

Early Science at Oxford.

February 22, 1683-4.—A letter from Mr. Aston dated Feb. 14 was read, which gave an account of an experiment lately shewn before ye Royal Society by Mr. Paget, viz. ye south pole of ye inclinatory needle followed ye flame of a quarter of a sheet of paper, 5 degrees, ye side of ye box being very little hot; ye inclinatory needle was hung in ye plane of ye meridian; ye North pole shunned ye flame.—With regard to a fountain in Poland, that is said to follow ye motion of ye Moon, is cold to ye touch, and yet easily inflammable, Dr. Plot informs us, that there is a spring in Lancashire, which, though cold, takes fire, and will harden eggs.

Concerning ye Lough-neagh stone, it was ordered, that ye Gentlemen of ye Society of Dublin should be desired, that they would be pleased to impart their thoughts concerning it, ye manner of its being made such, and of what materials it may be made.

1686-7.—Mr. Halley sent accounts (1) of Mr. Hooke's hypothesis concerning ye changes which seem to have happened in ye surface of ye Earth, from ye shells in beds found petrified in ye Alps, and other hills far from, and above ye sea; and again sea sand and shells, found at great depths underground. (2) Of an experiment of flint and steel in vacuo; which was that there were no sparks visible from ye collision, though they were very vivid in ye same receiver when ye air was admitted. (3) Of a very strange effect of lightning from France, viz. that something in it pierced through a piece of glass, making some holes about ye bignesse of pistol bullets, and melting ye edges of ye glass making it smooth like ye edges of a cup. (4) That ye French in Canada have found a whole mountain of lead ore, which lies bare; so that there is no need of mining.

Whereas Mr. Hooke thinks that there are not extant any authentic records of ye latitudes of places sufficiently to evince ye fixation of ye Poles, Dr. Bernard observes that ye latitude of Marseilles, taken by Pythias, in ye time of Alexander ye Great, appears to be ye same as 'tis now, and that in ye latter end of Julius Firmicus, is an observation of ye latitude of Oxford, taken about a hundred years since.

Mr. Lhwyd communicated ye following curiosities, sent out of ye Isle of Anglesey together with a collection of sea plants and shells:—Eggs of Skate and Dog-fish, *Favus marinus Sibbaldi*, and a broad leaved *Fucus* which had a facing of fine silk in appearance, and was all over garnished with small filaments standing upright, about an eighth of an inch long; much resembling ye stamina of flowers. This surface was easily scraped off, and was supposed to adhere to this plant after ye same nature that mosses, lichens, fungi, and such other vegetables adhere to stones, trees, bones, horns, etc.

February 23, 1685-6.—A discourse concerning sounds and echoes, drawn up by Mr. Walker, was by him communicated and read.—Dr. Plot communicated some shells, *Buccina*, in which ye spirals turn to ye left.

February 24, 1684-5.—A Horn was communicated by Dr. Plot, said to be a horn, which grew behind ye head of a woman, who was shewn in London about fourteen years since, and is reported to have shed her horn once in three years. This was sent by Mr. Ashmole to be laid up in his Repository.

A letter from Dr. Howman, dated Norwich Jan. 27, gave an account of a hydrophobia in an alderman of Norwich, caused by ye bite of a mad fox. Mr. Walker affirmed, that about fifteen years since a person died mad in Cheshire, having been bitten by a mad cat, which received its madness from ye bite of a mad dog.

Societies and Academies.

LONDON.

Royal Society, February 12.—H. Muir Evans: A contribution to the anatomy and physiology of the air-bladder and Weberian ossicles in Cyprinidæ. In Cyprinidæ the air-bladder is constricted, so as to form an anterior and posterior chamber connected by a short duct. The Weberian mechanism is designed to conduct vibrations and not to register variations of pressure. The nerve-ganglion regulates tension of anterior sac and thus allows it to receive vibrations: it controls the sphincters and prevents undue lowering of tension when the pneumatic duct is open, and excess of tension due to pressure of gas in the posterior sac.—J. S. Huxley: Studies on amphibian metamorphosis. II. It is not always possible to induce metamorphosis of the axolotl by enforced air-breathing in a considerable number of specimens. This may be due to genetic differences between strains. When axolotls are so treated the dorsal fin falls over and fuses completely with the skin of the back. By using urethane it was found possible to keep frog tadpoles in narcosis for 8-12 days. If previously treated with thyroid, they metamorphosed as rapidly as controls. An atmosphere of oxygen is deleterious to tadpoles, and retards metamorphosis. A mixture of air and oxygen containing 40 per cent. oxygen allows metamorphosis to proceed at the same rate as in air. The dorsal fin of male newts which is developed in the breeding season is not caused to regress by administration of thyroid, unlike the larval fin-crest occupying the same position.—A. S. Parkes and J. C. Drummond: Effects of vitamin-B deficiency on reproduction. In a buck rat on a diet totally deficient in vitamin-B degeneration of testes and sterility ensue. The amount of degeneration can be generally correlated both with degree of deficiency and time on the diet. The fecundating power of the buck can be definitely correlated with degree of deficiency. Size of litter, however, shows little variation. The proportion of males among the young decreases.—A. Dendy: On an orthogenetic series of growth forms in certain tetraxonid sponge-spicules. The so-called streptasters or siliceous spicules of the Theneidæ and Pachastrellidæ are not asters, and the spirally twisted axis which they exhibit is not an elongated centrum. They are really derivatives of the primitive triact, which have arisen in accordance with a remarkable law of growth. These spicules, for which the name "dichotriacts" is proposed, appear to form an orthogenetic series of growth-forms, probably representing both a phylogenetic and an ontogenetic series. As in true asters, the increase in the number of rays is accompanied by diminution in size.—C. E. Walker: The meiotic phase in Triton (*Molge vulgaris*). As is the case in the ordinary somatic mitoses, the univalent filament splits in the telophase of the somatic division immediately preceding the 1st meiotic (heterotype) division. These semivalent threads rejoin in the early prophase; the univalent filaments thus formed join longitudinally, and at the anaphase whole somatic chromosomes are distributed to the daughter cells. The splitting of the univalent filament in the telophase of the last somatic division is not consummated until the 2nd meiotic division, when the chromosomes split into longitudinal halves. The 1st meiotic division is a unique phenomenon interpolated between two mitoses providing for the equal distribution of whole chromosomes.—W. E. Alkins: *Clausilia bidentata* (Ström) and *Cl. cravenensis* (Taylor): a statistical inquiry into the relationship of two similar species. *Clausilia bidentata* is widely spread in Britain and elsewhere; *Cl. cravenensis*