sternum of different shape from that of other members of the genus, the mesosternum being more protuberant. It will probably be referred to Probothrium.—Mr. Chas. S. Welles exhibited specimens of the larva of *Harrisimenna trisignata*. When fullgrown they bore into wood preparatory to changing into chrysalids.—A paper was read entitled "The breeding habits of Periplaneta orientalis," by C. Few Seiss. Three females deposited twenty-five egg-cases. Each of these contains sixteen eggs, so that a new generation of 400 cockroaches was represented by the deposit. The first of these egg-cases were dropped May 5 and May 14, 1895, and were hatched November 9. In most cases the deposits were dropped with no attempt at concealment, although in a few instances they were placed in little trenches made by the insect, and then covered up. The development of the capsules was described. The young, probably, receive no maternal care or protection.—Mr. Lancaster Thomas exhibited an improved form of insect net-frame made from a continuous piece of rounded aluminium wire.—Mr. Westcott suggested linoleum as a substitute for cork in the arrangement of insects.—Dr. Henry Skinner called attention to a fungus, Polyporus betulinus, which might be used for the same purpose with advantage. - Mr. William J. Fox stated that about ninety species of Hymenoptera, six of which were perhaps new to science, were included in the collections of insects brought by Dr. A. Donaldson Smith from Western Somaliland, Africa.

# DIARY OF SOCIETIES.

### LONDON.

### THURSDAY, MAY 21

ROYAL SOCIETY, at 4.30.—On the Changes produced in Magnetised Iron and Steels by cooling to the Temperature of Liquid Air: Prof. J. Dewar, F.R.S., and Dr. J. A. Fleming, F.R.S.—Note on the Larva and of the Post-Larval Development of Leucosolenia variabilis, H. Sp., with remarks on the Development of other Asconidæ: E. A. Minchin.—Helium and Argon. Part III. Experiments which have yielded Negative Results: Prof. Ramsay, F.R.S., and Dr. Collie.—On the Amount of Argon and Helium contained in the Gas from the Bath Springs: Lord Rayleigh, Sec.R.S.

ROYAL INSTITUTION, at 3.-The Art of Working Metals in Japan: W.

ROYAL INSTITUTION, at 5.

Gowland.

CHEMICAL SOCIETY, at 8.—The Diphenylbenzenes. I. Metadiphenylbenzene: F. D. Chattaway and R. C. T. Evans.—Derivatives of Camphoric Acid: Dr. F. S. Kipping.—Some Substances exhibiting Rotatory Power, both in the Liquid and Crystalline states: W. J. Pope.

### FRIDAY, MAY 22.

ROYAL INSTITUTION, at 9.—Hysteresis: Prof. J. A. Ewing, F.R.S. Physical Society, at 5.—On Dielectrics: R. Appleyard.—The Field of an Elliptical Current: J. Viriamu Jones.—An Instrument for Measuring Frequency: A. Campbell.

### SATURDAY, MAY 23.

Geologists' Association (Paddington, at 11.45).—Excursion to Chippenham, Calne, Kellaways, and Corsham.
Yorkshire Naturalists' Union, at Hellifield.—Four Days' Excursion for the investigation of Bowland.

## MONDAY, MAY 25.

LINNEAN SOCIETY, at 3 .- Anniversary Meeting.

### TUESDAY, MAY 26.

ROYAL INSTITUTION, at 3.—The Building and Sculpture of Western Europe: Prof. T. G. Bonney, F.R.S.
ROYAL PHOTOGRAPHIC SOCIETY, at 8.—Apparatus for Photography on Small Plates (smaller than Quarter Plates).

### WEDNESDAY, MAY 27.

Geological Society, at 8.—On the Pliocene Deposits of Holland, and their relation to the English and Belgian Crags, with a Suggestion for the Establishment of a New Zone—"Amstelien"—and some Remarks on the Geographical Conditions of the Pliocene Epoch in Northern Europe: F. W.·Harmer.—The Lingula-Flags and Igneous Rocks of the Neighbourhood of Dolgelly: Philip Lake and S. H. Reynolds.—The Kildare Inlier: C. J. Gardiner and S. H. Reynolds.

BRITISH ASTRONOMICAL ASSOCIATION, at 5.

### THURSDAY, MAY 28.

ROYAL INSTITUTION, at 3.—Lake Dwellings: Dr. Robert Munro.
INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—The Utilisation of Water-Power, especially with a Small Fall, with some Examples of Plants for the Generation of Electrical Energy: Alph. Steiger.
CHEMICAL SOCIETY, at 8.—Lothar Meyer Memorial Lecture: Prof. P. Phillips Bedson. Phillips Bedson.

SATURDAY, MAY 30.

ROYAL INSTITUTION, at 3.—The M. Europe: Dr. E. A. Wallis Budge. ROYAL BOTANIC SOCIETY, at 3.45. -The Moral and Religious Literature of Ancient

NO. 1386, VOL. 54

## BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

Books,—The Evolution of Bird-Song: C. A. Witchell (Black).—Meteorological Results of the Observations taken at the Bangalore, &c., Observatories, 1893-94: J. Cook (Bangalore)—Earth Knowledge: W. J. Harrison and H. R. Wakefield, Part 2 (Blackie)—The Flora of the Alps: A. W. Bennett, 2 Vols. (Nimmo).—Attaque des Places: Lieut.-Colonel E. Hennebert (Paris, Gauthier-Villars).—La Spectroscopie: Prof. J. Lefèvre (Paris, Gauthier-Villars).—La Spectroscopie: Prof. J. Lefèvre (Paris, Gauthier-Villars).—Grundriss der Entwicklungsgeschichte des Menschen und der Sängethiere: Dr. O. Schultze, Erste Halfte (Leipzig, Engelmann).—Southall's Organic Materia Medica: J. Barclay, 5th edition (Churchill).—Schlich's Manual of Forestry. Vol. v. Forest Utilization: Prof. Fisher (Bradbury).—Water Supply: Prof. W. P. Mason (Chapman).—A Dictionary of the Names of Minerals: Prof. A. H. Chester (Chapman).—Leerboek der Organische Chemie: Dr. A. F. Holleman (Groningen, Wolters).—The Elements of Physics: E. L. Nichols and W. S. Franklin. Vol. 1. Mechanics and Heat (Macmillan).—Memoirs of Frederick A. P. Barnard: J. Fulton (Macmillan).—Nature's Byepaths: Dr. J. E. Taylor, 6th edition (W. H. Allen).—Mathematical Papers read at the International Mathematical Congress held in connection with the World's Columbian Exposition, Chicago, 1893 (New York, Macmillan).—Stanford's Compendium of Geography and Travel, new issue. Asia, Vol. 1: A. H. Keane (Stanford).—Gehirn und Seele: Dr. P. Flechsig (Leipzig, Veit).

PAMPHLETS.—Remarkable Eclipses: W. T. Lynn (Stanford).—The Old Light and the New: W. Ackroyd (Chapman).—Nineteenth Report of the State Entomologist on the Noxious and Beneficial Insects of the State of Illinois (Springfield, Ill.).

SERIALS.—Engineering Magazine, May (Tucker).—Science Progress, May (Scientific Press).—Strand Magazine, May (Newnes).—American Naturalist, May (Philadelphia).—Bulletin of the American Mathematical Society, April (New York, Macmillan).—Journal of the Chemical Society, April (W

| CONTENTS. PA  | GE       |
|---|----------|
| Sociology. By Carveth Read  | 49       |
| Cocoa Connotations  |          |
| The Chemistry of Engineering  | 51       |
| Our Book Shelf:-  | _        |
| Watson: "Elementary Practical Physics"; Newth:                                      |          |
| "Elementary Practical Chemistry."—C. H. D   | 51       |
| Jago: "A Text-Book of the Science and Art of Bread-<br>Making"                      | 51       |
| Letters to the Editor:-   | -        |
| Koch's Gelatine Process for the Examination of                                      |          |
| Drinking Water.—Frank Scudder; Prof. Percy  |          |
| F. Frankland, F.R.S. On the Action of Röntgen Rays and Ultra-violet Light           | 52       |
| on Electric Sparks. (With Diagram.)—Dr. A. Sella                                    |          |
| and <b>Dr. Q. Majorana</b> Röntgen Ray Phenomena.— <b>J. William Gifford</b>        | 53       |
| Kontgen Ray Phenomena.—J. William Ginord  | 53       |
| Alpenglühen.—W. Larden  | 53       |
| Dixon   | 54       |
| Dixon Colour Variations in Ducks and Pigeons.—W. T. Van                             |          |
| Dependence of the Colour of Solutions on the Nature of                              | 54       |
| the Solvent.—F. G. Donnan   | 55       |
| Hatching Lizards' Eggs.—Mrs. H. A. Ross   | 55       |
| The Diffusion of Metals. (Illustrated.) By Prof. W. C. Roberts-Austen, C.B., F.R.S. | 55       |
| Books on Birds  | 53<br>58 |
| Notes   | 60       |
| Our Astronomical Column:—   | •        |
|   | 63       |
| The System of Castor Efficiency of Photographic Telescopes                          | 63       |
| Solar Photography at Meudon   | 64       |
| University Observatories in America   | 64       |
| International Catalogue of Science  | 64       |
| The French Universities   | 64       |
| National Academy of Sciences—Washington Meeting. By Dr. Wm. H. Hale                 | 65       |
| The Manufacture of Artificial Silk  | 66       |
| A Theory of the X-Rays. By Prof. Albert A.  |          |
| Michelson   | 66       |
| University and Educational Intelligence   | 67       |
| Scientific Serials  | 68       |
| Societies and Academies   | 69       |
| Diary of Societies  | 72       |
| Books, Pamphlets, and Serials Received  | 72       |
| -   |          |