

may originate in this way from terraces resulting from the reexcavation of a gorge completely filled by extraglacial clays or other materials after the ice has vacated the immediate district. Figures 6 and 7 illustrate these conditions in their simplest mode of occurrence.

In the former case coarse gravels and sand would be expected to predominate as the direct result of the outwash from the melting ice lying in the gorge but rising above the level of the terraces. Clay making would go on only in lake-like expansions above constrictions in the valley or downstream in the extraglacial field of that stage. The ice-ward margins of such clay deposits would pass into coarser

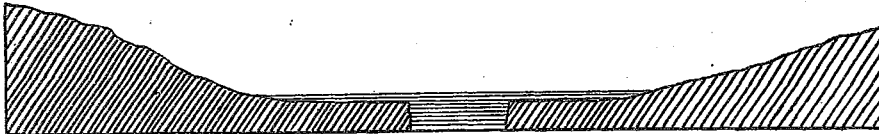


Fig. 6 Valley floor and gorge filled with clays

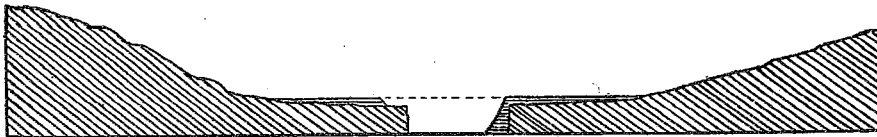


Fig. 7 Reexcavation of gorge, showing variable erosion of clays from opposite banks

detritus coming from the ice margin. Both sands and clays would fail to be deposited in the gorge except where the ice remnant receded by melting from the sides of the gorge, a condition which might locally occur before the ice shrank so much as to permit drainage altogether through the gorge. The distinguishing characteristic of such deposits would be evidence of contact with the ice sheet along the edge of the gorge, locally coarse deposits in that position, and the failure of remnants of these deposits to appear in the gorge except in alcoves and recesses or side channels not held open by the ice.

The distinguishing features of an excavated filling would be sought in the equality of height of flood plain deposits on opposite sides of the gorge, the essential identity in the lithologic characters of contemporaneous sections on opposite sides of the gorge, and in the occurrence of remnants of the deposits in any part of the gorge protected from subsequent erosion.