

GLASGOW

Geological Society, November 30.—Dr. Robert Brown, F.R.G.S., delivered a lecture on "Greenland: Its Physical Geography and Fossil Flora." After alluding to the interest which Greenland possessed, as presenting a picture of what the British Isles were supposed to have been during the glacial period, Dr. Brown gave a graphic sketch of the coast scenery of the country, which he compared to a succession of islands with water on the one side and ice on the other. He described the interior of Greenland as one vast sheet of ice of great thickness, pressing out on all sides to the sea, and occupying as separate glaciers the fiords which indent the coast. These glaciers in many instances push their way out to sea, where portions are broken off and drift away as icebergs; in other cases, the glacier dissolves near the head of the fiord, and great stores of muddy water escaping from it form a deposit of fine clay, which has sometimes silted up part of the fiord so effectually as even to turn the glacier aside into another channel. From what he had observed in Greenland, he was inclined to hold that the lower *till*, or boulder-clay, as it exists in the Forth and Clyde valley, was formed by such a sheet of massive land ice slowly moving over the country, while what he had described as resulting from the waste of the glaciers near the sea might account for some of the well-known beds of laminated clay associated with that deposit. He questioned whether icebergs really did much in the way of conveying rocks or *alibris* to any distance. So far as he had observed they bore wonderfully little of such material in or upon them; and he thought that to call in their agency, as had sometimes been done, to account for the dispersion of plants, &c., was highly visionary. Dr. Brown then alluded to the rock-formations of Greenland, and to the plant remains of the Carboniferous and middle Tertiary periods which had been found in the country, showing that it once enjoyed a very different climate from that to which it is now subjected. The Carboniferous plants had only been recently discovered by Dr. Pfaff, and he trusted that gentleman, who was resident on the spot, would be enabled to make further researches.

PARIS

Academy of Sciences, December 4.—M. Chasles presented a number of theorems relating to the harmonic axes of geometrical curves, and M. C. Jordan a paper on Gauss's sums with several variables. — M. Tresca read a paper on the effects produced during the planing of metals; and M. H. Resal communicated some investigations on the calculation of the fly-wheels of steam-engines.—Letters were read from Father Secchi on a new method of measuring the heights of the solar protuberances, and on the temperature of the sun. Upon the latter M. Faye made some remarks.—M. Le Verrier presented a note on the shooting stars of the month of November, from observations made in France and Italy. Many meteors issued from the constellation Leo, but the point of radiation was slightly displaced. Five or six currents of meteors in different directions were observed. In August a displacement of the point of radiation was observed between the 9th and 11th.—An extract from a letter from M. J. F. J. Schmidt to M. Delaunay on the November meteors observed at Athens was also read.—M. C. Saint-Claire Deville communicated a note on the early cold weather of 1871, which appears to have prevailed over the whole of France.—M. F. de Biseau recorded the observation of aurora borealis in Belgium on the nights of the 9th and 10th November.—A note from M. de Magnac on the determination by means of chronometers of the differences of longitude of distant places was read.—M. Lecoq de Boisbaudran presented a note on the separation and quantitative determination of some metals by means of a voltaic current.—M. A. Béchamp communicated some observations on a recent note by M. Ritter on the formation of urea by albuminoid materials and permanganate of potash.—M. Wurtz presented a note by M. L. C. de Coppet on a new method of preparing supersaturated saline solutions, in which the author stated that solutions identical with those called supersaturated could be prepared by dissolving certain dehydrated salts (sulphate and carbonate of soda) in cold water.—M. Peligot presented a note by M. T. Schloësing, containing a comparison of the two conditions of a soil in part wooded and in part cleared and treated with lime.—M. Peligot also presented a note by M. A. Renard on the determination of ground-nut oil in olive oil. The process, which is rather complicated, consists in the saponification of the oil, and the separation from the soap of the arachidic acid which is characteristic of ground-nut oil.—M. Balard communicated a note by M.M. Scheurer-Kestner and C. Meunier

on the composition and heat of combustion of lignites, containing the analyses and results of combustion of six lignites from various parts of France, and from Bohemia. The heat of combustion was always found to be inferior to that of the carbon and hydrogen contained in the lignites.—M. Elie de Beaumont exhibited a collection of minerals from Bolivia, Chili, and Peru sent by M. Domeyko.—M. S. Meunier presented a note on a new method of obtaining Widmannstätten's figures by attaching a polished plate of meteoric iron to the positive pole of a Bunsen's battery and a plate of silver to the opposite pole, and plunging both into a solution of bisulphate of potash.—M. Husson communicated an analysis of the milk of cows attacked by contagious typhus.—A note was read on the Garumnian type of the department of the Aude, by M. A. Leymerie, in which the author maintains the distinctness of this geological stage, and indicates some of the fossils which characterise it.

BOOKS RECEIVED

ENGLISH.—Marvels of Pond Life: H. J. Slack (Groombridge and Sons).—The Amateur's Flower Garden: Shirley Hibberd (Groombridge and Sons).—Flowers for Sundays: P. Spenser (Longmans).—The Laws of the Wind prevailing in Western Europe; No. 1, with Charts and Diagrams; W. C. Ley (E. Stanford).
FOREIGN.—(Through Williams and Norgate).—Die Axendrehung der Weltkörper: E. F. T. Moldenhauer.

DIARY

THURSDAY, DECEMBER 14.

ROYAL SOCIETY, at 8.30.—Contributions to the History of Orcin. No. II. Chlorine and Bromine Substitution Compounds of the Orcins; Note on Fuelsol: Dr. Stenhouse, F.R.S.—On some recent Discoveries in Solar Physics; and on a Law regulating the Duration of the Sunspot Period: W. De La Rue, F.R.S., B. Stewart, F.R.S., and B. Loewy.
MATHEMATICAL SOCIETY, at 8.—On the Celebrated Theorem that every Arithmetical Progression, if it contains more than one must contain an infinite number of Prime Numbers: J. J. Sylvester, F.R.S.

FRIDAY, DECEMBER 15.

LONDON INSTITUTION, at 4. Elementary Physiology, by Prof. Huxley, F.R.S. No. 7. (Extra Lecture.)

SUNDAY, DECEMBER 17.

SUNDAY LECTURE SOCIETY, at 4.—On the Physiology of Contagion and Infection: Dr. John S. Bristowe.

MONDAY, DECEMBER 18.

ANTHROPOLOGICAL INSTITUTE, at 8.—The Anthropology of Auguste Comte: Joseph Kaines.—On the Hereditary Transmission of Endowments: George Harris.
LONDON INSTITUTION, at 4. No. 8.

TUESDAY, DECEMBER 19.

STATISTICAL SOCIETY, at 7.45.—On the Comparative Health of Seamen and Soldiers: Dr. Balfour.

WEDNESDAY, DECEMBER 20.

GEOLOGICAL SOCIETY, at 8.—Further Remarks on the Relationship of the Limulidæ to the Eurypteridæ and to the Trilobita: Henry Woodward, F.G.S.—Further Notes on the Geology of the neighbourhood of Malaga: M. D. M. d'Orueta.

ROYAL SOCIETY OF LITERATURE.—On a capital Joke recorded by Suetonius: Dr. C. Mansfield Ingleby.—On a Collection of Roman Brick Stamps in the Ashmolean Museum at Oxford: Mr. Vaux.
SOCIETY OF ARTS, at 8.—On the Study of Economic Botany, and its Claims Educationally and Commercially Considered: James Collins.

THURSDAY, DECEMBER 21.

ROYAL SOCIETY, at 8.30.
LINNEAN SOCIETY, at 8.—On the Anatomy of the American King-Crab (*Limulus polyphemus*, Latr.): Prof. Owen, F.R.S.
CHEMICAL SOCIETY, at 8.

CONTENTS

PAGE

THE COPLEY MEDALLIST OF 1871. By Prof. JOHN TVNDALL, F.R.S.	117
AIRY ON MAGNETISM. By JAMES STUART	120
OUR BOOK SHELF	121
LETTERS TO THE EDITOR:—	
Alternation of Generations in Fungi.—Rev. M. J. BERKELEY, F.L.S.	122
Leibnitz and the Calculus.—Dr. C. M. INGLEBY	122
The Science and Art Department	122
Lunar Calendars	123
New Zealand Forest Trees.—Dr. W. LAUDER LINDSAY, F.R.S.E.	123
Solar Halo.—W. W. HARRIS	123
Proof of Napier's Rules	123
The Cause of Specific Variation.—Rev. G. HENSLAW, F.L.S.	123
ON DEEP-SEA THERMOMETERS.—By Capt. J. E. DAVIS, R.N. (With Illustration)	124
OYSTERS IN IRELAND.	125
ARTIFICIAL MILK. By W. MATTIEU WILLIAMS, F.C.S.	129
NOTES	129
SCIENTIFIC SERIALS	133
SOCIETIES AND ACADEMIES	133
BOOKS RECEIVED	136
DIARY	136