

in the orbit caused by the proximity of the comet to Jupiter in 1913, new elements have been worked out. It should be sought for in the beginning of September.—**R. Baillaud**: An impersonal photographic astrolabe.—**P. Nicolardot**: The action of reagents upon glass-powder. Eight kinds of glass were studied, and the amounts dissolved by pure water and decinormal hydrochloric acid determined for three grades of powder, fine, medium, and coarse.—**S. Posternak**: The saturated sodium salt of inosite hexaphosphate. A collection of data given in an earlier paper.—**Ch. Boulin** and **L. J. Simon**: The evolution of a mixture of methyl sulphate and chlorosulphonic acid.—**J. Bougault** and **P. Robin**: The oxidation of benzaldehyde. This oxime, on treatment with iodine and sodium carbonate, gives benzoic acid, benzaldehyde peroxide, benzoyl-benzaldehyde, and dibenzoyl-oxoazo-oxime.

## SYDNEY.

**Linnean Society of New South Wales**, June 25.—**Mr. J. J. Fletcher**, president, in the chair.—**Dr. A. J. Turner**: Revision of Australian Lepidoptera. Part vi. (continued). Thirty-two genera and ninety-five species of the subfamily Boarmiinae are recorded or described, five genera and forty species being described as new.—**Dr. R. Greig-Smith**: The germicidal activity of the eucalyptus oils. Part ii. Eucalyptus oils are irregular in their action upon *B. coli communis*, and duplicate experiments may show a considerable amount of variation. Cineol begins to act in about a minute and a half; phenol acts instantly. The curves of cineol and phenol cross in 5 minutes with a dilution of 1:75 at 20°. The phenol coefficient of cineol in 15 minutes at 20° is 3.1; it rises to 3.4 in 30 minutes, and then slowly declines to 2.8 in 4 hours. Aromadendral is the most active of the constituents of the oils. The phenol coefficient is 21.1 in 30 minutes. The next most active is piperitone (4.1), and possibly phellandrene. Pinene and sesquiterpene are low (0.8 to 0.5). The rectified oils of *E. cinerea* and *E. Smithii* are more efficient than the crude oils. In the case of the oil of *E. cinerea*, this appears to be due to the hydrolysis of the esters and the subsequent oxidation of the alcohols to aldehydes. Treatment with alkali did not reduce the efficiency of the acid-rectified oil. The addition of acetic acid to the crude oil doubled the germicidal power in the course of 3½ months. The germicidal activity of the rectified and crude oils of *E. cinerea* is proportional to the starch-iodide reaction, and not to the acidity, but this does not hold for the oils as a class. The rectified oil of *E. polybractea* is less efficient than the crude oil. This may be due to the elimination of aromadendral during rectification. The oil of the Braidwood variety of *E. australiana* is the best and cheapest disinfecting oil (phenol coefficient=5.8 in 30 minutes). The oil of *E. cinerifolia* was the second best crude oil tested (phenol coefficient=4.8 in 30 minutes); its activity is probably due to its aromadendral content. As in the case of phenol, the addition of acid to the water used in emulsifying the oils greatly increases the germicidal activity.—**T. Steel**: Water from the roots of the red mallee. A chemical investigation of water from the roots of this plant from Fowler's Bay, South Australia.—**Prof. E. D. Merrill**: The identity of *Polypodium spinulosum*, Burm. f. The author, by comparing Burman's figure with Australian material, concludes that the plant described as *P. spinulosum* from Java represents the W. Australian plant, *Synalpheia polymorpha*, R. Br., and that the locality record is an error.

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## BOOKS RECEIVED.

Physiology and Biochemistry in Modern Medicine. By Prof. J. J. R. Macleod. Assisted by Dr. Roy D. Pearce and by others. Pp. xxxii+903. (London: Henry Kimpton, 1919.) 36s. net.

The Conditions that Govern Staleness in Bread: Changes of Moisture and Soluble Extract with Age. Investigations and Researches made in the British Army Bakeries in France, 1917-18. By Capt. R. Whymper. (Reprinted from the *British Baker*.) Pp. 72. (London: Maclaren and Sons, Ltd., 1919.) 1s.

Board of Agriculture and Fisheries. Fishery Investigations. Series iii. Hydrography. Vol. i. The English Channel. Part i.: Start Point to the Channel Islands. Review of the physical and chemical properties of the surface waters, and the variations of these properties during the thirteen years from 1904 to 1917 inclusive. (London: H.M.S.O., 1919.) 10s. net.

Some Questions of Phonetic Theory. By Wilfrid Perrett. Chap. v.: The Perception of Sound. Pp. 39. (Cambridge: W. Heffer and Sons, Ltd., 1919.) 2s. net.

The Silk Industry and Trade: A Study in the Economic Organisation of the Export Trade of Kashmir and Indian Silks, with special reference to their Utilisation in the British and French Markets. By Ratan C. Rawley. Pp. xvi+172. (London: P. S. King and Son, Ltd., 1919.) 10s. 6d. net.

We Must Discover. Pp. viii+176. (London: Simpkin, Marshall, Hamilton, Kent, and Co., Ltd., 1919.) 3s. 6d. net.

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