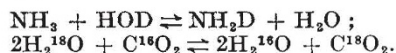


have been reduced to 0.5 c.c., when the  $^3\text{H}$  content rose from  $7 \times 10^{-10}$  to  $7 \times 10^{-6}$ .

Separation of isotopes has also been achieved by chemical means. These generally make use of the so-called exchange reactions, of which the following are typical:



The photochemical method is probably capable of extension. Phosgene,  $\text{COCl}_2$ , containing the chlorine isotopes 35 and 37, is exposed to light, when the molecules containing only  $^{35}\text{Cl}$  are preferentially decomposed (in presence of a trace of iodine). The free chlorine is absorbed by mercury and has an atomic weight lower than normal. Preferential photochemical oxidation of the mercury isotopes has also been achieved.

## University Events

**BIRMINGHAM.**—The degree of D.Sc. has been conferred on the following: Donald Parkinson (geology) for papers on "The Faunal Succession in the Carboniferous Limestone and Bowland Shales at Clitheroe and Pendle Hill", "The Carboniferous Succession in the Slaidburn District of Yorkshire", and other papers published in the *Quarterly Journal of the Geological Society* and elsewhere; Robert Anthony Robinson (chemistry) for "Investigations on the Thermodynamic Properties of Aqueous Solutions of Electrolytes" published in the *Transactions of the Faraday Society* and for other papers; Horace Augustus Thomas (electrical engineering) for papers on the "Frequency Stabilisation of Valve Oscillators" and "Developments in Rotating Radio Beacon Transmitters and Receivers", published in the *Journal of the Institution of Electrical Engineers*.

**CAMBRIDGE.**—The Clerk Maxwell scholarship has been awarded to E. Bretscher of Fitzwilliam House.

**DR. SIMON FLEXNER**, emeritus director of the Rockefeller Institute of Medical Research, has been appointed Eastman visiting professor in the University of Oxford for the academic year 1937–38. The professorship was founded by the late George Eastman of Rochester, U.S.A., to provide for scholars in American universities to go to Oxford as visiting professors for terms of one to five years.

The Rhodes Trust has issued a statement for 1935–36 showing the distribution of the Rhodes scholars (95 from the British Empire, 90 from the United States and 5 from Germany) among the various subjects (either in the final honour schools or for research degrees) chosen by them. It shows a large majority under the headings natural science and medicine (62), philosophy, politics and economics (41), and jurisprudence and B.C.L. (32). Next come modern history (14), English (13), mathematics (8), Litt. Hum. (7), economics (6), geography (3), modern languages (2), theology (1) and education (1). Of the 16 who obtained honours in philosophy, politics, and economics, 12 were from the United States, 2 from Canada and 2 from Africa.

## Science News a Century Ago

### J. D. Forbes's Work on Terrestrial Magnetism

ON January 3, 1837, in a letter to Arago, J. D. Forbes said: "I write to mention some results respecting terrestrial magnetism at which I have lately arrived. In 1832 I made an extensive series of experiments with Hansteen's Intensity Apparatus in the Alps, and in 1835 in the Pyrenees. One principal object was to ascertain the influence of heights. I doubt extremely whether any decided result can be drawn from preceding observations. . . . Those of M. Kupffer seem to be of little value. They were not made at the summit of the Caucasus. . . . I have referred the positions of my stations in the Alps and Pyrenees to the three co-ordinates of latitude, longitude, and height, and deduced the influence of each. . . . I have in the first instance confined my calculation to horizontal intensities. From three different series of observations, made with two needles, I find always a negative co-efficient of the height, indicating, at a mean, a diminution of .001 of horizontal intensity for 3,000 feet of vertical ascent. If, as Humboldt states, the dip diminishes in ascending, the diminution of total intensity will be somewhat greater. You will judge of the extent of the inductions upon which this is founded when I mention that the sum of the heights to which I have carried Hansteen's apparatus exceeds 160,000 feet, or thirty vertical miles, twelve *lieues*".

### Airy at Greenwich Observatory

IN his review of the events of 1837, Airy in his autobiography said: "My connection with Cambridge Observatory was not yet finished. I had determined that I would not leave a figure to be computed by my successor. In October [1836] I had (at my private expense) set Mr. Glaisher to work on reducing the observations of Sun, Moon, and Planets made in 1833, 1834 and 1835; and subsequently had the calculations examined by M. Hartnup. This employed me at times through 1837. I state here, once for all, that every calculation or other work in reference to the Cambridge Observatory, in this and subsequent years, was done at my private expense".

"On Jan. 3rd," Airy wrote, "I gave notice to the Admiralty that I had finished the computations of Groombridge's Catalogue, and was ready to print. The printing was authorized and proceeded (the introduction was finished on Nov. 22nd) but the book was not quite ready till the beginning of 1838". For furthering the magnetical work at Greenwich more ground was necessary. When the Visitors met in 1836, a suitable site was chosen and in 1837 "on Jan. 3 I was informed unofficially by Mr. Wood (Admiralty Secretary) that the addition of the Magnetic Ground was sanctioned".

Among other entries relating to 1837 is that in which Airy says "In the month of July the Admiralty wished for my political assistance in a Greenwich election, but I refused to give any".

### Botany of Battersea Fields

AT a meeting of the Botanical Society held on January 5, 1837, a communication was read by the curator, Mr. Daniel Cooper, author of "Botanical Rambles within Thirty Miles of London", on the distribution of the localities of wild plants in Battersea Fields. It was accompanied by a map of the