SIR HENRY CRAIK, K.C.B., in his report for the year 1904 on secondary education in Scotland, says that the examiners are of opinion that the teaching of theory is still the weak point in the instruction in science given in the schools, though there has been some improvement since last session. This weakness is specially conspicuous in the subjects of magnetism, electricity, and hydrostatics. It would appear that most teachers rely too exclusively on the experiments done by the pupils in the laboratory, and do not supplement them sufficiently by full discussion and cross questioning, and by demonstration experiments. It is to be feared that the subjects mentioned are too often attempted by boys who are not sufficiently equipped with a previous knowledge of mathematics and dynamics, who would have been much more profitably employed in going through a course in heat or chemistry. It is satisfactory to find evidence of a tendency to simplify the courses followed in the schools.

THE Higher Education Subcommittee of the Lancashire Education Committee has issued a series of circulars detailing the provision made in the county for instruction in various branches of agriculture. In the first of the pamphlets full particulars are given of a scheme of agricultural education to be carried out at the County Council Farm, Hutton, the Harris Institute, Preston, and in various parts of the county during the session of 1904-5. The course in agriculture at the Harris Institute, Preston, extends over four years, and is intended to prepare youths for the practical work of a farmer's life by instructing them in the principles which underlie farming operations, and demonstrating—in the lecture room and on the farm—modern and scientific methods of agriculture. The instruction is free to approved students, and, in addition, the County Council allows a sum not exceeding ten shillings per week, either for board, lodging, or for travelling expenses, to each student in full attendance, not being a holder of an agricultural scholarship, who fulfils certain conditions laid down. The Higher Education Subcommittee has also made arrangements to consider applications from local committees, agricultural societies, and farmers' associations, for courses of lectures by members of the agricultural staff at the Harris Institute, Preston.

SOCIETIES AND ACADEMIES.

PARIS.

Academy of Sciences, August 29.—M. Mascart in the chair.—On the fall of Perseids in 1904: Henry **Perrotin.** The most favourable evenings for observations were August 9 to 14. Owing to the exceptional purity of the atmosphere at the summit of Mont Mounier (2740 metres) a large number of meteors were noted. As regards their points of appearance, disappearance, velocity, and brightness, the results clearly indicate the advantages possessed by stations at high altitudes for methodical observations of meteors.—On the approximate solution of certain congruences: Frédéric **Riesz.**—On the formulæ of tonometry and cryoscopy: E. **Ariès.** In a preceding communication it has been shown that the expression for the potential of each of the two substances in a dilute solution can be deduced from the law of van 't Hoff. In the present paper these results are extended to include the formulæ connecting the alteration of vapour pressure and of freezing point, deduced experimentally by Raoult.—On a case of globular lightning at Autun on July 16: M. **Roche.**—On the theory of macles: G. **Friedel.**—The passage from the root to the stem in *Primula Auricula*: H. **Ricome.**—Researches on the assimilation of some ternary substances by the higher plants: P. **Mazé** and A. **Perrier.** From the experiments described, it is shown that green plants, like fungi and micro-organisms, are capable of assimilating sugars, the only distinction between the two cases being that the former can create these substances at the expense of atmospheric carbon dioxide, whilst in the latter, the nitrous and nitric ferments are the only ones known to be able to take carbon from carbonic acid.—On the preservation of flour by cold: M. **Balland.**

NEW SOUTH WALES.

Linnean Society, July 27.—Dr. T. Storie Dixson, president, in the chair.—Notes on Australian Coccidæ ex Coll. W. W. Froggatt, with descriptions of new species, No. i.: E. Ernest **Green.** A species of Chionaspis found upon the undersurface of the leaves of *Eucalyptus tereticornis*, Sm., and the nut-grass Coccid, a species of Antonina, are described as new. The latter may be classed with the few beneficial species of Coccids, as it is credited with destroying the host-plant (*Cyperus rotundus*, Linn.), a most objectionable weed, over a large area of the Hunter River flats, N.S.W.—Three new generic names for Mollusca: Captain F. W. **Hutton,** F.R.S. The author finds, through the publication of the "Index Zoologicus," that the following generic names, published by him for land Mollusca, have been forestalled:—Pyrrha, by Cabanis in Aves, 1849; Carthæa, by Walker in Lepidoptera, 1858; and Rhenea, by Saalmüller in Lepidoptera, 1884. He therefore proposes the following names to replace them:—Thermia for Pyrrha, Serpho for Carthæa, and Delos for Rhenea.—On a new species of Heteronympha, and a new variety of *Tisiphone abeona*, Don.: G. A. **Waterhouse.**—On four new species of Eucalyptus: J. H. **Maiden.**

GÖTTINGEN.

Royal Society of Sciences.—The *Nachrichten* (physico-mathematical section), part iii. for 1904, contains the following memoirs communicated to the Society:—

May 14.—Ph. **Furtwängler**: On the construction of the *Klassenkörper* for any algebraic *Zahlkörper*. Lothar **Heffter**: On the definition of the definite integral in two dimensions, independently of previous integration. G. **Prasad**: On the notion of lines of curvature.

June 11.—J. **Stark**: Experiments on the genesis of the band- and the line-spectrum.

June 25.—David **Hilbert**: Principles of a general theory of linear integral equations.

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