See Isis; A. Bouché-Leclercq, Histoire des Lagides, i. (1903), ch. iv.; J. G. Milne, History of Egypt under Roman Rute (1898), p. 140; G. Lafaye, Histoire du culte des divinités d'Alexandrie hors de l'Egypte (Paris, 1884). (F. Ll. G.)

SERENA, or La Serena, a city of Chile, capital of the province of Coquimbo, on the S. bank of the Coquimbo river about 5 m. from the sea. Pop. (1895) 15,712; (1902, estimate) 19,536.

As the see of a bishop and the most important town politically of the semi-arid region, it contains a number of important public edifices, including a cathedral (1844-1860; 216 ft. long, 66 ft. wide) built of a light porous stone, an episcopal residence, several convents, a large hospital, an orphans’ asylum, a beggars’ asylum and a lazaretto. It is the seat of a court of appeal for Atacama and Coquimbo, and has an excellent lyceum and other schools, including a school of mines. It has a good water supply, well-paved streets, gas illumination, tramway service and several small industries, including brewing and the making of fruit conserves. The annual rainfall is only 1·6 in. and its mean annual temperature is 59∙2°. Its railway connexions include a line to Coquimbo (9 m.), its port, one to the Tamaya copper mines, and a narrow-gauge fine up the valley of the Elqui to Guanta, through a region celebrated for its fruit. It is also in direct railway communication with the national capital.

Serena was founded by Juan Bohon in 1544, on the opposite side of the river, and was named after Pedro Valdivia’s birth­place in Estremadura, Spain. It was destroyed by the Indians soon after, and was rebuilt on its present site in 1549 by Francisco de Aguirre.

SERENADE (from Ital. *serenata,* Lat. *serenuιs,* bright; the Italian term being applied, partly by confusion with *serus,* late, and partly through the use of *Serena*—cf. Gr. *σελήνη*—as an epithet for the moon, to a form of courting music played at night in the open air; whence also the synonym *Notturno),* in music; a term classically applied to a light kind of symphony, more rarely a piece of chamber music, in a light sonata style with several extra movements, and in .a few cases (as in the two serenades of Beethoven) not containing any fully developed examples of first-movement form. The *divertimento* is a similar composition, more often for chamber music, and frequently on a scale altogether too small for the sonata style to show itself, though some examples by Mozart (*e.g.* those for strings and two horns) are very large. The *cassation* is a smaller composition, beginning (like Beethoven’s serenade op. 8) with a march. The classics of the serenade forms are among the works of Mozart and Haydn. Mozart’s larger and later serenades, from the “ Haffner ” serenade onwards, are among his most delightful and voluminous lighter instrumental works. His two serenades for eight wind instruments are more serious, and that in C minor (which he afterwards arranged as a string quintet) is a majestic work in four normal movements, which Mozart probably called a serenade only because he did not find the term, *octet* then in common use.

The typical scheme of a large serenade or divertimento differs from that of a symphony only in having six movements instead of four, the additions being another slow movement and minuet or scherzo. Beethoven’s septet and Schubert’s octet are on this plan, and are just as much serenades as Mozart’s “ Haffner ” serenade, which is (not counting introductions) in eight movements with a kind of violin concerto in the middle. The six-movement scheme (though without the serenade style) was adopted by Beethoven in one of the profoundest and most serious works in all music, the string quartet in B flat, Op. 130.

Brahms’s first essays in symphonic form took the shape of two orchestral serenades, of which the first was originally sketched for a large group of solo instruments. If it had finally taken that form Brahms would have called it a divertimento.

Other applications of the term in music are merely literary. Even its use, from the 17th century onwards, for a kind of operetta was clearly no more than a natural allusion to the notion of serenades as addressed at night by minstrels to ladies and by clients to patrons. (D. F. T.)

SERENUS, SAMMONICUS, Roman savant, author of a didactic medical poem, *De medicina praecepta* (probably incomplete). The work (1115 hexameters) contains a number of popular remedies, borrowed from Pliny and Dioscorides, and various magic formulae, amongst others the famous Abracadabra *(q.v.),* as a cure for fever and ague. It concludes with a description of the famous antidote of Mithradates VI. of Pontus. It was' much used in the middle ages, but is of little value except for the ancient history of popular medicine. The syntax and metre are remarkably correct. It is uncertain whether the author was the famous physician and polymath, who was put to death in A.D. 212 at a banquet to which he had been invited by Caracalla, or his son, the tutor of the younger Gordian. The father, who was one of the most learned men of his age, wrote upon a variety of subjects, and possessed a library of 60,o0o volumes, bequeathed to his son and handed on by the latter to Gordian.

The editio princeps (ed. Sulpitius Verulanus, before 1484) is very rare; later ed. by J. G. Ackermann (Leipzig, 1786) and Ë. Båhrens, *Poetae Latini minores,* iii. ; see also A. Baur, *Quaestiones Sammoniceae* (Giessen, 1886); M. Schanz, *Geschichte der römischen Literatur,* iii. (1896); Teuffel, *Hist. of Roman Literature* (Eng. trans., 1900), 374, 4, and 383.

SERENUS “of Antissa,” Greek geometer, probably not of Antissa but of Antinoeia or Antinoupolis, a city in Egypt founded by Hadrian, lived, as may be safely inferred from the character and contents of his writings, long after the golden age of Greek geometry, most probably in the 4th century, between Pappus and Theon of Alexandria. Two treatises of his have survived, viz. *On the Section of the Cylinder* and *On the Section of the Cone,* the Greek text of which was first edited by Edmund Halley along with his Apollonius (Oxford, 1710), and has now appeared in a definitive critical edition by J. L. Heiberg (*Sereni Antis- sensis opuscula,* Leipzig, 1896). A Latin translation by Commandinus appeared at Bologna in 1566, and a German transla­tion by E. Nizze in 1860-1861 (Stralsund). Besides these works Serenus wrote commentaries on Apollonius, and in certain MSS. of Theon of Smyrna there appears a proposition “of Serenus the philosopher, from the Lemmas ” to the effect that, if a number of rectilineal angles be subtended, at a point on a diameter of a circle which is not the centre, by equal arcs of that circle, the angle nearer to the centre is always less than the angle more remote (Heiberg, preface, p. xviii.).

The book *On the Section of the Cylinder* had for its primary object the correction of an error on the part of many geometers of the time who supposed that the transverse sections of a cylinder were different from the elliptic sections of a cone. When this has been done, Serenus, in a series of theorems ending with Prop. 19 (ed. Heiberg), shows in Prop. 20 that “ it is possible to exhibit a cone and a cylinder cutting one another in one and the same ellipse.” He then solves problems such as—“ given a cone (cylinder) and an ellipse on it, to find the cylinder (cone) which is cut in the same ellipse as the cone (cylinder)” (Props. 21, 22); “given a cone (cylinder) to find a cylinder (cone), and to cut both by one and the same plane so that the sections thus formed shall be similar ellipses ” (Props. 23, 24). In Props. 27, 28 he deals with subcontrary and other similar sections of a scalene cylinder or cone. He then gives the theorems: “ All the straight lines drawn from the same point to touch a cylindrical (or conical) surface, on both sides, have their points of contact on the sides of a single parallelogram (or triangle)" (Props. 29, 32). Prop. 31 states indirectly the property of a harmonic pencil.

The treatise *On the Section of the Cone,* though Serenus claims originality for it, is unimportant. It deals with the areas of triangular sections of right or scalene cones by planes through the vertex, finding *e.g.* the maximum triangular section of a right cone and the maximum triangle through the axis of a scalene cone, and solving, in some easy cases, the problem of finding triangular sections of given area. (T. L. H.)

SERERS, a Negroid people, living in Senegambia. They are of the same stock as the Wolof, and in some parts form com­munities with them. Elsewhere they have mixed with the Mandingo, to which race belong most of their ruling families. The country of the pure Serers lies between the Gambia and Salum rivers to the south of Cape Verde. In this domain of nearly 5000 sq. m. the tribe has two main divisions, the None Serers and the Sine Serers. The Serers are an extraordinarily tall race, even excelling in height their kinsfolk, the Wolof. Men of 6 ft. 6 in., with muscular development in proportion, are by no means rare. They are less black than the Wolof and