

hydrogen, peroxide, temperature, and acidity) give off oxygen, and this can serve as a measure of the grade of the flour.—**J. Savornin**: The continental Aquitanian in South Morocco.—**P. Bonnet**: The structure of the Caucasian isthmus and its relations with the oil-fields.—**S. Stefanescu**: The phylogeny of *Elephas meridionalis*.—**A. Danjon** and **G. Rougier**: The spectrum and theory of the green ray. Photographs of the spectrum of the green ray show that the theory of anomalous dispersion is untenable; the results are clearly in favour of the theory of normal dispersion, with absorption of the orange by the moisture in the atmosphere.—**C. Dufraisse** and **J. C. Bongrand**: The measurement of the tear-producing power of irritating substances by the *méthode du seuil*. The "concentration de seuil" is the lowest concentration which can be detected by its action on the eye in 30 seconds. This concentration for benzyl bromide is taken as unity in the measurements, and, although observers differ in sensibility, the comparative results expressed in this manner are independent of the observer. Figures are given for the principal lacrymogenic substances utilised in the war.—**R. Wurmser**: The action of radiations of different wave-lengths on the chlorophyll assimilation.—**L. Destouches**: Physiological observations on *Convoluta roscoffensis*.—**A. Krempf**: The larval development of *Coeloplana gonocotena*.—**P. Wintrebert**: The embryonic functions of the apparatus of relation in the anamniotic vertebrates.

## NAPLES.

**R. Accademia delle Scienze fisiche e matematiche**, April 3.—**Prof. Monticelli**, president, in the chair.—**G. d'Erasmus**: Miocene ichthyolites from Syracuse. A description of four species of Teleostomi new to the fossil fish fauna of the calcareous Miocene deposits of the province of Syracuse, of which one (*Pagellus siracusanus*) is new to science, and also one representative of the Elasmobranchi of the genus *Carcharias*. The paper is accompanied by a plate of *Sparnodus vulgaris*, *Pagellus siracusanus*, and *Calipterix spinosus*.—**M. Picone**: Riemann's integral and its relation to that of Lebesgue.—**E. Pantanelli**: Elective absorption of ions in equilibrated solutions. This is a sequel to the author's investigations on the absorption of ions by plants, in which he employs new experimental methods to elucidate the complex process of absorption of ions in equilibrated solutions, whether modified by the addition of salts with the object of maintaining the same osmotic pressure as that of solutions in which marine or terrestrial plants live, or in experiments with pure salt solutions.

April 10.—**M. Cipolla**: Hardy's criterion of convergence, ii.

## SYDNEY.

**Royal Society of New South Wales**, September 1.—**Mr. J. Nangle**, president, in the chair.—**G. D. Osborne**: The volcanic neck at the basin, Nepean River. The general geological features of the neck are discussed and a detailed account of the petrology of the rocks occurring there is given. The neck, which breaks through the Triassic rocks at its surface outcrop, is filled with a fine-grained breccia which is intruded by basalt dykes and plugs. The formation of the neck with the production of a long, narrow vent has been effected by explosive action concentrated upon a weak fissure structure lying transverse to the monoclinical fold in that locality. It has played an important part in the physiographic history of the Warragamba and Nepean river systems in Cainozoic times; the present junction of these two rivers being within it. In the breccia there occur fragments of the peridotites cognate with the basalt, and foreign xenoliths of rhyolite, gneissic granite, and sandy lime-

stone. The basalt contains only cognate inclusions of norites, hyperite, harzburgites, lherzolites, dunites, pyroxenites, and troctolite, the last-named recorded for the first time in New South Wales. The cognate inclusions represent fragments of a differentiate which solidified under plutonic conditions. The rhyolite inclusions may have come from the southward extension of the Kuttung series, the granitic rocks from ancient terrains and the calcareous clastic rocks from a now denuded roof of Upper Wianamatta rocks. Chief among petrographical features are the occurrences of two mineral intergrowths, a granophyric one of pleonaste and diopside and a graphic intergrowth of augite and picotite.—**R. H. Cabbage**: *Acacia* seedlings, part vi. The seedlings of seven *Acacia* species are described. The author stated that one seed-pod of *Acacia farnesiana* had floated in sea-water for more than eleven weeks and another for more than twelve weeks, and as he had previously demonstrated that a seed of that species would germinate after having been immersed in sea-water for three and three-quarter years, he considered the likelihood of the distribution of this species being sometimes effected by ocean currents was strengthened. The twinning of seedlings of *Acacia asparagoides* was recorded, several seeds having produced twin plants.—**J. H. Maiden**: A box-tree from New South Wales and Queensland. This tree, which is described as a new species, seems to deserve the name of "narrow-leaved box" better than all the boxes, its juvenile leaves being narrow-lanceolate and its mature foliage almost as narrow. The fruits are small and the timber pale brown. It is one of the trees known as "mallee box." It differs from *Eucalyptus bicolor*, which has narrow juvenile foliage, in the red timber and thick bark of the latter, and is widely different from *E. Woollsiiana*, **R. T. Baker**, which has broad juvenile foliage. It has been collected from Gilgandra, New South Wales, to Southern Queensland, and is particularly abundant in the Pilliga scrub. The type comes from Narrabri, New South Wales.

## Books Received.

*A Naturalist in Himalaya*. By **Capt. R. W. G. Hingston**. Pp. xii+300+plates. (London: H. F. and G. Witherby.) 18s. net.

*Orographical, Regional, Economic Atlas*. Part 2, Europe. Pp. 32. (Edinburgh: W. and A. K. Johnston, Ltd.; London: Macmillan and Co., Ltd.) 1s. 6d. net.

*Wild Friends at Home*. By **E. Chivers Davies**. Pp. 64. (London: G. G. Harrap and Co., Ltd.) 6s. net.

*A First Trigonometry*. By **Winifred Waddell** and **Prof. D. K. Picken**. Pp. vii+78. (Melbourne: Melbourne and Mullen Pty., Ltd.)

*A Critical Revision of the Genus Eucalyptus*. By **J. H. Maiden**. Vol. iv., parts 31-40. (Index.) Vol. v., part 2. Pp. 23-70+4 plates. (Sydney: W. Gullick.) 2s. 6d.

*Lehrbuch der Mineralogie*. By **Prof. P. Niggli**. Pp. xii+694. (Berlin: Gebrüder Borntraeger.) 80 marks.

*L'Ether pur, l'Ether matériel et les trois formes fondamentales de l'Energie*. By **Paul Elmassian**. Pp. 304. (Genève: Impr. Atar.)

*Mathematics for Technical Students*. By **S. N. Forrest**. Junior Course. Pp. viii+260. (With Answers.) (London: E. Arnold.) 7s. 6d. net.

*The Experimental Basis of Chemistrv*. By **Ida Freund**. Pp. xvi+408. (Cambridge: At the University Press.) 30s. net.