

The discovery of a fifteenth new planet (*Eunomia*) has just been announced. It was discovered by De Gasparis upon the 19th of July, 1851. The elements, which have been calculated by Rümker, are the following :

Epoch of mean longitude in mean Greenwich time.	} 1851. Oct. 1·0
Mean longitude	
Longitude of perihelion	27 35 38
Longitude of ascending node	293 52 55
Inclination	11 48 43
Eccentricity	0·188402
Half major axis	2·64758
Mean of motion	823·630
Period of revolution	1574 days.

The mutual relation of the orbits of the asteroids and the enumeration of the individual *pairs of orbits* has been made the subject of acute investigation, first by Gould* in 1848, and more recently by D'Arrest. The latter says, "The strongest evidence of the intimate connection of the whole group of small planets appears to be, that if the orbits are supposed to be represented materially as hoops, they all hang together in such a manner that the whole group may be replaced by any given one. If it so happened that Iris, which Hind discovered in August, 1847, was still unknown, as many other bodies in this region certainly are, the group would consist of two separate parts—a result which must appear so much the more unexpected, as the zone which these orbits occupy in the solar system is wide."†

We can not take leave of this wonderful group of planets without mentioning, in this fragmentary enumeration of the individual members of the solar system, the bold view of a gifted and deeply investigating astronomer as to the origin of the asteroids and their intersecting orbits. A result deduced from the calculations of Gauss, that Ceres approaches extremely near to Pallas in her ascending passage through the plane of that planet's orbit, led Olbers to form the conjecture that "both planets, Ceres and Pallas, may be fragments of a single large principal planet which has been destroyed by some natural force, and formerly occupied the gap between Mars and Jupiter, and that the discovery of an additional number of similar fragments which describe elliptical orbits round the Sun, in the same region, may be expected."‡

* Benjamin Althorpe Gould (now at Cambridge, Massachusetts, U. S.), *Untersuchungen über die gegenseitige Lage der Bahnen zwischen Mars und Jupiter*, 1848, p. 9-12.

† D'Arrest, *op. cit.*, p. 30.

‡ Zach, *Monatl. Corresp.*, bd. vi., p. 88.