toma, Cerithium, Spondylus, Pinna, Pectunculus, Cardita, Venus. A number of the species still live in the Mediterranean, or in the seas off the West Coast of Africa. The abundant flora, with its various kinds of palms, had also a tropical aspect, somewhat like those of India and Australia.

Switzerland.—Immediately succeeding the strata described on p. 1628, as referable to the Oligocene series, come the following groups in descending order:

- Upper fresh-water Molasse and brown-coal (Oeningen or Tortonian stage), consisting of sandstones, marls, and limestones, with a few lignite-seams and freshwater shells, and including the remarkable group of plant- and insect-bearing beds of Oeningen.
- Upper marine or St. Gallen Molasse (Helvetian stage) —sandstones and calcareous conglomerates, with 37 per cent of living species of shells, which are to be found partly in the Mediterranean, and partly in tropical seas: Pectunculus glycimeris (pilosus), Panopæa Faujasii (Menardi), Conus ventricosus, etc. Lower fresh-water or Gray Molasse (Lhangian stage,
- Lower fresh-water or Gray Molasse (Lhangian stage, Mayencian)—sandstones with abundant remains of terrestrial vegetation, and containing also an intercalated marine band with Cerithium lignitarum, Murex plicatus, Venus clathrata, Ostrea crassissima, etc.

In the Oeningen beds, so gently have the leaves, flowers, and fruits fallen, and so well have they been preserved, we may actually trace the alternation of the seasons by the succession of different conditions of the plants. Selecting 482 of those plants which admit of comparison, Heer remarks that 131 might be referred to a temperate, 266 to a sub-tropical, and 85 to a tropical zone. American types are most frequent among them; European types stand next in number, followed in order of abundance by Asiatic, African, and Australian. Great numbers of insects (between 800 and 900 species) have been obtained from Oeningen. Judging from the proportions of species found there, the total insect fauna may be presumed to have been then richer in some respects than it now is in any part of Europe. The woodbeetles were specially numerous and large. Nor did the large animals of the land escape preservation in the silt of the lake. We know, from bones found in the Molasse, that among the inhabitants of that land were species of tapir,