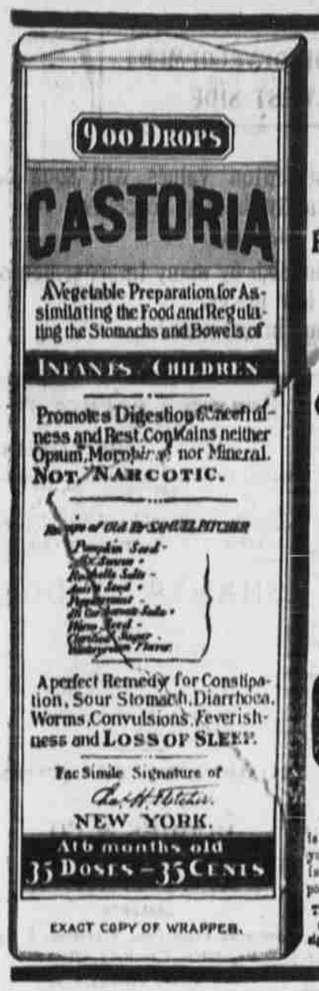

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Castoria is put up in one-size bottles only. It is not sold in bulk. Don't allow anyone to sell you anything else on the plea or promise that it is "just as good" and "will answer every purpose." Be sure that you get C-A-S-T-O-R-I-A.

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MARSHALL & CO.'S TWINE

Fresh from the Mills for 1897 Fishing

Every Ball Guaranteed

Report Imperfections

Beware of Imitations

Every ball must be Marked MARSHALL & CO., SHREWSBURY MILLS.

Manufactured from selected flax specially for Columbia river fishing. See that every ball bears the Marshall label.

6, 7, 8, 9, 10, 11, 12, 13, 14 ply 40's.
12, 13, 14. 15, 18 ply 50's.
7, 8, 9, 10 ply 30's.

Elmore, Sanborn & Co.
AGENTS
482 BOND STREET

REPORT OF THE WATER COMMISSION

Giving Cost and Present Value of the Water Plant.

To the Honorable Mayor and Common Council of the City of Astoria, Oregon:

Gentlemen—In accordance with Section No. 176 of the city charter, we herewith beg leave to report the receipts and disbursements of the Astoria Water Commission for the quarter ending December 31, 1896, as follows:

RECEIPTS.

For the month of October our gross receipts were—

From acct of water rates	$2,270 90	
From acct of turning on water	2 00	
From acct of tapping mains	35 50	
From sale of White Hall boat to John Hanson	50 00	
From sale of 9 loads of stone to C. L. Houston	4 50	$ 2,362 90

For the month of November our gross receipts were—

From acct of water rates	$2,145 20	
From acct of turning on water	2 00	$ 2,147 20

For the month of December our gross receipts were—

From acct of water rates	$2,036 80	
From acct of turning on water	2 50	
From acct of tapping mains ($7.50 less $2.50 returned John Hobson for tap, No. 538 C street)	5 00	$ 2,044 30
Making the entire receipts for the quarter		$ 6,554 40
As per report filed October 7, 1896, we had on hand in the treasury at the end of the last quarter		$ 9,213 14
This shows a total of		$15,767 54

DISBURSEMENTS.

Interest account	$8,000 00	
Expense account	290 90	
Supt. salary	375 00	
Repairs to mains	46 84	
Stationery and printing	15 40	
Office expense	31 80	
Clerk's salary	225 00	
Rent of office	50 00	
Loose property	186 23	
Stock of supplies	292 33	
Office furniture	1 50	
Tools	18 04	
Adv. account	9 00	
Litigation	308 15	
Legal services	325 00	
Expense of taking up old street mains	105 10	
Repairs to pipe line	207 78	
Expense cleaning and dipping pipe	666 71	
Telephone line	99 85	
Expense taking up old conduit pipe	23 50	
Reservoir No. 2	60 19	
Distribution system "New Works"	25 93	
Asphaltum	178 50	
Gate well and power house	63 65	
Expense mapping distribution system	7 05	
"Bondsmen" of the Pacific Paving Co., "contractors"	253 45	$11,866 90
Leaving a balance on hand in the treasury of		$ 3,900 64

This being the last quarterly report for the year 1896, we append herewith as required by the charter, inventories (prepared by the superintendent and clerk) showing the property of the city pertaining to the water works plant, now under control of the commission, as follows, to-wit:

Inventory of the office furniture of the Astoria Water Commission, with approximate values—

1	Safe	$325 00
1	Counter and desk combined	60 00
1	Directors' table	35 00
1	Writing table	4 00
1	Folding top desk	45 00
1	"Desk" chair	3 00
1	"Screw" desk stool	3 50
1	"Wood" desk stool	1 00
12	Office chairs	24 00
1	Chest drawers	7 50
1	Letter press	8 75
1	Letter press stand	2 50
1	8-foot drafting table (including trestle)	3 00
1	Official seal	4 00
2	"Centennial Dater" stamps (clerk and treasurer)	14 00
8	Shannon letter files (with clippers)	16 50
3	Shannon letter files (without clippers)	3 75
4	Hook files	50
1	Waste basket	1 00
1	Spring penholder rack	20
1	Ruler	25
2	Rubber stamps	50
1	Pair scissors	50
2	Ink wells	2 50
3	Ink stands	1 50
1	Ferguson city map	15 00
1	Insurance map	17 50
1	Tin map box	2 50
6	Blue print frames	4 50
53	Square yards of linoleum	58 30
21⅝	Square yards of linoleum	10 85
9	Window shades	9 75
	Night latch on office door	1 75
	Night latch on shop door	1 50
9	Extra keys for office door lock	2 25
1	"Letterbox" door plate	35
1	Ventilator	3 75
	Gas fixtures and connections	14 33
10	Hat and coat hooks	15
9	Enlarged photographic views (framed)	51 25
1	Group of "4" photographic views (framed)	3 75
1	Photographic view of settling basin	40
1	Photographic view of inside reservoir No. 2	50
1	Bristol recording gauge, including fittings used connecting same with street main	45 18
1	Water gauge	14 00
1	Steel sink and fittings, including hose bib and pipe connecting the same with street main	7 35
1	Wash stand, including pipe connecting same with street main, and basin cock	14 58
1	Tin cup	10
1	Soap dish	10
1	Hot water stove heater with pipe connections	55 10
1	Stove mat	2 25
1	Coal hod	75
1	Small ash shovel	20
2	Flue covers	25
1	Dust pan	15
1	Counter duster	25
1	Feather duster	75
1	Broom	40
1	Mop handle	25
2	Cuspidores	2 00
4	Towels	80
1	Office sign	18 00
1	Stove in use at power house	10 00
		$938 29

Inventory of loose property of the Astoria Water Commission, with approximate values.

1	600 lb. Cement testing machine and its appuratenances	$ 178.87
1	Tent with fly attachment	15.00
1	Tent (12x14) with fly attachment, poles and pins	15.50
1	Sibley Stove	5.00
1	14-foot skiff	15.00
1	15-foot Skiff for Reservoir No 2	16.55
1	24-ft. Dipping Tank (set in furnace at Reservoir No. 1 yard)	131.55
	Shed over Dipping Tank	139.91
1	Asphalt Kettle	35.00
2	Galvanized Iron Buckets (for Asphalt Work) @$1.50	3.00
1	Galvanized Iron Dipper (for Asphalt Work)	1.25
1	Asphalt Skimmer	1.64
1	10-inch Stove Pipe Elbow for asphalt furnace kettle	1.00
6	lbs. Cotton Rope	1 20
169	feet 1-inch rubber hose, a 10.	16 90
7	lanterns	4 50
1	Coal oil can (glass)	50
1	Coal oil can (tin)	40
43	Sawdust sacks, a .05	2 15
1	Barrel	1 50
1	10-inch strainer	8 00
1	bath pan (for blue printing)	1 50
2	Tin cups, a .05	10
2	Buckets	70
6	⅝-inch Hersey meters, a $14.45	86 70
4	⅝-inch Worthington meters, a $15	60 00
1	1½-inch Worthington meter	55 00
	600 feet 2x4 lumber @ $8 and $1 cartage, used racking pipe	5 80
	1667 feet 2x4 lumber @ $8, stored in yard	13 34
	1648 feet 6x8 lumber @ $8, at reservoir No. 1	13 18
1	Asphalt kettle scaling bar	50
1	Dow duplex power pump, fittings and fixtures	807 45
		$1,638 69

Inventory of tools of the Astoria Water Commission, with approximate values—

1	Mueller taping machine and saddles	$ 95 00
2	1-inch Mueller combination drills and taps, @ $6.10	12 20
1	¾-inch Mueller combination drill and tap	5 00
2	⅝-inch Mueller combination drills and taps, @ $3 50	7 00
2	½-inch Mueller combination drills and taps, @ $3 25	6 50
3	⅜-inch Mueller combination drills and taps, @ $3 00	9 00
1	National tapping machine and fixtures	42 00
1	Walworth stock and die, 1¼ to 2-inch	9 00
1	Walworth stock and die, ¾ to 1-inch	6 75
1	No. 1 Barns pipe cutter	2 50
1	No. 5 Barns pipe cutter	19 85
1	No. 2 Saunders pipe cutter	3 50
1	Parker vice	18 80
1	Pair pipe tongs	4 00
1	Pair pipe tongs (Brown's)	1 50
1	Pair chain tongs (Brook's)	7 55
2	Handsaws @ $1.50	3 00
1	Compass saw	50
1	Man saw	2 75
2	Calking hammers, @ $1.50	3 00
1	Claw hammer	60
1	No. 8 Sledgehammer	1 00
1	Steel bar	1 50
2	Iron bars, @ $1	2 00
2	Pouring ladles, @ 75c and $5 each	5 75
1	Melting furnace	10 00
2	Melting pots, @ 90c and $1.40 each	2 30
27	Calking, cutting and yarning tools, @ 50c	13 50
3	Mattocks, @ $1.50	4 50
4	Picks, @ 90c	3 60
9	Shovels, @ $1	9 00
2	Axes, @ $1 25	2 50
1	Mason's trowel	90
1	Peavy	1 50
2	100-foot steel tapes	15 50
1	50-foot steel tape	4 50
2	50-foot metallic tapes, @ $2 45	4 90
1	Level rod for engineers	1 00
1	Steel rod for engineers	50
1	Steel square	1 00
2	6-inch pouring clamps, @ $3	6 00
1	Dipper	1 00
1	Grindstone	1 85
1	Jackscrew	3 75
5	Street brooms, @ 50c	2 50
2	Steel brace wrenches	3 50
1	1½-inch carpenter's chisel	60
1	Pair climbers and straps	3 75
1	Set come-alongs and 60 feet of rope	6 80
1	Set 6-inch blocks and 60 feet of rope	6 00
1	6-inch 3 shieve block	1 75
1	6-inch 1 shieve block	75
2	Paint brushes, @ 90c	1 80
4	Steel wire brushes at 65c	2 60
1	Concrete tamper	1 00
1	18-inch Stillson wrench	2 00
1	12-inch Franklin	1 50
2	8-inch monkey wrenches, @ 60c	1 20
1	Pair plyers	75
1	Screw driver	50
1	Oil feeder	50
5	Stop box keys	.....
6	Fire hydrant keys	.....
2	Valve keys, large, @ $4	8 00
2	Valve keys, small, @ 75c	1 50
1	Valve key at power house	3 50
1	6-inch combination gauge	9 40
1	Set connecting pipes for same	70
1	Hand lifter for gauge index	1 75
1	Steel stamp, A. W. W.	75
1	Hand push cart	6 50
	Tools at head works—	
1	Long handle shovel	1 00
1	Valve key	4 00
1	Lantern	75
1	Steel rake	2 50
1	Wharf broom	50
		$436.40

Inventory of supplies of the City Water Works, with approximate values—

209.9	feet 14 in. No. 12 steel riveted pipe	@ $ 1.00	$ 209 90
94.10	feet 16 in. No. 12 steel riveted pipe	1.05	98 81
62.70	feet 16 inch No. 10 steel riveted pipe	1 25	78 38
12	feet 18 inch cast iron pipe	2 24	26 88
26	feet 14 in. cast iron pipe	1 70	44 20
95	feet 12 inch cast iron pipe	1 35	128 25
34.4	feet 10 in. cast iron pipe	1.00	34 40
65.7	feet 8 in. cast iron pipe	75	49 28
2733	feet 6 in. cast iron pipe	57	1,557 81
992	feet 4 in. cast iron pipe	40	396 80
42.9	feet 12 in. Kalamein pipe	1 48	63 49
4.8	feet 8 in. Kalamein pipe	83	3 98
2796	feet 6 in. Kalamein pipe	57	1,593 72
666	feet 4 in. Kalamein pipe	40	266 40
22	feet 10 in. black Converse pipe	80	17 60
177	feet 8 in. Black Converse pipe	60	106 20
34822	feet 6 in. black Converse pipe	40	13,928 80
611	feet 4 in. black Converse pipe	25	152 75
7004	feet 6 in. Matheson L. J. pipe	40	2,801 60
318	feet 6 in. wrought iron pipe (screw)	40	127 20
1000	feet 6 in. cast iron pipe in Bondstreet, bet. Fourth and Eighth	40	400 00
214	feet 6 in. cast iron pipe in Eighth street, between Bond and Commercial	40	85 60
1339	feet 2 in. galvanized iron pipe	16	212 80
413	feet 1½ in. galvanized iron pipe	12	49 56
10	feet 1 in. galvanized iron pipe	08	80
40	feet ¾ in. galvanied iron pipe	07	2 80
20	feet ½ in. galvanized iron pipe	05	1 00
40	feet 6 in. Converse pipe (second quality)	20	8 00
11	feet 6 in. wrought iron pipe (second quality)	20	2 20
50	feet 4 in. cast iron pipe (second quality)	20	10 00
13	feet 3 in. wrought iron pipe (second quality)	15	1 95
3831	feet condemned 6 in. pipe	10	383 10
4	feet 6 in. expansion joints	20 00	80 00
3	Watrus fire hydrants	26 00	78 00
1	10 in gate for Converse pipe		26 00
1	6 in gate (screwed ends)		11 00
4	6 in. gates	11 00	44 00
3	6 in. gates (second quality)	7 00	21 00
17	4 in. gates	9 00	153 00
6	4 in. gates (second quality)	5 00	30 00
14298	lbs. special castings	04	571 92
29	6 in. wrought iron sleeves	1 00	29 00
1	10 in. to 8 in. reducer		5 00
1	6 in. 90 deg. elbow for screw pipe		3 00
1	6 in. 45 deg. elbow for screw pipe		2 50
2	6 in. plugs	1 00	2 00
1	6 to 3 bushing		1 25
1	10 in strainer (from old conduit pipe)		5 00
300	steel bands for 18 in stave pipe	09	27 00
300	shoes for 18 in. stave pipe	03	9 00
25	6 in. mending clamps	50	12 50
3	4 in. mending clamps	50	1 50
4	6 in. couplings	60	2 40
1	4 in. coupling		25
1	2½ in. coupling		15
22	2 in. couplings	10	2 20
12	1½ in. couplings	08	96
3	1 in. couplings	05	15
5	¾ in. coupling	05	25
3	½ in. coupling	05	15
1	2x2 ½x½ crosses		10
3	2 in. tees	12	36
1	1½ in. tees		10
6	½ in. tees	09	54
1	4 in. elbow		40
3	3 in. elbows	25	75
4	2 in elbows	10	40
2	1 in elbows	09	18
2	½ in. elbows	06	12
2	3 in. flange unions	1 00	2 00
1	1½ in. union		40
1	1¼ in. union		35
1	1 in. union		25
1	¾ in. union		20
1	4 in. cap		65
2	½ in caps	05	10
4	2 in. plugs	10	40
4	1½ in. plugs	06	24
2	¾ in. plugs	03	06
4	½ in. plugs	02	08
1	3 in. to 2½ in. reducer		30
1	2½ to 2 in. reducer		25
3	2 in. to 1½ in. reducers	20	60
4	2 in. to 1 in. reducers	20	80
1	3 in. to 2½ in. bushing		20
1	2½ in to 1½ in. bushing		15
1	2 in to 1½ in. bushing		10
1	2 in to 1¼ in. bushing		10
1	2 in. to 1 in. bushing		10
1	2 in. to ¾ in. bushing		10
6	3 in. nipples	30	1 80
1	2½ in. nipple		20
3	1½ in. nipples	10	30
2	1¼ in nipples	10	20
4	1 in. nipples	10	40
1	2 in. hose nipples		40
1	1½ in. hose nipples		30
1	1¼ in. hose nipples		25
1	1 in. hose nipples		15
1	¾ in. hose nipples		10
1	½ in. hose nipples		10
1	3 in. stop cock		3 00
1	1½ in. stop cock		1 00
2	1 in. stop cocks		50
1	2 in globe valve		2 00
6	2 in. gate valves	3 00	18 00
2	1½ in. globe valves	1 25	2 50
2	1½ in. gate valves	2 75	5 50
1	1 in. globe valve		1 00
1	½ in. globe valve		50
59	12 in. service clamps	1 80	106 20
31	10 in. service clamps	1 60	49 60
24	8 in. service clamps	1 05	25 20
51	6 in. service clamps	70	35 70
62	4 in. service clamps	65	40 30
130	service boxes (long)	81	105 30
158	service boxes (short)	72	113 76
5	1 in. Clow connections	3 70	18 50
15	1 in. corporation cocks	1 20	18 00
24	¾ in. corporation cocks	75	18 00
36	⅝ in. corporation cocks	53	19 08
65	½ in. corporation cocks	34	22 10
14	1 in. service cocks	75	10 50
30	¾ in. service cocks	45	13 50
60	½ in. service cocks	29	17 40
24	extra service box cover screws	17	4 08
3000	lbs. pig lead	04	120 00
5	barrels asphaltum	6 00	30 00
			$24,789 24

The "new system" of water works constructed by the Commission having now assumed a completed state as outlined, and into which such portion of the old system which was practicable has been merged, we beg now to report that the cost of this system in its entirety is $277,868.63.

Recapitulation of above cost—

Preliminary surveys	$ 6,713 62	
Location surveys	1,903 08	
Plans and specifications	2,852 60	
Consulting engineer	1,012 75	
Expense of advertising	290 45	
Expressage on bonds	412 50	
Water rights, riparian rights, rights of way, etc	33,095 37	
Cedar creek diverting ditch	409 00	
Expense of having James street extension established as street	1,091 25	
Expense clearing and making road in James street extension	10,019 71	
Expense of locating reservoir site	296 66	
Tunnel borings	82 50	
Telephone line	696 85	
Head works	2 219 95	
Pipe line (trenching and road making)	15,228 52	
Wooden stave conduit	28,401 77	
Steel conduit	29,004 14	
Gate well and power house	9,320 80	
Reservoir No. 1	6,870 83	
Reservoir No. 2	25,813 43	
Tunnel	7,475 06	
Distribution system	55,334 40	
Sixteenth street sewer	164 90	
Special police protection	151 50	
Engineering account	14,560 81	
Engineer's supplies	176 04	
Litigation	334 25	
Legal services	1,390 00	
Real estate	14,634 50	
		$277,868 63

This gives us a water system comprising the following:

Head works at Bear creek.

Conduit pipe 11 and 76-100ths miles long, 40,094 feet of which is 18-inch wooden stave pipe, 16,428 feet 16-inch steel riveted pipe, and 5,574 feet 14-inch steel riveted pipe.

Power and gate house situate at Reservoir No. 2.

Reservoir No. 1—capacity 500,000 gallons.

Reservoir No. 2—capacity 6,250,000 gallons.

Tunnel through Coxcomb ridge 900 feet long, lined with concrete.

Distribution system, consisting of the following:

890	feet 18-in. wooden stave pipe in tunnel.
591.5	feet 18 in. cast iron mains.
1984.9	feet 14 inch cast iron mains.
2718	feet 12 inch cast iron mains.
5188.3	feet 10 inch cast iron mains.
2997.3	feet 8 inch cast iron mains.
4374.6	feet 6 inch cast iron mains.
2690	feet 4 inch cast iron mains.
4452.1	feet 12 inch kalamein pipe mains.
2487	feet 8inch kalamein pipe mains.
2673	feet 6 inch kalamein pipe mains.
840	feet 4 inch kalamein pipe mains.
2199.8	feet 10 inch wrought iron mains.
2237.2	feet 8 inch wrought iron mains.
9695.3	feet 6 inch wrought iron mains.
1010	feet 4 inch wrought iron mains.
2127	feet 3inch galvanized iron pipe mains.
209	feet 1½ inch galvanized iron pipe mains.
633	feet 1 inch galvanized iron pipe mains.
1	14 inch hydraulic fire gate and fixtures.
1	10 inch hydraulic fire gate and fixtures.
90	Watrous fire hydrants.

Telephone line to head works via power house.

Real property as follows:

Property on which Reservoir No. 1 is situated.

Property on which Reservoir No. 2 is situated.

Property at Bear creek—20 acres.

Property at Cedar creek—10 acres.

Pieces of property along the pipe line within the city limits.

The remaining portion of the original works, consisting of conduit pipes and street mains, together with their fittings, etc., with the exception of 1214 feet of 6-inch cast iron pipe in Bond and Eighth streets, have all been taken out, cleaned, redipped in asphaltum, stored away in the yard, and accounted for in book.

SUMMARY.

Water works system (assuming it to be worth what it cost	$277,868 63
Stock of supplies	24,789 24
Loose property	1,638 69
Tools	436 40
Office furniture	938 29
Total estimated value of water works plant	$305,671 25

Very respectfully submitted.

THE ASTORIA WATER COMMISSION.

By W. W. PARKER, Chairman.

Attest: H. G. VAN DUSEN, Clerk.

The Sorthest Line To Omaha

Burlington Route

Kansas City, St. Louis and all southern and southeastern cities is the Burlington Route via Billings, Mont.

The quickest line to Omaha, Kansas City, St. Louis, and all southern and southeastern cities, is the Burlington Route, via Billings, Mont.

The cheapest line to Omaha, Kansas City, St. Louis and all southern and southeastern cities is the Burlington Route, via Billings, Mont.

Why take any other?

A. C. SHELDON, G. A., Portland, Oregon.

Do you know that the Daily Astorian added Fifty new paid subscriptions to its list during the month of January, 1897? This speaks for itself.