Societies and Academies

LONDON

Mineralogical Society, June 7.—**J. E. Drugman** and **Max H. Hey**: Legrandite, a new zinc arsenate. A yellow transparent mineral on a single specimen of blende proved to be a new zinc arsenate. Chemical, optical, goniometric, and X-ray measurements were made, and the name legrandite is proposed for the new mineral, the formula of which is $Zn_{14}(AsO_4)_9OH.12H_2O$.—**W. F. P. McLintock**: The metamorphism produced by the combustion of hydrocarbons in the Tertiary sediments of south-west Persia. At various localities in south-west Persia, the escape and combustion of gas or oil have resulted in the brecciation, partial fusion, and crystallisation of calcareous marls with the formation of crystalline rocks consisting of pyroxene (diopside, ægirine-augite, and ægirine), wollastonite, pseudo-wollastonite, bytownite, melilite, and leucite, with glass, recrystallised calcite, and anhydrite. In the field, the rocks resemble vesicular igneous types, but microscopic examination and chemical analyses, accounts of which are given, prove them in all cases to be metamorphosed sediments.—**F. A. Bannister**: The determination of minerals in platinum concentrates from the Transvaal by X-ray methods (with chemical analyses and syntheses by **M. H. Hey**). X-ray rotation photographs have been used to distinguish and select for chemical analysis the various platinum- and palladium-bearing minerals present in the concentrates of Bushveld platinum ore. The name cooperite is retained for PtS, tetragonal, space-group D^9_{4h}. The face-centred unit cell with edges $a=4{\cdot}91$, $c=6{\cdot}10$ A., contains 4PtS. The atomic co-ordinates for platinum in this cell are $\frac{1}{4}\,\frac{1}{4}\,0$; $\frac{3}{4}\,\frac{3}{4}\,0$; $\frac{1}{4}\,\frac{3}{4}\,\frac{1}{2}$; $\frac{3}{4}\,\frac{1}{4}\,\frac{1}{2}$, and for sulphur: $0\;0\;\frac{1}{4}$; $0\;0\;\frac{3}{4}$; $\frac{1}{2}\,\frac{1}{2}\,\frac{1}{4}$; $\frac{1}{2}\,\frac{1}{2}\,\frac{3}{4}$. The structure is a simple type of fourfold co-ordination built up from plane PtS_4 groups and tetrahedral SPt_4 groups, the Pt-S distance being 2·32 A. Synthetic PtS has been prepared and is identical with the mineral cooperite. Laurite (RuS_2) occurs in small pyritohedral-cubic crystals and has the pyrite structure with unit-cell edge $a=5{\cdot}59$ A. The third mineral, $PtPdS_2$, containing about five per cent Ni, is also tetragonal with unit-cell edges $a=6{\cdot}37$, $c=6{\cdot}58$ A. The unit cell contains $4PtPdS_2$ and the space group is D^2_{4h}. The name braggite is proposed for this mineral as being the first discovered by X-ray methods.—**John Parry, Alpheus F. Williams**, and **F. E. Wright**: Bultfonteinite, a new fluorine-bearing hydrous calcium silicate from South Africa. This new mineral was found in the Bultfontein and Dutoitspan diamond mines at Kimberley and in the Jagersfontein mine in Orange River Colony. It forms pale pink globular aggregates of radiating needles, and has much the appearance of natrolite. Analysis gives the formula $2Ca(OH,F)_2.SiO_2$. From the manner in which the mineral is decomposed by water and by dilute acids, a formula written as $Ca(OH)_2SiO_2.Ca(OH,F)_2$ is suggested. Goniometric and optical examination of the minute crystals shows them to be triclinic, but much complicated by polysynthetic twinning. The mineral is related to afwillite with the addition of $Ca(OH)_2$ and CaF_2, and the nearest ally is custerite $[CaO.Ca(OH,F)_2,SiO_2]$.

Geological Society, June 16.—**L. R. Wager**: Geological work in East Greenland during the British Arctic Air-Route Expedition, 1930–31. The winter base of the expedition was in the Angmagsalik district and most of the geological work was carried out there and also in the course of two journeys. The first journey was northwards for 300 miles along the coast to Kangerdlugsuak, and the second along the edge of the ice-cap to Mount Forel. The Angmagsalik district consists of gneisses and schists for which the name Metamorphic Complex is used, since the Archæan age of these rocks cannot be proved. The coastal zone between the ice-cap and the sea north of Angmagsalik consists of high mountains and includes Mount Forel, the highest mountain within the arctic. These mountains have been cut from a raised peneplain which passes without interruption from the Metamorphic Complex to the Tertiary basalts and plutonic intrusions. The peneplain has a gentle dip to the south-east or east-south-east, and to this is due the general trend of the coast and of one group of valleys and fjords. The inland ice has recently receded, and its present action may be studied side by side with its effects on the recently uncovered mountainous surface.

Physical Society, July 8.—**J. J. Manley**: On the determination of refractivity temperature coefficients for liquids. Attention is directed chiefly to the problems of measuring with precision the changes in the refractivity of a liquid for small alterations in temperature. An elaborated Jamin interferometer is described, with auxiliary apparatus necessary for setting up and maintaining differences in the temperature of the two interferometer tubes. Further, there is given a plan for measuring by means of platinum resistance thermometers differences in the temperatures of the two tubes.—**N. W. McLachlan**: (1) The axial sound-pressure due to diaphragms with nodal lines. A formula is found for the axial sound-pressure due to a disc having a nodal circle, and vibrating in an infinite rigid plane. Beyond a certain axial distance, when the nodal circle occurs at $r=a/\sqrt{2}$ the pressure vanishes owing to interference caused by the inner and outer portions of the disc vibrating in opposite phase. The case of n nodal circles of arbitrary radii is treated by an approximate method. A rigid disc is imagined to be severed around each nodal circle, whilst contiguous annuli vibrate with equal amplitudes in opposite phase. Finally the pressure on the axis of a conical shell having nodal circles is treated as in the previous case. When the semi-apical angle of the cone is $\frac{1}{2}\pi$ and there are no nodal circles, the formula reduces to that for a rigid disc.—(2) The accession to inertia of flexible discs vibrating in a fluid. Formulæ are obtained for the velocity-potential at the surface of a free-edge disc vibrating with nodal lines in a fluid. These formulæ are used to ascertain the accession to inertia due to the fluid when the disc is set in an infinite rigid plane. The equivalent mass and the mass coefficient of the disc vibrating *in vacuo* are also found; and the influence of the fluid on the frequency of vibration with (*a*) one nodal circle, (*b*) one nodal diameter, (*c*) stationary centre, is evaluated.—**A. J. Bradley** and **A. H. Jay**: A method for deducing accurate values of the lattice spacing from X-ray powder photographs taken by the Debye-Scherrer method. The usual circular type of camera is employed; and there are two stages in the procedure, (*a*) the calibration process, (*b*) the extrapolation process.—**G. Millington**: Ionisation charts of the upper atmosphere. Prof. Chapman's theory of the ionisation of the upper atmosphere by solar radiation has been applied to construct a set of charts giving contour lines of equal ionic density over the surface of the earth. A simple approximate method of solving the fundamental differential equation of the theory by a rapid arithmetical process is described.—**A. S. Rao**: Further investigations of the arc spectrum of arsenic. By photographing the spectrum of arsenic by the method of the hollow cathode discharge in helium and in neon about a hundred new lines have been recorded. The analysis of As I published by previous investigators has been considerably altered

and extended. New levels have been added and the higher members of the chief groups of the series of *ms* terms have been identified. A mean value of 85,000 cm.$^{-1}$ has been suggested for the deepest term $4p\ ^4S_2$ which leads to a first ionisation potential of approximately 10·5 volts for arsenic.

EDINBURGH

Royal Society of Edinburgh, June 6.—**L. M. Davies**: The genera *Dictyoconoides* Nuttall, *Lockhartia* nov., and *Rotalia* Lamarck. The original types of Carter's *Dictyoconoides* [*Conulites*] *cooki*, which have recently been found after having been lost for nearly thirty years, are described and figured; also the original types of Lamarck's *Rotalia trochidiformis*, from the Defrance collection at Caen. The characters and relationships of these species are discussed; and a certain number of other species, hitherto referred to *Dictyoconoides*, are removed to a new genus *Lockhartia*.—**E. B. Bailey** and **J. Weir**: Submarine faulting of Kimmeridgian date. During Kimmeridgian times a submarine fault scarp was maintained by intermittent movement of the sea floor of the Helmsdale district of East Sutherland. Unconsolidated Mesozoic rocks on the upthrow side of the fault dissipated without yielding boulders, but Old Red Sandstone exposed in the fault scarp furnished repeated landslips, carrying boulders that in exceptional cases measured 100 feet in length. Earthquakes were frequent, for the landslips are almost always spread out into graded boulder beds in a manner indicating co-operation of tunamis ('tidal waves'). The Helmsdale movement can be brought into relation with the general history of contemporary Britain, more particularly with the fissuring of Kimmeridgian at Ethie on the Moray Firth and the development of the Camasunary fault in Skye.—**T. Johnson**: The Tertiary plants of Ireland and Scotland: a comparative account—(1) Thallophyta to Gymnospermæ. The paper deals with collections of fossil plants from the north-east of Ireland, including those found at various depths (780-930 ft.) in the core of a bore made at Washing Bay at the south-west corner of Lough Neagh, and with collections of more or less contemporaneous plants from the Hebrides, including a small collection from the Isle of Canna and another from a site discovered by Mr. I. A. Inglis in the Isle of Skye.—**Mary H. Latham**: Scottish Carboniferous Ostracoda. The specimens come from one hundred and forty different localities in the Carboniferous of Scotland and England. Most of the species appear to have quite a long range, few of them being restricted to one horizon, although some occur only in the Upper Limestone Series of the Scottish Carboniferous and others are confined to the Lower Limestone Series.—**Ian M. Robertson**: A study of the tyrosinase of potato tubers. With *p*-cresol as substrate, the tyrosinase present in potato tubers produces a bright orange-red colour. The kinetics of the reaction have been studied by treating tuber sections with aqueous solutions of *p*-cresol in caustic soda and measuring the colour changes by means of Lovibond colour standards. The course of the reaction is monomolecular, with initial and final linear periods. The activity of the enzyme is independent of such factors as soil and environmental conditions of growth, season, and storage, but is dependent upon tuber maturity, disease, and variety. The test has been applied successfully towards the determination of the variety of healthy, mature tubers.

PARIS

Academy of Sciences (vol. 194, pp. 1993-2092), June 6.—**G. Urbain**: An attempt at a co-ordinative theory of the constitution of organic compounds.—**C. Camichel, P. Dupin**, and **M. Teissié-Solier**: The non-turbulent regime beyond the criterion of alternate vortices.—**Lucien Daniel**: New researches on the descent of certain grafted Compositæ.—**Ehresmann**: The integral invariants and the topology of ruled projective space.—**D. V. Jonesco**: Certain curves which generalise conics.—**Rud. Fueter**: Hermite forms, Picard group, and the theory of quaternion ideals.—**M. Ghermanesco**: The problem of Riquier.—**Arnaud Denjoy**: The characteristics of the torus.—**Alex. Froda**: The vertical measurability of functions of real variables.—**J. Le Roux**: The differential invariants of groups of relativity.—**J. Haag**: The general theory of the elastic suspension of pendulums.—**G. Siadbei**: The measurement of the resistance opposed by a viscous medium to the movement of bodies.—**J. Rossignol**: The problem concerning cylindrical vortices of finite section.—**André Douillet**: An apparatus with elastic coupling for measuring and recording graphically rotation couples.—**Émile Belot**: The original and present orientation of the orbits of the minor planets and of Jupiter in relation with the causes of the primitive eccentricities.—**D. Eginitis**: An error of Posidonius and its influence on the discovery of America.—**L. Néel**: The magnetic susceptibility of sulphur vapour. The diatomic molecule of sulphur is paramagnetic, and its properties are clearly different from those given by the theory applicable to oxygen.—**J. Lecomte**: An attempt at the co-ordination of the infra-red absorption bands of some hydrocarbons with nucleus.—**Maurice Curie** and **Jean Saddy**: Phosphorescent sulphides. Extinguishing action of the metals of the iron group. Traces of cobalt or iron reduce or prevent the phosphorescence of zinc sulphide. Lead is without influence.—**Marcel Cau**: The interpretation of a magneto-optical effect.—**Jacques de Lassus Saint-Genies**: A partial solution of integral photography.—**W. Broniewski** and **K. Wesolowski**: The gold-silver alloys as a type of continuous solid solutions. A study of 15 physical properties of gold-silver alloys as a function of the composition of the alloy. The results are given graphically.—**A. Michel-Lévy** and **H. Muraour**: Certain substances modifying the double refraction of the nitrocelluloses.—**F. Bourion** and **Mlle. O. Hun**: The cryoscopic study of ether and acetone in solutions of potassium chloride.—**Desmaroux** and **Mathieu**: Remarks on the structure of films of nitrocellulose with high nitrogen content.—**Paul Renaud**: A mineral india-rubber. Phosphorus chloronitrides of the constitution $(PNCl_2)_n$ on heating in sealed tubes to 270° C. polymerise, giving rise to substances possessing some of the properties of india-rubber.—**G. Darzens** and **André Lévy**: A new synthesis of eudaline (methylisopropylnaphthalene).—**A. Hodaghian** and **R. Levaillant**: The action of lithium hydride on benzoyl chloride. The main primary product is probably benzaldehyde, but this is polymerised, giving benzyl benzoate as the main product.—**Marcel Godchot** and **Max Mousseron**: 2-Aminocyclopentanol and its resolution into its optical antipodes.—**Lucien Semichon** and **Michel Flanzy**: The application of chromic acid oxidation to some diacids.—**L. Palfray, S. Sabetay**, and **Mlle. Denise Sontag**: α-Vinylnaphthalene and the polyvinylnaphthalenic resins.—**Charles Dufraisse** and **Robert Vieillefosse**: The application of the anti-oxygen effect to the problem of fighting fire. The extinction of charcoal in the presence of oxygen. The vapours of carbon tetrachloride or phosphorus oxychloride have a real anti-oxygen effect on burning charcoal.—**Georges Laude**: The synthesis of cyanic acid and of urea by the ammoniacal oxidation of carbonaceous substances. A modification of the methods previously described, giving higher yields of urea and cyanic acid.—**R. Bureau**: Goniometric

researches on atmospherics.—**Pierre Gavaudan**: The identity of the metachromatic vacuome and of the leucosine of the Monadineæ and Chrysomonadineæ.—**A. Damiens and Mlle. S. Blaignan**: Normal bromine in plants: edible plants and fruits. Bromine is a normal constituent of plants, the amount in 100 grams of dry material varying between 0·17 and 2·02 mgm. The amount in the fruits is less.—**Ph. Joyet-Lavergne**: The rôle of the chondriome in the manifestations of cytoplasmic sexualisation.—**A. Magnan and A. Sainte-Laguë**: Flight by wing beats at a fixed point.—**Philippe Fabre**: The exciting efficacy of condenser discharges below the rheobase.—**Mme. Phisalix**: The reciprocal vaccinating action of the poisons of the bee and *Vipera aspis*.—**R. Legroux, Kemal-Djemil, and Mme. Colette Jéramec**: The immunisation of guinea-pigs against glanders.—**J. Lignières**: Paradoxical phenomena of the immunising property of the aphthous virus. A local aphthous lesion does not always confer immunity.

Forthcoming Events

TUESDAY, JULY 26

BRITISH MEDICAL ASSOCIATION — Centenary Meeting (Presidential Address at the Queen's Hall, Langham Place, London). — The Right Hon. Lord Dawson of Penn: "A Hundred Years and After", at 4 P.M.

FRIDAY, JULY 29

BRITISH MEDICAL ASSOCIATION — Centenary Meeting (Popular Lecture at University College, Gower Street, W.C.1).—Prof. Julian Huxley: "The Biology of Human Nature", at 8 P.M.

Official Publications Received

BRITISH

Department of Scientific and Industrial Research. Summary of Progress of the Geological Survey of Great Britain and the Museum of Practical Geology for the Year 1931. Part 1, with Report of the Geological Survey Board and Report of the Director. Pp. iii+81. (London: H.M. Stationery Office.) 1*s.* 6*d.* net.

Proceedings of the Royal Irish Academy. Vol. 41, Section B, Nos. 1 and 2: Some Derivatives of Dicoumarin, by Dr. Joseph Algar, Anne E. O'Reilly and Mary Joy; Derivatives of Benzo-Difurfurane, by Dr. Joseph Algar, Vincent C. Barry and Tadhg F. Twomey. Pp. 14. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 6*d.*

University of Durham: Committee of Senate on Entrance Tests and Bachelors' Degrees. Report. Pp. 17. (Durham.)

British Standards Institution. No. 457, 1932: British Standard Specification for the Identification of Chemical Pipe Lines. Pp. 8. (London: British Standards Institution.) 2*s.* net.

Department of Scientific and Industrial Research. Building Science Abstracts. Vol. 5 (New Series), No. 5, May. Abstracts Nos. 747-983. Pp. 141-176. (London: H.M. Stationery Office.) 1*s.* net.

Madras Fisheries Department. Administration Report for the Year 1930–31. By Dr. B. Sundara Raj. (Report No. 1 of 1932, Madras Fisheries Bulletin, Vol. 26.) Pp. v+112. (Madras: Government Press.) 14 annas.

India: Meteorological Department. Scientific Notes, Vol. 4, No. 43: On the Extreme Dryness observed at Kodaikanal during the Winter Months. By S. L. Malurkar. Pp. 137-144+11 plates. (Calcutta: Government of India Central Publication Branch.) 1.8 rupees; 2*s.* 6*d.*

Proceedings of the Geologists' Association. Edited by G. S. Sweeting. Vol. 43, Part 2, 24th June. Pp. 97-200. (London: Edward Stanford, Ltd.) 5*s.*

The Kent Incorporated Society for Promoting Experiments in Horticulture. Annual Report (Nineteenth Year) 1931, East Malling Research Station, 1st January 1931 to 31st December 1931. Pp. 89+5 plates. (East Malling.)

Indian Journal of Physics, Vol. 7, Part 1, and Proceedings of the Indian Association for the Cultivation of Science, Vol. 16, Part 1. Conducted by Sir C. V. Raman. Pp. 106. (Calcutta.) 1.8 rupees; 2*s.*

Report by the Financial Commissioner (Lord Mayne) on certain Questions in Kenya. (Cmd. 4093.) Pp. vi+122. (London: H.M. Stationery Office.) 2*s.*

The London School of Economics and Political Science (University of London), Houghton Street, Aldwych, W.C.2. Department of Business Administration, Session 1932–33. Pp. 28. Training for Business Management. Pp. 11. (London.)

Air Ministry: Aeronautical Research Committee: Reports and Memoranda. No. 1440 (T. 3116, 3117): Stresses in a Wire Wheel with Non-Radial Spokes under Rim Loads. Part 1, by Prof. A. J. Sutton Pippard and Miss M. J. White; Part 2, by Prof. A. J. Sutton Pippard and W. E. Francis. Pp. 19+19 plates. 1*s.* 3*d.* net. No. 1455 (T. 3201): Sideslip and Performance of Multi-Engined Aircraft. By E. T. Jones. Pp. 6+4 plates. 6*d.* net. (London: H.M. Stationery Office.)

Experimental Researches and Reports published by the Department of Glass Technology, the University, Sheffield. Vol. 14, 1931. Pp. iii+174. (Sheffield.) 7*s.* 6*d.*

The North of Scotland College of Agriculture. Guide to Experiments and Demonstration Plots at Craibstone, 1932. Pp. xii+64. (Aberdeen.)

City and Guilds of London Institute. Report of the Council to the Members of the Institute, 1932. Pp. xlix+75. (London: Gresham College.)

Committee on Bird Sanctuaries in Royal Parks (England). Report for 1931. Pp. 18. (London: H.M. Stationery Office.) 6*d.* net.

Mines Department. Tenth Annual Report of the Safety in Mines Research Board, including a Report of Matters dealt with by the Health Advisory Committee, 1931. Pp. 95+9 plates. (London: H.M. Stationery Office.) 2*s.* net.

Proceedings of the Royal Society of Victoria. Vol. 44 (New Series), Part 2. Pp. 103-326+plates 15-26. (Melbourne.)

Transactions of the Optical Society. Vol. 33, 1931-32, No. 3. Pp. ii+73-136. (London: Optical Society.) 10*s.*

Society of Biological Chemists, India. Biochemical and Allied Research in India in 1931. Pp. 42. (Bangalore: Indian Institute of Science.)

Proceedings of the Royal Irish Academy. Vol. 41, Section B, No. 3: Some Legendary and Historical References to Irish Woods, and their Significance. By A. C. Forbes. Pp. 15-36. (Dublin: Hodges, Figgis and Co.; London: Williams and Norgate, Ltd.) 6*d.*

FOREIGN

Bulletin of the American Museum of Natural History. Vol. 64: The Distribution of Bird Life in Guatemala; a Contribution to a Study of the Origin of Central American Bird-Life. By Ludlow Griscom. Pp. ix+439. (New York City.)

U.S. Department of Agriculture. Technical Bulletin No. 294: The Biology and Morphology of the Braconid *Chelonus annulipes* Wesm. a Parasite of the European Corn Borer. By Arlo M. Vance. Pp. 48. (Washington, D.C.: Government Printing Office.)

University of California Publication. Bulletin of the Department of Geological Sciences, Vol. 21, No. 7: The Fossil Passerine Birds from the Pleistocene of Carpinteria, California. By Alden H. Miller. Pp. iii+169-194+plates 12-14. (Berkeley, Calif.: University of California Press.) 35 cents.

University o. California Publications in Zoology. Vol. 38, No. 3: Type Localities of Birds described from California. By Joseph Grinnell. Pp. 243-324. 1 dollar. Vol. 38, No. 4: New Pocket Gophers from Nevada. By E. Raymond Hall. Pp. 325-333. 25 cents. Vol. 38, No. 5: Three New Rodents from Lava Beds of Southern New Mexico. By Seth B. Benson. Pp. 335-344+plates 3-4. 25 cents. (Berkeley, Calif.: University of California Press.)

New York Academy of Sciences. Scientific Survey of Porto Rico and the Virgin Islands. Vol. 12 (Supplementary Part): Insects of Porto Rico and the Virgin Islands. Supplementary Report on the Heterocera or Moths of Porto Rico. By W. T. M. Forbes. Pp. 56+6 plates. (New York City.)

Field Museum of Natural History. Zoological Series, Vol. 18, No. 7: Reptiles and Amphibians of the Mandel Venezuelan Expedition. By Karl P. Schmidt. (Publication 309.) Pp. 157-163. 25 cents. Zoological Series, Vol. 18, No. 8: Notes on New Guinean Crocodiles. By Karl P. Schmidt. (Results of the Crane Pacific Expedition.) (Publication 310.) Pp. 165-172+plates 6-7. 25 cents. Zoological Series, Vol. 19: The Birds of Chile. By Charles E. Hellmayr. (Publication 308.) Pp. 472. 2.50 dollars. (Chicago.)

Scientific Papers of the Institute of Physical and Chemical Research. Nos. 366-367: Hyperfine Structure of Mercury, V., by Kiyoshi Murakawa; Hyperfine Structure of Lead, by Kiyoshi Murakawa. Pp. 177-204. 30 sen. Nos. 368-369: Forest Fires and Weathers, by Torahiko Tereda and Tyokurô Utigasaki; Diffraction of Cathode Rays by Single Crystals, Part 1: P-Patterns, by Ken'ichi Shinohara. Pp. 205-236+plates 4-9. 45 sen. (Tôkyô: Iwanami Shoten.)

Smithsonian Institution: United States National Museum. Bulletin 162: Life Histories of North American Gallinaceous Birds, Orders Galliformes and Columbiformes. By Arthur Cleveland Bent. Pp. xi+490+93 plates. (Washington, D.C.: Government Printing Office.) 1 dollar.

Rubber Research Institute of Malaya. Annual Report, 1931. Pp. 134. (Kuala Lumpur.) 1 dollar.

U.S. Department of the Interior: Geological Survey. Water-Supply Paper 638-D: Quality of Water of the Colorado River in 1928–1930. By C. S. Howard. (Contributions to the Hydrology of the United States, 1931.) Pp. ii+145-162. Water-Supply Paper 683: Surface Water Supply of the United States, 1929. Part 3: Ohio River Basin. Pp. viii+272. Water-Supply Paper 692: Surface Water Supply of the United States, 1929. Part 12: North Pacific Slope Drainage Basins. A: Pacific Slope Basins in Washington and Upper Columbia River Basin. Pp. vii+190. 25 cents. Water-Supply Paper 696: Surface Water Supply of the United States, 1930. Part 1: North Atlantic Slope Drainage Basins. Pp. viii+280. Water-Supply Paper 701: Surface Water Supply of the United States, 1930. Part 6: Missouri River Basin. Pp. ix+302. 50 cents. Water-Supply Paper 702: Surface Water Supply of the United States, 1930. Part 7: Lower Mississippi River Basin. Pp. v+115. 20 cents. (Washington, D.C.: Government Printing Office.)

U.S. Department of the Interior: Geological Survey. Bulletin 833: Mineralogy of Drill Cores from the Potash Field of New Mexico and Texas. By Waldemar T. Schaller and Edward P. Henderson. Pp. viii+124+39 plates. 60 cents. Bulletin 838: Nitrate Deposits of the United States. By G. R. Mansfield and Leona Boardman. Pp. vi+107+11 plates. 40 cents. (Washington, D.C.: Government Printing Office.)

CATALOGUES

Catalogue of B.D.H. Fine Chemical Products: including Organic and Inorganic Chemicals, Analytical Reagents, Indicators, Standard Stains. (July, 1932.) Pp. 151. (London: The British Drug Houses, Ltd.)

Telcon Metals: Induction Melted Electrical Resistance Alloys in Rod, Wire and Tapes. Pp. 16. (London: Wild-Barfield Electric Furnaces, Ltd.)