

ness determinations, and described a new apparatus which was designed for making hardness tests at high temperatures. He also gave data showing that the hardness of pure solid elements is a periodic function of their atomic weight.

SYDNEY.

Royal Society of New South Wales, September 4.—Mr. W. S. Dun, president, in the chair.—W. G. Woolnough: The Darling peneplain of Western Australia. The physiographic feature in Western Australia called by Jutson the Darling peneplain repeats in many respects the characters of the Blue Mountain uplands of New South Wales. It extends as a monotonous, laterite-covered plateau from the steep escarpment twelve miles east of Perth for nearly four hundred miles through the eastern goldfields. The monotony of the surface is interrupted by occasional hills representing residuals of a pre-existing plateau from which the Darling peneplain has been eroded, and by long, shallow valleys, forming the great wheat-belt of the State, which have been carved out of its surface by rivers.—Prof. C. E. Fawsitt and A. A. Pain: Experiments on the behaviour of iron in contact with sulphuric acid. The very slow action of concentrated sulphuric acid on steel is only accelerated to a moderate extent by dilution with several per cent. of water. For instance, 85 per cent. of acid has only a very slightly greater action than 94 per cent. of acid. The rate of action increases rather suddenly when diluting from 85 per cent. to 80 per cent. of acid, and again from 70 per cent. to 65 per cent. of acid. The electrical potential of iron with respect to concentrated sulphuric acid falls noticeably after the iron has been lying in the acid for a few minutes. The original potential is largely restored by exposing the iron for a few minutes to the air.—H. G. Smith: The resinous earth occurring at the head of the Nambucca River, N.S.W. This paper records the results of an investigation of the earth from two localities. It is shown that the ready ignition is due to the presence of the resin the earth contains. That it is of organic origin is indicated from the results of the analysis. The presence of nitrogenous products, as well as of phosphoric acid and a small amount of benzoic acid, also supports the conclusion.

BOOKS RECEIVED.

A Manual of Chemistry. Theoretical and Practical. Inorganic and Organic. By Dr. A. P. Luff and H. C. H. Candy. Sixth edition. Pp. xix+745. (London: Cassell and Co., Ltd.) 12s. net.

Petrol and Petroleum Spirits: A Description of their Sources, Preparation, Examination, and Uses. By Capt. W. E. Guttentag. Pp. xi+135. (London: E. Arnold.) 10s. 6d. net.

Surgery at a Casualty Clearing Station. By C. Wallace and J. Fraser. Pp. xi+320. (London: A. and C. Black, Ltd.) 10s. 6d. net.

Folk-lore in the Old Testament: Studies in Comparative Religion, Legend, and Law. By Sir J. G. Frazer. 3 vols. Vol. i., pp. xxv+569; vol. ii., pp. xvi+571; vol. iii., pp. xviii+566. (London: Macmillan and Co., Ltd.) 37s. 6d. net.

Civic Biology. By Prof. C. F. Hodge and Dr. J. Dawson. Pp. viii+381, with plates. (London: Ginn and Co.) 7s. net.

Projective Geometry. By Profs. O. Veblen and J. W. Young. Vol. ii. Pp. xii+511. (London: Ginn and Co.) 21s. net.

Industrial Electrical Measuring Instruments. By

NO. 2560, VOL. 102]

K. Edgcombe. Second edition. Pp. xvi+414. (London: Constable and Co., Ltd.) 16s. net.

Junior Grade Science. By G. A. Watson. Pp. ix+181. (London: Macmillan and Co., Ltd.) 3s. 6d.

DIARY OF SOCIETIES.

THURSDAY, NOVEMBER 21.

ROYAL SOCIETY, at 4.30.—W. Stiles and Dr. F. Kidd: (1) The Influence of External Concentration on the Position of the Equilibrium attained in the Intake of Salts by Plant Cells; (2) The Comparative Rate of Absorption of various Salts by Plant Tissue.—G. Marinisco: Recherches Anatomico-Cliniques sur les Névroses d'Amputations douloureuses: Nouvelles Contributions à l'Etude de la Régénération nerveuse et du Neurotrophisme.

LINNEAN SOCIETY, at 5.—E. S. Goodrich: A Fatherless Frog, with remarks on Artificial Parthenogenesis.—Miss Musiel Bristol: A Review of the Genus Chlorochytrium. Cohn.—A. S. Kennard and B. B. Woodward: The Linnean Species of Non-marine Mollusca that are represented in the British Fauna, with Notes on the Specimens of these and other British Forms in the Linnean Collection.

ROYAL SOCIETY OF ARTS, at 4.30.—Sir Everard im Thurn: The Present State of the Pacific Islands.

INSTITUTION OF MINING AND METALLURGY, at 5.30.—R. R. Kahan: Refining Gold Bullion with Chlorine Gas and Air.—A. Yates: Effect of Heating and Quenching Cornish Tin Ores before Crushing.—R. J. Harvey: The Development of Galena Flotation at the Central Mine, Broken Hill.

INSTITUTION OF ELECTRICAL ENGINEERS, at 6.—J. H. Shaw: The Use of High Pressure and High Temperature Steam in Large Power Stations.

INSTITUTION OF MINING AND METALLURGY, at 5.30.

MONDAY, NOVEMBER 25.

ROYAL GEOGRAPHICAL SOCIETY, at 8.—Arnold Hodson: Southern Abyssinia.

TUESDAY, NOVEMBER 26.

ROYAL ANTHROPOLOGICAL INSTITUTE, at 5.—F. G. Parsons: Anthropological Observations on German Prisoners of War.

WEDNESDAY, NOVEMBER 27.

ROYAL SOCIETY OF ARTS, at 4.30.—Lord D'Abemort: Drink Control in Various Countries.

THURSDAY, NOVEMBER 28.

ROYAL SOCIETY OF ARTS, at 4.30.—Bhupendranath Basu: Some Aspects of Hindu Life.

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Editorial and Publishing Offices:

MACMILLAN AND CO., LTD.,

ST. MARTIN'S STREET, LONDON, W.C.2.

Advertisements and business letters to be addressed to the Publishers.

Editorial Communications to the Editor.

Telegraphic Address: PHUSIS, LONDON.

Telephone Number GERRARD 8830.