

WATER-WORKS OF THE UNITED STATES AND BRITISH - NORTH - AMERICAN POSSESSIONS.

COMPILED FROM OFFICIAL SOURCES EXPRESSLY FOR THE AMERICAN GAS-LIGHT JOURNAL.

No.	TOWN.	State.	Built.	City or Private Works	Cost, Dollars.	Revenue 1859.	Expenses proper, 1859.	Popula- tion.	Build- ings supplied.	Charge to Private Dwellings.	Source of Supply.	Distance from Town.	Capacity of Reservoir, Gallons.	Average Daily De- livery, Gallons.	Head of Water, Feet.	Length and kind of Pipe.	Water Meters.	Remarks.
1	ALBANY.....	N. Y.	1851	C.	921,892	78,499 00	17,693 70	70,000	5,500	\$4 @ \$16	Patroon's Creek.	4 miles.	210,000,000	5,000,000	246	46½ miles iron, 3 @ 26 inch.	None.	Water brought to city in brick conduits.
2	ALLEGHENY.....	Pa.	1859	C.	380,000	42,000 00	6,500 00	130,000		\$1.25 @ room.	Allegheny River.	¼ mile.	6,500,000	800,000	190	3 miles, iron 2 @ 4 inch.	None.	
3	ALTOONA.....	Pa.	1859	P.	25,600			5,000	86	\$3.75 @ \$16	Mountain Spring	In town.	220,000	21,000	72	15 feet cast iron pipe.	None.	Robt. Beacham, Supt.
4	AUGUSTA.....	Geo.	1860	C.	172,000	Being built.		20,000			Savannah River, via Augusta Can- al.		Not built.	Estimated 1,000,000	100	13 miles iron	None.	Wm. Phillips, Eng.
5	AVON.....	N. Y.	1857	C.	8,000	400 00	None.	3,000	7	\$5 @ \$8.	Springs.	2¼ miles.	100,000	Unknown.	150	Iron & cast	None.	Wm. Cushing, Treas
6	BALTIMORE.....	Md.	1860		3,000,000	200,000 00	9,221 22	250,000	16,000	\$6 upward	Jones' Falls.	7 miles.	500,000,000	7,000,000	220	2 miles brick	9	These works will not be completed until 1861.
7	BETHLEHEM.....	Pa.																
8	BOSTON.....	Mass.	1846-51	C.	5,600,000	316,290 97	29,088 27	178,000	23,271	\$6 @ \$10. Hotels \$3 @ bed	Lake Cochichuate 684 acres.	5 miles.	89,009,720	13,175,000	124-6	150 mill's brick conduit and 37,454 ft. iron pipe 4 @ 30 in	Worthing- ton's very good.	J. H. Wilkins, Pres. J. Slade, City Eng.
9	BRIDGEPORT.....	Ct.	1856	P.	100,000	9,000 00		14,000	600	\$5 upward	Springs & pond.	2 miles.	Don't know.		115	18 miles iron 3 @ 20 in.	None.	J. Richardson, Pres. H. Edwards, Supt.
10	BROOKLYN.....	N. Y.	1856-60	C.	5,000,000			260,000	8,050	\$8 @ \$18	Brooks south side Long Island.	5 @ 12 mil's	32 acres. 170,000,000	3,000,000 Capable of delivering 20,000,000	170	170 miles, cast iron.	None, test- ing sev- eral.	J. P. Kirkwood, Eng.
11	BUFFALO.....	N. Y.	1851	P.	552,000			60,000	2,000	\$5 @ 26	Niagara River.	2500 feet	15,550,000	2,500,000		Cast iron pipe	None.	
12	BURLINGTON.....	Vt.	1859	P.	21,000			400 ho's	125	\$4 @ 10	Springs.	500 feet	125,000	15,000			None.	
13	CAMBRIDGE.....	Mass.	1855	P.	200,000	12,000 00	4,000 00	30,000	1,500	\$6 @ \$20	Fresh Pond.	2700 feet	2,500,000	900,000	70	12 in iron pipe	Worthing- ton's very good.	Water pumped into Reservoir by Worthing- ton's Pump.
14	CAMDEN.....	N. J.	1846-55	P.	150,000			15,000	1,200	According to rent of house.	Delaware River.	2 miles	5,000,000	500,000			None.	Use Cornish pump. H. Allen, Treas.
15	CANTON.....	O.									Myers Lake.	2 miles.						
16	CHARLESTOWN.....	Mass.	Estimated.		400,000	Works projected.		25,000	2,200		Mystic Pond.	4½ miles.		15,000,000	145		None.	
17	CHICAGO.....	Ill.	1852-54	C.	1,000,000	123,600 00	108,809 00	100,000	9,000	\$5 upward.	Lake Michigan.	Have three elevated tanks in city.	1,500,000	4,000,000	40 @ 30	35 miles, 4 & 12 in. cast iron.	Are apply- ing Wor- thington's Meters.	Water pumped from lake into tanks. A. W. Tinkham, Sec.
18	CINCINNATI.....	O.	1818-37	C.	59,500	180,000 00		200,000	12,000	12c @ 1000 gal. by meter.	Ohio River.	1000 feet	5,000,000	6,000,000	120	74 miles, 4 @ 20 in. iron pipe.	Use Wor- thington's and Phil- lips' very accurate.	Survey being made for additional supply from Big Miami River. R. C. Phillips, Supt. Geo. Shields, Eng.
19	CLEVELAND.....	O.	1854-56	C.	526,000	13,824 89	8,623 63	50,000	1,200	\$5 upw'd, Ho- tels \$1 @ room.	Lake Erie.	1 mile	6,000,000	800,000	40 to 160	22-68 miles iron and ce- ment pipes.	None.	Use Worthington's pump, elevating wa- ter with 2 Cornish engines, each 200 horse power.
20	COHUES.....	N. Y.	1853	C.	60,000	6,000 00	1,000 00	10,000	400	\$5 upward.	Mohawk River.	¼ mile.	3,000,000	200,000	160	5 mil's 2 @ 10 in. iron & cement.	None.	C. H. Adams, Pres. F. W. Upham, Supt.
21	COLUMBUS.....	Geo.																
22	COVINGTON.....	Ky.																
23	DANBURY.....	Ct.																
24	DETROIT.....	Mich.			600,000	48,770 00	13,997 00	70,000	8,470		Detroit River.	1½ miles	10,000,000	2,142,744		38 miles iron pipe 22 miles wooden logs.	None.	Jacob Houghton, Jr., Supt.
25	EASTON.....	Pa.																
26	ELIZABETH.....	N. J.	1855-56	P.	100,000			14,000			Elizabeth's Lake	1500 feet	6,000,000	500,000	62	7 miles, 4 @ 10 in cement pipe	None.	Water raised by double acting pump, 4 ft. stroke, 12 in. bore, 100,000 gall. @ 9 ho's, with 200 lb. coal. G. W. Harris, Supt.
27	ELMIRA.....	N. Y.		P.	35,000	Being built.					Carr's Creek and Little Lake.	1½ miles.	7,000,000	400,000	80	10 in. wood'n pipe to reser- voir.	None.	Simon Benjamin, Pres.
28	FAYETTEVILLE.....	N. C.	1850	P.	26,500			2,500	200	\$25. Hotels \$5	Springs.	100 feet.		30 gall. @ min leaves Reservoir.	33-6		Works dilapidated, good opening for new works, at cheap cost and large profit	
29	FREDERICK CITY.....	Md.	1845	C.	92,000			8,000	700	\$6.	Mountain Springs & 2 Artesian wells	4 miles	1,800,000	252,000			None.	Geo. W. Rice, Supt. W. G. Cole, Mayor of City.
30	GENEVA.....	N. Y.																
31	GEORGETOWN.....	D. C.	1860	C.	35,300	Works not completed.					Potomac River.							M. C. Meigs, Capt. U. S. Eng'rs, Supt.
32	HAMILTON.....	C. W.																
33	HARRISBURGH.....	Pa.																
34	HARTFORD.....	Ct.	1854	C.	410,300	26,000 00	8,500 00	30,000	1,936	\$5 upward.	Connecticut River	Forced 1½ miles into reservoir.	8,000	785,000	125	26 miles, cast iron.	None.	Hiram Blissell, Pres.
35	JERSEY CITY.....	N. J.	1851-4	C.	860,000	69,245 00	18,000 00	30,000	2,900	\$7.50 upward	Passaic River.	8 miles.	60,000,000	2,000,000	120	8 miles, 20 in. cast iron.	Worthington's	Water raised by Corn- ish engine.
36	KINGSTON.....	C. W.	1849	P.	80,000	10,758 00	4,908 00	15,000	680	\$8.00 upward.	Lake Ontario.		300,000	300,000	77	¾ mile, iron	None.	Jas. Wilson, Manager.
37	LAFAYETTE.....	Ind.																
38	LOCHAVEN.....	Pa.						4,000		Charter was obtained								
39	LOUISVILLE.....	Ky.	1860	C.	820,000	Works not completed.		80,000	None	20c @ 1000 gal by meter.	Ohio River.	¾ of mile	10,000,000	Capable of 12,000,000		30 in iron pipe sunk 4 ft in ground.	None.	Use Cornish engine. Wm. pump, has been working night and day for 30 years.
40	LYNCHBURG.....	Va.	1829	C.	60,000	\$500 00	2,000 00	12,000	298	\$15.	James River and Kanawha Canal.	1,000 ft.	400,000	300,000	240	15,000 ft, iron	None.	F. S. Miller, Supt.
41	MALONE.....	N. Y.	1857	P.	12,000			5,000	300	\$7 @ \$10	Rock Spring.	¾ of mile	Not com- plete	Can't tell.	145	6 mil's 2 @ 4 in mains, cast iron pipe & gal'd iron.	None.	Calvin Skinner, Supt. Wooden aqueduct.

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No.	Towns.	State.	Built.	City or Priv. Work's.	Cost. Dollars.	Revenue 1859.	Expenses proper, 1859.	Population.	Land area supplied.	Charge to Private Dwellings.	Source of Supply.	Distance from Town.	Capacity of Reservoir, Gallons.	Average Daily Delivery, Gallons.	Head of Water, Feet.	Length and kind of Pipe.	Water Meters.	Remarks.
42	MANSION.....	O.	1854	P.	75,000	3,000 00	150 00	3,000	40	\$5, upward.	Sippo Lake.	4 miles	1,275,000	Can't tell.	80	3 miles cement pipe.	None.	J. H. Brown, Sec. J. E. M'Lain, Supt. & Treas.
43	MEMPHIS.....	Tenn.	Water Works	about	being built here,			by Albert Steiner.										
44	MORRIS.....	Ala.	1831-42	C.	300,000	22,500 00	10,200 00	30,000	1,500	\$15, upward.	Three Mile Creek.	5 miles	1,250,000	250,000	25	16 miles. Cast iron pipe.	None.	Albert Stein, builder & Lessee.
45	MONTGOMERY.....	Ala.	An act has passed the Legislature for the construction of water works in this city.															
46	MONTREAL.....	C. E.	1853-56	C.				71,500	7,888		River St. Lawrence	7 1/2 miles	15,000,000	3,500,000			Kennedy & Worthington's.	E. Demers, City Treas.
47	NASHUA.....	N. H.	1854-56	P.	72,000	3,000 00	10,000	800	\$3 @ 15	Pennichuck Brook	1 mile	4,000,000	300,000	130	2 @ 4 in. cast iron pipe.	None.	E. P. Emerson, Treas. Use Ribb stop-cocks from Sterry Faucet Co., Norwich, Ct.	
48	NASHVILLE.....	Tenn.																
49	NEW ALBANY.....	Ind.	1856	P.	3,500			3,000	100	\$5	Ohio River.	300 yards	200	14,000	200	10 miles cement pipe.	None.	Wm. Carson, Prop'r.
50	NEWARK.....	N. J.																
51	NEW BRITAIN.....	Ct.	1857-58	C.	50,000	2,500 00		5,000	200	\$2 @ 3	Shuttle Meadow Lake.	2 1/2 miles	2,700,000	200,000			None.	A. Chamberlain, Eng. F. T. Stanley, Com.
52	NEW HAVEN.....	Ct.	Water works	are about being introduced here.														
53	NEW ORLEANS.....	La.	1835	P.	1,400,000		25,000 00	200,000	8,000	\$15, upward.	Mississippi River.	In city.		6,000,000	100	56 miles, iron pipe.	None.	S. L. Percy, Sec.
54	NEWPORT.....	Ky.	Same as Covington, Ky.															
55	NEW YORK.....	N. Y.	1837-42	C.	23,500,000	750,250 00	75,000 00	900,000	50,000	\$10, upward.	Croton River.	44 miles.	35 acres. 175,000,000	30,000,000	115	267 miles, 4 to 48 in. iron pipe.	None. Testing Amer. & Eng'g.	A. W. Craven, Chief Eng'r.
56	NORRISTOWN.....	Pa.	1847-55	P.	50,000			6,500	988	\$3 @ 7	Schuylkill River		10,000,000	115,000		Cast iron pipe buried.	None.	Divide 8 1/2 cent. and pass \$15,000 surplus. A. Markley, Supt.
57	PATERSON.....	N. J.	1855-7	P.	110,000	8,000 00		20,000			Passaic River.	1000 feet.	3 weeks' supply.		120	12 miles iron pipe 4 @ 12 in.	None.	F. D. Horsey, Pres.
58	PETERSBURG.....	Va.	1857	P.	125,000			300	\$5 @ \$25		Lieutenant River	1/2 mile.	25,000,000	333,000			None.	
59	PHILADELPHIA.....	Pa.	1800-55	C.	3,000,000	151,000 00	200,000	630,000	6,500	\$5, upward.	Schuylkill & Delaware Rivers.	In city.	67,000,000	19,600,000	250	306 1/2 miles, iron pipe.	None.	H. P. M. Birkenbine, Chief Eng.
60	PITTSBURG.....	Pa.	1822-42	C.	900,000	69,000 00	22,000 00	60,000	10,103	\$3 room.	Allegheny River.	In city.	6,600,000	4,000,000	160	27 miles 4 @ 15 in. iron pipe.	None.	James Nelson, Supt.
61	PITTSFIELD.....	Mass.	1855	C.	50,000			6,000	500	\$4 @ 6	Ashley Lake, 65 Acres.	7 miles			700	10 miles iron pipe.	None.	E. H. Kellogg, T. F. Plunkett and Jno E. Dodge, Commis'srs. Jos. Lyman, Eng'r.
62	PLYMOUTH.....	Mass.	1855	C.	84,000	2,700 00	350 00	4,500	450	\$4 @ \$3	South Pond, 400 Acres.	3 1/2 miles	1,600,000	70,000	90	Cement pipe.	None.	Charles O. Churchill, and Jas. Cox, Com's C. O. Churchill, Sup.
63	PORTLAND.....	Me.	Water works	are being projected, and will probably be built within a year.														
64	QUEBEC.....	C. E.	1850	C.	1,400,000	48,000 00		50,000	3,900	10 p. ct. of assessed value.	River St. Charles	8 miles.	No Reser'r	3,000,000		Cast iron 4 @ 18 in. pipe.	None.	W. W. Shordiche, Manager.
65	RICHMOND.....	Va.	1831	C.	654,079	32,000 00	18,300 00	46,000	2,630	\$5, upward.	James River.	2 1/2 miles.	10,000,000	2,000,000	190	31 miles 1 1/2 @ 1 in. iron.	None.	J. L. Davis, Supt.
66	ROCHESTER.....	N. Y.		C.	550,000	Works projected.					Hemlock Lake.	14 miles.		2,000,000	100	54 miles, iron pipe.	None.	Dan'l Marab, Eng.
67	ROCKLAND.....	Me.	1851	P.	75,000	4,500 00		4,000	750	\$6, Stores \$4	L. Chickawakee.	2 1/2 miles	5,000	12,000	90	20 miles iron & cement pipe.	None.	W. A. Farnsworth, Pres., M. Sumner, Treas. & Sec.
68	SACRAMENTO.....	Cal.																
69	SAINT JOHN.....	N. B.	1838	C.	400,000	28,000 00	4,000 00	33,000	1,100	\$8 @ \$24.	Little River.	5 miles.		5,500,000		30 miles iron pipe.	None.	J. Sears, City Comm'r. G. Murdoch, Eng. & Supt.
70	SAINT JOHN.....	N. F.	1860	C.	300,000	Being built.												
71	SAINT LOUIS.....	Mo.																
72	SAN FRANCISCO.....	Cal.																
73	SARATOGA SPRINGS.....	N. Y.		C.	20,000	2,500 00	1,500 00	8,000	327	\$3, upward.	Greenfield str'm	3 miles.	37,200,000	6,000	80	3 miles, iron pipe.	None.	Elisha Isabel, Supt.
74	SAVANNAH.....	Geo.	1854	C.	15,000	6,240 58		25,000	600	\$5 @ \$20	Savannah River.	300 feet	115,000	500,000		15 miles, iron pipe.	None.	S. D. Guerard, Supt.
75	SCRANTON.....	Pa.	1857-58	P.	50,000	3,000 00		6,000		\$5 @ 8	Lackawanna Riv'r	1/2 mile	2,200,000		100	Rip rap cond't sheet iron pipe cement inside & out.	None.	S. D. Guerard, Supt.
76	SING SING.....	N. Y.	1851	P.	4,000			4,000	50	\$5 @ 15	Undergr'd Sp'gs	Close by	1,500,000	50,000	80		None.	Reub. Quimby, Pres.
77	SPRINGFIELD.....	Mass.																
78	SYRACUSE.....	N. Y.																
79	TAMAQUA.....	Pa.	1852-53	C.	40,000			4,000	200	\$4. Stores 10 Eng's \$2.25 per horse power.	Rabbit Run Str'm	No Reser'r	Dam 280 ft long, 8 deep 1 1/2 acres.			3 miles 6 in. iron pipe.	None.	Wm. F. Bishop, Supt.
80	TORONTO.....	C. W.																
81	TRENTON.....	N. J.																
82	TROY.....	N. Y.	1832	C.	216,000	18,000 00	4,000 00	40,000		\$5, 50	Springs & Creek.	5 miles.	1,000,000	1,500,000	70	Rep'tilleg'le	None.	E. H. Chapin, Supt.
83	UTICA.....	N. Y.	1849		85,000			25,000	500	\$4-40 @ 11	Springs at Starch Factory Creek	4 miles	40,000,000	300,000			None.	
84	WASHINGTON.....	D. C.	1860	C.	2,800,000	Works not completed		80,000		50 p. ft. front for 4 yrs., after that to be free.	Potomac River at Great Falls.	8 miles	170,000,000	70,000,000	145	16 1/2 miles 4 & 6 in cast iron & cement pipe.	None.	M. C. Meigs, Capt. U.S. Eng's, Supt., H. C. Benham, Capt. U.S. Eng's, Chief U.S. Eng'r et belongs to U. S. District's pipes to cities of Washington & Georgetown, D. C.
85	WATERBURY.....	N. Y.	1854	C.	60,000			650		\$3 @ \$10.	Black River.	1 1/2 miles	3,000,000		200	Cement pipe		
86	WESTCHESTER.....	Pa.	1841-54	C.	55,000	4,800 00	1,100 00	4,000	600	\$7 Hotels \$20	Chester Creek & Bath Spring.	1/2 mile	244,030	65,000		1/2 miles, iron, 4 @ 8 in.	None.	Elam Holcomb, Supt. W. B. Waddell, Ch Eng.
87	WILLIAMSPORT.....	Pa.	1857	P.	40,000	2,500 00	300 00	6,000	120	\$8, upward.	Hagerman's Run	1 1/2 miles	100 ft a'qu'e 17 deep.	Don't know	115	5 miles, iron.	None.	H. P. M. Birkenbine, Chief Eng. Clinton Lloyd, Sec.
88	WINCHESTER.....	Va.	1808-29	C.	60,000			6,000	300	\$2 1/2 stop cock, or 500 ft. an. fm pub. hyd.	Spring.	1/2 mile	30 ft a'qu'e 10 ft deep	Constant running, 2 3/4 in. pipes.		Iron pipe substituted for wooden pipe		W. G. Russell, Treas.
89	WORCESTER.....	Mass.	1844-45	C.	42,000			30,000	125	\$6 @ 24.	Bell Pond.	1600 feet	400,000	70,000		1/2 miles 4, 6, 8 in. iron.	None.	G. W. Wheeler, City Treas.