mentation as have undergone no chemical change since their deposition, as well as clastic deposits. Unfortunately, he has dealt with the former type of syngenetic deposits (magmatic segregations) first, has then passed to the study of epigenetic deposits, and then, after some 280 pages out of a total of 400 devoted to epigenetic deposits, he reverts to the last two classes of syngenetic deposits, and this method of dealing with the subject caused the reviewer to overlook the fact that Dr. Berg had commenced by stating that these two last classes (ore beds and clastic deposits) were also syngenetic. This explanation will, we trust, suffice to remove the wrong impression created by the comment to which Dr. Berg refers.

MESSRS. W. HEFFER AND SONS, Ltd., are bringing out "Fundamentals of Bio-Chemistry in Relation to Human Physiology," by T. R. Parsons, which is intended to form an introduction to the study of the chemical processes at work in the body. It is addressed more particularly to medical students reading for examinations in physiology. Another forthcoming book in the same publishers' list is "The Ethnology of the American Indians," by Dr. P. Radin, in which particular stress is laid upon a clear delineation of the civilisations of Mexico and Peru and their influence on the culture of the other parts of America. A useful feature of the volume should be the detailed and critical bibliography it is to contain.

Our Astronomical Column.

A NEW COMET.—A new comet, 1922 *c*, was discovered by Dr. Baade at Bergedorf Observatory, Hamburg, on October 19, and observed by Prof. Strömgren at Copenhagen on October 22, 8^h $15{\cdot}7^m$ G.M.T., in R.A. 19^h 52^m $57{\cdot}7^s$, N. Decl. 36° 57′ 38″. He gave the magnitude as 9·0, so the comet should be visible in small telescopes. Assuming uniform motion, the following are the positions for the dates named at 8^h P.M. :

	R. A.	N. Decl.
Oct. 28.	20^h 6^m 2^s	35° 22′
,, 31.	20 12 35	34 33
Nov. 3.	20 19 8	33 44

The comet is in Cygnus, and is due south, 15° from the zenith, at 5^h 30^m P.M.

SPECTROSCOPIC PARALLAXES FOR TYPE A.—The spectroscopic method has hitherto been limited to spectral types F G K M. A paper by Messrs. Adams and Joy (Proc. Nat. Acad. Sci., July 1922) gives the details of an investigation as to its extension to type A. It had already been noticed that there was a difference in the general sharpness of the spectral lines in stars of this type, and on examining the stars the distance of which is known either by trigonometrical, hypothetical, or moving-cluster parallaxes, there is found to be a distinct correlation between absolute magnitude and sharpness of lines. Using the letters s, n to denote sharp and nebulous spectra, they give the following values for the absolute magnitudes of different types: A1 s 0·0 n 1·2, A2 s 0·6 n 1·5, A3 s 1·2 n 1·7, A4 s 1·5 n 1·9, A5 s 1·8 n 2·1, A6 s 2·1 n 2·2. After this point the two coalesce. They apply the formulæ to the Taurus group and the Praesepe, finding parallaxes of 0″·024 and 0″·011 respectively. Certain stars had already been classified at Harvard as C-stars. They have very sharp and narrow lines, and the enhanced lines, especially those of strontium at 4077 and 4215, are very intense. There is reason to think that these stars, of which α Cygni is the most prominent example, are super-giants, to which the preceding formulæ do not apply. They are very luminous and very remote, but material for assigning parallaxes is at present wanting. The authors note that in all spectral types sharpness of lines is associated with high luminosity. They explain this by the very low density of the giant stars.

A paper by Mr. Evershed in the Mon. Not. R.A.S. for last May noted that there were many broad hazy lines in the spectrum of Sirius; he pointed out that in Sir Norman Lockyer's classification, Sirius is on the descending side of the temperature curve, and quotes his words that in stars of this class the hydrogen lines are relatively broad. Mr. Evershed is inclined to explain the widening as a Doppler effect due either to rapid rotation or strong convection currents. But, whatever the cause, the facts are in accord with the results of Adams and Joy.

GLOBULAR CLUSTERS IN THE LARGE MAGELLANIC CLOUD.—In Harv. Coll. Observ. Bulletin, No. 775, is announced the discovery that five objects formerly catalogued as nebulæ are definitely globular clusters. Their N.G.C. numbers are 1783, 1806, 1831, 1846, 1978. The status of two others, Nos. 1651, 1866, is doubtful. The detection of new globular clusters is interesting, since it was announced a few years ago that probably all objects of this class within our reach had been detected. It also enables a new estimate to be made of the distance of the cloud, using Prof. Shapley's formulæ. At present only the simple formula based on apparent diameter has been applied. The diameters of the above five objects are 1′·9, 1′·6, 1′·9, 1′·8, 1′·8. The corresponding distance is 35 kiloparsecs, or 110,000 light-years. This is of the same order as Hertzsprung's estimate. It makes the linear diameter of the large cloud 4½ kiloparsecs, so that it is comparable in size with our own star system, leaving the outlying galactic extensions out of account.

VARIABILITY IN THE LIGHT OF IRIS.—Prof. Wendell noted in 1904 that this minor planet was variable in light to the extent of 0·35 mags. in 0·259 days. Mr. Campbell found the same period but a smaller range in 1917. But Miss Harwood at the Maria Mitchell Observatory finds no variation in the present year. The case is like that of Eros, and may arise from irregular shape of the object, the amount of variation depending on the direction of the line of sight; it has been suggested that a further complication might arise from a shift in the axis of rotation in the body of the planet, if it were rotating about an axis other than a principal one. The shape of the asteroids might give a clue in questions of cosmogony, hence such researches are useful. In the case of Eros, when observed for parallax there is the possibility of error if the centres of light and of gravity are non-coincident. Mr. Hinks, indeed, found some evidence of a small oscillation of this kind, but the effect would probably disappear in the mean of many observations.