

of Breast Wheels and Turbines. For your works, and especially after they have been enlarged as proposed, I am of the opinion that Breast Wheels will be the most suitable."

Page 13—"The question of the purity of the water to be supplied, has not received from Mr. McAlpine the particular attention, such an important matter ought to command. On this point he merely says page 10, and then *four lines* are quoted from my report, and there is added: "*We consider the statement that defilement may be prevented by strict supervision, unworthy the reputation of a practical engineer.*"

Accuracy of statement is not a characteristic of this pamphlet. In addition to the four lines quoted, more than a page (21) of my report was devoted to this subject.

The authors of the pamphlet consume more than two pages, with the discussion of the question of preventing "defilement" on five miles, when there is more than a thousand miles above the Water Works, along which are cities, villages, houses and manufactories, discharging their filth and sewage into the stream.

The "defilement" is alluded to in the pamphlet as follows, page 14: "This fact was abundantly proved to His Worship the Mayor, many of the Water Committee and Mr. McAlpine himself on the occasion of the latter's visit to this city, when the most disgusting causes of defilement were to be seen on all sides of the entrance bridge."

The writer of the pamphlet omitted to add, that the same gentlemen witnessed on the same day, much worse cases of the same kind of defilement all along the river shore for a mile above the Water Works; and that the Superintendent assured the Committee that he would take measures to prevent any similar defilement in future, at and above the canal entrance; but all of the gentlemen present agreed in the opinion that there was no legal authority to prevent defilement along the river shore above the entrance to the Water Works.

In almost every American and in many of the European cities the supply of water is obtained from running streams into which must necessarily drain the filth from whatever population occupies its borders. In most cases, as at Montreal, the length of the conduit or canal is small compared with that of the open and unprotected channel above. Even the New York Croton Aqueduct is but half as long as the open channel above, from which the whole of the water is obtained, and at Philadelphia they have used water directly from the Schuylkill, for half a century, with a drainage of two hundred miles of densely populated country, and numerous manufactories.

The line of argument on this question adopted in the pamphlet is rarely resorted to, except by some demagogue in pandering to some local and vulgar prejudice, and is unworthy of any one who hopes for the reputation of a practical and sensible man.