be useful in districts remote from medical aid. Courses of elementary lectures are also given, both at the college and at the United Service Institution, open to all who may expect to reside or travel in the tropics. The "Year Book" contains details of the college and its curriculum, and useful directions for the preservation of health in the tropics.

IN the short notice of Mr. Cecil Hawkins's "Elementary Geometry" in NATURE of June 30 (p. 193), reference was made to the absence of numerical answers in the copy supplied. Mr. Hawkins asks us to state that the book is also supplied with answers if desired.

MESSRS. T. C. AND E. C. JACK, of Edinburgh, have submitted for our inspection four of the plates of a stereoscopic atlas of anatomy, edited by Dr. David Waterston, to be published by them in the autumn. The application of the stereoscopic principle to anatomical illustrations seems, from these examples of it, likely to prove of real assistance to medical and biological students. The plan has already been adopted with success in the teaching of geography and the illustration of books of travel, and there is every likelihood that this further adaptation of the stereoscope to educational work will meet with general approval from lecturers on anatomy. Each stereograph is accompanied by a brief description written by the editor, and the illustration and description are mounted on one card so as to facilitate reference from one to the other. The series will comprise 250 separate stereographs, and these will be contained in cases. The work will be issued at intervals in sections of about fifty stereographs.

OUR ASTRONOMICAL COLUMN.

NEW ELEMENTS AND EPHEMERIS FOR COMET 1904 *a*.—In No. 55 of the Lick Observatory *Bulletins*, Prof. A. O. Leuschner, of the Berkeley Astronomical Department, gives a set of elements and an ephemeris for comet 1904 *a*, calculated from observations made by Messrs. Aitken, Crawford, and Maddrill on April 17, 22, and 29 respectively.

No. 56 of the same publication contains a second set of elements and an ephemeris calculated by Messrs. Aitken and Maddrill from observations made at Lick on April 17, May 8, and May 24. The following are the elements given:—

$$T = 1904 \text{ March } 6{\cdot}9049 \text{ G.M.T.}$$
$$\left.\begin{aligned} \omega &= 53^\circ\ 27'\ 13''{\cdot}8 \\ \Omega &= 275^\circ\ 46'\ 5''{\cdot}5 \\ i &= 125^\circ\ 7'\ 33''{\cdot}1 \end{aligned}\right\} \text{Mean equinox of 1904 0}$$
$$\log q = 0{\cdot}432475$$

The ephemeris (for 0h. G.M.T.) shows that on July 14.5 the comet will occupy the following position in the constellation Canes Ven.:—True $\alpha = 12$h. 24m. 28s. True $\delta = +50^\circ\ 37'\ 50''$, and afterwards will travel very slowly in a southerly direction. As the brightness of the comet is now only 0.37 of its original magnitude, only the larger telescopes will be of any use in observing this object.

THE SOLAR PARALLAX AS DETERMINED FROM THE EROS PHOTOGRAPHS.—At the meeting of the Royal Astronomical Society on June 10, Mr. Hinks gave an interesting and instructive account of the Cambridge reduction of all the available photographs of Eros obtained during the period November 7–15, 1900. One of the chief features of the paper was a description of the various errors which appeared during the reduction and of the methods employed for their elimination.

The value obtained for the solar parallax in this preliminary result was $8''{\cdot}7966 \pm 0''{\cdot}0047$, and this agrees, within the errors of observation, with that previously obtained by Sir David Gill, whilst the probable error is as small as that obtained by him.

EXPERIMENTS ON THE VISIBILITY OF FINE LINES.—*Bulletin* No. 10 of the Lowell Observatory contains the details and results of a further series of experiments, performed by Messrs. Slipher and Lampland, on the visibility of fine lines at various distances. The experiments were exactly similar to those previously carried out with a fine wire of 0.7 inch diameter, except that a fine blue line 0.7 inch in width, drawn on a white disc 8 feet in diameter, was observed at the same time as the wire. At a distance of 1450 feet, when the angular width of the disc was 19′ and that of the lines was 0″.86, the wire was certainly seen, but a fictitious line was seen accompanying what was supposed to be the real one.

The general results of the experiments indicated that the wire was more *generally* visible than the line, although at distances less than 400 feet the latter was the more readily seen.

VARIABILITY OF MINOR PLANETS.—Observations of the magnitudes of the minor planets Iris, Ceres, and Pallas, made by Herr J. Holetschek at Vienna during the years 1899 and 1903, are published in No. 3955 of the *Astronomische Nachrichten*. These show that the magnitude of Iris decreased from 7.4 to 7.6 between November 1 and November 6, 1899. Observing Ceres in April, 1899, it was found that the magnitude on April 9d. 14.5h. was 7.5, on April 13d. 11h. 8.1, and on April 14d. 15h. 6.9.

In the case of Pallas the following magnitudes were observed on the various dates named:—

1903	M.T. (Vienna)	Magnitude
March 23	7·6	8·4
24	7·6	8·7
24	9·8	8·6–8·7
25	7·7	8·4–8·5
26	7·6	8·5

A VARIABLE STAR CHART.—In No. 3959 of the *Astronomische Nachrichten*, Prof. Max Wolf publishes 25 charts, each showing the relative position of one of the 25 variables in Aquila mentioned in earlier communications published by him in the same journal. An accompanying table gives the chart number and the number, the position, the variation, and the designation of the comparison star for each variable.

THE LEEDS ASTRONOMICAL SOCIETY.—No. 11 of the annual *Journal and Transactions* of the Leeds Astronomical Society contains reprints of seven very interesting lectures, on a variety of astronomical subjects, delivered at the society's meetings during last year. A number of letters on current astronomical questions, contributed to various periodicals by the past president, Mr. C. T. Whitmell, are also reproduced. The frontispiece shows a number of photographic reproductions of ancient coins on which were depicted various astronomical symbols, and illustrates a lecture on that subject delivered by Mr. A. Dodgson. The programme of the meetings for 1904 promises some very interesting papers, whilst the report for 1903 shows the society to be in a thriving condition.

"ANNUARIO" OF THE RIO DE JANEIRO OBSERVATORY (1904).—The twentieth annual publication of the Rio de Janeiro Observatory contains a large amount of useful information on astronomical, meteorological, and general physical matters. The customary calendars and astronomical tables are given in part i. Parts ii., iii., and iv. contain tables of reduction for astronomical and meteorological observations. The usual tables for the conversion of foreign standards are given in part v., whilst the sixth and last section contains many useful records of the local meteorological and magnetic conditions for past years, including the variation of magnetic declination at Rio de Janeiro since 1660.

GEOLOGICAL SURVEYS OF THE UNITED STATES.

SINCE the appearance of the notice in NATURE of December 3, 1903, the following publications of the United States Geological Survey have been received.

I. *Bulletins*.

Of very wide interest is the essay on "The Correlation of Geological Faunas: a Contribution to Devonian Palæontology," by Prof. H. Shaler Williams (*Bulletin* No. 210). The observations are based on a critical examination of the