Meteorological Society, May 9 .- Dr. Vettin, President, in the chair .- Prof. Hellmann presented the two first numbers of reprints of important papers on meteorology and terrestrial magnetism, which he is publishing with the support of the German Meteorological Society and the branch society in Berlin. No. I is a fac-simile of the earliest German work on meteorology : Weather book by Rynmann, dated 1510. No. 2 is also a *fac-simile* of Bl. Pascal's celebrated research by which the existence of atmospheric pressure was first determined. - Prof. Börnstein spoke on the most recent theories as to thunderstorms, of which none supply a definite solution of the problems involved, and explained a simple form of apparatus by Elster and Geitel, in Wolfenbüttel, by means of which anybody can make observations on atmospheric electricity, and invited the co-operation of the members. —Dr. Kremser gave some notes on the dryness of last April. Whereas the average fall in Prussia for April is 30 to 50 mm., the fall for last month was only 10 mm. in the extreme east, falling to I mm. in the central region, and to 0 mm. in the west and south-west. In Berlin a measurable amount of rain fell on only one day, the 17th, amounting to 0'5 mm., so that this month was the driest recorded since observations were first Up to the present time the driest month had 865, with a fall of 1 mm. The period of made in Berlin. been October, 1865, with a fall of 1 mm. drought began as early as March 21 or 22, and in many parts of Prussia had lasted for forty days, being accompanied by absence of clouds and marked temperature amplitudes of 10° to 18°.-Dr. Less gave an account of the barometric conditions over Europe during the drought. They may be divided into three periods. In the first, at the end of March and beginning of April, the highest pressure lay over France and Germany, the lowest over Russia as far as the Ural Mountains. In the second period, the middle of April, the area of high pressure had moved over towards England, while the lowest pressure had extended to the centre of Germany. In the third period a flat area of lowest pressure situated over the Atlantic had driven the area of highest pressure once more towards central Europe.-Prof. Bornstein exhibited samples of the material used in the con-struction of the recently-destroyed balloon "Humboldt." This This balloon had become ignited, accompanied by a violent explosion, while being emptied, without any definitely ascertainable cause. The speaker demonstrated how readily the outer surface of the material could be electrified by friction, and suggested that electricity had thus been generated, and had, as a spark-discharge, ignited the gas as it escaped. This source of danger could probably be removed by placing a few long metallic wires round the valve.

## DIARY OF SOCIETIES.

#### LONDON.

- LONDON. THURSDAY, JUNE 1. ROVAL SOCIETY, at 4:30--On the C-lour of Sky-light, Sun-light, Cloud-light, and Candle-light: Captain Abney, F.R.S.-Flame Spectra at High Temperatures; Part I., Oxyhydrogen Blowpipe Spectra: Prof. Hartley, F.R.S.-Note on the Flow in Electric Circuits of Measurable Inductance and Capacity; and in the Dissipation of Energy in such Circuits : A. W. Porter--On the Metallurgy of Lead : J. B. Hannay.-On the Motion under Gravity of Fluid Bubbles through Vertical Columns of Liquid of a Differ-nt Density : F. T. Trouton. LINNEAN SOCHETY, at 8.-On Polynesian Plants collected by J. J. Lister: W. B. Hemsley, F.R.S.-On the Anatomy of a New Plant- Melasto-maceæ or Gentianaceæ, Genus Novum : Miss A. Lorrain Smith.-Ob-servations on the Temperature of Trees made in Boulder, Colorado : Dr. Baur.
- servations on the Temperature of Free Landson and Servations on the Temperature of Free Landson and Servations of the Ortho Series : Prof. Mel-dola, F.R.S., E. M. Hawkins, and F. B. Burls The Fluoresceine of Camphonic Anhydride: Dr. Collie.—The Action of Phosphoric Chloride on Camphone: J. E. Marsh and J. A. Gardner.—The Composition of Jute produced in England : A. Pears, jun. Royal (NSTITUTI-N, at 3.—The Geographical Distribution of Birds: Dr. P. Bowdler Sharpe.

R. Bowdler Sharpe. FRIDAY, JUNE 2. GEOLOGISTS' ASSOCIATION, at 8.—Consideration of the Principal Pheno-mena connected with Volcances: Dr. J. W. L. Thudichum. ROYAL INSTITUTION, at 9.—Study of Fluid Motion by Means of Coloured Bands: Prof. Usborne Reynolds, F.R.S.

# SATURDAY, JUNE 3.

ROYAL INSTITUTION, at 3.—Falstaff –a Lyric Comedy by Boito and Verdi (with Musical Illustrations): Dr. A. C. Mackenzie. INSTITUTE OF ACTUARIES. at 3.—Annual Meeting. – Report of the Council for the Past Year and Election of Officers and Members of Council.

### MONDAY, JUNE 5.

SOCIETY OF CHEMICAL INDUSTRY, at 8, - The Movement of Air as applied to Chemical Industries: H. G. Watel. - New Cellulose Derivatives and their Industrial Applications: C. F. Cross and E. J. Bevan. ROYAL INSTITUTION, at 5. - General Monthly Meeting.

NO. 1231, VOL. 48

- **TUESDAY**, JUNE 6. ZOOLOGICAL SOCIFTY, at 8.30.—Notes on the Anatomy and Classification of the Parrots; F. E. Beddard, and F. G. Parsons.—On Two Horns of an African Rhinoceros: Mr. Sclater.—On some Bird-Bones from Miocene Depoits in the Department of Isère, France: R. Lydekker.—On the Osteology of the Mesoz.ic Ganoid Fish, Lepidotus: A. Smith Wood-word ward
- ROYAL INSTITUTION, at 3. The Waterloo Campaign : E. L. S. Horsburgh.
- WEDNESDAY, JUNE 7. GROLOGICAL SOCIETY, at 8.—The Bajocian of the Sherborne District; its Relations to Subjacent and Superjacent Strata: S. S. Buckman.—On Raised Beaches and Rolled Stones at High Levels in Jersey: Dr. Andrew Dunlop.

THURSDAY. JUNE 8.

- ROVAL SOCIETY, at 4.30. MATHEMATICAL SOCIETY, at 8.— Complex Integer: derived from  $\theta^3 2 = 0$ : Prof. G. B. Mathews.—Pseudo-Elliptic Integrals: Prof. Greenhill, Prof. F.R.S.
- ROYAL INSTITUTION, at 3.—The Geographical Distribution of Birds: Dr. R. Bowdler Sharpe.

K. Bowdler Sharpe. FRIDAY, JUFE 9. PHVSICAL SOCIETY, at 5.-A New Photometer: A. P. Trotter.-Notes on Photometry: Prof. S. P. Thompson, F.R.S.-The Magnetic Field near a Wire : Prof. G. M. Minchin. ROYAL ASTRONOMICAL SOCIETY, at 8. POWAL INSTITUTION of the Photometry Science Prof. T. F.

ROVAL INSTITUTION, at 9.-The Recent Solar Eclipse: Prof. T. E. Thorpe, F.R.S.

SATURDAY, JUNE 10.

ROYAL BOTANIC SOCIETY, at 3.45. ROYAL INSTITUTION, at 3.—Falstaff, a Lyric Conledy by Bolto and Verdi (with Musical Illustrations): Dr. A. C. Mackenzie.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS, -- Year-Book of the Scientific and Learned Societies of Great Britain and Ireland (Griffin).--Graphic Arithmetic and Statics: J. J. Prince (Murby).--Erdbebenkunde: Dr. P. Hoernes (Leipzig, Vei).--Introduction a L'Electricité Industrielle-Potential, Flux de Force Grandeurs Elec-triques: Ditto, Circuit Magnétique AInduction Machines: P. Minel (Paris, Gauthier-Villars).--The Theory of Telescopic Vision; E. M. Nelson (Dulan) (Dulau).

PAMPHLETS.—Wetterbüchlein von Wahrer Erkenntniss des Wetters: L. Reynman (Berlin, Asher).—Récit de la Grande Expérience de l'Equilibre des Liqueurs: B. Pascal (Berlin, Asher).—The New Priesthood : Ouida (E. W. Allen).

Allen). SERIALS.—Bulletin of the New York Mathematical Society, vol. 2, No. 8 (New York, Macmillan).—Internationales Archiv für Ethnographie, Band 6, Heft 2 (K. Paul).—Bulletins de la Société d'Anthropologie de Paris, tome troisième, iv. série, 4e Fasc.; Ditto, Nos. 2,3, 4 (Paris, Masson).

CONTENTS. P.	AGE
Modern Meteorology. By William E. Plummer .	97
The Transmission of Telephone Currents. By	2.
Francis G. Baily	99
Francis G. Baily	ICO
Our Book Shelf :	
Sharpe: "An Analytical Index to the Works of the	
late John Gould, F.R.S.	ICO
late John Gould, F.R.S	
metry, with Numerous Examples"	IOI
Gilberne : "Sun, Moon, and Stars : Astronomy for	
Beginners"	IOI
Letters to the Editor :	
Mr. H. O. Forbes's Discoveries in the Chatham	
IslandsProf. Alfred Newton, F.R.S.	101
The Fundamental Axioms of DynamicsProf.	
Oliver Lodge, F.R.S.; Edward T. Dixon	IOI
On the Velocity of Propagation of Gravitation Effects.	
-S. Tolver Preston	103
-S. Tolver Preston	103
Popular Botany, —Alfred W. Bennett	104
Gaseous Diffusion Prof. Herbert McLeod, F.R.S.	104
Notes upon the Habits of some Living Scorpions.	
Ey R. I. Pocock	104
Notes	107
Our Astronomical Column :	
The Eclipse of April 1893	III
Finlay's Comet (1886, VII.)	112
Aurora Observations	112
The Constant of Aberration	112
The Astronomical Day	II2
Royal Ob-ervatory, Greenwich	112
Geographical Notes	112
Geographical Notes	113
Royal Geographical Society Anniversary Meeting	114
University and Educational Intelligence	114
Scientific Serials	115
Scientific Serials	116
Diarvof Societies	120
Books, Pamphlets, and Serials Received	120
an en ver vennene fremen vennene 🖷 Erferen freme fremen en erreren pom er vennene er ver i er be vennen geven errere som er vennene er v	