

5600 feet in length and like the other presents a surface of nearly uniform slope from the extreme depth to zero. This tunnel occurs of course on the summit level of the canal, which we may repeat here is 120 feet below the summit level of the other proposed route crossing the Cracklinton Ridge at Griffith's, or 375 above mean tide. The highest point of the ridge on the crossing is 156 feet above the summit level, or above the surface water in the tunnel.

Resuming the description; the route and summit level (no locks occurring now till we reach the valley of Hawlings River) pursues the valley of Mill Branch to its connection with Rock Creek, crossing the intervening entering branch called Robinson's with a considerable embankment. Having entered the valley of Rock Creek the route immediately crosses that valley at a point where the bed of the stream is 50 feet below the canal, and where an aqueduct of some magnitude would be required. This stream can be crossed higher up with much less expense of masonry, but it is questionable whether the increased length of line (upwards of three quarters of a mile) would not more than counterbalance the difference of cost of bridging. Having crossed Rock Creek the line pursues that valley for about half a mile down, whence it diverges to the north, and passing near W. Beckwith's and Mr. Cracroft's, crosses the secondary ridge which divides the West fork from the East fork of Rock Creek. The crossing of this minor ridge is not affected without considerable excavation, extending to 3000 feet in length and having an extreme depth of 47 ft. The route might otherwise have descended the West fork of Rock Creek to its junction with the East fork and thence returned by the East fork to the same ground which this crossing leads us to, but such a route would have increased the distance at least one and a half miles. The direct crossing appears therefore at present to be the more economical. Having crossed this minor ridge we reach the valley of the East fork by Adamson's Branch, a small tributary and passing the north side of widow Adamson's house: the line now follows the valley of the East fork, passing near Owen's old mill. About a quarter of a mile above the old mill the East fork is crossed very favourably, the East side of the valley is then followed till we reach the mouth of White's Branch, a small tributary of the East fork flowing from the Western slope of the Mechanicsville Ridge. At the entrance of White's Branch the excavation preceding the tunnel through the Mechanicsville Ridge commences. This excavation, and the route, follows the valley of White's Branch for a distance of 6600 feet, at which point situated a short distance above Cashel's the excavation has reached a depth of 50 feet and the tunnel commences. The tunnel through the Ridge is 7800 feet in length: its Eastern extremity opens into the valley of Reedy Branch, also with an extreme depth of excavation of 50 feet:—this excavation becomes 0, at a point distant from the mouth of the tunnel 5200 feet and immediately opposite the village of Brookville. The highest point of the Mechanicsville Ridge on this crossing is 117 feet above the bottom of the tunnel.