

## SCIENCE NEWS A CENTURY AGO

## The Birmingham Mechanics' Institution

ON December 17, 1839, an exhibition was held at the Mechanics' Institution in Birmingham and a correspondent wrote to the *Athenæum*, "It contains more than one hundred thousand articles arranged very tastefully in the rooms belonging to the Institution. Ornithology is the richest department in Natural History: there is a very perfect collection of British birds belonging to Dr. Lloyd; and a beautiful collection of the varieties of humming bird, prepared by Mr. Heywood, a mechanic of Coventry, who devotes his leisure hours to the cultivation of Natural History. . . . The departments of Geology, Mineralogy, and Crystallography are rich, but not extensive. . . . The models of engines, machinery, etc., are not so numerous as they were in the Grammar School during the visit of the British Association, but among them are some articles which were not then displayed, especially some lathes of admirable construction and great power."

## Fossils from the London Clay

ON December 18, 1839, Richard Owen read to the Geological Society a paper "On the Fossil Remains of a Mammal, a Bird and a Serpent, from the London Clay". Until a few months previously the highest organized animal remains known to exist in the London clay were those of reptiles and fishes. In collections at Ipswich and Woodbridge, however, had been discovered teeth of a quadrumanous animal, of Cheiroptera, plantigrade and digitigrade carnivora, and of a species probably belonging to the marsupial order. These had been found in the London clay of Suffolk. To these Mr. Owen had been enabled to add remains of a new and extinct genus of pachydermatous mammals, of a bird and a serpent. The first of these had been discovered in the cliffs of Studd Hill, near Herne Bay, by Mr. W. Richardson and consisted of a small mutilated cranium, about the size of that of a hare, containing the molar teeth of the upper jaw nearly perfect, and the sockets of the canine. The remains of birds consisted of a sternum with other bones, and a sacrum, both found at Sheppey. The sternum forms part of the collection of fossils formed by John Hunter. One of the specimens of extinct species of serpent was likewise in the Hunterian collection and consisted of about thirty vertebrae. This also was found at Sheppey.

## Light from Plants

AT a meeting of the Botanical Society on December 20, 1839, reported in the *Athenæum* of December 28, Dr. Willshire communicated all that was then known with respect to the evolution of light from plants, a subject which had recently attracted some attention on the Continent, but which was first observed in *Tropaeolum majus*. The subject was divided into two portions, namely, light evolved from dead and living vegetable structures, and it appeared that wood rotted in the air never shines, it being requisite to be buried in the earth, when the sap is contained within it. It was observed that this effect takes place only in the months of July and August, in warm dry weather, never in damp. Several plants were mentioned as evolving light during the putrefactive stage, among others, mushrooms, potatoes, etc.

## APPOINTMENTS VACANT

APPLICATIONS are invited for the following appointments on or before the dates mentioned:

TEACHER OF ENGINEERING SUBJECTS—The Principal, Luton Technical College, Park Square, Luton (December 20).

TEMPORARY DISTRICT OFFICER to the Essex War Agricultural Executive Committee—Executive Officer, East Anglian Institute of Agriculture, Chelmsford (December 22).

TWO UNIVERSITY GRADUATES (male and female) to teach English in a Lycée in Ankara—The British Council, 3 Hanover Street, W.1 (envelopes marked "Turkey") (December 27).

CIVIL ENGINEERING ASSISTANTS in connexion with the Haweswater Scheme—The Secretary, Waterworks Offices, Town Hall, Manchester 2 (December 28).

CHIEF EDUCATION OFFICER to the County Borough of Doncaster—The Town Clerk, 1 Priory Place, Doncaster (December 31).

SUB-LIBRARIAN at the University of Cape Town—The Secretary, Office of the High Commissioner for the Union of South Africa, Trafalgar Square, W.C.2 (December 31).

SCHOOLMASTER OFFICERS in the Royal Navy—The Director, Education Department, Admiralty, S.W.1 (January 2).

TEMPORARY MASTERS to teach Mathematics, Physics and Applied Physics—The Headmaster, Oundle School, Oundle.

RESIDENT ENGINEER to the Witham and Steeping Rivers Catchment Board—The Engineer to the Board, 50 Wide Bargate, Boston, Lincs.

LECTURER IN MECHANICAL ENGINEERING in the Witwatersrand Technical College, Johannesburg—Messrs. Frank Ross and Co., 9 Fenchurch Avenue, E.C.3.

UNESTABLISHED EXAMINERS in the W/T, Instrument, and General Engineering Branches of the Aeronautical Inspection Directorate of the Air Ministry—Inspector in Charge, A.I.D. Training School, Brandon Street, Bristol 1.

## REPORTS AND OTHER PUBLICATIONS

(not included in the monthly Books Supplement)

## Great Britain and Ireland

Scottish Marine Biological Association. Annual Report 1938-39. Pp. 48. (Glasgow: Scottish Marine Biological Association.) [2211]

Rothamsted Experimental Station, Harpenden: Lawes Agricultural Trust. Report for 1938. Pp. 213. (Harpenden: Rothamsted Experimental Station.) 5s. [2311]

Ministry of Health. Memorandum on Typhoid Fever. Pp. 10. (London: H.M. Stationery Office.) 2d. net. [2311]

## Other Countries

Smithsonian Institution: United States National Museum. Bulletin 174: Life Histories of North American Woodpeckers, Order Piciformes. By Arthur Cleveland Bent. Pp. viii+334. (Washington, D.C.: Government Printing Office.) 50 cents. [2211]

U.S. Department of the Interior: Geological Survey. Bulletin 898-F: Spirit Leveling in Missouri. Part 6: Northeastern Missouri, 1896-1938. By J. G. Stack. Pp. x+797-869+xi-xiv. Bulletin 909-B: Geophysical Abstracts 93, April-June 1938. Compiled by W. Ayzazoglou. Pp. ii+51-104. 10 cents. Bulletin 910-A: The Mineral Industry of Alaska in 1937. By Philip S. Smith. (Mineral Resources of Alaska, 1937.) Pp. ii+114+1 plate. 35 cents. (Washington, D.C.: Government Printing Office.) [2211]

U.S. Department of the Interior: Geological Survey. Professional Paper 189-F: The *Venericardia planicosta* Group in the Gulf Province. By Julia Gardner and Edgar Bowles. (Shorter Contributions to General Geology, 1937.) Pp. ii+143-216+plates 29-46. 40 cents. Professional Paper 189-H: Pleistocene Diatoms from Long Island, New York. By K. E. Lohman. (Shorter Contributions to General Geology, 1937.) Pp. ii+220-238. 10 cents. (Washington, D.C.: Government Printing Office.) [2211]

U.S. Department of the Interior: Geological Survey. Water-Supply Paper 822: Surface Water Supply of the United States, 1937. Part 2: South Atlantic Slope and Eastern Gulf of Mexico Basins. Pp. vi+266+1 plate. 35 cents. Water-Supply Paper 825: Surface Water Supply of the United States, 1937. Part 5: Hudson Bay and Upper Mississippi River Basins. Pp. viii+334+1 plate. 45 cents. Water-Supply Paper 836-B: Ground-Water Resources of the Holbrook Region, Alaska. By Marshall A. Harrell and Edin B. Eckel. (Contributions to the Hydrology of the United States, 1938.) Pp. iv+19-106+plates 2-11. 40 cents. Water-Supply Paper 838: Floods of Ohio and Mississippi Rivers, January-February 1937. Pp. xii+746+25 plates. 1.25 dollars. (Washington, D.C.: Government Printing Office.) [2211]

Publications of the Lick Observatory. Vol. 14, Part 3: The Spectrum of Nova Aquilae (1918). By Arthur B. Wyse. Pp. ii+93-216+plates 7-10. (Mt. Hamilton, Calif.: Lick Observatory.) [2211]

Ministry of Agriculture, Egypt: Technical and Scientific Service. Bulletin No. 210: Manurial Requirements of Sugar-Cane in Egypt. 4: Further Phosphate Experiments. By Arthur H. Rosenfeld. Pp. ii+23+2 plates. P.T. 4. Bulletin No. 213: Manurial Requirements of Sugar-Cane in Egypt. 5: Time and Number of Nitrogenous Fertilizer Applications. By Arthur H. Rosenfeld. Pp. vi+16+1 plate. P.T. 2. Bulletin No. 220: Systematic and Automatic Warm Water Steeping to Control Loose Smut of Wheat. By G. Howard Jones. Pp. vi+12+10 plates. P.T. 3. Bulletin No. 233: Studies on the Control of Kernel Smut of Sorghum. By A. F. El-Helaly. Pp. ii+22. P.T. 3. (Cairo: Government Press.) [2311]