that stand out perpendicular to the surface of the mycelium. Each zoosporangium contains a multitude of spherical spores. These spores are of the kind technically called zoospores, each on its escape from the sporangium moving about actively by means of two vibratile cilia. The zoosporangium emits the zoospores by an aperture at its end, and when it has emptied itself the hypha begins to grow again at the base of the empty membrane and sends up through the cavity of the old zoosporangium a new sprout which becomes a second spore capsule. This feature is characteristic of the genus *Saprolegnia,* belonging to the *Oosporeæ,* various kinds of which are well known to botanists ; they usually occur in dead insects or other invertebrate animals in water: the dead bodies of the common house-fly when in a sufficiently moist place almost invariably produce a luxuriant crop of *Sapro­legnia.* The commonest species of *Saprolcgnia* is *S.* *ferax,* and the salmon fungus has usually received the same name, as though it were a proved fact that it was identical with that species. But the species of a *Saprolcgnia* can only be ascertained from the characters of its oosporangia, which are quite different from the zoosporangia and are produced much more rarely, and whose contents, the oospores, are fertilized by the contents of simultaneously produced antheridia. Mr Stirling has observed the oosporangia of salmon fungus (see his papers in *Proc. Roy. Soc. Ed.,* 1878 and 1879), but his description is not sufficient to put the identification of the species beyond a doubt. From Prof. Huxley’s experiments it is evident that the salmon fungus may reproduce for very many generations without the appearance of oospores. The salmon fungus grows with great luxuriance on other animal substances. In a diseased salmon the fungus seems to be confined to the skin and not to give rise to bacteria-like bodies in the internal organs. What are the condi­tions which favour the infection of salmon in a river is a question to which at present no answer can be given. Until it is known under what conditions the *Saprolegnia* exists in a river before infecting the salmon, the conditions which favour or prevent salmon disease cannot be ascertained. The fungus may have its permanent nidus in decaying vegetable substances, but at present it has not been determined whether it is possible to cultivate the salmon *Saprolcgnia* on vegetable matter; or the disease may be propagated sporadically among the fish, Salmonoids and others, which are permanent residents of the rivers ; or its abundance may depend on the amount of dead animal matter that is available for its nutrition. There is probably always some *Saprolegnia* in every river ; the secondary conditions which determine whether or not the fungus shall multiply on the anadromous salmon to such an extent as to cause an epidemic have yet to be ascertained.

*Literature.—*Albert Gunther, *Catalogue of Fishes in Brit. Mus.,* London, 1866, vol. vi. ; Id., *Introduction to Study of Fishes,* Edinburgh, 1880; Francis Day, *Fishes of Great Britain and Ireland,* London and Edinburgh, 1880 to 1884, vol. ii. The following papers of the Conferences of the International Fisheries Exhibition, London, 1883, also contain valuable information:—“Fish Culture,” by Francis Day; “Salmon Fisheries,” by Charles S. Folger; “Culture of *Salmonidæ,"* by Sir James Maitland; “Salmon and Salmon Fisheries,” by David Milne Home. For a most complete and valuable memoir on the salmon disease see the paper by Prof. Huxley, *Quart. Jour. Mic. Sci.,* 1882. (J. T. C.)

SALOME, widow of Alexander Jannaeus, and queen of Judaea from 79 to 69 b.c. (see Israel, vol xiii. p. 424). Another Salome is the daughter of Herodias mentioned in Matt. xiv. 6. Her father was Herod, son of Herod the Great and Mariamme, and she became successively wife of her father’s brother the tetrarch Philip (son of Herod the Great by Cleopatra; see Herod Philip), and of Aristobulus.

SALONICA, or Saloniki (Ital. *Salonicco,* Turkish *Selanik,* Slav. *Solun,* the ancient *Thessalonica),* during the Roman empire the capital of the province of Macedonia, and still one of the most important cities of European Turkey, the chief town of an extensive vilayet which includes the sanjaks of Salonica, Serres, Drama, and Monastir, and has an aggregate population of 1,500,000. Salonica lies on the west side of the Chalcidic peninsula, at the head of the Gulf of Salonica *(Sinus Thermaicus),* on a fine bay whose southern edge is formed by the Calamerian heights, while its northern and western side is the broad alluvial plain produced by the discharge of the Vardar and the Inje-Karasu, the principal rivers of western Macedonia. Built partly on the low ground along the edge of the bay and partly on the hill to the north (a compact mass of mica schist), the city with its white houses enclosed by white walls runs up along natural ravines to the castle of the Seven Towers (Heptapyrgion), and is rendered pictur­esque by numerous domes and minarets and the foliage of elms, cypresses, and mulberry trees. The hill of the

Heptapyrgion is dominated by a second and that by a third eminence towards the north. The commercial quarter of the town, lying naturally to the north-west, towards the great valleys by which the inland traffic is conveyed, is now pierced by broad and straight streets paved with lava; and the quay extends from the north-west of the city for four-fifths of a mile to the Kauli-Kule (Tower of Blood), or as it is now called Ak-Kule (White Tower). The old Via Egnatia traverses the city from what is now the Vardar Gate to the Calamerian Gate. The houses are for the most part insignificant wooden erections covered with lime or mud. Two Roman triumphal arches used to span the Via Egnatia. The arch near the Vardar Gate—a massive stone structure probably erected after the time of Vespasian— was destroyed about 1867 to furnish material for repairing the city walls ; an imperfect inscription from it is now preserved in the British Museum. @@1 The other arch, popu­larly called the arch of Constantine, but by Leake assigned to the reign of Theodosius, consisted of three archways built of brick and faced with marble. It is now in a very dilapidated state. @@2 A third example of Roman architecture —the remains of a white marble portico supposed to have formed the entrance to the hippodrome—is known by the Judaeo-Spanish designation of Las Incantadas, from the eight Caryatides in the upper part of the structure. @@3 The conspicuous mosques of Salonica have nearly all an early Christian origin; the remarkable preservation of their mural decorations makes them very important for the history of Byzantine architecture. The principal are those dedicated to St Sophia, St George, and St Demetrius.

St Sophia (Aya Sofia), formerly the cathedral, and probably erected by Justinian’s architect Anthemius, was converted into a mosque in 1589. It is cased with slabs of white marble. The whole length of the interior is 110 feet. The nave, forming a Greek cross, is surmounted by a hemispherical dome, the 600 square yards of which are covered with a rich mosaic representing the Ascension. St Demetrius, which is probably older than the time of Justinian, consists of a long nave (divided into three bays by massive square piers) and two side aisles, each terminating eastward in an atrium the full height of the nave, in a style not known to occur in any other church. The columns of the aisles are half the height of those in the nave. The internal decoration is all produced by slabs of different-coloured marbles. St George’s, conjecturally assigned by Messrs Pullan and Texier to the reign of Constantine, is circular in plan, measuring internally 80 feet in diameter. The external wall is 18 feet thick, and at the angles of an inscribed octagon are chapels formed in the thickness of the wall, and roofed with waggon-headed vaults visible on the exterior; the eastern chapel, however, is enlarged and developed into a bema and apse projecting beyond the circle, and the western and southern chapels constitute the two entrances of the building. The dome, 72 yards in circumference, is covered throughout its entire surface of 800 square yards with what is the largest work in ancient mosaic that has come down to us, representing a series of fourteen saints standing in the act of adoration in front of temples and colonnades. The Eski Juma, or Old Mosque, is another interesting basilica, evidently later than Constantine, with side aisles and. an apse without side chapels. The church of the Holy Apostles and that of St Elias also deserve mention. Of the secular buildings, the Caravanserai, usually attributed to Amurath II., probably dates from Byzantine times.

The prosperity of Salonica has all along been largely that of a commercial city. During the Christian centuries before the Mohammedan conquest the patron saint of the city was also the saint of a great market or fair to which merchants came from all parts of the Mediterranean, and even from countries beyond the Alps. At the beginning of the present century a large export trade was carried on in woollen and cotton fabrics, white and red yarns, grain, wool, tobacco, yellow berries, silk fabrics, sponges, &c.; and silk gauze was manufactured in the city. Direct British trade with Salonica began after the Greek war of independence. Woven fabrics are at present imported from England, Austria, Germany, Switzerland, and Italy; sugar mainly from Austria ; coffee from South America (partly direct); petroleum from America and Russia ; soap from Greece and Crete; metal goods from England, France, and Austria; and coal from England. The exports com-

@@@1 See *Trans. Roy. Soc. Lit.,* vol. viii., new series, 1878.

@@@2 See Newton’s *Travels, &c., in the Levant,* vol. i. p. 122.

@@@3 See Stuart’s *Athens,* vol. iii. pl. 45, for engraving.