Vienna Basin.[84]—Overlying the Aquitanian stage (p. 1630), where that is present, in other cases resting unconformably upon older Tertiary rocks, come the younger Tertiary or Neogene deposits of the Vienna basin—a large area comprising the vast depression between the foot of the eastern Alps near Vienna, the base of the plateau of Bohemia and Moravia, and the western slopes of the Carpathians. This tract communicated with the open Miocene sea by various openings in different directions. Its Miocene deposits are composed of two chief divisions or stages as follows, in descending order:

Sarmatian or Cerithium Stage.—Sandstones passing into sandy limestones and clays, or "Tegel" (the local name for a calcareous clay). According to Fuchs, the following subdivisions occur around Vienna:

Upper Sarmatian Tegel, or Muscheltegel—distinguishable from the Hernals Tegel below by an abundance of shells (Tapes gregaria, Ervilia, Cardium, etc.), 295 feet.

Cerithium-sand—a yellow, abundantly shell-bearing, quartz-sand—the main source of water-supply at Vienna, where it is sometimes nearly 500 feet thick.

Hernals Tegel—sand and gravel, with Cerithium, Rissoa, Paludina, remains of turtles, fish, and land plants.

The Sarmatian stage is characterized by the prodigious number of individuals of a comparatively small number of species of shells, of which some of the most characteristic forms are Tapes gregaria (Fig. 438), Mactra podolica, Ervilia podolica, Cerithium pictum, C. rubiginosum, Buccinum baccatum, Trochus podolicus, Murex sublævatus. The general character of the fauna is that of a temperate climate, and is strongly contrasted with that of the Mediterranean stage in the absence of the affinities with tropical or sub-tropical forms, and even with those of the present Mediterranean, and on the other hand in some curious analogies with the living fauna of the Black Sea. Corals, echinoderms, bryozoa, foraminifera are absent or very rare, and the suggestion

[84] T. Fuchs, Z. Deutsch. Geol. Ges. 1877, p. 653; Hörnes and Partsch, "Die Fossil Mollusken Tertiär. Beckens," Wien, 1851–70; Ettingshausen, "Die Tertiärfloren d. Oesterr Monarchie," 1851; Von Hauer's "Geologie," p. 617.