a trench of that length 1 mile wide and 660 feet deep. Of course such an arithmetical calculation is solely intended to show that enough material has been transferred in the Hudson valley since the glacial period to more than fill to its present state an old gorge such as the elevation hypothesis supposes to have existed.

As we have no direct evidence that the Hudson gorge is so deeply excavated in the bed rock from West Point southward through the New York Narrows the question of altitude of the outlet at this particular stage under the conditions assumed must remain locally undetermined.

The width of the Narrows at the present sea level is approximately 1 mile and the banks are glacial materials. There is naught in the deposits at the Narrows to render a former deeper channel impossible. In fact, if we suppose the sides of the channel where it is narrowest to slope down at an angle no steeper than 30 degrees the slopes would meet at a depth of over 1500 feet below the present sea level, a depth much in excess of any required depth of the Hudson channel for the drainage of waters from the Hudson-Champlain valley under any of the conditions which are shown to have existed during the retreat of the ice sheet.

From a reference to the diagram plate 28, line G–H, it will be seen that the outlet of the Fort Edward stage of Lake Vermont at New York must now be submerged not less than 650 feet if the view taken on page 192 is correct.

### DEFORMATION BY POSTGLACIAL FAULTS

From the vicinity of Greenbush northward into Argyle there is a belt of as yet unknown width in which the glaciated surfaces of nearly vertical slates are disrupted by small faults with a downthrow on the west, showing that in postglacial times the land on the western side of the Berkshire hills has come to stand relatively higher than that in the Hudson gorge and on the west of the river. Further detailed work in the field is required to make a quantitative statement concerning the amount of movement on these small faults. I have not been able without this detailed study to determine what role they may have played, if any, in