

Lands, has a rise of 24.6 feet, while the rise from the first bench to the upper end of the canal—inlet of the canal—is but 14 8-10 feet, making the bed of the river at the latter place 9 8-10 feet *lower* than it is at the lower end of the Drowned Lands in the old channel of the river.

The bed of the river at the lower dam is 10 7-10 feet, and at the upper dam, just below the railroad bridge, it is 14½ feet higher than it is at the first bench. Although the bed of the river from the second dam to the lower end of the Drowned Lands rises 10 1-10 feet, yet owing to the *fall* of 9 8-10 feet from the latter place to the inlet, the rise from the second dam to the inlet is only 8-10 of a foot, and from the first dam to the inlet it is only 4 1-10 feet. The top of the lower dam is 4-10 of a foot, and that of the second dam 6 7-10 feet higher than the bed of the river at the inlet.

The rise in the bed of the river from the inlet to Pellett's Island bridge, is 3½ feet, while from the latter up to Willcox's bridge, distant 12½ miles by the river, the rise is only 1 2-10 feet. The bed of the river at Black Walnut Island is 3½ feet *higher* than it is at Willcox's bridge. The bed of the river at Kimberg Point bridge is 4 3-10 feet *lower* than at Willcox's bridge, and 7 8-10 feet *lower* than at Black Walnut Island, while just above the State Line, it is 3 7-10 feet higher than at Willcox's, or on a level with the bed at Black Walnut Island. The bed at Bessett's bridge, distant ten miles from Willcox's by the channel, is on a level with that at Willcox's bridge, or 3 7-10 feet *lower* than at Black Walnut Island, while from Bessett's to Ogden's bridge, distant nine miles following the channel, owing to the increased shallowness of the river, the rise is 11 7-10 feet, making a rise of 8 feet from Black Walnut Island to Ogden's bridge, or 16 1-5 feet from the inlet to Ogden's. The rise from Ogden's to Lawrence's bridge is 2 7-10 feet.

The profile of the Pochunk Creek shows that its bed at the mouth is 7 4-5 feet *lower* than the bed of the Wallkill at Black Walnut Island, and that its bed at the Neck bridge, Garner's Island bridge and the Pochunk bridge is 1 4-5 feet, 9-10 feet, and 3 1-5 feet, respectively, higher than the bed of the Wall-