Apennine limestone. Caves containing bones occur in it. Resting upon this formation is a deposit of marls and limestones, containing nummulites and hippurites, which appear to belong to the chalk and greensand of English geologists. Upon these rest a series of cretaceous limestones and marls of the older tertiary epoch. The fifth formation is an extensive tertiary limestone, found both north and south of the grand central range. Above this rests a still newer deposit of a conglomerate, containing shells of species now existing in the Mediterranean: it is well seen on the north coast, and to the south of Syracuse. Of the same age with this deposit is a bone breccia which forms beds lying upon the preceding, and also occurs in caves; and in both situations contains bones of the elephant, hippopotamus, and deer, with a few of a carnivorous animal of the genus Canis. Still newer than this bone conglomerate is a diluvial deposit; of which there are two kinds: the oldest occupies considerable heights, the newest covers the bottom of valleys. The tertiary rocks, so abundant in the island, contain beds of common salt, sulphur, gypsum, and alum, along with beautifully crystallised sulphate of strontites. Volcanic action appears to have been in operation from a very remote period in this island, as is evinced by the different sets of volcanic rocks which Etna affords. The oldest volcanic rocks of Etna are those in the Val di Bove, where there is a magnificent display of trachyte, porphyry, and tuffa: the next in point of age are the basaltic rocks; and the newest of all are the coulées or streams of modern lava, with their tuffas, ashes, sands, and scoriæ. The trachyte and basalt seem to have been produced before the commencement of the present order of things, the coulées, &c. are the matters which have flown within the period of human history, and which still continue. It is probable that this mountain was burning at a period antecedent to the time of Homer. At Macaluba, a hill near Girgenti, consisting of blue tertiary clay, there is a continual disengagement of carbonic acid and carbonated hydrogen, from small cavities, shaped like craters, which are filled with muddy water mixed with mineral oil. When the quantity of gas emitted is great, it throws up the mud to the height of 200 feet: these are called air volcanoes.

Sicily is not rich in metals: the mountains to the N.W. of Taormina present traces of a gold mine, said to have been worked at a very remote period. Some mines of silver, copper, lead, and iron are mentioned. Beds of sulphur occur abundantly in the blue tertiary clay; and though Sicily has long supplied Europe with that mineral, its stores are yet far from being exhausted. The blue clay also contains beds of rock salt: the most considerable are at Alimina, where this substance is found both massive and crystallised.

Malta and Gozo. These isles consist entirely of tertiary rocks, closely resembling those of the south-eastern part of Sicily. The most common rock is a fine-grained straw-coloured limestone, which is often so soft as to be worn down rapidly by the weather; but in other instances, it is sufficiently hard to form an excellent building stone, to which circumstance these islands have been in a great measure indebted for the elegance of the numerous churches and palaces which are seen in every town and village. Harder and more crystalline limestones are also met with, but all of them are nearly of the same colour. Both these islands are of trifling elevation; the highest point of Malta, which is one of the hills to the west of Cività Vecchia, being only 590 feet above the level of the sea.

Subsect. 2.—*Botany.*

"The garden of the world, fair Italy!
Thy very weeds are beautiful, thy waste
More rich than other climes' fertility."

Italy and Sicily.—These countries partake very considerably of the general character and aspect of the vegetation of the south of France; and the geographical distribution of the plants is well depicted by M. Mirbel.

The Sicilians cultivate, with more or less success, the Sugar-cane, the Custard-apple, the Date, &c. The different enclosures are surrounded by the Agave americana, which forms an impenetrable fence. By the side of the Plane, Poplar, and Willow, grow the Cactus Tuna, or Prickly Fig, the Orange, Citron, and Olive, the Myrtle (*fig.* 336.), Laurel, Carob-tree, and Pomegranate (*fig.* 337.); while Arbutus and Tamarisk abound upon the

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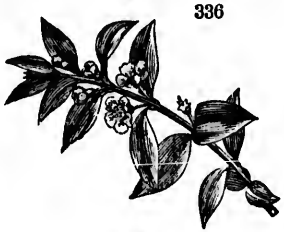

Myrtle.

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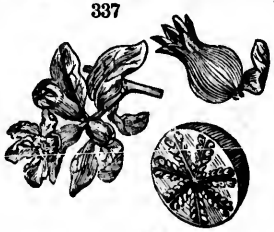

Pomegranate.