the writer obtained his results by calculation, taking into consideration the slope of the hill as well as the dip and strike of the sills.

The St. Mary Sills.—Intruded into the westerly dipping Aldridge quartzites, which form the mountains rising on both sides of St. Mary lake, is a series of gabbro sills which were studied in some detail. Sill "A" (see Figure 4), which apparently represents the highest one in the series, is 140 feet thick and

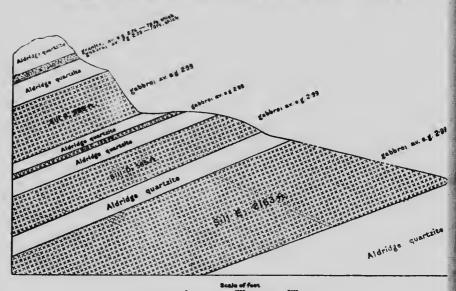


Fig. 4. Natural section of the St. Mary Sills.

contains an upper granite (micropegmatite) zone of specific gravity, $2\cdot76$, 70 feet in thickness, passing gradually downwards into a gabbro of specific gravity $3\cdot01$, also 70 feet thick. Separating sill "A" from sill "B" occurs 400 feet of argillaceous quartzites. Sill "B," which is 985 feet thick, is composed almost entirely of hornblende gabbro. It is in this sill the hypersthene gabbro occurs which shows the transformation of augite and hypersthene into hornblende. No granitic (micropegmatitic) zone is present in this sill although here and there in the centre