of the 7·4 day period about the times of the four principal phases, with amplitudes of 0·16 and 0·11. The ranges about the mean depth for the three periods are, respectively, 1·50, 1·50 and 1·84 km.

The 42-minute period affects both the frequency and the mean focal depth of the Tango after-shocks until the end of May. During March and April, the minima of the periods for both frequency and depth coincided approximately with the return movements from the antipodes of the focus, the amplitudes being 0·25 and 0·06 in March and 0·33 and 0·10 in April, while, in May, the maxima coincided closely with those returns, with amplitudes of 0·54 and 0·13. The ranges about the mean depth during the three months are, respectively, 0·97, 1·64 and 1·91 km.

Ordinary Earthquakes felt in Tokyo.—The lists of such earthquakes, with their estimated focal depths, are given from 1924 to 1933. In the results that follow, the earthquakes for the year 1924 are omitted on account of the unusually large number felt in January of that year. Of 564 shocks felt during the remaining nine years, the focal depths of 388 are determined. The variations in mean depth show periods of one year, one day, and 14·8 and 7·4 days.

The maximum epoch of the annual period in the frequency of the earthquakes occurs at about the end of March, the amplitude being 0·11. The mean focal depth of the earthquakes is 46·7 km., and the maximum epoch of the variations in monthly mean depth occurs in the middle of March, the amplitude being 0·08, that is, the range on either side of the mean is 3·7 km.

The diurnal period in the variation of mean focal depth is less pronounced. For the same earthquakes, the maximum epoch of the variation in frequency occurs at 2 a.m., the amplitude being 0·28. The maximum epoch for the mean focal depth occurs at about 11 p.m., the amplitude being 0·05, that is, the range of variations about the mean is 2·3 km.

For the lunar periods, the number of earthquakes of known focal depth from January 25, 1925, to December 17, 1933, is 372. For both frequency and depth, the maximum epochs of the 14·8 day period fall near the times of new and full moon, the amplitudes being 0·16 and 0·03, and the range on either side of the mean depth 1·4 km. The epochs of the 7·4 day period fall near the times of the four principal phases, the amplitudes being 0·14 and 0·04, and the range on either side of the mean depth 1·9 km.

University and Educational Intelligence

CAMBRIDGE.—The Adam Smith Prize offered annually for an essay on some unsettled question in economic science or in some branch of economic history or statistics subsequent to the year 1800 selected by the candidate himself has been awarded to Mr. W. B. Reddaway, of Oundle and King's College, who was placed alone in Division I, Class I, in Part II of the Economics Tripos last June. The prize is valued at £40.

The governing body of Emmanuel College invites applications for a research studentship which will be awarded in July 1935. Preference will be given to candidates who have already completed one but not more than two years of research. The studentship has a maximum annual value of £150, and is awarded and normally held for two years. The studentship is not open to a woman or to a graduate of the University. Further information can be obtained from the Master, Emmanuel College, Cambridge.

ST. ANDREWS.—R. A. Smith has been appointed Carnegie teaching fellow and assistant in applied mathematics in the United College, St. Andrews, in succession to Dr. D. E. Rutherford, who has been promoted to the post of lecturer in mathematics and applied mathematics.

PROF. F. E. WEISS, formerly Harrison professor of botany in the University of Manchester, has been appointed to take charge of the botanical department of the Egyptian University at Abbassia, Cairo, from February 1 until the end of May, in succession to Prof. F. W. Oliver, who is retiring from the professorship.

Science News a Century Ago

Faraday's Eyesight

Faraday's "Diary" is strictly a laboratory record of experiments, and from end to end there are very few references in it to matters outside his experimental work. One of these personal entries occurs on January 15, 1835:

"Within the last week have observed twice that a slight obscurity of the sight of my left eye has happened. It occurred in reading the letters of a book, held about 14 inches from the eye, being obscured as by a fog over a space about half an inch in diameter. This space was a little to the right and below the axis of the eye. Looking for the effect now and other times, I cannot perceive it. I note this down that I may hereafter trace the progress of the effect if it increases or becomes more common."

It does not seem that the obscurity occurred at all frequently, for no further reference to it in the "Diary" has been traced. None of Faraday's biographers makes any reference to defective eyesight. The thick glass spectacles used by him, which are preserved at the Royal Institution, were worn only to protect his eyes from the effects of explosions during the experiments on the liquefaction of gases. Among the numerous portraits of him one photograph has been found, taken probably after 1860, in which he is holding a pair of spectacles in his hand; and it would appear that he used glasses for reading in his later years; but apart from this, it is evident that he retained his sight practically unimpaired to the end.

Geographical Exploration

On January 15, 1835, *The Times* said: "A lecture interesting both to the friends of science and the friends of commerce was last night delivered at the London University by Captain Maconochie. The lecturer commenced by saying two expeditions of discovery were now being sent out by the efforts of the Royal Geographical Society. One of these expeditions was to explore the interior of Southern Africa and the other to explore the regions to the south and south-west of British Guiana. The Geographical Society had done much to further discovery and their exertions had been most beneficial to the promotion of geographical science." Referring to the expedition to Africa, Capt. Maconochie said: "The continent of Africa had already been penetrated 1,400 miles from the Cape of Good Hope. The countries further north were found to be the furthest advanced in the arts of civilised life. At the distance