

said would be shortly understood by examination, in the first place, of the two most significant ridges. This examination in regard to the Mechanicsville Ridge was indeed believed to have been made before the parties left the ground, and the impracticability of passing one ridge would obviously have defeated the project. At Mechanicsville the Mechanicsville Ridge divides, forming two ridges, one with a general course, first South and thereafter diverging West, and dividing the waters of Patuxent from those of the North-western Branch, the head waters of which rise in the valley intervening between the two ridges spoken of. The other with a course nearly West and dividing the waters of the said North-western Branch from the waters of Rock Creek. The first mentioned ridge was examined and levelled for a distance of seven miles South from Mechanicsville and the ridge at the end of that distance proved nearly as high as the ground at Mechanicsville Village which is 51 feet above the point crossed by us, (marked N) The survey was suspended under the impression that no available passage existed. When delineated on paper however the directions of this ridge was found to be so tortuous as to give a direct distance from Mechanicsville to the point where the survey was terminated but a little exceeding four miles. It is possible therefore that a further examination of the ridge may discover more favorable ground, though its character as far as that could be perceived, did not much encourage such anticipations. We hope we are understood therefore when we mention this further examination, mainly, as necessary to perfect these surveys already made, not as preferring a belief on our part that such a route exists there, as little that it does not; since our ignorance of the country below does not enable us to form any safe judgment in regard to it. The crossing of the Mechanicsville Ridge as surveyed (N. on the map) is 492 feet above tide. Beyond Mechanicsville and pursuing the half ridge above mentioned it falls in the first two miles to 474 feet. Thence it rises to 560 feet and at the termination of this survey or at seven miles distance from Mechanicsville following the course of the ridge it is 519 feet. The other ridge diverging from Mechanicsville southerly proved more favorable. On that ridge at a distance of four miles from Mechanicsville the height became reduced to 441 feet. It may be repeated here for the sake of comparison that the summit level of the Brookville route is 375 feet above mean tide.

NATURAL FLOW OF STREAMS.

According to your instructions the principal streams from which water was available for our purposes were gauged. This was effected by the erection of temporary dams of the form delineated,

