

Calendar of Discovery and Invention.

October 9, 1837.—Under this date, Caroline Fox records a conversation with Davies Gilbert, who "gave us interesting accounts of his interviews with George IV., William IV. and the Queen; the two former he visited in the night of his Royal Society's Presidentship to get their signatures. To George IV. he went and requested that he would confirm the patent as his royal predecessors had done, and pointed out to him several of their signatures. 'Would you show me Evelyn's,' said the King. 'I have lately been reading his memoirs with great interest.' Davies Gilbert found and showed it, when the King remarked, 'He was the founder of the Royal Society.' Gilbert said it was His Majesty Charles II. who gave the first charter. 'Very true,' replied the King, 'but that was only *ex officio*; any man who had happened to be in his situation would have done that; but Evelyn was the real founder, you may depend upon it.'

October 9, 1856.—A few days before the first Atlantic Telegraph Company was registered, Bright and Whitehouse, at the offices of the Magnetic Company in Old Broad Street, London, on Oct. 9, 1856, showed Morse that signals could be sent at the rate of 272 per minute through 2000 miles of the Company's wire between London and Manchester.

October 10, 1846.—Within seventeen days of the discovery of Neptune by Galle, the Liverpool brewer Lassell, on Oct. 10, 1846, with the aid of a fine two-foot reflector, discovered its single satellite. The study of this satellite has enabled the mass of Neptune to be calculated with great exactness.

October 11, 1867.—The modern typewriter had its birth in Milwaukee. It was the result of the joint labours of Sholes, a collector of customs, editor and printer; Soule, a farmer and printer; and Glidden, a farmer and inventor. Their machine was patented on Oct. 11, 1867, and after many improvements its manufacture was taken up by the Remington firm of gun-makers.

October 12, 1788.—One of the earliest recorded steamboat trials was made in America on Oct. 12, 1788, when one of Fitch's boats fitted with an engine having a cylinder 12 in. in diameter carried thirty passengers from Philadelphia to Burlington, a distance of about 20 miles, in 3 hours 10 minutes. Ten of the passengers afterwards signed a certificate declaring: "We, whose names are hereunto subscribed, do certify that we have been in John Fitch's steamboat of 60 ft. in length in the river Delaware, when the said boat was propelled through the water with a considerable degree of velocity regularly and without any manual labour, by the force of steam, and we are clearly of opinion that the rivers of America may be navigated by the means of steamboats, and that the present boat would be very useful on the western waters."

October 13, 1877.—The first experiment in street lighting by electricity in France was made on Oct. 13, 1877, when the Place de l'Opera in Paris was lighted by a series of 'Jablochkoff candles.' Jablochkoff was a Russian electrician who died in poverty in 1894.

October 14, 1788.—Patrick Miller's steamboat experiments in Scotland were contemporary with those of Rumsey and Fitch in America; and it was on Oct. 14, 1788, that a trial was made, on Dalswinton Loch, with one of Miller's double-hulled boats fitted with a steam engine by Symington. The enterprise being abandoned, the engine was removed to Miller's library and sixty-five years later was saved from the scrap heap by Bennet Woodcroft. It is now in the Science Museum, South Kensington. E. C. S.

Official Publications Received.

BRITISH.

- The Medical and Scientific Archives of the Adelaide Hospital. No. 6 (for the Year 1926). Pp. 62. (Adelaide.)
- Ceylon Administration Reports for 1926. Part 4: Education, Science and Art (E. Administration Report of the Director of the Colombo Museum for 1926. Pp. E9+5 plates. (Colombo: Government Record Office.) 65 cents.
- Federated Malay States. Annual Report on the Department of Agriculture, S.S. and F.M.S., for the Year 1926. By A. S. Haynes. Pp. ii+17. (Kuala Lumpur: Government Press.)
- The Institute of Chemistry of Great Britain and Ireland. Fire Risks in Industry. By Alec M. Cameron. Pp. 21. (London.)
- Memoirs of the National Museum, Melbourne. No. 7. Pp. 158+14 plates. (Melbourne: H. J. Green.)
- Catalogue of Indian Insects. By R. Senior-White. Part 12: Tabanidae. Pp. 70. (Calcutta: Government of India Central Publication Branch.) 1.12 rupees; 3s.
- Second and Final Report of the Royal Commission on Mining Subsidences. (Cmd. 2899.) Pp. 68. (London: H.M. Stationery Office.) 1s. 3d. net.
- Aeronautical Research Committee: Reports and Memoranda. No. 1091 (Ae. 270): Wind Tunnel Tests with High Tip Speed Airscrews. The Characteristics of a Bi-Convex Aerofoil at High Speeds. By Dr. G. P. Douglas and W. G. A. Ferring. (A.3.d. Airscrews, 99.—T. 2434.) Pp. 21+9 plates. 1s. net. No. 1095 (Ae. 274): Theoretical Relationships for an Aerofoil with Hinged Flap. By H. Glauert. (A.3.b. Aerofoils with Flaps or Warped, 29.—T. 2458.) Pp. 13+12 plates. 9d. net. (London: H.M. Stationery Office.)
- Canada. Department of Mines: Mines Branch. Abrasives: Products of Canada, Technology and Application. Part 1: Siliceous Abrasives. Sandstones, Quartz, Tripoli, Pumice and Volcanic Dust. By V. L. Eardley-Wilmot. (No. 673.) Pp. xi+119. (Ottawa: F. A. Acland.) 30 cents.
- Report for 1926 on the Lancashire Sea-Fisheries Laboratory at the University of Liverpool and the Sea-Fish Hatchery at Fiel. Edited by Prof. James Johnstone. Pp. 167+10 plates. (Liverpool.)
- List of the Officers and Fellows of the Chemical Society. Corrected to July 31st, 1927. Pp. 190. (London.)
- Quarterly Journal of the Royal Meteorological Society. Vol. 53, No. 223, July. Pp. 201-326. (London: Edward Stanford, Ltd.) 7s. 6d.
- Memoirs of the Department of Agriculture in India. Botanical Series, Vol. 14, No. 5: The Indigenous Cotton Types of Burma. By T. D. Stock. Pp. 177-187+5 plates. 9 annas; 10d.
- Botanical Series, Vol. 14, No. 6: A Study of Fusaria Common to Cotton Plants and Cotton Soils in the Central Provinces. By Jiwan Singh. Pp. 189-198+3 plates. 5 annas; 6d. (Calcutta: Government of India Central Publication Branch.)
- Bothalia: a Record of Contributions from the National Herbarium, Union of South Africa, Pretoria. Edited by Dr. I. B. Pole Evans. Vol. 2, Part 1b, 31st March. Pp. 227-369. (Pretoria.) 7s. 6d.
- Empire Marketing Board. A Year's Work. Pp. 40. (London: Empire Marketing Board.)
- Agricultural Research Council. Council Paper No. 70: Reports on the Work of the Agricultural Research Institutes, 1925-1926. Pp. ii+106. (London: Agricultural Research Council.)

FOREIGN.

- Publikation der Sternwarte in Kiel. 16: Über die Helligkeitsabnahme von Bedeckungsveränderlichen. Von Paul Harzer. Pp. 34. (Kiel.)
- Bulletin of the American Museum of Natural History. Vol. 54, Art. 1: The Orthoptera of the West Indies. No. 1: Blattidae. By James A. G. Rehn and Morgan Hebard. Pp. 320+25 plates. Vol. 54, Art. 2: The Fishes of Hainan. By John T. Nichols and Clifford H. Pope. Pp. 321-394+1 plate. (New York City.)
- Proceedings of the United States National Museum. Vol. 71, Art. 19: The American Moths of the Genus *Diatraea* and Allies. By Harrison G. Dyar and Carl Heinrich. (No. 2891.) Pp. 48+20 plates. (Washington, D.C.: Government Printing Office.)
- La Revue agricole égyptienne. Numéro spécial de l'Exposition Générale Agricole et Industrielle, Mars 1926. (Traduction.) Pp. vii+123+84 planches. (Le Caire: Ministère de l'Agriculture.) 5 P.T.
- Almanach 7 Sjezdu Československých inženýrů v Mladé Boleslavi v Červnu 1927. Pp. 435. (Vydal: Mladé Boleslavi.)
- Suomen Geodettisen Laitoksen Julkaisuja: Veröffentlichungen des Finnischen Geodätischen Institutes. No. 7: Die Beobachtungsergebnisse der Südmittelschen Triangulation in den Jahren 1924-1926. Pp. ii+164. No. 8: Ausgleichung einer Dreiecksreihe mit lauter Laplaceschen Punkten. Von V. R. Olander. Pp. ii+49. (Helsinki.)
- National Research Council of Japan. Japanese Journal of Geology and Geography. Transactions and Abstracts, Vol. 4, No. 3-4 (1925). Pp. iii+65-103+21-27+iii+7+plates 2-5. Transactions and Abstracts, Vol. 5, No. 1-2 (1926-1927). Pp. ii+76+12+6 plates. (Tokyo.)
- Department of the Interior: Bureau of Education. Bulletin, 1927, No. 5: Extended Use of School Buildings. By Eleanor T. Glueck. Pp. v+80. 10 cents. Bulletin, 1927, No. 12: Record of Current Educational Publications, comprising Publications received by the Bureau of Education during January-March 1927. Pp. 50. 10 cents. (Washington, D.C.: Government Printing Office.)
- Department of the Interior: U.S. Geological Survey. Water-Supply Paper 568: Surface Water Supply of the United States, 1923. Part 8: Western Gulf of Mexico Basins. Pp. iv+168+3 plates. 30 cents. Water-Supply Paper 583: Surface Water Supply of the United States, 1924. Part 3: Ohio River Basin. Pp. vi+298+3 plates. 35 cents. Water-Supply Paper 596-B: Quality of Water of Colorado River in 1925-1926. By W. D. Collins and C. S. Howard. (Contributions to the Hydrology of the United States, 1927.) Pp. ii+33-48+1 plate. (Washington, D.C.: Government Printing Office.)