

would change an unsightly waste into a field of rural beauty and riches.

The report of Prof. Bowser, with his map and profiles, is presented here.

Prof. Bowser's Report of the Levels and Soundings taken
on the Wallkill River and its branches, the
Pochunk and Wawayanda Creeks, in
Sussex County, N. J., and Orange
County, N. Y.

A bench, called "first bench," was made on a large maple tree, on the right bank of the Wallkill, and on the left bank of the "canal," at their junction, or "outlet" of the canal, about 800 yards below Hampton. The datum plane was assumed 10 feet under this bench. A line of levels was run from this bench up the Wallkill to Lawrence's Bridge, distant in a right line about 20 miles, and about 37 miles by following the channel; and also up the Pochunk Creek to the second bridge above the mouth of the Wawayanda Creek; and up the Wawayanda to the second bridge; and benches were located at all the bridges and at intermediate points. The heights along the surface of the river were determined 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 10 feet beneath the first bench.

By examining the profile, it will be seen that the bed of the river, from the first bench up to the lower end of the Drowned