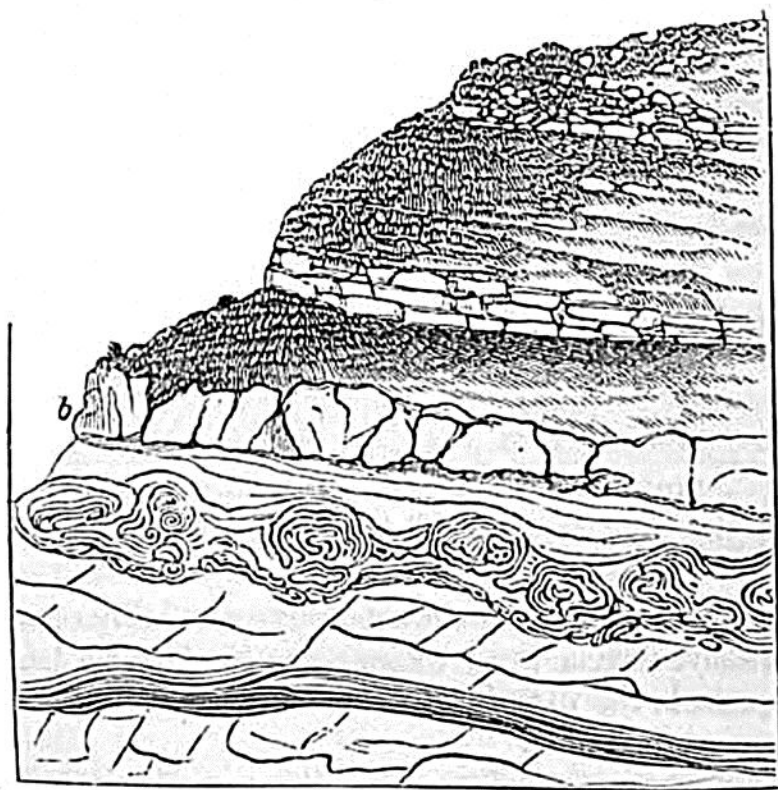


Vichy, the oolite resembles our Bath stone in appearance and beauty; and, like it, is soft when first taken from the quarry, but soon hardens on exposure to the air. At Gannat, the stone contains land-shells and bones of quadrupeds. At Chadrat, in the hill of La Serre, the limestone is pisolitic, the small spheroids combining both the radiated and concentric structure.

*Indusial limestone.*—There is another remarkable form of freshwater limestone in Auvergne, called “indusial,” from the cases, or *indusiæ*, of caddis-worms (the larvæ of *Phryganea*); great heaps of which have been incrustated, as they lay, by carbonate of lime, and formed into a hard travertin. The rock is sometimes purely calcareous, but there is occasionally an intermixture of siliceous matter. Several beds of it are frequently seen, either in continuous masses, or in concretionary nodules, one upon another, with layers of marl interposed. The annexed drawing (fig. 178) will show the manner in which one of these indusial beds (*a*) is laid open at the surface, between the marls (*b b*), near the base of the hill of Gergovia; and affords, at the same time, an example of the extent to which the lacustrine strata, which must once have filled a hollow, have been denuded, and shaped out into hills and valleys, on the site of the ancient lakes.

Fig. 178.



Bed of Indusial limestone, interstratified with freshwater marl, near Clermont (Kleinschrod).

We may often observe in our ponds the *Phryganea* (or Caddice-fly), in its caterpillar state, covered with small freshwater shells, which they have the power of fixing to the outside of their tubular cases, in order, probably, to give them weight and strength. The individual figured in