ASTRONOMICAL NOTES.

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1. **A New Star in Lacerta.**—Information has been received of the appearance of a bright Nova in the Constellation Lacerta on the border of Cepheus (Galactic latitude—2°). It was discovered on the night of June 18 by Dr. Nielson of Aarhus Observatory, Denmark, when its magnitude was estimated to be about 3·5. The Nova is also reported to have been seen by the astronomers at the Stalinabad Observatory, Russia, as a star of the 5th magnitude on the night of June 17. Photometric as well as spectroscopic observations have since been obtained by several observers. Its position as determined by the meredian observations is R. A. $22^h\ 12^m\ 0^s{\cdot}2$ Dec. 55° 7′ 77″ (1900·0). The Nova is identified before outburst as a star of the fourteenth magnitude shown in Barnard's *Atlas of the Milky Way*. The maximum brightness (magnitude 2·3) was reached on June 20 and by June 27 the brightness declined to magnitude 4·7. The Spectrum during the early stages resembled that of a late A type Star (*Astr. Nach.*, 6213) and the subsequent development of the Nova appears to have been specially rapid.

2. **Comet Peltier.**—(1936 *a*).—The first Cometary discovery of the year was made on May 15, by L. Peltier of Delphos, Ohio (U. S. A.), an enthusiastic observer of variable stars. At the time of discovery it was a faint diffuse object of the ninth magnitude, with a central condensation and a short tail. The comet later increased in brightness and on July 27 was conspicuously visible with the naked eye, in the northern sky and showed a small fan-shaped tail. It is moving rapidly southwards and will reach declination 70° S. on August 24.

3. **Absorption of Light in Space and Distribution of Star Density.**—Prof. Van Rhijn has recently published an extensive investigation (*Publications of the Kapteyn Astronomical Laboratory*, No. 47) on the absorption of light in interstellar space and the density distribution of stars in the galaxy. The coefficient of absorption has been discussed from a study of Cepheid Variables, the radial velocities and absolute magnitudes of open clusters and also from the spectroscopic absolute magnitudes of stars (type F to M) determined at Mt. Wilson, the trigonometric parallaxes and secular parallaxes of some groups of stars. The adopted values of the photographic and visual coefficients of galactic absorption are 1·1 and 0·55 magnitudes per 1,000 parsecs for the mean of the northern galaxy. From a discussion of the distribution of star density at various distances he obtains corroboration of the hypothesis of the existence of a local cluster around the Sun possibly extending to not more than 1,000 parsecs. For distances exceeding 1,000 parsecs the changes in star density appear to be relatively small, and are considered to be probably due to the structure of the larger galactic system. In the direction of the centre of the galaxy, the density increases rapidly with distance and at a distance of 900 parsecs, the density is found to be eight times that near the Sun.

4. **Radial Velocities of Extra Galactic Nebulæ.**—In Mt. Wilson Contributions, No. 531, Humason gives a new determination of the apparent radial velocities of one hundred extra galactic nebulæ. Most of them are velocities of recession, the largest being of the order of 40,000 km./sec. for nebulæ in the Bootes Cluster and in the Ursa Major Cluster No. 2. The distances of these nebulæ have been estimated by different methods, to be about 70 million parsecs and the high velocities observed, are in conformity with the velocity distance relationship found in the case of the nearer Nebulæ.