

been recommended in the line of the main canal. And as the location was not intended for a definite and final one, the information obtained on the Virginia, was probably transferred to the Maryland side, without making sufficient allowance for the great difference in the two. This opinion is strengthened by an examination of their estimate. Be this as it may, I am perfectly satisfied, from an examination of their report, and from the principles that governed them in making it, that were these gentlemen, at this time, to estimate over the same ground for a canal of the same dimensions, that, in their results, they would not vary materially from us. As it is, we exceed them about 13 1/2 per cent.; and if we take their whole estimate from Georgetown to Cumberland, so far as the work has been constructed or carefully re-estimated, we shall find that, in the aggregate, they have estimated with unusual accuracy. At the same time, I am aware that in some items they are much above, and in others much below the prices usually paid for work called by the same name, though, in reality, of a very different character. Their canal, also, was planned of dimensions somewhat smaller, though not in fact, comparatively, much less costly than ours.

Compared with this average of the line below that portion of the canal that lies within the limits of the present survey has an unusual proportion of heavy hill-side river work, costly in the extreme, in consequence of the high elevation required to guard against the freshets of the Potomac, which is here generally confined within narrow limits. Out of the whole distance, around by the river, thirty-six miles, we have sixteen miles of this description of work. As if alarmed at the great cost of a perfect and safe canal, Geddes and Roberts, in a way by no means to be recommended, lessened the amount of their estimate by dropping the level of their canal so near to that of the river, without any provision for guard banks, as to be overflowed by every high fresh. This, on the heavy river sections, though at the expense of safety, necessarily lessened, very materially, the quantity of embankment, the most costly item of construction on the present location.

As for our estimate, it can be too high in only one of both of two ways: either in the quantities being too large or the prices too high. A comparison with the work-