

## APPENDIX B.

Report of the Levels and Soundings taken on the Pequest River,  
in Warren County, by Prof. Ed. A. Bowser,

A bench, named first bench, was made on a maple tree on the right bank of the Pequest, 2,286 yards below Vienna, at the entrance of a valley running up towards Danville Church. The datum plane was assumed ten feet beneath this bench. A line of levels was run from this bench up the Pequest to Adam's Bridge, and also up Trout Brook to Trout Brook Bridge, and benches established at all the bridges and at intermediate points. The heights along the surface of the river were obtained by leveling from these benches. The heights along the bottom were determined by sounding in the channel, and subtracting the depths from the heights of the surface. The heights of the points, both along the surface and the bottom of the river, were measured from the datum plane ten feet beneath the first bench.

By inspection of the profile, we see that the bed of the river, from first bench to Steam-mill Bridge, has a rise of ten feet, while the rise from first bench to the bed of the river, one hundred and ten yards above Steam-mill Bridge, is only four and a half feet, making the bed of the river at the latter place five and a half feet lower than it is just below Steam-mill Bridge.

The water in the river just below the Steam-mill Bridge, on April 14th, 1870, was three feet deep, while one hundred and ten yards above the bridge it was eight and a half feet deep,