elevated peak of rock, and commands one of the most magnificent views in the world, with Mount Etna in the distance. Remains of five piscinae and a large bath, popularly called a naumachia, still exist, together with remains of the ancient city wall and that of the arx.

See Serradifalco, *Antichità di Sicilia,* Palermo, 1834-42, vol. v. ; Hittorff and Zanth, *Architecture Antique de la Sicile,* Paris, 1870.

TAPACULO, the name@@1 given in Chili to a bird of singular appearance,—the *Pteroptochus albicollis* of ornitho­logy,—and, throughout this series of articles (Birds, vol. iii. p. 743 ; Ornithology, vol. xviii. p. 40, *et alibi*)*,* applied in an extended sense to its allied forms, which are now found to constitute a small Family, *Pteroptochidæ,* belonging to the Tracheophonous division of *Passeres,* and therefore peculiar to South America. About 20 species, which are disposed by Mr Sclater (*Ibis,* 1874, pp. 189— 206) in 8 genera, are believed to belong to this group.

The species of the Family first made known is *Scytalopus magellanicus,* originally described in 1783 by Latham (*Synopsis,* iv. p. 464) as a Warbler. Even in 1836 Gould not unnaturally took it for a Wren, when establishing the genus to which it is now referred ; but some ten years after Johannes Miiller found that *Scytalopus,* together with the true Tapaculo, which was first described by Kittlitz in 1830, possessed anatomical characters that removed them far from any position previously assigned to them, and determined their true place as above given. In the meanwhile a kindred form, *Hylactes,* also first described in 1830, had been shewn by Eyton to have some very exceptional osteological features, and these were found to be also common to *Pteroptochus* and *Scytalopus.* In 1860 Prof. Cabanis recognized the *Pteroptochidæ* as a distinct Family, but made it also include *Menura (cf.* Lyre­bird, vol. XV. p. 115), and in 1874 Mr Sclater *(ut supra)* thought that *Atrichia (cf.* Scrub-bird, vol. xxi. p. 554) might belong here. It was Garrod in 1876 and 1877 who finally divested the Family of these aliens, but, until examples of some of the other genera have been anatomically examined, it may not be safe to say that they all belong to the *Pteroptochidæ.*

The true Tapaculo (*P. albicollis*) has a general resem­blance in plumage to the females of some of the smaller Shrikes (*Lanius*)*,* and to a cursory observer its skin might

pass for that of one ; but its shortened wings and powerful feet would on closer inspection at once reveal the difference. In life, however, its appearance must be wholly unlike, for it rarely flies, hops actively on the ground or among bushes, with its tail erect or turned towards its head, and continually utters various and strange notes,—some, says Mr Darwin, are “ like the cooing of doves, others like the bubbling of water, and many defy all similes.” The “Turco,” *Hylactes megapodius,* is larger, with greatly developed feet and claws, but is very similar in colour and habits. Two more species of *Hylactes* are known, and one other of *Pteroptochus,* all of which are peculiar to Chili or Patagonia. The species of *Scytalopus* are as small as Wrens, mostly of a dark colour, and inhabit parts of Brazil and Colombia, one of them occurring so far northward as Bogota. (a. n.)

TAPESTRY. See Textiles.

TAPE-WORMS, or Cestoda, are a group of worms forming one of the three main divisions of the *Platy­helminthes,* the other two being the *Turbellaria* (see Planarians and Nemertines) and *Trematode,* (see Trematoda). They have been defined as follows :—“Flat worms without mouth or alimentary canal, which typically develop by alternation of generations, by budding from a generally pear-shaped nurse, with which they remain united for a lengthened period as a ribbon-like colony or ‘strobila.’ The individual joints of the colony, *i.e.,* the sexual animals or ‘ proglottides,’ increase in size and maturity as they are removed farther from their origin by the intercalation of new buds, but are not distinguished in any special way. The nurse, however, known by the name of the ‘ head ’ (*scolex*) is provided with four or two suckers, and usually with curved claw-like hooks. The dorsal and ventral surfaces of the head are perfectly identical, so that the arrangement of the hooks presents a strikingly radiate appearance. By means of this apparatus the worms fasten themselves on the intestinal membrane of their hosts, which (except in the case of the otherwise peculiar *Archigetes)* all belong to the *Vertebrata.* The nurses develop from little round six-hooked embryos in a more or less complicated fashion as so-called ‘ bladder-worms.’ The latter inhabit very diverse, but usually parenchym­atous, organs of the higher and lower animals, and are thence passively transferred to the intestine of their subsequent host” (Leuckart, 1,@@2 p. 270).

*Historical Sketch.*—Certain forms of Cestodes have been known from time immemorial. The hydatid cyst is alluded to by early medical writers, and Aristotle speaks of examining the tongue of pigs to ascertain the presence of bladder-worms. By this author and Hippocrates the Cestodes and other flat worms are spoken of as *έλμιvθες*

*πλατεîαι*, in opposition to the *στρογγύλaι* or “ round worms”; the word *Tænia* (Gr. *ταινία)* does not occur in Greek authors, but is first used by the Romans (Pliny, *H.* *N*., xi. 33). In the treatises of the Middle Ages the tape-worm figured as *Lumbricus latus,* only one species being recognized. Felix Plater (23) separated *Bothrio- cephalus* from the other human tape-worms, and Andry (24) gave it the name *Ténia à épine,* mistaking the nodular generative organs for vertebræ. The appellation *Bothriocephalus latus* dates from Bremser, 1819 (25). Like other *Entozoa,* the tape-worms and bladder-worms were supposed to arise by spontaneous generation; it was found, however, that animal forms strikingly like the *Entozoa* sometimes lived freely. Pallas (19), seeing that the eggs of intestinal worms are expelled from the animals in which they live, and may remain for some time unaltered in water, suggested the hypothesis that the *Entozoa* agree with other animals in originating from eggs which can be

@@@1 Of Spanish origin, it is intended as a reproof to the bird for the shameless way in which, by erecting its tail, it exposes its hinder parts. It has been sometimes misspelt “Tapacolo,” as by Mr Darwin, who gave *(Journal of Researches,* chap. xii. ) a brief but entertaining account of the habits of this bird and its relative, *Hylactes megapodius,* called by the Chilenos “El Turco.”

@@@2 These figures refer to the bibliography, pp. 55, 56.