PARIS.

Academy of Sciences, April 20.—M. A. Cornu in the chair.—On the subject of an unpublished letter of Gauss, by M. de Jonquières.—On a temporary case of parasitism of the *Glyciphagus domesticus* of Geer, by M. E. Perrier. An account of a case where this species of Acarus, usually free, became parasitic, with the result that two houses into which it was accidentally introduced became uninhabitable. Energetic measures of isolation and disinfection by sulphurous acid had to be adopted to stamp out the parasite.—The truffles (*Terfas*) of Mesrata, in Tripoli, by M. Ad. Chatin.—The extraction of the terpene alcohols contained in essential oils, by M. A. Haller. The essence is treated with a quantity of succinic or phthalic anhydride sufficient to convert the whole of the alcohol into the corresponding acid ether. Treatment of this with aqueous sodium carbonate gives the sodium salt of the acid ether, and this, digested with an excess of caustic soda, gives the alcohol free from hydrocarbons on appropriate purification. As an alternative method, the essence containing the alcohol is diluted with ether and treated with metallic sodium, then to the sodium derivative so formed the succinic or phthalic anhydride is added, and the salt worked up as before.—On the approximate value of the coefficients of terms of high order in the development of the principal part of the disturbance function, by M. A. Féraud. A study of the mutual influence of two planets upon each other, both of which are moving in elliptic orbits.—On the biuniform transformations of algebraic surfaces, by M. P. Painlevé.—On the diffraction of the Röntgen rays, by MM. L. Calmette and G. T. Lhuillier. By the use of two metallic screens pierced with narrow slits, photographs were obtained consistent with the assumption that the Röntgen rays exhibit the phenomenon of diffraction. The results obtained indicate that the wave-lengths are longer than those of light, but the photographs are hardly clear enough for exact measurement. The experiments are being continued.—Observations on a communication of MM. Benoist and Hurmuzescu, by M. A. Righi. A discussion of the conditions favourable to the discharge of an electrified body by the X-rays. The author maintains the accuracy of his earlier observations regarding the production of a positive charge upon isolated conductors by the Röntgen rays, and states that the potentials so produced are of the same order as contact electromotive forces. Hence a very delicate electrometer is required to exhibit these effects.—Photography in the interior of a Crookes' tube, by M. G. de Metz. The kathode rays in the interior of a Crookes' tube possess one of the properties of the Röntgen rays, inasmuch as they penetrate aluminium, cardboard and paper, but are stopped by platinum and copper.—Observations on the preceding, by M. Poincaré. The kathode rays, on striking the platinum or aluminium screen, may give rise to X-rays, which *then* go through the metallic plates. The kathode rays themselves may not necessarily possess this property.—On the compensation of the directing forces, and the sensibility of the galvanometer with moving coil, by M. H. Abraham. By attaching a small mass in front of the moving coil of a Deprez-d'Arsonval galvanometer so as to slightly displace its centre of gravity, and properly regulating the inclination of the instrument by means of its levelling screws, the effective sensibility is increased one hundred-fold, and is of the order of a Thomson galvanometer of equal resistance.—Rotatory dispersion of active non-polymerised liquid bodies, by MM. Ph. A. Guye and C. Jordan. An experimental study of normal and abnormal rotatory dispersion. The chief conclusions drawn are that active liquid bodies, not polymerised, present only normal rotatory dispersion, and that there is no simple relation between the refrangibility of the radiations and the rotatory dispersion.—On a new series of sulphophosphides, by M. Ferrand. These compounds, of which the copper, iron, silver, nickel, chromium, zinc, cadmium, mercury, lead, and aluminium salts are described, are thio-pyrophosphates, and possess the general formula $M'_4P_2S_7$.—The spontaneous adaptation of muscles to changes in their function, by M. Joachimsthal.—Influence of induced currents on the orientation of living bacteria, by M. L. Lortet. Living bacteria, in the form of mobile bacilli, are very sensible to the action of currents from a Ruhmkorff coil, and immediately set themselves in the direction of the current. This effect is only produced when the organisms are living, and is not observed after the introduction of an antiseptic, such as carbolic acid. Living organisms are unaffected by a constant current.—On the internal appendages of the male genital apparatus of the Orthoptera, by M. A. Fénard.—On the membrane of the *Ectocarpus fulvescens*, by M. C. Sauvageau.—On the abortion of the principal root in one species of the genus *Impatiens* (L.), by M. C. Brunotte.—The biochemical preparation of sorbose, by M. G. Bertrand. A specific organism, which can be obtained by exposing a mixture of wine and vinegar to the air for some time, is the cause of the conversion of sorbite into sorbose in the fermentation of the juice of various species of *Sorbus*. The direct production of sorbose in the fermentation of the latter is dependent upon the introduction of the organism by small reddish flies (the vinegar fly, *Drosophila funebris*).—On winter observations in the caves of the Causses (Padirac, &c.), by M. E. A. Martel.

BOOKS, PAMPHLETS, and SERIALS RECEIVED.

BOOKS.—A Scientific Demonstration of the Future Life: T. J. Hudson (Putnam).—Studies in Ancient History: J. F. M'Lennan, 2nd series (Macmillan).—A Dictionary of Chemical Solubilities. Inorganic: Dr. A. M. Comey (Macmillan).—The Theory of Sound: Lord Rayleigh, Vol. 2, new edition (Macmillan).—Analytical Psychology: J. F. Stout, 2 Vols. (Sonnenschein).—Forschungsberichte aus der Biologischen Station zu Plön: Dr. O. Zacharias, Theil 4 (Berlin, Friedländer).—Know your own Ship: T. Walton (Griffin).—Annals of the Royal Botanic Garden, Calcutta, Vol. v. Part 1 (Calcutta).—The American Lobster: Dr. F. H. Herrick (Washington).—Artistic and Scientific Taxidermy and Modelling: M. Browne (Black.—Royal University of Ireland. Examination Papers, 1895; a Supplement to the University Calendar for the Year 1896 (Dublin).

PAMPHLETS.—The Physiology of the Carbohydrates: a Rejoinder to Dr. Paton's further Criticism: Dr. F. W. Pavy (Churchill).—City and Guilds of London Institute Report to the Governors, March 1896 (Gresham College).—Neber einige Eigenschaften der Röntgen, schen X-Strahlen: Drs. Winkelmann and Straubel (Jena, Fischer).

SERIALS.—English Illustrated Magazine, May (198 Strand).—Quarterly Review, April (Murray).—Good Words, May (Isbister).—Sunday Magazine, May (Isbister).—American Journal of Psychology, Vol. 7, No. 3 (Worcester, Mass.).—Encyklopædie der Naturwissenschaften, Dritte Abthg., 30 to 33 Liefg. (Breslau, Trewendt).—Journal of the Sanitary Institute, April (Stanford).—Longman's Magazine, May (Longmans).—Chambers's Journal, May (Chambers).—Terrestrial Magnetism, No. 2 (Chicago).—Journal of the Asiatic Society of Bengal, Vol. lxiv. Part 2, No. 3 (Calcutta).—Proceedings of the Academy of Natural Sciences of Philadelphia, 1895, Part 3 (Philadelphia).—Bulletin of the American Museum of Natural History, Vol vii. (New York).—Field Columbian Museum. Archæological Studies among the Ancient Cities of Mexico, Part 1: W. H. Holmes (Chicago).—Natural Science, May (Rait).—Schriften der Naturforschenden Gesellschaft in Danzig. Neue Folge, Neunten Bandes, Erstes Heft (Danzig).

CONTENTS.

	PAGE
The Intellectual Rise in Electricity	601
Artificial Colouring Matters. By Prof. R. Meldola, F.R.S.	603
Our Book Shelf:—	
Wundt: "Grundriss der Psychologie"	604
Bouty: "Cours de Physique de l'École Polytechnique"	604
Guillaume: "Les Rayons X, et la Photographie a travers les Corps Opaques"	604
Letters to the Editor:—	
Blood-Brotherhood.—T. L. Patterson	604
Megalithic Folk-lore.—S. E. Peal	605
The Glacial Drift in Ireland.—Henry J. Seymour	605
The Bright Meteor of April 12.—Worthington G. Smith	605
Remarkable Sounds.—Kumagusu Minakata	605
The Royal Observatory, Edinburgh. (*Illustrated.*)	605
The Place of Science in Education	607
Notes	609
Our Astronomical Column:—	
The Spectrum of Mira	612
Comet Swift, 1896	612
Recent Work with Röntgen Rays	613
Colour Photography. By Prof. G. Lippmann.	617
The Influence of Atmospheric and Oceanic Currents upon Terrestrial Latitudes. By Prof. Simon Newcomb, F.R.S.	618
The Past, Present, and Future Water Supply of London. By Dr. E. Frankland, F.R.S.	619
University and Educational Intelligence	622
Societies and Academies	623
Books, Pamphlets, and Serials Received	624