the other; that is, before the tilt, they were truly vertical. The sandstone consists of many horizontal layers. Eleven of the trees are perfectly silicified, and resemble the dicotyledonous wood which I found at Chiloe and Conception; the others, from thirty to forty in number, I only know to be trees from the analogy of form and position; they consist of snow-white columns of coarsely crystallized carbonate of lime. The largest trunk is seven feet in circumference. They are all close together, within one hundred yards, and about the same level; no where else could I find any. It cannot be doubted that the layers of fine sandstone have quietly been deposited between a clump of trees, which were fixed by their roots. *The sandstone rests on lava; is covered by a great bed, apparently about one thousand feet thick, of black augite lava; and over this there are at least five grand alternations of such rocks, and aqueous sedimentary deposits, amounting in thickness to several thousand feet.* According to my view of these phenomena, the granite, which forms peaks of a height probably of 14,000 feet, has been fluid in the tertiary epoch; strata of that period have been altered by its heat, and are traversed by dykes from the mass, and are now inclined at high angles, and form regular or complicated anticlinal lines. *To complete the climax, these same sedimentary strata and lavas are traversed by very numerous true metallic veins of iron, copper, arsenic, silver, and gold, and these can be traced to the underlying granite. A gold mine has been worked close to the clump of silicified trees!*"

51. TERTIARY SALIFEROUS DEPOSIT.—Not only coal, but even extensive beds of rock salt occur in the tertiary system. The celebrated salt mines of Gallicia, of which M. Boué* has given an interesting description, belong to this epoch. The deposit is nearly 3000 yards long, 1066 broad, and 280 yards deep. The upper part of the mine

* Journal de Géologie.