and Kenner. In the present case, however, the asymmetry and consequently the activity disappear as soon as the optically active base is eliminated, since there is no sterically hindering substituent present in the ortho position to interfere with the free rotation of the two aromatic nuclei about their common linkage. The author suggests the term 'asymmetric rearrangement (*Umlagerung*) of the first kind' to distinguish it from that 'of the second kind', which is permanent and is the usual type involved in the usual resolution of racemic compounds. If the explanation is correct, this would appear to be a remarkable case of 'induced asymmetry', first described by Lowry and E. E. Walker (NATURE, April 19, 1924, p. 565) in connexion with semi-polar double bonds.

Magnetism of Bivalent Copper and Silver Compounds.—For atoms of the first transition period (scandium to copper) the magnetic moment in Bohr magnetons is $\mu_a = \sqrt{4s(s+1)}$ or $\mu_\beta = \sqrt{4s(s+1) + l(l+1)}$, where s is the total spin moment of the electrons in the sub-group and l the orbital magnetic moment. Most simple salts of elements in this period give values corresponding with μ_a. Univalent copper and silver have a complete sub-group of 10 electrons, in a 3_3 level for copper and a 4_3 level for silver. They are therefore diamagnetic. Bivalent copper and silver ions have nine electrons in this sub-group and should be paramagnetic. With $s = \frac{1}{2}$ and $l = 0$, 1, or 2, the values of the moments are $\mu_a = 1{\cdot}73$ and $\mu_\beta = 1{\cdot}73$, 2·24, or 3·00. It has already been shown (NATURE, **128**, p. 31; 1931) that the bivalent silver in tris-aa'-dipyridyl argentic chlorate is paramagnetic, and Sugden (*J. Chem. Soc.*, Jan.) has now examined a number of other co-ordination compounds of bivalent silver and also cuprous and cupric compounds. Bivalent silver is known only in the form of co-ordination compounds of its salts with substances such as pyridine and dipyridyl. He finds that both copper and silver in the univalent condition have zero magnetic moment, whilst the bivalent atoms of both elements exhibit moments of 1·72-2·16 Bohr units, in fair agreement with the value predicted for one unbalanced electron. In the same issue of the *Journal* this author also describes the measurement of the moment of a paramagnetic organic compound which contains an odd electron, prepared by Kenyon and Banfield in 1926. This gave a moment of 1·68, close to the value 1·73 for one unpaired electron. Excluding substances which contain transition elements with incomplete inner groups, chlorine dioxide, nitric oxide, and nitrogen peroxide have previously been examined. The first two give approximately the values expected for one unpaired electron, but the nitrogen dioxide is somewhat anomalous.

Astronomical Topics

Astronomical Notes for April.—Venus is resplendent in the evening sky. It is at its greatest elongation, 46° east of the sun, on April 19, being then half-illuminated. The illuminated portion of the disc diminishes during April from 0·60 to 0·44; the stellar magnitude rises from −3·8 to −4·1. Jupiter is still observable for more than half the night, but its diameter is diminishing. On the evening of April 19 only two satellites are visible after 7.25 P.M., III being eclipsed and II occulted.

A star of mag. 6·4 is occulted by the moon on April 9 at $10^h\ 14^m$ P.M. The moon is barely 4 days old, and the earthshine should be conspicuous; this makes it easier to note the approach of the moon's limb to the star.

Two periodic comets, Grigg-Skjellerup and Neujmin (2), should be telescopically observable; ephemerides are given in the British Astronomical Association's Handbook for 1932.

Only two minima of Algol occur at convenient hours; on April 2 at $8^h\ 12^m$ P.M., and on April 22 at $9^h\ 54^m$ P.M.

Summer Time begins on April 17; 1^h must be added to the times given above, to express them in Summer Time. Note, however, that Summer Time should not be used in astronomical records.

An Ancient Conjunction of the Moon and Venus.—Dr. P. V. Neugebauer has published a note (*Astr. Nach.*, 5847) on a cuneiform record which describes an observation made at Babylon on the morning of the 25th of Sivan in the 5th year of Darius Ochus (−418 June 19). He uses it to test various values of the mean motion and secular acceleration of the bodies concerned. The record uses the word 'night' and states that Venus coincided with the moon's southern horn. It may therefore be assumed that the conjunction occurred some time before sunrise, which fixes the time within rather narrow limits. The author concludes that Dr. Cowell's large value of 4″ per century for the sun's acceleration is ruled out. The use of Brown's Tables for the moon, and those of Newcomb for the sun and Venus, brings the time of conjunction into daylight. Schoch's values for the secular accelerations give a satisfactory representation of the observation, but it is also possible to satisfy it with values considerably different. The observation is, however, sufficiently definite to receive some weight in a discussion of ancient records.

Interesting Object with Rapid Motion.—M. Delporte, assistant at the Royal Observatory of Belgium, Uccle, discovered an object of the ninth magnitude on March 12 that was almost in opposition to the sun and yet was advancing more than 1½° daily, and moving north at about the same rate. Its aspect was stellar, but its motion indicates cometary nature. Though approaching both sun and earth, it faded quickly, Dr. Steavenson finding the magnitude 13·2 early on March 18.

An I.A.U. telegram gives the following parabolic orbit computed by Dr. Bengt Strömgren:

T	1932, April 10·897 U.T.	
ω	34° 7′	
Ω	171 38	1932·0
i	19 30	
q	1·1208	

		R.A.	N.Decl.
Ephemeris for 0^h	March 26	$13^h\ 55^m\ 0^s$	25° 45′
	March 30	14 38 56	31 42

Almost identical elements were deduced by the Rev. M. Davidson. Dr. A. C. D. Crommelin notes that the orbit is very similar to that of the comet Tuttle-Giacobini, 1858 III and 1907 III. If it is identical with that comet, T is about April 11, period about 6·2 years, q about 1·11, the remaining elements being nearly the same as Dr. Strömgren's. The identity of the above two comets was not immediately recognised. It was first suggested by Prof. W. H. Pickering, and is highly probable, whether the present object is the same body or not. If it is the same, it has lost most of its gaseous envelopes since 1907, but there must have been some kind of outburst about March 12 to explain its temporary brightness then.