

construction, in reference to its use and future repairs, and such other information as may illustrate the difficulty of constructing conjointly these two works on the left bank of the Potomac;—I will answer in the order presented, to the extent of my information.

1st If the time occupied in making the late survey from the Point of Rocks to Harpers Ferry, according to the order of the Chancellor of Maryland may be taken as a criterion, and upon a knowledge of the fact, that the difficult passes are more numerous and extensive (in proportion to the distance) between Harpers Ferry and Cumberland than they are between the termines of the survey referred to them, the time required in executing the necessary surveys, locations and drawings cannot be less than four or five years which is less than a strict proportion between the part already surveyed and that which remains to be, for I consider that much time was unavoidably lost in the first survey by the commissioners, in not commencing operations simultaneously and settling the preliminaries and mode of procedure.

2nd By taking the survey heretofore referred to, as a standard whereby to estimate the cost of the survey &c. the cost cannot be less than \$45,000

3rd In answering the interrogatory I will premise by observing, that as far up the Potomac as the Conococheague I have minutely examined its left bank, above that river to Cumberland I have seen the Potomac only at two places, but from a knowledge of the general characters of its valley, acquired from two years residence upon it, and from a familiar acquaintance with its left bank for one hundred miles above the District of Columbia, also from information gathered from the many reports of Engineers on the subject, I am in possession of facts that will enable me to answer with an approximation to accuracy—the interrogatory which has produced those preliminary remarks. From the above sources I have satisfied myself that the increased cost of construction will be at least 15,000 dollars

4th. Serious disadvantages arise in constructing the canal in connexion with the rail road from the necessity of placing the canal further into the river at the difficult passes, rendering the foundations less secure, exposing it in a greater degree to the action of the river upon its embankments; to a greater hazard to its protection walls from running ice and drifts; increasing the liability to branches, both from the canal and river, and rendering the necessity of repairs more frequent, and those repairs of greater magnitude. In addition to this, the difficulty and cost of procuring materials for these repairs, is very much increased.

The communication between the canal and the interior of the country, in some places, will be entirely cut off and the