APPLICATIONS are invited for the Theresa Seessel research fellowship of Yale University, the object of which is the promotion of original research in biological studies, and the value about £300. The holder of the fellowship must reside in New Haven during the college year, October to June. Applications should be made to the Dean of the Graduate School, New Haven, Connecticut, U.S.A., before Mar. 1.

THE thirty-first annual meeting of the Science Masters' Association will be held at Birmingham, in the University buildings, on Jan. 6–9, under the presidency of Sir Charles Grant Robertson, who will deliver his presidential address on the evening of the first day of the meeting. The programme includes lectures on the lunar landscape (Mr. J. Young), complex molecular structures (Prof. W. N. Haworth), the physicist and chemist in the petroleum industry (Prof. A. W. Nash), science education of boys up to eighteen years of age (Prof. F. W. Burstall), and zoological experiments for school work (Prof. H. Munro Fox), while the Bishop of Birmingham is to give a lecture entitled "A Finite Universe?" Mr. F. Fairbrother will open a discussion on general science, and a meeting will be held with representatives of the Commission on Educational and Cultural Films. Demonstrations will be given in the University departments of science and technology, and visits to industrial works in the locality are being arranged. There will also be a trade exhibition of books and apparatus during the meeting.

Historic Natural Events.

Dec. 21, 1581. Drought.—1581 was described as the droughtiest year that any man had known. On Dec. 21 the river Trent dried up at Alrewas, Staffordshire, on account of the lack of rain.

Dec. 22, 987. Beginning of Long Frost in Western Europe.—On this date a frost began which was said to have lasted 120 days in England. In France the autumn sowings were destroyed by the cold of winter and the drought of spring.

Dec. 22, 1664. Severe Winter and Comet.—Under this date John Evelyn records that "this year I planted the lower grove next the pond at Sayes Court. It was now exceeding cold, and a hard long frosty season, and the Comet was very visible."

Dec. 22, 1894. Gale over England.—A violent westerly gale of short duration prevailed over the whole of England, Ireland, and southern Scotland during the morning, the average velocity at Fleetwood from 8.30 to 9.30 A.M. being 79 miles per hour. The storm caused much damage on land and loss of life at sea, and sea salt was carried inland as far as Birmingham (55 miles) and Masham in Yorkshire (65 miles inland).

Dec. 25, 1739. Severe Winter in England.—The winter of 1739–40 was very rigorous, though somewhat less so than 1607–8 or 1708–9. After a cold spell on Nov. 24–30, there was a warmer interval in December, but the frost commenced on Christmas Day and continued until Feb. 17. There was a second period of cold on Feb. 23–26. At the beginning of January a high wind caused great damage to the shipping in the Thames, several ships laden with corn and coal being sunk by the sheets of drifting ice; many lives were lost. Above London Bridge the Thames was completely frozen over and a 'frost fair' was held, with sports, shops, and a printing press. An ox was roasted whole on the ice, in imitation of the ceremony in 1640. A printing press was also set up on the Ouse at York. The frost was very severe on the Continent; the Zuider Zee was completely frozen, and also the sea off Ostend. A curiosity was the palace built entirely of ice on the banks of the Neva, with six cannon made entirely of ice, one of which was actually fired without being injured. The wind over western Europe was north-easterly throughout, and there was little snow.

Dec. 25, 1923. Hail.—Intense thunderstorms occurred over the Transvaal at Pretoria and to the south-eastward. Two storms struck Pretoria, the first at 6.25 P.M. and the second at 7.30 P.M. The first storm was accompanied by hailstones, some of which weighed more than five ounces. Tiled roofs were almost totally destroyed and even galvanised iron roofs were pierced; the damage to property amounted to £80,000.

Dec. 25, 1927. Snowstorm in England.—The Christmas snowstorm of 1927 is described in *British Rainfall* as "one of the worst experienced in living memory". On Dec. 25 there was snow in the Midlands but continuous rain in the south of England. In the evening the rain changed to snow, which fell heavily over south-east England during the night and throughout Dec. 26 and the following night. It was accompanied by a strong north-easterly wind, which formed heavy drifts, some of them 20 ft. deep; many main roads were completely blocked for days and some secondary roads for weeks. Motor-cars had to be abandoned, and some were completely buried in snow. Many villages were practically cut off from the world, and a few had to be provisioned by parcels dropped from aeroplanes. On Jan. 21, 1928, six or seven feet of snow still lay in some of the Hampshire roads. The storm was most severe and the snow deepest on Dartmoor, in the Alton-Basingstoke district, and along the North Downs.

Dec. 26-30, 1906. Snowstorms in British Isles.—Snow fell heavily over the greater part of the British Isles during these five days. The depth was greatest in the south of Scotland, where numerous trains were snowed up; Aberdeen was isolated for three days, and near Arbroath a railway collision cost many lives. In Ireland the snowfall was probably the greatest on record for depth and intensity. During the same week heavy snow fell also in eastern Europe, accompanied by a high wind which caused it to accumulate in deep drifts.

Dec. 27, 1813. London Fog.—It is recorded in the *Annals of Philosophy* that between Dec. 27, 1813, and Jan. 2, 1814, "a most extraordinary fog prevailed in London, and seems to have extended a great many miles round in every direction. It was frequently so thick that it was impossible to see across the street; candles were burnt in most of the shops and countinghouses all day long. This fog condensed upon the grass, the trees, and every wooden or iron railings. The grass was covered with a coating of snow (condensed fog) at least half an inch thick. Below the trees in St. James's Park there lay a bed of snow an inch thick at least, which had fallen from them. In London the thickness of the fog was still further increased by the smoke of the city; so much so, that it produced a very sensible effect on the eyes, and the coal tar varnish might be distinctly perceived by the smell. But at a distance from town, though there was no smoke, the fog was very thick, not a breath of wind was perceptible during the whole week."

ERRATUM.

Dec. 9-11, 1672. Glazed Frost in Somerset.—The record of this phenomenon in the abridged edition of the *Philosophical Transactions*, vol. 2, p. 37, implies that the year was 1671, but Mr. C. E. Britton, of the Meteorological Office, New Ranges, Shoeburyness, from a study of the unabridged edition, states that the correct date should be 1672.