## RULES AND REGULATIONS

-FOR THE-

CONTROL AND MANAGEMENT

OF THE

# CITY WATER WORKS

ADOPTED BY THE

Board of Trustees of the City Water Works,

OF THE

CITY OF SOUTH BEND,

MAY, 1889.

TRIBUNE PRINTING COMPANY, SOUTH BEND, IND.

# Board of Trustees.

ALEX STAPLES, President. CHARLES H. PAVEY. ROBERT L. BRAUNSDORF.

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### CITY WATER WORKS,

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#### BY-LAWS.

#### **Duties of Board.**

Section 1. The Trustees of the Water Works shall meet and organize the Board at the first regular meeting after the election and qualification of the Trustees after the annual election in May, in each year, except in case of an emergency, rendering a meeting at that time impracticable, in which case said meeting shall take place at such other time as may be designated, pursuant to the provisions of these By-Laws, respecting the calling of a special meeting of said Trustees.

First—The attendance of all Trustees shall be required in organizing said Board.

Second—Upon the assembling of said Trustees for the purpose aforesaid, the one whose term of office first expires shall become President of the Board of Trustees, and shall thereafter continue to hold such position until the expiration of his said term of office

as Trustee. He shall act as Chairman of said meeting, and of all subsequent meetings of said Board, held prior to the expiration of his said term of office, and shall perform such other duties as are, or hereafter may be assigned to such President, by the laws of this State; *Provided*, That in case of his absence from any of said meetings, the Trustee whose term of office next expires shall act as President *pro tem.*, or in case of his resignation or removal, shall be President.

Third—The said Board shall meet every two weeks, unless on account of some unavoidable circumstance preventing the same, at the office of the City Water Works.

Fourth—A majority of the Board shall constitute a quorum for the transaction of business.

Fifth—Each member shall vote on all questions submitted to Board, unless excused by the Board.

Sixth—The President, or any two members of the Board, may call a meeting at any time designated by him or them; *Provided*, reasonable notice thereof be given to each of the said Trustees. If the notice be other than a personal notice, it must be mailed or left at the residence of the Trustee thus notified at a reasonable time before the appointed meeting.

Seventh—The Board of Trustees shall appoint a Superintendent at their first bi-annual meeting in June, or as soon thereafter as may be practicable, to hold his office for a term of two years, and until his successor is appointed and qualified, unless sooner removed by the Board for sufficient cause.

Eighth—The Board of Trustees shall appoint a Clerk at the first meeting in June, or as soon thereafter as may be practicable, to hold his office until his successor is appointed and qualified. His compensation shall be determined by the Board, to be paid monthly.

#### Duties of Superintendent.

Section 2. The Superintendent shall, under the direction and supervision of the Board, have control and management of the Water Works of said city, and shall appoint such assistants as the Board may deem necessary, the compensations of said Superintendent and such assistants to be determined by the Board, and such com-

pensations to be paid monthly. He shall keep at his office a full and complete record of all permits issued for taking water from all the distributing mains or pipes, together with such books and papers as the Trustees may require.

First—The Superintendent shall be the executive officer of the Water Board, and shall give bonds with surety, to be approved by the Board of Trustees, in the sum of three thousand dollars, conditioned on the faithful discharge of his duty.

Second—It shall be the duty of the Superintendent to see that the By-Laws, Rules and Regulations of the Trustees are executed; that the contracts, by or with said Works, are faithfully complied with; that the assessments of water rents are duly made and collected and paid into the City Treasury; to audit all accounts and claims, and submit the same to the Board of Trustees, with such explanations as will enable them to act advisedly thereon, and to have general supervision over all operations and interests of said Works, with such suggestions as he may deem for the interest of the same, and perform such other duties as the Trustees may prescribe.

#### Duties of Clerk.

Section 3. It shall be the duty of the Clerk to keep a correct record of all the proceedings and business of said Board; and also to keep a correct account of all receipts and disbursements; and make out monthly reports to the City Council of the receipts and disbursements, and such other duties as the Board of Trustees may require.

First—Make out the assessment books containing a full and complete list of all water rents due the city, for the period of one year in advance from the first of July, except for water rents collected by meter statements, contracts and fractional parts.

Second—The assessment books to be prepared in form, with proper ruled columns and headings, so as to contain the name and number of residence, with the amount of water rents due from each person, company or corporation, and deliver to the Superintendent such duplicate, with his warrant attached, directing the Superintendent to collect such rents, pursuant to By-Laws of the Board of Trustees, before the twentieth day of July.

#### Collection of Water Rents.

Section 4. After receiving the duplicate the Superintendent shall immediately give notice in the corporation newspapers that the duplicate for water rents has been placed in his hands for collection, notifying all parties owing water rents to pay the same at his office within twenty days, and unless the same are paid within that time, ten per cent. will be added to pay the expense of collection.

First—After receiving the duplicate, the Superintendent himself, or his deputy, shall attend at his office during business hours for twenty days, to receive water rents from parties voluntarily paying the same.

Second—The Superintendent, in collecting water rents, is fully authorized to adjust water rents, where parties have not been properly assessed, or where mistakes have been made on the duplicate, and such reductions reported to the Board, that they may authorize a certificate therefor; and to assess and collect from those who may have been omitted, and to make out and collect all fractional rents which may accrue after the yearly assessments have been made and collected.

If any person, company or corporation fail, neglect or refuse to pay the same, the Superintendent may shut the water off from him or them so failing, neglecting or refusing to pay rents charged against them.

#### Neglecting to Pay.

Section 5. Whenever parties shall, after being notified of non-payment of water rents, refuse, fail or neglect to pay the same, he or they so failing or neglecting shall forfeit and pay as a penalty any sum not less than three dollars nor more than one hundred dollars, as the Board of Trustees may, at its discretion, direct, the City Attorney to collect the same, by action at law, in the name of the City. All monies received on account of the Water Works shall be paid into the City Treasury, and placed to the credit of the City Water Works, to which use they are exclusively appropriated, and shall not be paid out except by the order of the Board of Trustees, signed by not less than two of the Trustees.

All water shut off for the non-payment of rents will not be turned on again until the sum of one dollar be paid for the turning on of the same.

#### Meters.

Section 6. Meter rents are payable monthly at the office of the City Water Works. Monthly statements of meters will be taken at or near the first of the month. All meter rents due against parties using water must be paid on or before the fifteenth of every month. If any person, company or corporation fail, neglect or refuse to pay the same, a penalty of five per cent. will be added thereto after the above date.

Any person, company or corporation desiring to use water through more than one meter may have the rates consolidated, but no two persons, companies or corporations will be allowed to be consolidated. Not more than one meter will be furnished by the city to any person, company or corporation without extra charge.

Meters will be removed at the option of the Board or Superintendent whenever the quantity of water used will not warrant their continuance.

No meter rates shall be less than one dollar per month.

#### Rules for Governing Consumers.

Section 7. Applicants for water must fully state all purposes for which it is required. Parties must answer without concealment all questions put to them by the Board or Superintendent relating to its consumption.

First—Water takers will not be allowed to supply others without paying for the same, and a special permit from the Board or Superintendant. If found so doing without a permit, will be liable to a fine, the water stopped, and the rent paid, forfeited.

Second—It is hereby made a condition precedent to the use of water by any consumer, and the permission to tap any main and connect service pipes therewith, or to connect service pipe with any branch main, that no damage or compensation shall be demanded of the city of South Bend, or of the Board of Trustees for any

injury caused by breakage of any service pipe or by shutting off water to repair main or shutting off the water for any other purposes.

Third—All waste of water through neglect of the servants or agents, or by fixtures being out of order, or by allowing water to be taken from the premises by persons having no right to its use will be sufficent cause for shutting off the supply to any premises, and forfeiture of amount paid in advance or the withholding of the supply for such time as the Board or Superintendent may decide.

Fourth—During all alarms of fire, and while the fire pressure is on the pipes, the use of yard and street sprinklers is positively prohibited. A violation of this rule will forfeit all right to the use of water, and will be rigidly enforced.

#### Steam Boilers.

Section 8. Any party or parties, company or corporation using steam boilers taking a supply of water directly from the service pipe, depending upon the hydraulic or hydrostatic pressure in the pipe system of the Water Works for supplying such boilers under working pressure, will be required to have tanks erected that will contain an ample quantity of water for supplying such boiler, or boilers, for at least ten hours, in case the water is shut off for necessary repairs or extension, as the Trustees will not be responsible for any accidents or damages to which such devices are frequently subject.

#### Penalty.

Section 9. Persons taking water must keep their service pipe connected with main or supply pipe, and all fixtures connected therewith in good repair and protected from frost at their own expense, and must prevent all unnecessary waste of water.

First—No additions, or alternations whatever, to any tap, pipe, water cock, or other fixtures, shall be made, or caused to be made, by persons taking water, except through a duly licensed plumber and a permit first obtained from the Superintendent.

Second—Water from City Works through hydrants, taps, hose, water closets, urinals, bath tubs, or other fixtures, will not be permitted to be kept running when not in use, except where special permits have been granted to allow water to flow through petcocks, with such sized openings as the Board may decide to be used.

Third—In all cases in which more than one family is supplied through service pipe, having only one stop-cock, the owner of the premises on which said service pipe is located shall pay the entire water rent charged to owner of said service pipe, and the expenses of keeping said service pipe in repair, as is hereinafter provided in these By-Laws.

Fourth—All pipes placed in or about buildings for fire purposes must be supplied with fire hose, kept constantly attached. Any opening found in such pipes without hose attachment as aforesaid, or the use of such hose for any other purpose than the extinguishment of fires, is forbidden.

Fifth—The Board of Trustees reserve the right in all cases to test the quantity of water used or supplied to any premises by the application of a meter, or change or adjust all assessments by meter rates.

Sixth—Parties using water to fill cisterns and tanks, or for other special purposes, shall be charged the regular rates therefor, unless they have furnished, at their own expense, water meters in connection with the same, in which case they shall be charged therefor meter rates. In such cases should said parties fail to provide meters, and the Board of Trustees should furnish them, in addition to meter rates for the use of such parties, they shall be charged an annual rental for the use of the meter, or meters which rental will be fixed in each case by the Board of Trustees by special order.

Seventh—If a street washer or hose is found out of order, leaking, or converted into a jet or jets, so suffered to run at unauthorized hours, when not used, the supply will be cut off without previous notice.

Eighth—All persons sprinkling streets with carts are strictly prohibited from drawing water from stand-pipes, fire-hydrants, or from any of the service-pipes connected with the Water Works,

during a fire. A violation of this rule will subject the offender to forfeit his permit and pay as a penalty any sum not less than one dollar, nor more than one hundred dollars.

#### Fraudulent Representations.

Section 10. In case of fraudulent representations by any applicant, using water for purposes not embraced in the applicant's application, or of wilful waste of water, the Trustees or Superintendent shall have the right to stop the supply of water.

#### Inspections.

Section 11. The Superintendent, or his agent delegated for such purposes, shall have free access at proper hours of the day to all parts of buildings and premises in which water is used, to examine the pipes and fixtures, and to ascertain whether there is any unneccessary waste of water, or the illegal use of the same.

Any person who shall turn on the supply of water to any premises from which the supply has been shut off on account of non-payment of water rents, or for any other cause, where turned off by order of the Board or Superintendent, without having first obtained a permit so to do from the said Superintendent, shall be liable to be excluded from the use of water thereafter, or until satisfactory settlement shall have been made to the Board or Superintendent.

Hose larger than three-fourths of an inch will not be permitted to be used, and sprinkling without nozzles, or from nozzles larger than three-sixteenth inch opening is forbidden, except by special permit.

Any water taker found using hose larger than three-fourths of an inch in diameter will be charged same rate as those having three-fourths and one inch ferrule connecting with water main.

Water takers desiring to cut off or change their assessment, must give notice to the Superintendent in writing, on or before the first of June of each year.

If the Superintendent has reason to suspect that a consumer has tampered with the curb stop, after the water has been shut off from the premises, the Superintendent may draw the ferrule or close the pipe.

#### Accidents.

Section 12. The Board of Trustees will not recognize any claim made against the city that may have arisen from any leak in pipe or service cock, fixtures or any interruption of the supply by reason of the breaking of machinery or stoppage for necessary repairs, etc.

#### Using Water Without Permit.

Section 13. Whenever it shall be known to the Superintendent that any person, company or corporation shall take and use water in violation of these rules, it shall be his duty to shut the water off from such persons, company or corporation, without notice.

#### No Decrease in Water Rents.

Section 14. First—No decrease of water rents will be made to the water takers from the original and special permits, unless their water pipes are disconnected and soldered up tight, so they cannot be used.

Second—Any party or parties wanting their water shut off in the fall of the year to prevent their water pipes from freezing, and turned on again in the spring of the year, can make such an arrangement by applying at the office of the City Water Works, and paying the sum of one dollar in advance. But no rebates will be allowed for the time said water is shut off for the aforesaid purpose.

#### Cemetery Rules and Regulations.

GOVERNING WATER TAKERS IN CEMETERY.

Section 15. Any persons taking water for lot sprinkling shall not be allowed to supply others, except by special permit from the Superintendent, and must pay all water rents charged against him or them, for which permits have been granted. Separate charges will not be made to others who do not have water pipes connected with their lots; the owners of service pipes will be held responsible

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for the water used through the same by others. Water rents are payable in advance, in the same manner as regular city water takers.

Annual rent per lot...... 50 cents.

#### Water by Meter Measure.

#### MONTHLY RATING FOR METERS.

First—For each one thousand gallons of water used on each independent premises, measured and registered by meter, up to and not exceeding one hundred and sixty-five thousand gallons per month, eight (8) cents per thousand. For each one thousand gallons, measured in like manner, in excess of one hundred and sixty-five thousand per month, six (6) cents per, thousand gallons.

Second—No meter rates shall be less than one dollar per month.

Third—If a meter at any time fails to register the quantity of water, the quantity shall be determined and the charge made based on the average quantity registered during such preceding period of time prior to the date of failure.



## TARIFF OF RATES.

	ELF-CLOS-	NOT SELF-
	ING.	CLOSING.
Banks	\$ 3 00	\$ 4 00
Bakeries	6 00	8 00
Barber shops, one chair	2 00	3 00
" two chairs	4 00	5 00
" three chairs	6 00	7 00
Bathing Tubs, either hot or cold water, private houses		3 00
" each additional		2 00
" in stores, banks or offices, each		3 00
" hotels, each		10 00
" saloons, each		8 00
" bath houses, each		8 00
Blacksmith shop, one fire		3 00
" each additional		2 00
Business buildings, with store in each	3 00	4 00
Boarding houses, rate same as domestics	4 00	5 00
Beer pumps		4 00
Butcher shops	6 00	8 00
Church baptistry		2 00
Church organs, by motor power		15 00
Cemetery, per lot, sprinkling.		50
Cigar and tobacco stores, with billiard and pool room		00
attached, same as stores, with \$1.00 additional		
for each table		
Circuses, shows and caravans, per day, or fraction of		
day		10 00
Dentist	3 00	4 00
" motors, rated by meter measure		4 00
Domestic dwelling house, five adults, family	4 00	5 00
" for each additional person	25	25
Dye houses		10 00
Dwelling houses and stores, same as dwellings, with	0 00	10 00
regular charges for stores		
Dwelling houses and saloons, same as dwellings, with	••••	• • • •
regular charges for saloons		
208 data charges for saloons		

L-J	ELF-CLOS-	NOT SELF-
	ING.	CLOSING.
Faucets, in common by different families, each family,	4 00	5 00
Foundries, to have a meter		
		• • • •
Fountains, private, of hours per day from 9 till 12		
A. M. and from 5 till 9 P. M., from April to		
November—		W 00
1-10-men opening		7 00
To mon opening		10 00
Green houses	• • • •	5 00
Gooseneck, or hydrant for family use, outside of		
dwelling		3 00
Ice cream parlors	5 00	6 00
Office in business building, faucets used in common,		
for each office	2 00	3 00
Printing offices	6 00	8 00
Photographers	8 00	10 00
Restaurants	8 00	10 00
Sewing machine motors, in private houses		3 00
Saloons	8 00	10 00
Saloons and eating houses, together	10 00	12 00
Soda fountains, from April 1st to November 1st		7 00
Scrubbing saloons and stores from street washer		3 00
Stables, livery, meter measure		
" when not by meter, per stall		2 00
" private, for each horse, cow or mule		2 00
Steam heating in private houses		2 00
Steam engines and boilers, to be measured by meter		
Sleeping rooms	1 50	2 00
Uringle in private houses		2 00
Urinals, in private houses	1 00	3 00
Stores, banks of offices	2 00	4 00
bounding nouses	3 00	
" saloons and restaurants, each	4 00	6 00
Vegetable fountains	••••	4 00
Watering trough		10 00
Wash basins in office, each	2 00	3 00
" " stores or banks, each	3 00	4 00
" " private houses	1 00	2 00
Water closets, privateone	3 00	6 00
two	5 00	9 00
three	7 00	12 00
" barber shopsone	4 00	8 00
two	6 00	12 00
three	8 00	16 00
" stores or banksone	3 00	6 00
two	5 00	9 00
three	7 00	12 00
" restaurantsone	4 00	8 00
two	6 00	12 00
three	8 00	16 00
" boarding housesone	4 00	8 00
two	6 00	12.00
three	8 00	16 00
WINCO		

s	ELF	-CLOS	S- NGT SEI	LF-
	IN	G.	CLOSIN	G.
Water closets, saloonsone	6	00	10	00
two	8	00	14	00
three	10	00	18	00
" " printing officesone	4	00	8	00
two			12	00
three	8	00	16	00
" business buildings occupied by stores,				
offices and sleeping roomsone	6	00	8	00
two	8	00	10	00
three	10	00	12	00
Washing buggies				50

#### Water for Builing Purposes.

For	each	thousand of brick laid	10	cents	per	thousand.
66	66	cord of stone laid	25	"	66	cord.
66	"	hundred square yard of plastering	50	"	66	100 sqr. yards.
		hundred square feet of cement walk				
		and curbing	25	66	66	100 sqr. feet.

In no case will any permit be issued for water for above purposes for any sum less than fifty cents.

The rate for sprinkling streets and lots shall be as follows:

For a \( \frac{5}{8} \) inch tap, 5 cents per foot front.

For a 3 inch tap, 7 cents per foot front.

For a 1 inch tap, 10 cents per foot front.

In case of corner lots the side street shall be assessed at one (1) cent per foot front.

Where high hydrants are used the sum of one (\$1.00) dollar will be added to the regular rates for sprinkling.

In no case will any party or parties occupying corner lots, be allowed to use water for sprinkling purposes by paying for the front only, but in all cases both fronts must be paid at the same time.

In sprinkling streets each water taker must restrict himself to the exact frontage paid for and to one-half the width of the street in front thereof.

Parties desiring to sprinkle at other hours than those set apart by the Board of Trustees, can arrange for the same by applying for a meter and paying an annual rental, the sum of two (\$2.00) dollars, in advance, for the use of the meter only. Meters used on this principle to be set in the spring of the year and taken up in the fall of the year, Parties desiring meters to be set permanently can so arrange by paying for the same setting of the same. Time for sprinkling: 5 to 8 a.m. (morning) 12 to 1 p.m. (noon), 6 to 8 p.m. (evening).

Where bathing tubs, tanks or other fixtures are supplied with private water supply and also City water, the charges for the same shall be the regular established rates.

Time for using fountains; From 9 to 12 a.m. and from 5 to 9 p. m.

In any and all cases where water is used upon any premise or premises, the property owner or his agent must settle for the full amount of the rents charged against the property, as the Trustees or their agent will not receive pay from tenants, unless said tenant sees fit to pay for the whole rent charged against said property.

#### Rules Governing Plumbers.

SEC. 1. Any plumber contemplating any work within the scope of his employment, pertaining to the construction, repair or alteration of appliance for the use of water supplied by the city, must have a license from the Trustees of the Water Works.

Sec 2. In order to obtain said license, the person applying therefor must furnish satisfactory evidence to the Board of Trustees that he is of good character, and properly educated and skilled in the occupation of a plumber. No non-resident can obtain a plumber's license.

SEC. 3. Any individual, firm or corporation wishing to do business as plumbers in connection with the City Water Works, shall, before receiving any permit to do so, file his or their petition with the Superintendent, stating his or their place of business in said city, asking to be licensed as plumber or plumbers connection with the City Water Works, stating his or their willingness to be governed by the rules and regulations of the Board of Trustees, in relation to said works, which petition shall be presented to the Board of Trustees by the Superintendent, and if the Board be satisfied that the party or parties making such application be qualified to be licensed, the Board may grant the prayer of said petition, and shall order its clerk to issue to such person or persons a license as plumber or plumbers of the Water Works of said city, but before receiving such license the applicant or applicants shall

execute his or their bond to said city, with surety to be approved by the Board of Trustees of said city, in the sum of two thousand dollars, conditioned for the due performance of his or their duties as such plumber or plumbers, and to save and keep harmless said city from all damages arising from the negligence of himself or themselves, or his or their servants or employes, or from any carelessness in the exercise of his or their business as plumber or plumbers for said Water Works such license to run for one year, unless sooner revoked by the Board of Trustees. Every plumber so licensed shall be subject and conform with all the rules and regulations and penalties which now exist, or which may hereafter be passed by said Board of Trustees in relation to said Water Works. The fee for such license shall be the sum of ten dollars for the first year. And the same may be renewed after the first year for the sum of three dollars which fees shall be collected by the Superintendent before the delivery of such license, and the same accounted for by the Superintendent to the Board of Trustees, to be paid over to the Clty Treasurer to the credit of the Water Works fund.

SEC. 4. Any plumber or plumbers removing from the city shall forfeit the unexpired term of his or their license.

Sec. 5. All licenses shall be signed by a majority of the Board of Trustees and attested by the clerk.

The following rules and regulations for the introduction and management of service pipes, and the supply of water from the City Water Works, be and the same are hereby established:

Sec. 1. No person, company or corporation shall be peremitted to tap, or make any connections with the distributing pipes of the Water Works of said city of South Bend unless duly authorized by the Board of Trustees.

Application for a permit to connect service pipes to the supply pipes or distributing mains, must be made by a licensed plumber or plumbers to the Superintendent, who shall give to the applicant a statement showing the cost of the ferule desired, the applicant shall then pay the Superintendent the sum mentioned in such statement, and take his receipt therefor, the Superintendent shall issue to such applicant a permit and deliver to him the ferule required.

For 1	inch fer	rr11]	le for e	ither	iron	or	wood	pipe	 							\$2	75
44 5	"	66	"	66	66	66	66	66								3	00
8	"	"	"	"	"	66	"	66								. 4	00
* 4	"	"	"	"	46	66	"	66								. 6	00
D 1	Nipple	-11														4	00
Brass	Nippie	12	• • • • • • • • • • • • • • • • • • • •			•										. 5	00
	"	2		• • • •	• • • • •											. 6	00
- "	ston hor	3		• • • •		1-	• • • • • • • • • • • • • • • • • • • •	••••		•	•	•				2	00

#### Inspection of Tapping Mains.

No main shall be tapped or connections made therewith, or with a branch, unless the Superintendent or his agent is present to supervise the work.

No ferrule or nipple shall be inserted in the main to give an additional supply of water to premises already supplied therewith except under the direction of the Superintendent of the Water Works, and in accordance with the rules and regulations pertaining thereto, nor shall any ferrule or nipple be inserted in any of the street mains less than four feet apart.

Every service pipe must be laid sufficiently waving with at least one foot of extra length to prevent rupture by the settling of the street. The service pipe must be placed at least six and one-half feet below the grade, and so protected as to prevent injury by freezing.

All service pipe connected with the tap at the main to the service stop inside the curb-line shall consist of lead, designated as "Extra Strong," and weighing per lineal foot the following:

1/2	inch	inne	r di	iamet	ter	 	 . 2	pounds,	7	ounce	es per	foot
5	66	66		66		 	 . 3	- "		66	"	66
34	66	66		. 66		 	 . 3	"	10	66	"	66
1	66	46		66		 	 . 4	"	12	"	"	66
11	"	66		66				"		"	66	66
1-1	"	46	•	66			-	"	2	"	66	66
13	"	66		66		 	 . 8	"	4	46	66	66
2	66	66		66		 	 . 9	"	8	"	66	66
21	66	66		. 66		 	 . 16	"	2	66	66	"
3	"	"		66				"	11	46	"	66

#### Sizes of Service Pipes.

The size of lead pipe extending from the street main to the service-stop may be one-fourth of an inch larger inner diameter than the internal diameter of the ferule with which it is connected.

No service pipe connected with one ferule shall be extended into two premises, dwellings or tenements, unless separate stopcocks are placed on the outside of each of said premises, on the sidewalk opposite thereto, in a manner as directed by the Superintendent.

#### Stop and Waste.

A stop and waste shall be placed inside the service stop for the purpose of emptying the pipes in buildings when necessary. Such stops must be located so as to be easily accessable, and must be protected from freezing and must be of equal strength to the ferrule in the street main.

#### Excavating Trenches.

In excavating for service connections and the laying of service pipes the street must be opened in such a manner as to cause the least possible inconvenience to the public, and to allow a free passage of the water into and along the street gutter provided therefor. No excavation in any street or public place shall be left open over night, except by special permit from the Superintendent or Board of Trustees in writing.

#### Refilling Trenches.

In refilling trenches the earth shall be laid in layers not less than four inches in depth and each layer to be thoroughly ramned, so as to prevent after settling the pavement flagging and entire surface of the street shall be restored to as good condition as it was before it was taken up, and all rubbish shall be removed immediately after the completion of the work.

Street sprinklers and service cocks shall be placed on the inside of the curb in paved streets and at the same relative points in unpaved streets to the satisfaction of the Superintendent. The boxes must be of iron and of such pattern ordered or approved by the Board of Trustees.

#### Connecting Service Pipes with Street Mains.

Plumbers connecting service pipes with street mains, or making any addition or repairs or connections with the Water Works fixtures or service pipe must shut the water off at the curb before doing any work in connection with the Water Works pipe or other fixtures connecting with the same and leave the water off when completed.

#### Plumbers that do not Comply with Rules and Regulations.

Any plumber or plumbers who shall neglect or refuse to comply with the rules and regulations governing plumbers after being notified by the Superintendent of his or their failure to comply with the by-laws, rules and regulations and still neglect or refuse to comply, it shall be lawful for the Superintendent to forbid said plumber or plumbers to do any more work in connection with the City Water Works until he or they shall comply with the rules and regulations in every respect and further satisfy the Superintendent that in future he or they will fully comply with the rules and regulations governing plumbers.

In case of neglect of said plumbers to place gravel, sand or dirt in good order to the satisfaction of the Street Commissioner as provided for in a preceding rule the same may be done by the Street Commissioner and the expense thereof together with a fine of two dollars to be imposed for each offense, will be charged to the offending plumber and the Superintendent is hereby authorized to suspend such plumber or plumbers from acting under his or their license until such costs and fines are paid.

The above rule shall apply to the refilling of trenches, as well as repaying over the same.

#### Round Water Ways.

All stop-cocks used at the curb to have a round water way, and of first quality in every respect, and a rod connecting with the T and coming up within fifteen inches of the surface of the sidewalk or ground, fitted for a wrench to be used the same as directed by the Superintendent.

All stop-cocks used by plumbers must have a round water way. All stop-cocks used by the plumbers on the sidewalks, as well as those for street and lot sprinkling, hydrants, water closets, etc., to be subject to the inspection and approval of the Superintendent, and the stop-cock casing to be like sample at the Water Works office.

#### Fail to Leave Trench Open for Inspection.

Plumbers shall not cover up any work, new or old, without the inspection of the Superintendent or his agents.

#### Plumbers' Reports.

Within forty-eight hours after the completion of any attachment or connection with the water mains, the plumber shall make a full, true and complete report in writing of the number of rooms on the premises to which the water is supplied, or other contemplated use of water thereon, according to the rules and regulations and tariff of water rates established by the Trustees of Water Works, and file the same with the Superintendent, the plumber shall before receiving permit to insert tap in any water pipe first give the Superintendent accurate and complete measurements of the distances, north or south, east or west from the corner of the nearest street, lane or public alley from which the stop-cock is placed, the measurements to be made in a direct line with the front of the house or fence on the corner, and the name of the street or alley containing the pipe into which such entry has been made, whether the stop-cock is on the north, east, south or west of the same. Every return must be full and complete in every particular. These returns, after being examined and approved by the Superintendent, shall be delivered to the Clerk of the Board to enable him to compile his tap and assessment book, after which the Clerk shall file such returns and carefully preserve the same at the Water Works office.

#### Special Permits.

No plumber shall make any attachment to any old pipe, or other fixture, which has been shut off by the proper officers without having first obtained a permit or re-issue. Nor shall any plumber make any additions or alterations of any pipe, tap or cock, or any attachment or fixture attached to the Water Works except by special written or printed permit first obtained; and the plumber shall report such change in writing in a concise manner and the additional water occasioned thereby shall be assessed and collected

at the time of granting special permit or making such changes in advance to the next annual payment of water rents.

No hydrant shall be placed in any yard or common area of any premises so situated as to be accessible to persons occupying neighboring premises unless the person or persons controlling such hydrants become responsible for and pays the water rents for all persons so accessible.

On all lead service pipe wiped joints to be made without any exceptions.

Special permits granted, for the use of faucets for showering baths and showering purposes in barber shops, will not be allowed to be used for other purposes.

#### Tapping Mains.

No ferrule shall be inserted in any of the distributing mains above the size of five-eights of an inch inner diameter, unless with the consent of the Board or Superintendent, and in all cases where ferrules of larger size are asked, permits shall only be granted to enter such ferrule of extra size on condition of the party procuring such grant; shall be at the expense of putting on in addition, a suitable iron clamp, as shall be determined by the Superintendent; the ferrule to be inserted into the distributing pipe in such a manner as to fully preserve the strength of the pipe and securely hold the ferrule and prevent leakage.

#### Fines.

Any plumber or plumbers violating any of the sections in these Rules and Regulations shall, for every such offence, forfeit and pay as a penalty any sum not less than one dollar nor more than one-hundred dollars, and be liable in damages to any person receiving injuries resulting from the violation of said rules. For a second violation of said rules by any plumber or plumbers, he or they shall, in addition to the penalty above incurred, forfeit his or their license. For any injury or damage done to said Water Works or fixtures, caused by carelessness, neglect or want of skill in any plumber or plumbers, or his or their employes, he or they shall be

liable to an action on his or their bond for the damages sustained by said City or Water Works or any person or persons, by reason of the breach of the condition of said bond.

Any licensed plumber who shall recommend an improper person as a skilled plumber, possessing the qualification entitling him to a license, knowing that said recommendation is false, shall, if the Board of Trustees so elect, forfeit his own license.

Any plumber or plumbers allowing his or their names to be used by another person directly or indirectly, either to obtain permits, or to do any work under license, shall forfeit his or their license.

For a violation of any of the foregoing Rules and Regulations, the offender shall be subjected to a penalty of not less than one dollar nor more than one hundred dollars.

The following abuses are forbidden, viz:

1st. Permitting the water to be used for any other purposes than those named in the tax duplicate for water rent, or in the permit to use said water.

2d. Sprinkling gardens, streets or sidewalks, or washing carriages, omnibusses, cars, or other vehicles, for which no assessment or payment has been made.

3d. Permitting leaks.

4th. Allowing water to flow unnecessarily while sprinkling streets, washing pavements, and doing similar things.

5th. Hitching horses to fire hydrants.

For the violation of any of the rules and requirements herein, the board shall have power to stop the supply of water without any preliminary notice whatever, and in case the water is cut off for the violation of any rule herein, no rebate on what has been paid shall be allowed, nor will water be restored except on payment of the expense of shutting it off and putting it on, and upon satisfactory understanding with the party that no further complaint shall arise.

Any person who shall violate any of the foregoing rules and restrictions for the government of water takers, shall, on conviction, in addition to the enforcement of the forfeitures, liabilities, stipulations and reservations therein contained, be fined not less than one dollar nor more than one hundred dollars for each offense.

No person shall in any manner obstruct the access to any stopcocks or hydrants connected with any water pipe within any street, alley or public place in said city, by means of any lumber, brick or building material of any kind, or other article or hindrance whatsoever; and upon conviction thereof shall be fined in any sum not less than one dollar nor more than one hundred dollars for each offense.

The Waterworks Trustees hereby reserve the right to make any addition to, and revision, correction, or change in the foregoing By-Laws and Regulations and Tariff of Rates, that, in their judgment, may be deemed necessary or expedient, provided that no water taker shall be called upon for an increased rate during any unexpired term for which the water rent shall have been paid, except for misrepresentation or increase in quantity used.

#### Table Showing the Water Rates per 1,000 Gallons in 162 Cities Where Meters Are Used.

MAINE.	NEW YORK CONT'D.	MINNESOTA.
Pangor CENTS.	CENTS.	CENTS.
Bangor to 30 Portland 20 " 40	Utica 15 to 30	Minneapolis 10 to 20
1 Ortifalid 20 40	Waverly 20 Waterford 5 " 20	Winona 8 St. Paul 15 " 40
NEW HAMPSHIRE.	Whitehall 6 "25	
Manchester 20	Yonkers 16 " 40	MISSOURI.
Nashua 15 " 30		Hannibal
VERMONT,	NEW JERSEY.	Kansas City 10 " 35
	Bridgeton 20 Hackensack 13 " 23	St. Louis 121/2 " 30
St. Albans 10 " 30 Burlington 12 " 50	Jersey City 21 " 27	Bt. 110tis 12/2 50
	Morristown 33	KANSAS.
MASSACHUSETTS.	Newark 15	Abilene 30 " 50
Amesbury 30 " 50 Boston 20	Newark       15         New Brunswick       12½ " 50         Trenton       15 " 20	Atchison 20
Boston 20 Clinton 15 " 50	Trenton 15 " 20	COLORADO,
Cambridge 10 " 20	PENNSYLVANIA.	Denver City 30 Gunnison 10
Fall River 30	Allegheny City 15	
Haverhill 15 " 20	Bloomsburg 10 " 35	NEBRASKA,
	Conshokocken 15	Lincoln 10 " 20
	Easton 16½ " 40	CALIFORNIA.
Lowell 17½ " 20 Lynn 17½ " 20 Now Podford 21½ " 15	Franklin 60	Los Angelos 30
New Bedford 21/6 " 15	Hazelton 10 " 15 Lebanon 5 " 15	Oakland 30 " 55
Northampton 10 " 20	Mandwilla 8 " 80	Oakland 30 " 55 San Francisco 23½ " 46 Vallego 40 " \$1
North Adams 10 15 Quincy 12½ 30 Peabody 20 Pittsfield 10 25 Salem 13½ 20 Springfield 10 20 Teamton 19½ 25	McKeesport 4½ " 30	Vallego 40 " \$1
Quincy 12½ " 30	Philadelphia 8	DELAWARE.
Peabody 20	Pittsburg 5 " 20 Reading 10¾ " 21½	Wilmington 10
Salam 1814 " 90	Reading 10¾ " 21½	MARYLAND.
Springfield 10 " 20	оню.	Baltimore 8
	(1) 1 7 201 11 4001	Hagerstown 8 " 60
Waltham 25 " 30	Cincinnati 9	
WestDoro 90	Columbus 7 " 20	VIRGINIA.
Worcester 15 " 20		Norfolk 20 " 40 Richmond 15
CONNECTICUT.	Norwalk 10	
Bridgeport 20 " 30	Sandusky 6 " 20 Springfield 10 " 40	NORTH CAROLINA.
Hartford 7½ " 30 Meriden 10 " 25	Springfield 10 " 40 Toledo 8 " 20	Charlotte 30 " 50
Meriden 10 " 25 New Britain 10	Wooster 15	Wilmington 10 " 20
Now Haron 10 " 25	INDIANA,	SOUTH CAROLINA.
New London 20 " 30		Charleston 25 60 GEORGIA.
Norwich 15 " 30	Indianapolis . 12 "40 South Bend 6 " 8	
New London       20       " 30         Norwich       15       " 30         Stonington       10       " 20	Terre Haute 11	Atlanta 17
RHODE ISLAND.	ILLINOIS.	
Providence 15 " 80	Bloomington 10 " 15	Birmingham 6 "40 Montgomery 25
Pawtucket 6 " 30	Chicago 8 " 10	
Washingt 90	Joliet 15 " 30	LOUISIANA.
Waterbury 10 "30	Jacksonville 13 " 40	New Orleans 15 " 30
NEW YORK.	Quincy 15 " 50	TEXAS.
11bany 5 " 40	MICHIGAN.	Fort Worth 20 " 45 San Antonio 25 " 50
meterdam 6 " 30	Bay City 5 " 10	San Antonio 25 " 50
Binghampton 6 "25	Detroit 10	KENTUCKY.
Brooklyn 101/3	East Saginaw 6 " 12 Flint 6 " 30	Maysville 15 " 30
Buffalo 3 Catskill 12 " 25	Flint 6 " 30	Newport 10
Catskill 12 25	Grand Rapids 9½ " 30 Kalamazoo 10	Owensboro 10 " 25
Cortland and { 20 " 50	Port Huron 5 " 20	Lexington 171/2 " 25
Corning 10 " 30		Louisville 6 " 35
Elmira 9 " 45	WISCONSIN.	TENNESSEE.
Sunato	Kenosha 10 " 15	Chattanooga 6 " 98
ohnstown 25	Milwaukee 4½ " 20 Madison 20 " 50	Knoxville 10 " 30
Kingston 30 Mt. Morris 10 " 30		Nashville 7 " 15
	IOWA.	CANADA.
New York 13% Owego 30	Council Bluffs 15 " 35	Brantford 12 " 20
Ineonta 20 00	Cedar Rapids 15 " 40 Dubuqe 30 " 60	Halifor 20
)neida 20 " 50	Davenport 10 " 40	Halifax 30 London 20 to 331/3
Rochester 5 " 13	Des Moines 15 " 20	St. Catharine 14
laratoga 15	Ottomas 10 " 90	
Froy	Mnegatina 25 " 60	Average Minimum Price, 91/4 "Maximum "28
LTOY 10 20	Sioux City 13 " 40	" Maximum " 28

# HOW CITY WATER MAY BE WASTED.

Gallons and Hundreds of Gallons of Water that will be Discharged per Minute Through Various Sized Orifices at the Heads Stated.

Head in Feet.	Pressure per Square				D	IAI	ME.	LER	OF	OF	3IF.	ICE	SIN	IN	СН	ES	ANI	) FI	RAC	TIOI	NS C	DIAMETER OF ORIFICES IN INCHES AND FRACTIONS OF AN INCH	N II	TCH.		
	Inch.		1-64 1-32	1-8	83	1-16	8-1	on	1-4		80		1.2		8-5		3-4		1	-	11.4	1 1.2	6)	13.4	_	02
20	8 66	0	0 00 00 00 0	0	0 2 0	30	30 1	30	5 10		11 70	02	20 60		32.2	30	46 2	308	82 30	128	3 40	40 184 8	80 8	252 00	328	8 80
40	17 32	0	03	020	11 0	45	45 1	80	2	40	16	30	29 6	09	45 5	20	65 50 116	0 1:	16 50	50 182	40	40 261	60 2	256 40	465	09 9
09	25 99	0	03	08 0 1	140		55 2	20	00	06	08	00	35 6	09	57 70		80 3	30 142	12 80	80 223	50	20 320	40 4	436 80	571	08
80	34 65	0	04	040 1	160		65 2	09	10 8	30	23	20	41 2	02	64 3	30	9 86	60 164	34 40	258	00	258 00 370 80	30	505 20	658	8 80
100	43 31	0		040 1	180	75	75 2	06	11 8	20	25	06	46 1	10	72 0	00 103		70 183	33 60	288	288 00	415	20 2	565 20	738	00
120	51 98	0	05	05 0 19 0	0 61	78	78 3	10	12 6	09	28	30	50 4	40	78 80	1 0	113 5	20 30	201 60	315	315 60	453	9 09	624 40	807	09
140	60 64	0	020		210		853	40	13 6	09	30	09	54 5	20 8	85 2	1 0	20 122 40 217	0 23	17.30	340	80	20 340 80 490 80	9 08	668 40	672	40
150	64 97	0	020		220	88	88 3	20	14 10		31	02	56 4	40 8	88 2	20 127		0 25	20 225 60	352	80	352 80 507 06 691	9 90	91 20	808	40
175	75 80	0	0 90		240	953		08	15 2	30	34	. 02	61 0	00	95 3	30 136	8 98	80 24	243 60	980	380 40	548	40 748	18 80	975	09
200	86 83	0	0 90		26 1		02 4 10		16 3	30 %	98	09	65 2	20 101		0 1	80 146 40	0 26	260 40	40 406	80	80 588 00 798	00	98 00	00 1042	80
		=			-					-		-														

EW-The wire of which pins are made is one-thirty-second of an inch in diameter, No. 21, wire gauge. The finest cambric needle is made of wire one-sixty-fourth of an inch in diameter, No. 21, wire gauge. A stream the size of a pin running one year at a pressure of 75 pounds to the square inch will flow 126,144 gallons, which equals 3,973 barrels, the value of which, counting at the rate of earth cents per thousand gallons, would amount to \$10,09. A stream the size of a cambric needle, running at the same pressure, for the same time, will flow 31,536 gallons, at the cost of \$2,52

# Special Notice to all Consumers.

The Schedule of Rates and By-Laws as herein adopted by the Board, will be strictly enforced, regardless of parties or friends.

By order of the Board.

ALEX STAPLES, CHARLES H. PAVEY, ROBERT L. BRAUNSDORF,

# Caution to Water Takers.

South Bend, Ind., May 1, 1889.

Please read these Rules and Regulations regarding the use of water. Every one using water from the Water Works is cautioned regarding the violation of these rules. Water will be shut off at the curb without further notice, wherever it is found running to waste, and for not conforming to the within Rules and Regulations, which will go into effect July 1st, 1889.

Per order of the Water Board, IRA S. SCHROP, Sup't.