

## Contemporary Birthdays.

January 23, 1856. Brig.-Gen. Sir Henry C. L. Holden, K.C.B., F.R.S.

January 27, 1864. Prof. John Walter Gregory, F.R.S.

January 27, 1856. Prof. Edward B. Poulton, F.R.S.

Sir HENRY HOLDEN was born at Cheltenham. Educated at Ipswich School, he joined the Royal Military Academy, Woolwich, afterwards entering (1875) the Royal Artillery, and then came service in India, until 1881. The inventor of many instruments connected with electrical science and artillery problems, he became Superintendent of the Royal Gun and Carriage Factory at Woolwich; afterwards he was (1914-16) Director of Mechanical Transport at the War Office.

Prof. J. W. GREGORY, geologist and exploring traveller in many regions, was educated at Stepney Grammar School. Originally he was associated with his father in the wool trade, but in 1887, having qualified for an assistantship in the Geological Department of the British Museum, he henceforth devoted himself to scientific pursuits. He left London and Government service in 1900 to take up the post of professor of geology and mining at the University of Melbourne (combined with survey work), returning in 1904 on his election as professor of geology at the University of Glasgow. A voluminous writer in different branches of geology, Prof. Gregory has studied in particular the features of the Alps, the Mediterranean basin, Africa, the West Indies, and Australia. Among his publications are "The Origin of the Great Rift Valley in East Africa," "The Origin of Fjords," "The Evolution of the River Systems in Chinese Tibet." Prof. Gregory was president of the Section of Geology, British Association, 1907, and of the Section of Geography, 1919.

Prof. E. B. POULTON was born at Reading, the son of an architect resident there. He was educated in the first instance at a private school, afterwards entering and graduating at Jesus College, Oxford. For many years (and still) Hope professor of zoology in the University of Oxford, early a Burdett-Coutts university scholar, an ex-president of the Oxford Society, lecturer in natural science at Jesus College, sometime tutor at Keble, formerly a member of the Oxford Hebdomadal Council—in short, all Prof. Poulton's traditions and implications savour of Oxford. President of the Linnean Society, 1912-16, he was awarded (1922) the Linnean gold medal, in token of the Society's appreciation of services to zoological science. Sir A. Smith Woodward remarked at the time that Prof. Poulton had begun by traversing a wide field, from bone-caves and Pleistocene geology to the structure of the tongues of marsupials—histological work which culminated in the interesting discovery of true teeth in the embryo Ornithorhynchus. Prof. Poulton's inclinations, however, were always towards entomology, and for many years he has been regarded as the chief exponent of the theory of protective resemblance and mimicry in insects. His keepership of the Hope collection at Oxford has resulted in the creation of a museum of entomological specimens illustrative of variation, geographical distribution, and mimicry bearing on the theory of evolution. He has also carried out experimental breeding work on variable protective resemblance, demonstrating the dependence of the coloration of certain larvæ and pupæ on the particular circumstances of their environment. His work was rewarded in 1914 by the Royal Society's Darwin medal.

## Early Science at Oxford.

January 25, 1683-4. A letter from Mr. Aston gave an account, of ye specific difference between ye Chrystalls of Sea-salts and common salt, or Inland salt, which consists in this: The angles of ye Chrystalls of common salt are entire (as likewise are those of *Sal Gemmæ* and ye lixiviated marine salts of Dr. Grew) but ye angles of true sea-salt are cut off, into triangular planes, at least in one of ye sides. Dr. Plot shewed us some Chrystalls of sea-salt, in which we observed ye triangular plane mentioned in Mr. Aston's letter. The severity of ye frost led us then to discourse of cold, particularly of making holes in ye Ice with salt, which eats through ye ice, which means ye common-people make use of, in opening their frozen pumps.

January 26, 1685-6. A paper of Dr. Papin's explaining his new way of raising water was presented and read.

Mr. LLOYD communicated a paper containing an account of some plants, which grow in North Wales, and are omitted in Mr. Ray's catalogue.

Dr. Plot presented an old almanack sent him out of Somersetshire.

January 27, 1684-5. An answer to Dr. Middleton, provost of Kings Colledge in Aberdene, was drawn up, concerning the establishing a Correspondence between us of this Society, and ye Gentlemen of Aberdene.

The Society, being acquainted, that, in Hullington-fields, in Wiltshire, there is an odd sort of light barren earth; and that severall curious plants grow thereabout; gave order, that Dr. Plot, at his return to Oxford, be desired, to write to Mr. Cole of Bristoll, (to whom this land belongs,) and make use of his interest with that gentleman, for ye procuring an account of these matters.

Sir William Petty having thought it worth his while, to enquire into ye proportion of ye materials, used in making severall sorts of Mortar, the following report was drawn up: The Mortar used by our Plaisterers is generally of two sorts, course or ffine: 1. *Course* mortar is made of Lime, sand, and hair: the Lime used here at Oxford is of 2 sorts, viz Chalk-lime, made of a Chalk-stone dug at Nettlebed, and other places, and burnt: or 2dly Hard stone lime, which is made of hard rag stone, burnt; this last sort of lime is much stronger, and will go 2 yards square in five, farther, (for it takes up far greater quantity of sand, and water,) than ye former, which is the finer of ye two, and ye more beautifull, and glorious, to the eye.

One bushell of chalk lime, one bushell of sand, and one peck of hair, mixt all together with water, will make *course* Mortar: but if you use hard stone lime, then one bushell of Lime will require a bushell and  $\frac{1}{2}$ , or 2 bushells, of sand, and a bushell of hair. In ye making of *ffine* mortar mix one bushell of chalk lime with  $\frac{1}{2}$  a peck of hair, or a bushell of hard stone lime with a peck of hair, and as much water as is necessary. *Course* mortar is used next to ye lathing, or ye stone, or brick-wall; *ffine* mortar is drawn on ye other, makes it white, and beautifull.

Clay mortar, or Loam mortar, is made with clay, and as much chopt straw, as ye clay will take in by ye help of water.

Whiting is made by dissolving Spanish white either in size, or in water, that with size is not easily rub'd off.

That substance, which is commonly sold at London for about rd. p pound for Spanish white, is supposed to be made of chalk ground, and made up into Balls with water.