

of ancient glaciers far distant from their existing limits. Heaps of débris, of all sizes, comprehending blocks with sharp-pointed angles, are found in the Swiss plains and valleys. *Blocs perchés* (Perched blocks), as in PL. XXXI., are often seen perched upon points of the Alps situated far above existing glaciers, or dispersed over the plain which separates the Alps from the Jura, or even preserving an in-

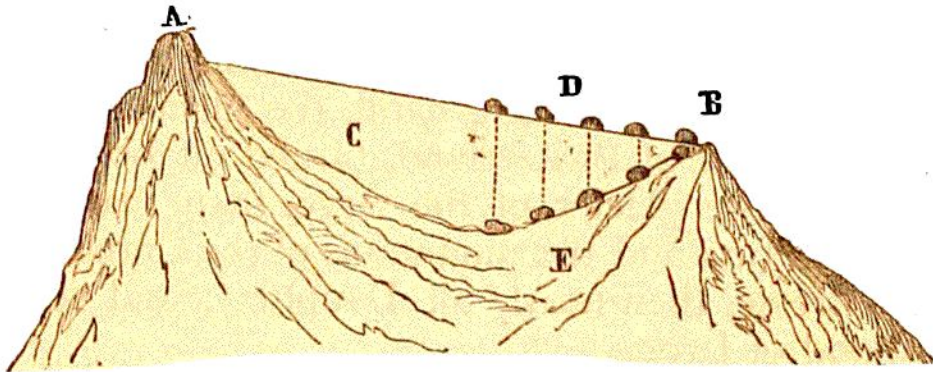


Fig. 197.—Transported blocks.

credible equilibrium, when their great mass is taken into consideration, at considerable heights on the eastern flank of this chain of mountains. It is by the aid of these indications that the geologist has been able to trace to extremely remote distances signs of the former existence of the ancient glaciers of the Alps, to follow them in their course, and fix their point of origin, and where they terminated. Thus the humble Mount Sion, a gently-swelling hill situated to the north of Geneva, was the point at which three great ancient glaciers had their confluence—the glacier of the Rhône, which filled all the basin of Lake Lemman, or Lake of Geneva; that of the Isère, which issued from the Annecy and Bourget Lakes; and that of the Arve, which had its source in the valley of Chamounix, all converged at this point. According to M. G. de Mortillet, who has carefully studied this geological question, the extent and situation of these ancient glaciers of the Alps were as follows:—Upon its northern flank the *glacier of the Rhine* occupied all the basin of Lake Constance, and extended to the borders of Germany; that of the *Linth*, which was arrested at the extremity of the Lake of Zurich—this city is built upon its terminal moraine—that of the *Reus*, which covered the lake of the four cantons with blocks torn from the peaks of Saint-Gothard;—that of the *Aar*, the last moraines of which crown the hills in the environs of Berne;—those of the *Arve* and the *Isère*, which, as we have said, debouched from Lake Annecy and Lake Bourget respectively;—that of the *Rhône*, the most important of all. It is this