capsule, as in *Datura,* where it splits lengthwise, and *Hyoscyamus* (fig. 6), where it opens by a transverse lid forming a pyxidium. The embryo is bent or straight and embedded in endo­sperm. The persistent calyx may serve to protect the fruit or aid in its distribution, as in the bladdery structure enveloping the fruit of *Physalis* or the prickly calyx of species of *Solanum.*

The order is divided into 5 tribes; the division is based on the greater or less curvature of the embryo, the number of ovary cells and the regular or zygomorphic character of the flower. The great majority of the genera belong to the tribe Solaneae, which is characterized by a 2-celled ovary. *Lycium* is a genus of trees or shrubs, often thorny, with a cylindrical or narrowly bell­shaped corolla and a juicy berry; *L. europ- aeum* is a straggling climber often cultivated under the name of tea-plant. For *Atropa* see Nightshade; *A. Belladonna* yields the drug atropin. For *Hyoscyamus* see Hen­bane. *Physalis,* with 45 species mostly in the warmer parts of North and South America, includes *P. alkekengi, "*winter cherry,” and *P. peruviana,* “ Cape gooseberry.” *Capsicum (q.v.)* is widely cultivated for its fruit, which are the so-called chillies. *Solanum* contains *goo* species, among which are 5. *tuberosum* (potato ; *q.v.), S. Lycopersicum* (tomato; *q.v.),* and the two British species already mentioned. For *Mandragora* see Mandrake. To the tribe Datureae, characterized by a 4-celled ovary, belongs *Datura; D. Stramonium* (thorn apple), sometimes found as an escape in Britain, is officinal. *Nicotiana,* to which belong the tobacco plant *(N. tabacum)* and other cultivated species, and *Petunia,* are American genera belonging to the tribe Cestreae, in which the embryo is straight or only slightly bent, às it is also in the tribe Salpiglossideae, which is characterized by the zygomorphy of the flowers; *Salpiglossis* and *Schizanthus* are known in cultivation.

**SOLAR, SOLLER** (Lat. *solarium,* Fr. *galetas,* Ital. *solaio),* in architecture, a room in some high situation, a loft or garret, also an elevated chamber in a church from which to watch the lamps burning before the altars. The Latin *solarium* was used principally of a sundial, but also of a sunny part of a house.

**SOLARIO, ANTONIO (***c.* 1382-1455), Italian painter of the Neapolitan school, commonly called Lo Zingaro, or The Gipsy. His father is said to have been a travelling smith. To all appearance Antonio was born at Civita in the Abruzzi, although it is true that one of his pictures is signed "Antonio de Solario Venetus,” which may possibly be accounted for on the ground that the signature is not genuine. Solario is said to have gone through a love-adventure similar to that of the Flemish painter, Quintin Massys. He was at first a smith, and did a job of work in the house of the prime Neapolitan painter Colantonio del Fiore; he fell in love with Colantonio’s daughter, and she with him; and the father, to stave him off, said if he would come back in ten years an accomplished painter the young lady should be his. Solario studied the art, returned in nine years, and claimed and obtained his bride. The fact is that Colantonio del Fiore is one of those painters who never existed; consequently his daughter never existed, and the whole story, as relating to these particular personages, must be untrue. Whether it has any truth, in relation to some unidentified painter and his daughter, is a separate question which we cannot decide. Solario made an extensive round of study—first with Lippo Dalmasio in Bologna, and afterwards in Venice, Ferrara, Florence and Rome. On returning to Naples he rapidly took the first place in his art. His principal performance is in the court of the monastery of S. Severino—twenty large frescoes illustrating the life of St Benedict, now greatly decayed; they present a vast variety of figures and details, with dexterous modelling and colouring. Sometimes, however, Lo Zingaro’s colour is crude, and he generally shows weakness of draughtmanship in hands and feet. His tendency is that of a naturalist—the heads lifelike and individual, and the landscape backgrounds better invented and cared for than in any contemporary. In the Studj gallery of Naples are three pictures attributed to this master, the most remarkable one being a “ Madonna and Child Enthroned with Saints.” The heads here are reputed to be mostly portraits. Solario initiated a mode of art new in Naples; and the works painted between his time and that of Tesauro (c. 1470) are locally termed "Zingareschi.” He had many scholars, but not of pre-eminent standing—Nicola Vito, Simone Papa, Angiolillo Roccadirame, Pietro and Ippolito dal Donzello. It has often been said that Solario painted in oil, but of this there is no evidence.

**SOLAR SYSTEM,** in astronomy, the group of heavenly bodies, comprising the sun and the bodies which move around the sun as a centre of attraction, of which the Earth is one. These bodies may be classified as follows: first the *Sun,* O, distinguished as containing much the greater part of all the matter composing the system, being more than 6∞ times as massive as all the other bodies combined. It is this great mass which makes it the central one of the system. It is also, so far as is known, the only incandescent body of the system, and therefore the only one that shines by its own light. Secondly, *planets.* The bodies of this class consist of eight major planets moving round the sun at various distances, and of an unknown number of minor planets, much smaller than the major planets, forming a separate group. Thirdly, *satellites,* or *secondary planets* revolving around the major planets, and therefore accompanying them in their revolutions around the sun. A fourth class of bodies, the constitution of which is still in some doubt, comprises comets and meteors. These differ in that comets are visible either in a telescope or to the naked eye, and seem to be either wholly or partially of a nebulous or gaseous character, while meteors are, individually at least, invisible to us except as they become incandescent by striking the atmosphere of the earth. It is, however, an open question whether a comet is other than an accumulation of meteoric bodies (see Comet).

The major planets are separated into two groups of four each, between which the minor planets, for the most part, revolve. The arrangement of the major planets, with the numbers of their respective satellites thus far known, in the order of distance from the sun, is as follows:—

The first group in order—the smaller major planets— comprises:—

Mercury, £, with no known satellite;

Venus, ?, with no known satellite;

The Earth, φ, with one satellite, the moon;

Mars, Ji, with two satellites.

Outside of this group lies the zone of minor planets or asteroids.

The outer group of major planets comprises:—

Jupiter, 21, with eight satellites;

Saturn, ⅞, with ten satellites;

Uranus, § or ⅛ι, with four satellites;

Neptune, ψ, with one satellite.

The distances separating the individual orbits in each group seem to approximate to a certain order of progression, expressed in Bode’s law (see Bode). But there is an obvious gap between the two groups of major planets which is filled by the group of minor planets. Taking the mean distance of this group as that of a planet, the distance of the major planets closely approximates to Bode’s law, except in the case of Neptune.

A remarkable feature of the solar system, which distinguishes it from all other known systems in the universe, is the symmetry of arrangement and motion of its greater bodies. All the major planets and many of the minor planets revolve in elliptic