

of chert before us, collected by Sir George Sitwell, Bart., are fine examples of the curious fossils called screw-stones, described in the last lecture (page 577). The chert or silex has flowed into the interior of the stems of the encrinites, and the cavities of the shells, and become consolidated; the calcareous part of the organic bodies has since decomposed, leaving the chert, which exhibits sharp casts of the interior, and impressions of the external surface. So abundant are organic remains in some beds of the mountain limestone, that it is computed corals, shells, and crinoidea, constitute at least three-fourths of the mass.

8. DERBYSHIRE LEAD MINES.—It is in the mountain limestone that the principal British lead-mines are situated, namely, those of Somersetshire, Derbyshire, York, Durham, and Northumberland. In Derbyshire the metal occurs in numerous veins which traverse the rock, and extend in some instances into the *toad-stone*, the ancient volcanic bed already mentioned. The perpendicular, or rake-veins as they are termed, are from two to forty feet wide; and there are chasms or hollows in the rock, several hundred feet in width, which also contain metallic ores and spar. Manganese, copper, zinc, and iron are found in the limestone, but the predominating metalliferous ore is the sulphuret of lead, or galena, as it is called by mineralogists. This substance, as you perceive in the specimens before us, is of a bluish-grey colour, and sometimes