

TABLE 1. (Continued.)

Experiments on the *Quaker Water Works*—April, 1860.

Date.	Time.	Quantity of water in cubic feet per minute taken into the main at Louisa.	Pressure of main at Mount Pleasant, in lbs. per square inch.	Loss of head due to friction in main at Mount Pleasant, in feet.	Pressure of corner of Fort and Bangle streets, in lbs.	
April 25th	3.00 A. M.	303.00	31	173	351	lbs. pressure at corner Des Fossés and St. Roch streets.
"	3.30 "	296.91	31½	172	341	" " Des Fossés and Church streets.
"	4.00 "	293.91	31½	172	299	" " Sous-le-Fort and St. Peter streets.
"	4.15 "	293.91	31½	172	283	" " St. Nicholas and St. Paul streets.
"	4.30 "	293.91	31½	172	23	" " St. Peter and St. Paul streets.
"	4.45 "	281.18	31	173	38½	" " St. Geneviève & St. Ursule streets.
"	5.00 "	300.06	31½	173	181	" " " " " "
"	5.30 "	299.97	30½	173	10½	" " " " " "
"	5.45 "	299.97	30½	173	37	" " " " " "
"	6.00 "	303.00	30	175	35	" " " " " "
"	6.30 "	286.68	28½	178	33	" " " " " "
"	6.45 "	286.68	28½	178	31	" " " " " "
"	7.00 "	286.68	28½	178	32	" " " " " "
"	7.10 "	286.68	28½	178	183	" " " " " "
"	7.30 "	286.68	28½	178	185	" " " " " "
"	7.45 "	286.68	28½	178	186	" " " " " "
"	8.00 "	315.12	25½	185	30	" " " " " "
"	8.15 "	307.85	24½	189	189	" " " " " "
"	8.30 "	307.85	24½	189	189	" " " " " "
"	8.45 "	307.85	24½	189	189	" " " " " "
"	9.00 "	307.85	24½	189	189	" " " " " "
"	9.30 "	307.85	24½	189	189	" " " " " "
"	10.00 "	307.85	24½	189	189	" " " " " "
"	10.30 "	307.85	24½	189	189	" " " " " "
"	11.00 "	310.98	24½	189	189	" " " " " "

REMARKS ON TABLE 1.

From the commencement of these gaugings, till 5.00 P. M. on the 25th, the city was supplied by St. John street, the Stop Cocks leading to the Lower Town being either shut or throttled, (as marked on plan) so as to retain the water in the higher levels. From 5.00 P. M. to 7.30 P. M., some of the Stop Cocks (marked thus X on plan) were closed so as to confine the water and send it to the Grand Allée and other highest levels. After 7.30 P. M., the water was allowed to descend to Lower Town as before. This is the usual method of supplying the city, and has been followed since May, 1859.

RESULTS OF THE TABLE.

The average delivery of the main during the 24 hours given in the Table, is 287,24 cubic feet per minute = 17,299 cubic feet per hour = 411,455 cubic feet, or 2,523,800 gallons per diem.

The *highest average* delivery occurred between 11.30 A. M. and 2.30 P. M. of the 25th, and was 309,181 cubic feet per minute.

The *lowest average* delivery (when feeding by St. John street), occurred between 10.30 P. M. of the 25th, and 2.00 A. M. of the 26th, inclusive, and was 273,325 cubic feet per minute, or 88 $\frac{1}{10}$ per cent. of the highest average delivery.

The difference between the lowest average night delivery, and the highest average day delivery, was 36 cubic feet per minute nearly.

Assuming that one-fourth of this or 9 cubic feet per minute was used in the night, and that 50 cubic feet per minute is constantly required to supply leaks, and about 211 cubic feet per minute, or nearly 75 per cent. of the whole quantity of water delivered into the city, must have been wasted.