

Contemporary Birthdays.

January 1, 1855. Sir Charles L. Morgan, Past Pres. Inst.C.E.

January 5, 1846. Sir John Arrow Kempe, K.C.B.

January 8, 1845. Rt. Hon. Sir Herbert E. Maxwell, Bart., F.R.S.

January 8, 1856. M. le Prof. Henri Lecomte, Natural History Museum, Paris.

January 8, 1868. Sir Frank W. Dyson, F.R.S.

Born at Edinburgh, Sir HERBERT MAXWELL was educated at Eton and Christ Church, Oxford. As naturalist, antiquary, and worker in the public service, Sir Herbert's many-sided activities have had ample play on both sides of the Border. An ardent chronicler of Scottish history, he was president of the Society of Antiquaries of Scotland, 1900-13, and a lecturer in the University of Glasgow during that period. A recognised authority on Scottish historical monuments, he was Rhind lecturer in archæology, University of Edinburgh, 1893-1911. Sir Herbert was chairman of the Royal Commission on Tuberculosis, 1897-98, afterwards representative of H.M. Government at the Berlin Congress on the Prevention of Tuberculosis. Many papers in the issues of the Scottish Natural History Society on the habits of animals and birds proceed from his facile pen. Fisherman and botanist, he has published "Salmon and Sea-trout" (1899), "Fishing at Home and Abroad" (1914), "Trees, a Woodland Notebook" (1914), "Flowers, a Garden Notebook" (1923). His "Memories of the Months" (1897) has gone through many editions. In August last Sir Herbert was appointed by the Crown chairman of the board of trustees of the newly constituted National Library of Scotland, arising from the transfer of the great library of the Faculty of Advocates as a nucleus.

Prof. LECOMTE, an Officer of the Legion of Honour, is one of the two professors of botany in the Natural History Museum, Paris. He was elected a foreign member of the Linnean Society in 1916, the following year becoming a member of the Paris Academy of Sciences. Professor at the Lycée St. Louis, 1884-1903, he joined the museum staff in 1906. Founder and first editor of the *Revue des cultures coloniales* (1897), Prof. Lecomte is author of various important works, notably, "Les Textiles végétaux et leur examen micro-chimique" (1892), and "Le Coton en Egypte" (1904).

Sir FRANK DYSON, born at Ashby, was educated at Bradford Grammar School, proceeding thence to Trinity College, Cambridge, graduating second wrangler. He was also Smith's prizeman. Chief Assistant at the Royal Observatory, Greenwich, 1894-1905, he was next appointed Astronomer-Royal, Scotland, returning to Greenwich in 1910 to take up the post of Astronomer-Royal. Sir Frank was awarded a Royal medal by the Royal Society in 1921. It was recorded that among many important contributions to astronomy he had devoted special attention to investigations of the movements and distances of the stars, and of the bearing of these upon the structure of the stellar universe. He had been conspicuously successful in obtaining records of the spectrum of the corona and chromosphere during eclipses of the sun. Sir Frank is a corresponding member of the Academy of Sciences, Paris, and a foreign member of the Reale Accademia Nazionale dei Lincei, Rome.

Societies and Academies.

LONDON.

Royal Meteorological Society, November 16.—I. D. Margary: The Marsham phenological record in Norfolk, 1736-1925, and some others. A remarkable phenological record kept by five generations of one family at Hevingham near Norwich is presented. The observations include the dates of leafing of 13 common trees, flowering of snowdrop, hawthorn, etc., and the movements of 8 migrant and other birds. The mean date for a group of seven of the plant events covering the period January-May has been worked out for each year. The annual variations are closely related to temperature and show a very definite periodicity, averaging twelve years between unusually backward springs or early springs. Recent extreme years are: early, 1912, 1921; late, 1908, 1917. The intervals have recently been shorter than the average. Comparing the plant dates in the eighteenth and twentieth centuries (taking averages for the thirty-five year periods 1751-85 and 1891-1925) of the 16 plants, 10 were earlier in the recent period, 3 were unchanged, and 3 later, possibly an indication of an earlier tendency in recent springs. Migrant birds seem independent of these conditions. The swallow's date of arrival is definitely getting later (the average for the thirty-five years 1891-1925 being eight days later than for 1751-85), in contrast to that of the cuckoo, which has on the average kept a constant date throughout the period.—C. D. Stewart: Experiments in the shielding of rain gauges. The chief difficulty met with in the measurement of rainfall is the effect of wind in decreasing the catch of a gauge owing to the eddies set up by its projecting parts. At Valencia Observatory it has been found that protection is afforded in varying degrees by buildings, the Nipher shield and pits.—Harold Jeffreys: On the dynamics of geostrophic winds. All problems of the motions of the atmosphere produced by temperature changes of large horizontal extent can be reduced to closely related problems of tides in an ocean of uniform depth, and, in the absence of friction, they can in general be solved by known methods. The theory is applied to the annual variation of pressure in Central Asia, and gives fair quantitative agreement. When applied to the general circulation, however, it gives easterly winds everywhere. Friction would considerably alter this result; indeed a steady circulation is impossible when friction is present. The only dynamically admissible types of motion with friction involve westerly circulations around the poles and systems of cyclones the height of which is comparable with that of the tropopause.

Geological Society, December 2.—R. D. Oldham: The depth of origin of earthquakes. Methods of determining the depth of origin of an earthquake, dependent on observations of the time of occurrence, demand records of a degree of precision, and in numbers, which are seldom available. The same objection applies to the Dutton method, based on variation in the intensity of shock; but the method is capable of a simplification which will make it applicable to any case where the area affected by the sensible shock, and the maximum degree of violence attained, can be determined. The Dutton method is sound in principle, but two important errors have been introduced in the application. Acceleration has been taken as the measure of intensity, whereas the formula demands that the product of maximum acceleration and amplitude of displacement should be used; and the effect of absorption of energy in