SOCIETY OF MEDICINE (Dermatology Section), at 5.

ROYAL INSTITUTE OF PUBLIC HEALTH, at 5.—Dr. J. D. Grant: Tuberculosis of the Larynx: Treatment, especially in the Home.

INSTITUTION OF MINING AND METALLURGY (at Geological Society), at 5.30.—Adjourned Discussion on A Contribution to the Study of Flotation, H. L. Sulman.

INSTITUTION OF ELECTRICAL ENGINEERS (at Institution of Civil Engineers) at 6.—D. M. W. Hutchison and W. J. Wayte: Electricity in Tin Mining.

CONCRETE INSTITUTE, at 7.30.—M. S. R. Adams: The Use of Elliptical Vaulting as a Primary Factor in Contemporary Architecture.

SOCIETY OF ARCHITECTS, at 8.—Prof. H. Adams: The Need for More Care in Warehouse Design.

ARISTOTELIAN SOCIETY (at 22 Albemarle Street), at 8.—Dr. G. E. Moore: External and Internal Relations.

CHEMICAL SOCIETY, at 8.—Prof. J. Walker: War Experiences in the Manufacture of Nitric Acid and the Recovery of Nitrous Fumes.

FRIDAY, DECEMBER 19.

INSTITUTION OF MECHANICAL ENGINEERS, at 6.—G. W. Burley: Cutting Power of Lathe Turning Tools, Part II.

JUNIOR INSTITUTION OF ENGINEERS (at Royal United Service Institution), at 7.30.—Sir E. Tennyson d'Eyncourt: The Influence of the War on Engineering (Presidential Address).

ROYAL SOCIETY OF MEDICINE (Electro-therapeutics Section), at 8.30.—Dr. J. C. Mottram: The Leucocytic Content in Radium Workers.

—Adjourned Discussion on Major Cooper's Paper: The Artificial Stimulation of Muscle, with Demonstration of a New Form of Faradic Coil.

SATURDAY, DECEMBER 20.

PHYSIOLOGICAL SOCIETY (at St. Thomas's Hospital), at 4.30.

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