

In conclusion of this part of our subject we have only to remark that, while from the inclemency of the season we have not found it practicable to make as extensive an examination of the country as may seem desirable—from the far greater elevation of the ridges to the north-west of the Turnpike, there can be little doubt that neither a route such as has been suggested by Ellicott's Mills, nor the one proposed by following the Patapsco to the Patterson viaduct, can compete favourably with that which we have thus briefly indicated—which, as will have been perceived, does not essentially vary from the general route heretofore proposed for a Canal.

2d. To determine with precision the most advantageous plan, so that the cost of construction shall be a *minimum*, compared with the useful effect of the moving power on every part of the route—it will readily be perceived does not belong to this incipient stage of the investigation. But in order to ascertain, approximately, the length and cost of the Rail Road, we assume a plan which under the following circumstances we know to be entirely practicable.

Diverging from the Baltimore and Ohio Rail Road, (the level of which is sixty-six feet above mid-tide) near its second intersection with the Washington Turnpike, with a descent to the Patapsco not exceeding twenty-five feet per mile, the Washington Rail Road would cross that stream forty feet above its bed. Arrived at the west bank of the Patapsco, with a like inclination of twenty-five feet per mile, we should in the distance of about five and a half miles, attain an elevation of one hundred and eighty feet above mid-tide, or within twenty feet of the summit of the ridge which lies between the Patapsco and Patuxent:—And, pursuing a level by a cut not exceeding twenty feet in depth, for but half a mile, we should commence a descent to the North branch of the Patuxent. The distance from the summit to this stream would be about three and a half miles, with a total descent not exceeding twenty feet, on an inclination rather less than six feet per mile. The Rail Road would then cross this stream forty-five feet above its bed, whence it would be prolonged for one and a quarter miles, with an ascent of twenty feet per mile, to the commencement of a proposed cut thirty feet deep through the ridge which separates the two branches of Patuxent. The length of this cut (the ground on either side gradually rising to the summit about mid way of it) would be about one thousand feet when, again descending at the rate of about fourteen feet