

The photography of spectra of sparks under water, by the automatic separation into arc lines and spark lines and by the differences in the appearance of the lines, appears to be valuable in detecting spectral regularities.—M. de Bellescize: Damping the oscillations of resonators in wireless telegraphy.—A. Recoura: Some new properties of the green sulphate of chromium. Green sulphate of chromium forms complex compounds with potassium sulphate, and the resulting solutions give reactions with benzidine compounds or with barium chloride, indicating that  $\text{SO}_4$  ions are absent or present in small proportions only. Results are given of a study of the effects of temperature, dilution, and time on these complexes.—Paul Riou: The velocity of absorption of carbon dioxide by alkaline solutions.—Mlle. Wurmser: The preparation of ammonium nitrate. An extension of earlier work by M. Rengade on the formation of ammonium nitrate by the interaction of sodium nitrate and ammonium chloride.—Mlle. N. Wolff: Furfural- $\alpha$ -methylcyclohexanone and some of its derivatives. Mono- and difurfuralcyclohexanones.—E. Berger: A formal lamp. A detailed account, with diagrams, of the construction of a new lamp for burning methyl alcohol to formaldehyde. With copper oxide as a catalyst the yield is 25-30 per cent. with silvered asbestos, 35-45 per cent. of the alcohol used is obtained as formaldehyde. Results of the application of the lamp to practical disinfection of rooms are given.—H. Joly: The tectonic direction of the Cretaceous and Tertiary deposits in the neighbourhood of Haro (Logroño, Spain).—P. Lory: The glacial stages and a valley recording these stages (Bédinat, Chaîne de Belledonne).—P. L. Mercanton: The glacial system of the Beerenberg of Jan Mayen. This extinct volcano was climbed by the author, with J. M. Wordie and T. Lethbridge, in August 1921. From the highest point (about 2500 metres) the structure of the crater was made out, and a detailed account of this and the glacier system is given.—MM. Pons and Rémy: The reddish-brown coloration shown in March 1922 by the Briançon snow. Specimens of the coloured snow, collected on March 19 at an altitude of 2350 metres, were examined, after melting, chemically and microscopically. There was practically no organic matter, and the microscope showed no remains of microscopic organisms (Algae, Foraminifera, diatoms), nor were there any vitreous inclusions characteristic of volcanic dust. Chemical analysis showed silica, iron, and alumina. The possible origin of the dust is discussed, but no definite conclusion could be arrived at.—P. Bugnon: The fibrovascular organisation in Mercurialis. Possible descent from a primitive form.—Gustave Chauveau: The principal variations in the vascular development of the first phyllorhiza of Phanerogams are not determined by intercalary increase.—Louis Lapique: Mechanism of the exchanges between the cell and the surrounding medium. The osmotic pressure in the cells of marine Algæ is higher than that of sea water. This is incompatible with the currently accepted view that all exchanges of the cells are determined by the laws of osmosis. The author holds that, on the contrary, the exchanges of the cells are the result of physiological work and that diffusion and osmotic pressure intervene often as resistances only.—Paul Portier and Marcel Duval: The variation of the osmotic pressure of the blood of the cartilaginous fishes under the influence of modification of the salinity of the surrounding sea water. The dog-fish was used in these experiments, and it was found that the osmotic pressure of the blood was not equal to that of the sea water in which the fish is immersed. There was a tendency for the osmotic pressure of the blood to follow that of the sea water, but the

adjustment was very imperfect. The fish supported dilution of sea water better than enrichment with salt.—E. Fauré-Fremiet and Mlle. H. Garrault: Constitution of the ovarian egg of the carp (*Cyprinus Carpio*).—H. Vallée and H. Carré: The plurality of the apthous virus.

## BRUSSELS.

Royal Academy of Sciences, June 3.—M. A. Lameere in the chair.—F. Swarts: On trifluoromethylcyclohexane.—F. Swarts: On trifluoroacetic acid.—Th. De Donder: The electromagnetic field and the gravific field.—A. Mélant: The conditions determining the encystment of the infusorian, *Euplotes harpa*.—M. Philippon: A new form of electrical resistance of electrolytes.—M. Nuyens: A change in the variables of M. De Donder.—P. Bruylants and J. Dondeyne: The determination of the atomic weight of selenium.

## Official Publications Received.

The Mellon Institute of Industrial Research of the University of Pittsburgh. Ninth Annual Report on the Industrial Fellowships of the Mellon Institute for the Institute's Fiscal Year, March 1, 1921, to March 1, 1922. Pp. vi+23. (Pittsburgh, Pa.)  
 South Australia: Department of Mines. Mining Review for the Half-Year ended December 31st, 1921. Compiled by Lionel C. E. Gee. No. 35. Pp. 72. (Adelaide.)  
 South Australia. Department of Mines: Geological Survey of South Australia. Bulletin No. 9: The Iron-Ore Resources of South Australia. By R. Lockhart Jack. Pp. 71. (Adelaide.)  
 Bureau of Education, India. Occasional Reports No. 10: Adult Education (University Extra-Mural Teaching in England and Wales). By J. P. Bulkeley. Pp. ix+98. (Calcutta: Government Printing Office.) 8 annas.  
 Bureau of Education, India. Indian Education in 1920-21. Pp. ii+87. (Calcutta: Government Printing Office.) 1.8 rupees.  
 Technical College, Bradford. Diploma and Special Day Courses. Prospectus, Session 1922-23. Pp. 168+plates. (Bradford.)  
 Report of the Fifteenth Meeting of the Australasian Association for the Advancement of Science. Hobart Meeting, held in Melbourne, January 1921. Edited by Dr. Georgina Sweet and Dr. A. C. D. Rivett. Pp. lxxxix+390. (Sydney, N.S.W.: The Association, Elizabeth Street.)

## Diary of Societies.

## FRIDAY, JUNE 30.

ASSOCIATION OF ECONOMIC BIOLOGISTS (at the Royal Horticultural Society's Gardens, Wisley), leaving London 11.15-11.30 A.M.—Annual Field Meeting.  
 ROYAL SOCIETY OF MEDICINE (Laryngology Section), at 4.45.

## MONDAY, JULY 3.

VICTORIA INSTITUTE (at Central Buildings, Westminster), at 4.30.—Right Rev. Bishop Welldon: Modernism. (Annual Address.)  
 FELLOWSHIP OF MEDICINE (at Royal Society of Medicine), at 5.—Dr. J. S. Goodall: So-called Functional Diseases of the Heart.  
 ROYAL INSTITUTE OF GREAT BRITAIN, at 5.—General Meeting.  
 ROYAL INSTITUTE OF BRITISH ARCHITECTS, at 8.—Dr. T. Ashby: Recent Excavations at Rome.  
 ARISTOPHELIAN SOCIETY (at University of London Club, 21 Gower Street), at 8.—W. O. Brigstocke: Probability.

## TUESDAY, JULY 4.

EUGENICS EDUCATION SOCIETY (Annual General Meeting) (at Royal Society), at 5.30.—Dr. Tredgold, Dr. C. H. Bond, Dr. B. Hollander, E. A. Fisher, and others: Conference on the Inheritance of Mental Qualities, Good and Bad.  
 INSTITUTE OF PHYSICS (at Institution of Electrical Engineers), at 5.30.—Sir Alfred Ewing: The Physicist in Engineering Practice, with Special Reference to Applications of Thermodynamics. (Lectures on "Physics in Industry" (2).)  
 SOCIOLOGICAL SOCIETY (at Leplay House, 65 Belgrave Road), at 8.15.—S. C. Ramsey: Regional and Vocational Influences on Architecture.

## WEDNESDAY, JULY 5.

ROYAL METEOROLOGICAL SOCIETY (a Summer Meeting) (at the Croydon Aerodrome), at 3.—G. E. Hay: Address on the Arrangements for supplying Meteorological Information to Pilots.—Inspection of Aerodrome, etc.

## THURSDAY, JULY 6.

ROYAL SOCIETY OF MEDICINE, at 5.—Annual General Meeting.  
 CIVIC EDUCATION LEAGUE (at Leplay House, 65 Belgrave Road), at 8.15.—A. Farquharson: Art as a Mirror of Society.