Calendar of Patent Records.

November 11, 1847.—The discovery that coal-tar contained benzene was made by A. W. Hofmann, but the production of benzene from coal-tar on a commercial scale was due to Charles Blackford Mansfield, a pupil of Hofmann's, and dates from the patent granted to him on Nov. 11, 1847, for "An improvement in the manufacture and purification of spirituous substances and oils applicable to the purposes of artificial light and various useful arts". Mansfield died as a result of burns received whilst he was carrying out some of his experiments on tar.

November 11, 1896.—The Bowden wire method of transmitting motion, so widely used in connexion with the operation of brakes and other parts of bicycles, was the invention of E. M. Bowden and was patented by him on Nov. 11, 1896.

November 12, 1673.—The patent granted to William Chamberlayne on Nov. 12, 1673, for his "new art or mistery of plating and tynninge of iron, copper, steele, and brasse, and for the compressing and plateing of all other mettalls; hee never yett useing or putting them in practize by reason of his long imprisonment and troubles in the late intestine warrs and since", was a confirmation of a previous grant made in 1661 to Chamberlayne and Dud Dudley. Chamberlayne did not put his invention into practice, and the patent is referred to by Andrew Yarranton in his "England's Improvement" as one which obstructed the introduction of the tin-plate industry into England from Saxony, which he had visited to obtain knowledge of the process of manufacture employed there. The industry was not established here until the beginning of the eighteenth century.

November 12, 1723.—On Nov. 12, 1723, a patent was granted to Ambrose Godfrey, a chemist at one time employed by Robert Boyle, for a new method of extinguishing fires. He used "a small portion of gunpowder closely confined; which when animated by fire acts by its elastic force upon a proper medium and not only divideth it into the minutest atoms but disperseth it also in every direction so as immediately to extinguish any fire within a certain distance. This medium is a liquor strongly impregnated with a preparation of antiphlogistic principles." A test of Godfrey's invention was successfully made before the Society of Arts on a house built for the purpose in Tottenham Court Road.

November 13, 1800.—The method of making cast steel by melting malleable iron with charcoal or other carbonaceous material in a crucible was first used in Sheffield by David Mushet, who patented the process on Nov. 13, 1800. Mushet was the first practical man in England to write on the manufacture of iron and steel.

November 14, 1835. Joseph von Hohenblum was granted an Austrian patent on Nov. 14, 1835, for a system of pneumatic dispatch for postal packets, the letters being placed in small cylinders which were to be carried through long tubes by compressed air. The first successful installation of such a system was, however, first made in London about 1853.

November 15, 1747.—The famous fever powders of Dr. Robert James, "sold, wholesale and retail by John Newberry, bookseller, at the Bible and Sun, in St. Paul's Churchyard", were patented by James on Nov. 15, 1747. Patronised by Royalty, recommended by Horace Walpole, and its praises sung by the poets, nearly three million doses, Dr. James tells us, of the powder had been sold or distributed by 1764. In 1753 the Privy Council were petitioned to vacate the patent on the ground that the invention had been obtained from a Baron Schwanberg, but the petition was refused.

Societies and Academies.

LONDON.

Geological Society, Oct. 23.—R. D. Oldham: Historic changes of level in the delta of the Rhone. (1) At the opening of the Pleistocene period the whole area was covered by a deposit of gravel and well-rounded boulders, over which the Rhone and its tributaries wandered, with no fixed bed and with a velocity of current that gave them a torrential character. (2) A period of subsidence followed, the gradient and the speed of current were diminished, and an alluvial delta built up, which was at least as extensive as that of the present day. Two stages can be recognised in this deposit. (3) A period of uplift then set in, and the land rose, not less than 14 metres, above the level to which it had sunk, the deposits laid down were exposed to denudation, and an undulating surface of erosion was developed. On this weathered surface the settlements and structures of the Romans were erected. (4) Finally came another period of subsidence, which took place at intervals. One of these periods of subsidence probably took place between the years 1000 and 1500 B.C. The next change took place in the course of the eighth and ninth centuries; it amounted to about 5 metres of vertical displacement. Finally, there was a fresh movement of subsidence, practically completed during the later half of the eighteenth century. The total amount of these movements of subsidence was about 10 metres, and at the end of them the land still stands about 4 metres, or more, above the lowest level reached before the period of uplift set in.—**R. W. Pocock:** The *Petalocrinus* Limestone horizon at Woolhope (Herefordshire). The crinoid *Petalocrinus* has been recorded from Sweden and North America, but not hitherto from Britain. Its most striking peculiarity is the fusion of the arms into five solid arm-fans or petals, which radiate from the dorsal cup. The arm-fans are usually found detached in the limestone, throughout which they are profusely scattered. A bed of large tabulate corals on which the *Petalocrinus* band rests is found in this association throughout the outcrop. The combined thickness of the crinoid and coral-beds varies between 3 in. and 6 in. Llandovery rather than Wenlock affinities are indicated by the fauna of the transition-beds. The area appears to have been subjected to pressure, mainly along a north-west and south-east axis, developing thrust-faulting approximately at right angles to that axis; a late Coal Measure age is suggested for the principal movements. At May Hill and at Malvern the *Petalocrinus* Limestone with its associated coral-beds has been detected at the same horizon as at Woolhope.—**P. K. Ghosh:** The Carnmenellis granite: its petrology, metamorphism, and tectonics. This granite, which occupies an area of some 50 square miles between Falmouth and Camborne (Cornwall), was divided by the Geological Survey into (1) an earlier coarse variety and (2) a later fine variety. The coarse granite of the Survey has been subdivided into three types, which prove to be three distinct intrusions. The petrological characters of the granites and their differentiates are described. Analyses have also been made of the associated metamorphic rocks; these consist of 'green-stones', slates, and schists of various types, as well as inclusions of country-rock within the granite.

PARIS.

Academy of Sciences, Sept. 9.—E. Fichot: The waves of Poincaré in a winding canal.—**Paul Vuillemin:** Mycoses of the epidermis. The author distinguishes

two types of mycosis, hyphomycoses and brachymycoses, and gives examples of each type.—**Ed. Chauvenet** and **J. Davidowicz**: Zirconium iodide, zirconium oxyiodide hydrate, $ZrOI_2.8H_2O$, prepared by the evaporation of the solution of hydrated zirconia in hydriodic acid, gives the volatile compound H_2ZrI_6 on heating. The latter decomposes on heating into HI and ZrI_4. The tetraiodide can also be prepared by the direct interaction of the metal (95 per cent Zr) and iodine at a red heat.—**Ph. Joyet-Lavergne**: An experimental demonstration of the laws of cytoplasmic sexualisation.

Sept. 16.—**H. Deslandres**: The magnetic field of the sun, general and external. A discussion of work done at the Mount Wilson Observatory, and of communications by Chapman and by Evershed, with reference to the author's work on the magnetic fields of the sun since 1911.—**Marin Molliard**: The physiological characters presented by *Sterigmatocystis nigra* when lacking zinc and iron. The omission of iron and zinc from the culture medium of this mould causes much slower development, and this is connected with the production of citric acid and of soluble starch. It could not be definitely settled whether these two metals were absolutely indispensable for growth.—**A. Desgrez** and **P. Régnier**: The experimental study of the action of Evian water in cases of induced nephritis.—**N. Lusin**: The points of unicity of a measurable ensemble *B*.—**B. Lyot**: The polarisation of the planet Mercury.—**Mlle. L. S. Lévy**: The probable rôle of the complex ammonia compounds in the adsorption of copper and nickel salts by ferric hydroxide.—**Mme. N. Demassieux**: The action of the alkaline carbonates on lead bromide, iodide, and nitrate in aqueous solution. The iodide and bromide resemble the chloride in forming precipitates of lead bromocarbonate and lead iodocarbonate when alkaline carbonate is gradually added. Lead nitrate behaves differently, lead carbonate being the only product.—**J. Vellard** and **Miguelotte Vianna**: Modifications of the blood coagulation in the course of experimental yellow fever in *Macacus rhesus*. The results resemble those obtained with man. The modifications of the blood coagulation are of the same nature, but less accentuated and slower in the ape.

Sept. 23.—**Rodolphe Raclis**: A formula of summation.—**Akitsugu Kawaguchi**: The different connexions of functional space.—**Krawtchouk**: The approximate solution of linear differential equations.—**Mlle. Nina Bary**: Functions possessing the *N* property.—**Georges Durand**: The Cantor-Minkowski construction in space.—**Georges Bouligand**: Problems connected with the idea of the Georges Durand envelope.—**M. Gunther**: An application of the integrals of Stieltjes to the problem of Neumann.—**Alfred Rosenblatt**: On certain plane stationary movements of incompressible viscous fluids.—**R. Mazet**: An empirical formula giving the distribution of the yield at the surface of a circular orifice.—**A. Auric**: An empirical formula giving the distances at which the successive rings of the nebular hypothesis are formed.—**P. Marti**: The submarine volcanic region of the Catwick Islands.—**Takeuchi**: The average force exerted by the stationary vibration of a string on a ring through which the string passes.—**G. Athanasiu**: The influence of temperature on the photovoltaic electromotive forces. All the photoelectric cells studied showed an increase in the electromotive force when the temperature fell. The magnitude of the temperature coefficient proved the impossibility of explaining photovoltaic currents by identification with external photoelectric emission.—**J. Perreu**: The determination of the heats of dilution of hydrated salts (second method).—**R. Levaillant**: The conversion of alkyl sulphites into chlorsulphonic esters and into the neutral sulphates. The alkyl sulphites, treated at low temperatures with chlorine, give good yields of the corresponding chlor-sulphonates. At high temperatures the latter react with alkyl sulphites, giving nearly quantitative yields of the sulphates.—**Hans Fischer** and **Albert Kirrmann**: The synthesis of some mesoporphyrins.—**Henri Mémery**: The summer of 1929 and the solar variations. The sustained high temperatures during August and September of this year correspond with a marked increase in the number of sunspots during the same period.—**Peirier**: The Caloncoba, from the Cameroons, giving an oil with curative properties against leprosy.

VIENNA.

Academy of Sciences, June 13.—**H. Przibram** and **L. Brecher**: Growth measurements of *Tenodera aridifolia*, a Japanese mantis. There are eight or exceptionally nine changes of skin. The fasting weight was doubled after the seventh, eighth, and ninth moults. Successive cast-off skins are about double in weight.—**A. Brukl**: The quantitative analysis of gallium (3). Titanium is precipitated free from gallium from an oxalic acid solution by means of copper. Larger quantities of titanium with zirconium are precipitated by phenyl-arsenic acid. Oxyquinolin separates gallium from vanadium.—**A. Kailan** and **K. Hexel**: Velocity of esterification of mono-brom-acetic acid with glycerinic and ethyl-alcoholic hydrochloric acid.—**W. J. Müller** and **K. Konopicky**: The theory of passivity effects (6). The passivity of chromium at low current densities.—**E. Schrenzel**: Curves with isotropic normals.—**J. Pollak, E. Gebauer-Fülnegg**, and **E. Blumenstock-Halward**: β-naphthol-disulphochlorides.—**J. Pollak** and **E. Riess**: Oxythiophenols (2).—**E. Gebauer-Fülnegg** and **A. Glückmann**: α-naphthol-sulpho-acids.—**E. Riess** and **R. Hübsch**: Some new thiazol derivatives.—**C. Drucker**: Experimental contributions to the problem of electrolytic dissociation.—**C. Marie** and **G. Lejeune**: The solubility of ether in concentrated solutions of some mineral acids.—**F. Skaupy**: Grain limit and grain magnitude, their importance for some scientific and technical questions.—**F. Kaufler**: Crotonic acids.—**O. Fürth** and **H. Kaunitz**: The oxidation of some physiological substances by animal charcoal.—**N. Fröschl** and **J. Zellner**: Fungus resins.—**E. Dittler**: The degrees of oxidation of titanium in silicates. In titaniferous silicates a part or the whole of the titanic acid can be replaced by the next lower oxide of this metal. By synthesis it was shown that in silicates not only silicic acid but also the sesquioxide to a considerable extent may be replaced by TiO_2 or Ti_2O_3 respectively.—**K. Menger**: The foundation of an axiomatic theory of dimension.—**A. Dadieu** and **K. W. F. Kohlrausch**: Studies on the Raman effect (3). Attempts to interpret the Raman spectrum.—**S. Meyer**: The representation of the packing effects of the atoms.

June 20.—**A. Kailan** and **W. Antropp**: The esterification velocities of chloro- and fluoro-benzoic acids, of phthal-ethyl-esteric acid and abietinic acid with ethyl-alcoholic hydrochloric acid.—**A. Haas**: The deduction of Boltzmann's law of entropy by means of the concept of matter-waves.—**G. Horvath**: Rhyncotes from Palestine and Syria.—**K. Lohberger**: More fish from the Thian-Shan.—**K. Lohberger**: Some still undescribed fish forms from the Thian-shan.—**A. Soltys**: Iosene, a new hydrocarbon from Styrian brown coal. Formula $C_{20}H_{34}$, melting point 74°.

— **A. Soltys**: Three compounds extracted from Styrian brown-coal with petrol-ether: a compound, $C_{30}H_{50}O$, melting point 256°, and a fluid, $C_{15}H_{26}$, boiling point 265°. — **R. Weiss and J. Reichel**: Triphenyl-methanes, the benzene nuclei of which are interconnected (5). The di-methylene-triphenyl-carbinol-diketone. — **L. Mirskaja**: Repair processes in longitudinally split stems of *Mirabilis Jalapa*. —**W. Feldmann**: The growth of the stem parts in *Phaseolus coccineus* seedlings with the primordial leaves cut off or kept in the dark. Either process and likewise the reduction of the carbon dioxide content of the atmosphere leads to an increase in the growth of the stem.—**A. Kailan**: Chemical actions of penetrating radium radiations (18). The action on acetyl- and benzoyl-chloride. Considerable changes of specific conductivity are probably due to secondary reactions.—**L. Kober**: Contributions to the geology of Attica.

Official Publications Received.

BRITISH.

Ministry of Health. Advisory Committee on Water: Second Report of Legislation Sub-Committee. Pp. 82. (London: H.M. Stationery Office.) 9*d*. net.

North-East Coast Institution of Engineers and Shipbuilders (Incorporated), Bolbec Hall, Newcastle-on-Tyne. Report of the Council, 1928–9. Pp. 18. (Newcastle-on-Tyne.)

Journal of the Royal Society of Western Australia. Vol. 13, 1926–1927. Pp. xvi+88+29 plates. (Perth.) 25*s*.

Department of Scientific and Industrial Research. Building Science Abstracts. Compiled by the Building Research Station and published in conjunction with the Institute of Builders. Vol. 2 (New Series), No. 8-9, August–September 1929. Abstracts Nos. 1561-1982. Pp. v+287-350. (London: H.M. Stationery Office.) 1*s*. 6*d*. net.

University College of North Wales. Calendar for Session 1929–30. Pp. 392. (Bangor.)

Empire Cotton Growing Corporation. Report of the Executive Committee to be submitted to the Meeting of the Administrative Council on October 17th, 1929. Pp. 8. (London.)

Nickel Steel, Series A, No. 3: Nickel Alloy Steels in High Performance Internal Combustion Engines. By T. Henry Turner. Pp. 12. (London: The Bureau of Information on Nickel, Ltd.)

Report of the Council of the Natural History Society of Northumberland, Durham and Newcastle-upon-Tyne, intended to be presented at the Annual Meeting of the Society, 30th October 1929. Pp. 41. (Newcastle-upon-Tyne.)

Department of Scientific and Industrial Research. Report of the Fuel Research Board for the Year ended 31st March 1929; with Report of the Director of Fuel Research. Pp. viii+127. (London: H.M. Stationery Office.) 2*s*. net.

The British Mycological Society. Transactions. Edited by Carleton Rea and J. Ramsbottom. Vol. 14, Parts 3 and 4, 14 October. Pp. 181-335. (Cambridge: At the University Press.) 15*s*.

Air Ministry: Aeronautical Research Committee. Reports and Memoranda. No. 1246 (Ae. 399): Measurement of Landing Loads. By E. T. Jones. (T. 2779.) Pp. 8+5 plates. (London: H.M. Stationery Office.) 9*d*. net.

Proceedings of the Royal Institution of Great Britain. Vol. 26, Part 1, No. 123. Pp. 134. (London.) 10*s*. 6*d*. net.

Indian Statutory Commission. Interim Report of the Indian Statutory Commission (Review of Growth of Education in British India by the Auxiliary Committee appointed by the Commission), September 1929. (Cmd. 3407.) Pp. xxxiii + 401. (London: H.M. Stationery Office.) 4*s*. net.

Department of Scientific and Industrial Research. Report of the Food Investigation Board for the Year 1928. Pp. vi+110. (London: H.M. Stationery Office.) 3*s*. 6*d*. net.

Battersea Polytechnic, London, S.W.11. Report of the Principal for the Session 1928–29. Pp. 42. (London.)

India Meteorological Department. Scientific Notes: Vol. 1, No. 4: On Temperatures of Exposed Rails at Agra. Note prepared by Dr. K. R. Ramanathan. Pp. 37-48. 8 annas; 10*d*. Vol. 1, No. 5: Frequency of Thunderstorms in India. Pp. 49-55+1 plate. 6 annas; 8*d*. Vol. 1, No. 6: Correlations between Pre-Monsoon conditions over North-West India and subsequent Monsoon Rainfall over North-West India and the Peninsula. By Rao Saheb Mukund V. Unakar. Pp. 57-67. 6 annas; 9*d*. (Calcutta: Government of India Central Publication Branch.)

Colony and Protectorate of Kenya. Forest Department Annual Report, 1928. Pp. 32. Forest Department Pamphlet No. 2: The Influence of Forests on Climate and Water Supply in Kenya. By J. W. Nicholson. Pp. 40. (Nairobi.)

Oversea Education: a Journal of Educational Experiment and Research in Tropical and Subtropical Areas. Vol. 1, No. 1, October. Pp. 32. (London: Oxford University Press.) Quarterly, 1*s*.

Proceedings of the Geologists' Association. Edited by A. K. Wells. Vol. 40, Part 3, 22nd October. Pp. 197-306. (London: Edward Stanford, Ltd.) 5*s*.

University of London: University College. Calendar, Session 1929–1930. Pp. 18+lxxx+493+lxxxi-cevviii+19-36. (London.)

Board of Education. Report on the Science Museum for the Years 1927 and 1928. Pp. 35. (London: H.M. Stationery Office.) 1*s*. net.

Canada. Department of Mines: Mines Branch. Comparative Tests of various Fuels when burned in a Domestic Hot-Water Boiler. By E. S. Malloch and C. E. Baltzer. (No. 705.) Pp. v+92+5 plates. (Ottawa: F. A. Acland.) 20 cents.

Transactions of the Institute of Marine Engineers, Incorporated. Session 1929. Vol. 41, October. Pp. 621-685. (London.)

Proceedings of the Liverpool Geological Society. Session the Seventieth 1928–1929. Part 2, Vol. 15. Edited by C. B. Travis. Pp. xiii+111-178+plates 3-7. (Liverpool.)

Some Problems of the Medical Profession in India. Compiled by Kumud Sankar Ray. Pp. vii+88. (Calcutta: All-India Medical Association.)

Journal of the Indian Institute of Science. Vol. 12A, Part 9: The Activated Sludge Process of Sewage Treatment; Report on the Working of the Plant at the Indian Institute of Science, Bangalore. By N. Swaminathan. Pp. 131-151. 1.4 rupees. Vol. 12A, Part 10: Contributions to the Study of Spike-Disease of Sandal (*Santalum album*, Linn.), Part 6: Nitrogen Metabolism in Healthy and Spiked Sandal Leaves. By N. Narasimhamurthy and M. Sreenivasaya. Pp. 153-163. 12 annas. Vol. 12A, Part 11: Lengthened *Ortho*-Di-Derivatives of Benzene and their Ring-Closure; Formation of Polymembered Heterocyclic Compounds from Substituted Phenylene-Dicarbamides. By Tejendra Nath Ghosh and Praphulla Chandra Guha. Pp. 165-178. 12 annas. Vol. 12A, Part 12: Oil from the Seeds of *Sapinus trifoliatus* (Linn.). By D. R. Paranjpe and P. Ramaswami Ayyar. Pp. 179-184. 6 annas. (Bangalore.)

Ceylon. Administration Report of the Director of the Colombo Museum for 1928. By Dr. Joseph Pearson. Pp. F16 + 7 plates. (Colombo: Government Record Office.) 70 cents.

Memoirs of the Geological Survey of India. Vol. 52, Part 2: The Aluminous Refractory Materials; Kyanite, Sillimanite and Corundum in Northern India. By Dr. J. A. Dunn. Pp. iv+145-274+xxi+plates 15-27. 5.8 rupees; 9*s*. Palaeontologia Indica. New Series, Vol. 10, Memoir No. 3: Les couches à cardita Beaumonti. Fascicule 2: Les couches à cardita Beaumonti dans le Sind. Par Prof. Henri Douvillé. Pp. iv+27-73+plates 5-11. 4.8 rupees; 7*s*. 6*d*. (Calcutta: Government of India Central Publication Branch.)

Gold Coast Colony. Report on the Survey Department for the Financial Year 1928–1929. Pp. ii+27. (Accra: Government Printing Office; London: The Crown Agents for the Colonies.) 2*s*.

Nigeria. Annual Report on the Agricultural Department for the Year 1928. Pp. 24. (Lagos: C.M.S. Bookshop; London: The Crown Agents for the Colonies.) 2*s*.

FOREIGN.

Journal of the Faculty of Agriculture, Hokkaido Imperial University, Sapporo, Japan. Vol. 24, Part 4: Physico-chemical Investigation on the Casein-splitting Action of Papain with Special Reference to the Fundamental Properties of its Action as well as to the Mechanism of the Acceleration of HCH Solution upon its Action. By Shōichi Satō. Pp. 101-151. (Tokyo: Maruzen Co., Ltd.)

University of Illinois Engineering Experiment Station. Bulletin No. 194: Tuning of Oscillating Circuits by Plate Current Variations. By Prof. J. Tykocinski-Tykociner and Ralph W. Armstrong. Pp. 51. (Urbana, Ill.) 30 cents.

Proceedings of the California Academy of Sciences, Fourth Series. Vol. 18, No. 15: Drepania, a Genus of Nudibranchiate Mollusks new to California. By F. M. MacFarland. Pp. 485-496+plate 35. Vol. 18, No. 16: Some Upper Cretaceous Foraminifera from near Coalinga, California. By J. A. Cushman and C. C. Church. Pp. 497-530+plates 36-41. (San Francisco.)

Instituts scientifiques de Buitenzorg: "'s Lands Plantentuin". Treubia: recueil de travaux zoologiques, hydrobiologiques et océanographiques. Vol. 11, Livraison 1, Août. Pp. 153. (Buitenzorg: Archipel Drukkerij.) 2.50 f.

Instituto Nacional de Investigaciones y Experiencias Agronómicas y Forestales. Boletin Núm. 3: Instituto Forestal de Investigaciones y Experiencias; Trabajos de la Secciones hidráulica torrencial, combustibles vegetales, flora y mapa forestal, resinas. Pp. 142. (Madrid.)

State of Connecticut: State Geological and Natural History Survey. Bulletin No. 45: Thirteenth Biennial Report of the Commissioners of the State Geological and Natural History Survey of Connecticut, 1927–1928. Pp. 32+3 plates. 10 cents. Bulletin No. 46: The Physical History of the Connecticut Shoreline. By Henry Staats Sharp. Pp. 97+8 plates. 75 cents. (Hartford, Conn.)

Report of the National Committee on Calendar Simplification for the United States, submitted to the Secretary of State, Washington, August 1929. Pp. 119. (Rochester, N.Y.: National Committee on Calendar Simplification.)

Travaux de la Section de Géodésie de l'Union Géodésique et Géophysique internationale. Tome 6: Rapports généraux établis à l'occasion de la troisième assemblée générale, Prague, 29 août-10 septembre 1927. Pp. vi+6+7+60+33+32+13+28+4+10+6+17. (Paris.)

El tunel del estrecho de Gibraltar: Conferencia pronunciada el 25 de marzo de 1929. Por Sr. D. Rafael de Buen. Pp. 29. (Madrid: Real Sociedad Geográfico.)

Masarykova Akademie Prace: Académie Masaryk du Travail. Publication scientifique 47: Conférences faites en décembre 1925 à l'Université et à l'École polytechnique de Prague par le Col. Georges Perrier. Pp. 69. (Prague.)

Collection des travaux chimiques de Tchécoslovaquie. Rédigée et publiée par E. Votoček et J. Heyrovský. Année 1, No. 10, Octobre. Pp. 521-570. (Prague: Regia Societas Scientiarum Bohemica.)

Department of Commerce: Bureau of Standards. Research Paper No. 88: Some Absorption Properties of Clay Brick. By L. A. Palmer. Pp. 105-127. (Washington, D.C.: Government Printing Office.) 10 cents.

The University of Colorado Studies. Vol. 17, No. 2: Non-Marine Mollusca of Oregon and Washington. By Junius Henderson. Pp. 45-190. (Boulder, Colo.) 1 dollar.

Koninklijk Nederlandsch Meteorologisch Instituut, No. 102: Mededeelingen en Verhandelingen, 32. Het Klimaat van Nederland. C: Luchtdrukking; D: Wind. Door Dr. C. Braak. Pp. 158. (Amsterdam: Seyffardt's Boekhandel.) 1.50 f.