

Early Science at Oxford.

June 22, 1686. The Minutes of the Dublin Society from Apr. 26, to May 17th were read: Also a discourse of Mr. Caswells, Shewing how the *Shadow* may goe back on an Horizontal plane in any latitude, if the stile point betwixt the Tropics; also on any other plane unlesse the situation thereof keeps the Sun from shining long enough thereon; together with the calculation of the time and quantity of the shadow's regression, according to the various situations, of the stile and plane.

Mr. Lloyd having observed that many curious Travellers when they visit the Repository, doe occasionally relate some remarques of their own experience, concerning things of *Nature* and *Antiquity*; he thought it might prove of some consequence to provide a Book that should lye in the Repository; wherein he might briefly set down, the contents of such relations; desiring each Gentleman to subscribe to what he communicated.

'Twas ordered that such relations should be transcribed into the Minute Book in ye method indicated by two examples written out in full by Mr. Lloyd.

June 23, 1685. Dr. Plot presented severall Birds, as ye Puffin, Razor Bill, and ye Eligug, together with ye Egges of each Species; the Egges were observed to be large, but especially those of ye Puffin.

He communicated an account of incombustible cloth, drawn up by way of letter to Mr. Bayly, Fellow of ye Royal Society, and Mr. Wait, both Merchants of London; this discourse was read.

June 24, 1684. A Letter from Mr. Aston, dated June ye 21st 1684 was read; which mentioning an experiment lately made before ye Royall Society, for finding ye quantity of air, contained in Iron; it was ordered, that Mr. Aston be desired to communicate ye manner, and method, of that Experiment. In this letter were contain'd ye Minutes of ye Dublin Society, from April ye 28th to June ye 2d; which mentioning that a Dog, having about 2 inches in depth, and 3 or 4, in bredth, cut off from one of ye lobes of his lungs, recovered it without any injury to him, Mr. Musgrave assured ye Society, that ye same Experiment was tried by Dr. Lower, here in Oxon, many years since, with ye same success, as he heard from Mr. Fry, formerly a Chyrurgion in this Town, who assisted ye Doctor in that Experiment.

These Minutes giving also an account that one of ye externall jugulars of a Dog, was tied without injuring ye Dog. Mr. Musgrave read a paper, acquainting ye Society with what he did in this kind ye last March: the paper is as follows: Sometime in March last, I tied ye 2 externall jugulars of a dog, and cut off ye veins, on this side of ye Ligatures, towards ye heart: The same experiment was tried many years since, by ye famous Dr. Lower (see his book *de corde*, pag: 112, ed. Amstel: 1671).

These were ye strange effects of ye Doctor's experiment, and my success, in repeating it, was also somewhat surprising, but on a different account; for I could never find, that ye dog, on which I tryed this experiment, was any way concerned, otherwise than at ye wound; I found no alteration in him at all, that I could impute to ye stoppage of ye circulation, in ye veins before mentioned &c.

About 3 weeks after this experiment, ye wounds being now heald, I tried another Experiment on ye same dog, under which he died: I examin'd him as to ye jugulars, which I found almost dried up:

This experiment was tried in ye presence of Mr. Paige, and some others, of New College.

Ordered, ye Eclipse of ye Sun on 2 July next, to be strictly observed.

Societies and Academies.

LONDON.

Royal Society, June 11.—R. Magnus: Animal posture (Croonian Lecture). Postural centres in brain-stem compound the body musculature to combined action. Postural stimuli arise from many different sense organs. Change in position of one part of the body is followed by postural (usually harmonious) changes in other parts. Postures are adapted to environment by combined action of distance receptors and attitudinal reflexes. The righting function, absent in decerebrate, is present in midbrain animals. Righting reflexes evoked from labyrinths, exteroceptors, and proprioceptors, bring head and body into normal position. Optical righting reflexes are present in higher mammals only. Paralysis of one righting apparatus is usually compensated by other righting reflexes. Centres for righting are arranged subcortically. The resting position of the eyes changes with different positions of head, and is controlled by postural reflexes. In animals with lateral eyes (rabbits) the visual world remains fixed in spite of head movements. This is accomplished by the combined action of otolithic and neck reflexes. Motor reflexes from the semicircular canals initiate these static reactions of the eyes. Centres for all these reflexes are arranged in three groups. The red nucleus is the centre for two of the righting reflexes. Labyrinthine reactions have greater importance in lower mammals. Postural function of other parts of brain is largely unknown.

Royal Anthropological Institute, May 5.—V. Gordon-Childe: The lake dwellings in Europe in the light of the new excavations. Prior to 1920 our conception of the development of civilisation among the inhabitants of the pile villages of the Alps was perforce based on *a priori* typological analysis of the heterogeneous material dredged up haphazard. These conceptions were largely erroneous. On Lake Neuchâtel, Dr. Vouga has found at several sites no less than four superimposed settlements. The oldest villagers used jadeite more freely and made much finer pottery than their successors. They possessed all the domestic animals and depended less on food-gathering than the later settlers; on the other hand, they may have been cannibals. In Wurtemberg the studies of Runerth of Tübingen have rendered possible the reconstruction of several types of neolithic houses and revealed pottery some of which is related to both the earliest fabrics of Lake Neuchâtel and those in use in the Danube Valley in the second neolithic period there. Beside the well-known Bronze Age village on Laibach Moor, an earlier settlement has been identified which, despite a "neolithic" inventory, probably belonged to the dawn of the age of metal as whetstones were found. On Lake Alvastra in Sweden a pile dwelling of the stone age was excavated in 1911. Its occupants had practised agriculture and possessed artefacts similar to those of the megalith builders on the coasts, but their pottery and celts were of types proper to the food-gathering population of the "dwelling-places." The "neolithic" elements from the Swedish and Swiss lake dwellings are fundamentally different. It is therefore impossible to attribute both the pile-dwelling habit and the neolithic civilisation to the "brachycephalic invaders" assumed by classical theory. Incidentally the more easterly and southerly lake-dwellings at Laibach and in Bosnia are later than the western and northern. On the other hand, a race of hunters and fishers had inhabited rafts in the early neolithic (dolmen) period in Scandinavia and even earlier in the mesolithic period in Denmark and