

follows: The emission curve of glass reaches its maximum at  $4.6 \mu$ , shifting but little with temperature. The curves have a broad "flattening" at about  $3.5 \mu - 4 \mu$ . The absorption curve shows the same particularity. The quotient  $\frac{\text{emission}}{\text{absorption}}$  yields a curved line, whose maximum lies further towards the lesser  $\lambda$ 's, absorption shifting in the inverse ratio to T. The emission and absorption of quartz correspond to each other. The two curves exhibit the same downward bends. In the quotient  $\frac{\text{emission}}{\text{absorption}}$  the errors (per cent.) are too great to pronounce a positive opinion.

## DIARY OF SOCIETIES.

### THURSDAY, MAY 13.

- ROYAL SOCIETY, at 4.30.—An Attempt to cause Helium or Argon to pass through Red-hot Palladium, Platinum, or Iron: Prof. Ramsay, F.R.S., and M. W. Travers.—On the Negative After-Images following Brief Retinal Excitation: Shelford Bidwell, F.R.S.—A Dynamical Theory of the Electric and Luminiferous Medium. Part III. Relations with Material Media: Dr. J. Larmor, F.R.S.—On a New Method of Determining the Vapour Pressures of Solutions: E. B. H. Wade.—On the Passage of Heat between Metal Surfaces and Liquids in Contact with them: T. E. Stanton.—On the Magnetisation Limit of Wrought Iron: H. Wilde, F.R.S.
- ROYAL INSTITUTION, at 3.—Liquid Air as an Agent of Research: Prof. J. Dewar, F.R.S.
- MATHEMATICAL SOCIETY, at 8.—On Cubic Curves as connected with certain Triangles in Perspective: S. Roberts, F.R.S.—An Analogue of Anharmonic Ratio: J. Brill.—An Essay on the Geometrical Calculus (Continuation): E. Lasker.—On the Partition of Numbers: G. B. Mathews.—Notes on Synthetic Geometry: W. Esson.
- INSTITUTION OF ELECTRICAL ENGINEERS, at 8.—The Generation of Electrical Energy for Tramways: J. S. Raworth. (Discussion).—Disturbances of Submarine Cable Working by Electric Tramways: A. P. Trotter.

### FRIDAY, MAY 14.

- ROYAL INSTITUTION, at 9.—Explosion-Flames: Prof. Harold Dixon, F.R.S.
- ROYAL ASTRONOMICAL SOCIETY, at 8.—Zodiacal Radiants of Fireballs: W. F. Denning.—On a New Binary Star with a Period of 54 Years ( $\delta$  883): T. J. J. See.—On the Mean Places and Proper Motions for 1900 of 24 Southern Circumpolar Stars: David Gill.—On the Determination of Terrestrial Longitudes by Photography: Captain E. H. Hills.—The Orbit of  $\mu$  Draconis: S. W. Burnham.
- PHYSICAL SOCIETY, at 5.—An Instrument for Comparing Thermometers with a Standard: W. Watson.—An Experiment in Surface Tension: A. S. Ackerman.—The Effect of Temperature on the Magnetic and Electric Properties of Iron: D. K. Morris.—The Formation of Mercury Films by Electric Osmosis: Rollo Appleyard.
- MALACOLOGICAL SOCIETY, at 8.

### SATURDAY, MAY 15.

- GEOLOGISTS' ASSOCIATION.—Excursion to Chislehurst. Directors: W. Whittaker, F.R.S., and T. V. Holmes. Leave Charing Cross (S.E.R.) at 1.35; arrive at Chislehurst 2.19.
- LONDON GEOLOGICAL FIELD CLASS.—Excursion from Snodland to Aylesford, to view the Gault. Leave Cannon Street 2.37.

### MONDAY, MAY 17.

- SOCIETY OF ARTS, at 8.—Design in Lettering: Lewis Foreman Day.
- ROYAL GEOGRAPHICAL SOCIETY, at 2.30.—Anniversary Meeting.
- VICTORIA INSTITUTE, at 4.30.—Paper by Dr. G. V. Pope.

### TUESDAY, MAY 18.

- ROYAL INSTITUTION, at 3.—Volcanoes: Dr. Tempest Anderson.
- ZOOLOGICAL SOCIETY, at 8.30.—A Revision of the Lizards of the Genus *Sceloporus*: G. A. Boulenger, F.R.S.—Contributions to our Knowledge of the Plankton of the Faeroe Channel, II.: Dr. G. Herbert Fowler.—Further Contributions to the Knowledge of the Phytophagous Coleoptera of Africa, including Madagascar, Part II.: Martin Jacoby.
- ROYAL PHOTOGRAPHIC SOCIETY, at 8.—Notes on the Working of the Photo-Aquatint Process, and on some of the Apparatus used: T. Huson.
- ROYAL VICTORIA HALL, at 8.30.—Adventure in South Africa: F. C. Selous.

### WEDNESDAY, MAY 19.

- SOCIETY OF ARTS, at 8.—London Water Supply: Prof. Percy F. Frankland, F.R.S.
- ROYAL METEOROLOGICAL SOCIETY (Burlington House), at 4.30.—The Rainfall of Dominica, West Indies: C. V. Bellamy.—On the Mean Monthly Temperatures of the British Isles, 1871-95: R. H. Scott, F.R.S., and F. Gaster.
- ROYAL MICROSCOPICAL SOCIETY, at 7.30.—Exhibition of Specimens of Injections of other Objects: Ernest Hinton.

### THURSDAY, MAY 20.

- ROYAL SOCIETY, at 4.30.—Bakerian Lecture.—On the Mechanical Equivalent of Heat: Prof. Osborne Reynolds and W. H. Moorby.
- SOCIETY OF ARTS, at 4.30.—Kerman and Persian Beluchistan, with special reference to the Journeys of Alexander the Great and Marco Polo: Captain P. Molesworth Sykes.
- CHEMICAL SOCIETY, at 8.—The Theory of Osmotic Pressure and the Hypothesis of Electrolytic Dissociation: Molecular Rotation of Optically Active Salts; Heats of Neutralisation of Acids and Bases in Dilute Aqueous Solution: Holland Crompton.—The Platinum-Silver Alloys: their Solubility in Nitric Acid: John Spiller.—A Comparative Crystallographical Study of the Normal Selenates of Potassium, Rubidium, and Caesium: A. E. Tutton.

### FRIDAY, MAY 21.

- ROYAL INSTITUTION, at 9.—Contact Electricity of Metals: Lord Kelvin.
- SOUTH-EASTERN UNION OF SCIENTIFIC SOCIETIES (Tunbridge Wells), at 3.—What can be done to save our Fauna and Flora from unnecessary Destruction?: Rev. J. J. Scargill.—How can the Technical Education Grant assist Local Scientific Societies? S. Atwood and J. W. Tutt.—Local Museums: W. Cole.
- EPIDEMIOLOGICAL SOCIETY, at 8.

## BOOKS, PAMPHLET, and SERIALS RECEIVED.

- BOOKS.—The Story of the Earth's Atmosphere: D. Archibald (Newnes).—The Naturalist's Directory, 1897 (Gill).—The Alternating-Current Circuit: W. P. Maycock (Whittaker).—Problems of Nature: Dr. G. Jaeger, edited and translated by Dr. H. G. Schlichter (Williams).—The Fauna of British India. Hymenoptera, Vol. 1.: Wasps and Bees: Lieut. Colonel C. T. Bingham (Taylor).—The Evolution of the Aryan: R. von Ihering, translated by A. Drucker (Sonnenschein).—The Young Beetle-Collector's Handbook: Dr. E. Hofmann (Sonnenschein).—Domestic Science Readers: V. T. Murché, Book vi. (Macmillan).—The Engineer's Sketch-Book of Mechanical Movements, &c.: T. W. Barber, 3rd edition (Spon).—The Vertebrate Skeleton: S. H. Reynolds (Cambridge University Press).—A History of Ancient Geography: H. F. Tozer (Cambridge University Press).—System der Philosophie: W. Wundt, Zweite Umgearbeitete Auflage (Leipzig, Engelmann).—Das Ellenbogengelenk und Seine Mechanik: J. W. Hultkrantz (Jena, Fischer).—Lehrbuch der Zoologie: Prof. R. Hertwig, Vierte Umgearbeitete Auflage (Jena, Fischer).
- PAMPHLET.—The Origin of the Celestial Laws and Motions: G. T. Carruthers (Bradbury).
- SERIALS.—Strand Magazine, May (Newnes).—Scribner's Magazine, May (Low).—Journal of Anatomy and Physiology, April (Griffin).—Imperial University, College of Agriculture, Bulletin, Vol. iii. No. 1 (Komaba, Tōkyō).—Journal of the Royal Microscopical Society, April (Williams).—Atlantic Monthly, May (Gay).—Fortnightly Review, May (Chapman).—Geographical Journal, May (Stanford).—Bulletin of the American Mathematical Society, April (New York, Macmillan).—American Journal of Mathematics, Vol. xix. No. 2 (Baltimore).—American Journal of Science, May (New Haven).—Proceedings of the Physical Society, Vol. 15, Part 5 (Taylor).

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