

have been able to train theirs. Mr. L. A. Legros also referred to education in his presidential address to the Institution of Automobile Engineers on October 11. Never, he said, in the history of engineering has the ignorance of science by the politicians, the military, and other authorities been so openly displayed as in the early stages of the war, and never has it proved so costly in time, in life, and in material. How many lives and how many millions of pounds, he asked, would the country have been saved if as much study in time and thought had been expended on science as on classics by our law-makers and law-givers? He pleaded that science should be given its proper place in education, and that due care should be exercised in providing suitable training for those women who, as mothers and teachers, would have charge of the earliest training of our future men.

### SOCIETIES AND ACADEMIES.

#### PARIS.

**Academy of Sciences, September 25.**—M. Camille Jordan in the chair.—E. Belot: The origin of the rotations and revolutions in the forward or backward sense, as well as the origin of cometary orbits.—J. Guillaume: Occultations of the Pleiades, observed on September 16, 1916, with the 16-cm. Brünner equatorial of Lyons Observatory.—M. Boll and L. Mallet: Determination of the practical constants of the Coolidge tube. The Coolidge tube is very stable, and the X-radiation can be maintained for a long time constant, both as regards emissive power and degree of penetration. It is easy to change from hard to soft rays and the reverse. The practical yield is of the same order as other focus tubes for soft rays. The radiation from a Coolidge tube is not appreciably more homogeneous than that of other tubes.—J. Bougault: The acidylsemicarbazides. A general account of their physical and chemical properties as a group.—P. Paris: *Sphaeromicola topsenti*, a new genus and species of Ostracod.—A. Lumière: The comparative action of antiseptics on pus and on pure cultures. The experiments were carried out with three disinfectants of different types—phenol, sodium mercury-phenol-disulphonate, and sodium hypochlorite. These were allowed to act under similar conditions upon the concentrated pus, culture of the pus, and a pure culture of the predominating staphylococcus from the pus, and also upon 1 per cent. dilutions of these. The albuminoid substances present in the pus attenuate slightly the bactericidal effect of phenol; this action is a little more marked with the mercury compound, and becomes very important with the hypochlorite.—R. Wurtz and E. Huon: The variolisation of heifers immunised against the vaccine.—Em. Bourquelot and A. Aubry: The biochemical synthesis of  $\alpha$ -propyl-d-galactoside with the aid of a ferment contained in air-dried low yeast.

### BOOKS RECEIVED.

A Census of New South Wales Plants. By J. H. Maiden and the late E. Betche. Pp. xx+216. (Sydney: W. A. Gullick.)

Vorschläge zur geobotanischen Kartographie. By Dr. E. Rübel. Pp. 14. (Leipzig: Rascher and Co.) 1.50 francs.

Catalogue of Scientific Papers. Fourth Series. 1884-1900. Compiled by the Royal Society of London. Vol. xv. Pp. vi+1012. (Cambridge: At the University Press.) 2l. 10s. net.

Joseph Pennell's Pictures of the Wonder of Work: with Impressions and Notes by the Artist. Pp. lii. (London: W. Heinemann.) 7s. 6d. net.

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Transactions of the Royal Society of Edinburgh. Vol. I., part iv. Session 1913-14. (Edinburgh: R. Grant and Son.) 22s.

Checklist of the Recent Bivalve Mollusks (Pelecypoda) of the Northwest Coast of America from the Polar Sea to San Diego, California. By Dr. W. H. Dall. Pp. 44. (California: Southwest Museum.)

Arboreal Man. By Prof. F. Wood Jones. Pp. x+230. (London: E. Arnold.) 8s. 6d. net.

The Migrations of Fish. By Prof. A. Meek. Pp. xviii+427. (London: E. Arnold.) 16s. net.

### DIARY OF SOCIETIES.

FRIDAY, OCTOBER 20.

INSTITUTION OF MECHANICAL ENGINEERS, at 6.—Trials on a Diesel Engine, and Application of Energy Diagram to obtain Heat Balance: The late Lieut. Trevor Wilkins; presented by Prof. Burstall.

TUESDAY, OCTOBER 24.

ZOOLOGICAL SOCIETY, at 5.30.—Notes on the Development of the Starfishes *Asterias glacialis* O. F. M., *Cribrella oculata* (Linck) Forbes, *Solaster endeca* (Retzius) Forbes, *Stichaster roseus* (O. F. M.) Sars: Dr. J. F. Gemmill.—Studies on the Anoplura and Mallophaga, being a Report upon a Collection from the Mammals and Birds in the Society's Gardens.—Part II.: B. F. Cummings—Two New Species of Cestodes belonging respectively to the Genera *Linstowia* and *Cotugnia*: Dr. F. E. Beddard.—Notes on a Collection of Heterocera made by Mr. W. Feather in British East Africa, 1911-13: Lt.-Col. J. M. Fawcett.—The Structure and Function of the Mouth-parts of the Palaeomonid Prawns: L. A. Borradaile.—Heude's Collection of Pigs, Sika, Serows, and Goralis in the Sikawei Museum, Shanghai: A. de C. Suwerby.

INSTITUTION OF CIVIL ENGINEERS, at 5.30.—James Forrest Lecture: The Development of Appliances for Handling Raw Materials and Merchandise at Ports and other Large Centres of Traffic: Sir John Purser Griffith.

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