

per mile, we should, in the distance of one mile and three-quarters, cross the main branch of the Patuxent river about forty-four feet above its bed. On this supposition we should with an ascent of but nine feet per mile for two miles and seven eighths be able to pass the ridge dividing the Patuxent and Potomac by a cut extending rather more than half a mile in length, the greatest depth of which would be thirty feet; when, having thus passed the last of the three ridges which were of necessity to be crossed by the Rail Road, we should, with a descent of less than fifteen feet per mile, through the favourable valley of the North East branch of Potomac, in the distance of ten miles and a quarter, arrive at Bladensburg on the Eastern branch, with an elevation of thirty feet above mid tide. This elevation, it will be perceived, by a slight increase of the slope of the road in its descent along the North East branch, would be essentially diminished and proportionately facilitate the crossing of the wide valley of the Eastern branch; and in the event of pursuing generally the route of the Canal from Bladensburg to Washington, it would be obviously proper to do so. But, with reference to the second route spoken of, in order to avoid an increased inclination of the road beyond the Eastern Branch, a short viaduct and embankment—in all extending about a quarter of a mile, which would be of the height of thirty feet, would be required.

From the termination of this embankment, to pursue the valleys spoken of, the Rail Road would alternately ascend and descend at the rate of about twenty-five feet per mile for a distance of four miles; whence, to the vicinity of the General Post Office, it could, without interfering with improvements, be prolonged for the remaining distance of two miles, at an elevation varying from forty to fifty feet above mid-tide.

The total probable distance, therefore, from the point at which it is assumed a Rail Road to Washington would diverge from the Baltimore and Ohio Rail Road, would be about thirty-four miles, divided into stages of the following inclinations, to wit:

5½ miles level.

3½ " at 6 feet per mile.

3 " at 9 " do.

12 " at 14 to 15 " do.

11½ " at 20 to 25 " do.

Or, for two-thirds of the distance, the inclination would be less than fifteen feet per mile, and the remaining third at twenty-five feet per mile.