

spect a convenient place for a dam. The length of this feeder is 4 334 miles. [PATUXENT RESERVOIR.]—The dam required here for the Patuxent Reservoir must secure a depth of water of 50 feet. Its length at top about 750 feet. This would back the water upwards of 1400 feet or nearly three miles. The drainage of this reservoir embraces an extent of country of 34 161 square miles.

CATTAIL FEEDER.

At a point 500 feet below the termination of the Patuxent feeder (marked G. on the maps) the feeder from the Cattail Valley unites. This feeder crosses the Patuxent there, 15 feet above the bed of that stream—thence the line instead of making the entire circuit of the intervening spur, crosses it at a narrow point, with an excavation of 1000 feet in length, the greatest depth of which is 27 feet. Having thus gained the valley of the Cattail, that valley is followed without encountering anything of note in regard to construction till we attain the bed of the stream. This occurs at a point about a quarter of a mile below the East and West forks of the Cattail. The length of the feeder is 0 887 miles. [CATTAIL RESERVOIR.]—The dam necessary here to collect the waters of this branch must admit of a depth of water of 40 feet. The length at top would be about 500 feet. This dam will back the water up the West fork by the Roxbury Mills, a distance of 11000 feet, and up the East fork 9000 feet. The country which drains into the reservoirs includes an extent of 27 575 square miles.

BIG BRANCH FEEDER.

At a point about quarter of a mile below the Triadelphia Factory, (marked H. on the maps) another short feeder communicates with the Patuxent feeder. This feeder conveys the waters from the valley of Big Branch. At the point referred to it crosses the Patuxent River, the bed of which is here 44 feet below the level of the feeder. The crossing however is narrow and otherwise convenient; thence the route pursues the East slope of the Patuxent for about half a mile, whence it enters the valley of Big Branch, the North slope of which valley is followed till we reach the waters of the branch. The length of this feeder is 1.155 miles. [BIG BRANCH RESERVOIR.]—The dam required at the termination of this feeder must secure a depth of water of 30 feet. The length would be about 400 feet. The waters would be backed here 4200 feet. The extent of country drained into this reservoir amounts to 3.903 square miles.

FEEDERS OF SECONDARY SUPPLY.

The feeders above described comprehends all those surveyed for the supply of the summit pass and entering at the highest or summit level of the canal. The feeders surveyed for the secondary supplies will now be adverted to.