

Council Chamber, Ann Arbor, Mich., Feb. 16, 1920. Regular Session.

Meeting called to order by Pres. Lewis. Present: Ald. Heusel, Mayer, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 9. Absent: Ald. Sugden, Ehnis, Prochnow, Henderson, MacGregor 5. Minutes of previous meeting approved.

Communications From the Mayor.

Feb. 16, 1920.

To the Honorable, the Common Council, Gentlemen: I hereby announce the appointment of Carl Arnold and Robert Clark as patrolmen.

Respectfully yours,
ERNST M. WURSTER, Mayor.
Ordered on file.

From Water Commissioners.

Feb. 16, 1920.

To the Honorable Common Council, of the City of Ann Arbor, Mich. Gentlemen: This Department has placed the salaries of the employes of the Water Department per month as follows and respectfully ask your confirmation of the same, to take effect Feb. 1st, 1920.

Harry Willsher, \$117.50; Henry Walters, 99.88; Wm. Walters, \$88.13; Emanuel Sodt, \$141.00; Fred Linde, \$117.50; John Volland, \$88.13; John Schwikart, \$88.13 Leslie Bush, \$117.50; Norman Rowe, \$94.00; Robert Young, \$88.13; Arthur Hawkes, \$99.88; Clifford Shetterly, \$141.00; Louise Malloy, \$99.88; Russell Pryce, \$99.88 George S. Vandawarker, \$208.33; R. Spokes, \$208.33.

Respectfully submitted, Geo. J. Mann, John Lindenschmitt, Wirt Cornwell, Water Commissioners. Referred to Water and Finance Committees.

Enter Ald. Prochnow.

Communication from Ann Arbor Community Federation, requesting renewal of appropriation of \$600.00 for Community House and \$200.00 to help support work of City Visitor, received and referred to Finance Committee.

Committee Reports.

Finance Report.

Fire Fund

Chas. Andrews, salary\$76.65
Eugene Williams, salary 64.83
Ralph Edwards, salary 64.83
Henry McLaren, salary 61.50
Jacob Gwinner, salary 61.50

Harley Wise, salary 58.91
Frank Markey, salary 58.91
Herman Kruse, salary 58.91
Emil Dammin, salary 58.91
Matt Heininger, salary 58.91
Raymond Gillespie, salary 58.91
Floyd Naylor, salary 58.91
Earl Arnold, salary 58.91
Claud Cobb, salary 58.91
Fred Nordman, salary 58.91
Benj. Zahn, salary 58.91
Henry Nevroth, salary 54.68

Fire Fund total salaries ½
month Feb. \$1,032.00

Police Fund

Thos. O'Brien, salary 87.50
Wm. Aprill, salary 68.75
Ed Blumhart, salary 68.75
Frank Keihl, salary 68.75
Marlend Howard, salary 68.75
Fred Sodt, salary 68.75
Clyde Bennett, salary 68.75
Chas. Splitt, salary 68.75
Joseph Gast, salary 68.75
Frank Marz, salary 68.75
Geo. Randel, salary 68.75
Chas. Harden, salary 68.75
Carl Arnold, salary 29.19

Police Fund total salaries ½
month Feb.\$872.94
Ernest Casterline, special 45.00

Police Fund total\$917.94

Contingent Fund

M. C. Ryan, salary ½ month\$58.91

Engineer Dept.

Alfred Brown, services 1.00
James Mason, services 1.00
Vernor McAdam, services 2.50
H. R. Scovill, services 75.00

Total Engineer Dept.\$79.50
The Detroit Edison Co., city hall. \$ 35.05
Washtenaw Gas Co., city hall .. 4.71
Federation of Charities appro.

community house 50.00
Emily Zeeb, services 12.00
The Christian Mack Agency
insurance 24.00
Standard Oil Co., coupon books . 20.00
The Goodyear Drug Co., supplies 25.00
The Mayer-Schairer Co., supplies 7.30
Geo. Wahr, supplies 8.55
The Ann Arbor Times News
Printing 310.85
A. C. Marquardt Garage, stor-
age and repairs 12.20

Total supplies, etc\$509.66

Contingent Fund total in-
cluding salary\$648.07

Street Lighting

The Detroit Edison Co., light ..\$1,466.14

Water Works Fund

Harry Willsher, salary\$50.00
Henry Walters, salary 42.50
Wm. Walters, salary 37.50
Emanuel Sodt, salary 60.00
Fred Linde, salary 50.00
John Volland, salary 37.50
John Schwikart, salary 37.50
Leslie Bush, salary 50.00
Norman Rowe, salary 40.00

Robt. Young, salary	37.50
A. E. Hawkes, salary	42.50
Cliff Shetterly, salary	60.00
Louise Malloy, salary	42.50
Russell Pryce, salary	42.50

Total semi-monthly salaries ..	\$630.00
The Detroit Edison Co., thawing services	\$30.00
Crane Co., supplies	249.07
Schumacher & Backus, supplies ..	2.34
Dawson Bros, supplies	16.80
M. C. R. R. Co., freight	85.36
Washtenaw Electric Shop, supplies .....	.90
Eberbach & Son Co., supplies ..	2.10
Jas. B. Clow & Sons Co., supplies	71.25
Hutzel & Co., setting meter	1.75
John Moore, supplies	2.50
G. E. Washington, supplies	1.30
The Mayer-Schairer Co., supplies	76.25
Geo. Wahr, supplies	1.00
E. G. Mann, insurance	63.50
Cole & Huss, insurance	63.50
John R. Miner, insurance	15.00
F. T. McOmber, insurance	354.16
Wm. H. Murray, insurance	63.50
Clyde Apple, hauling coal	39.70
Water Works Dept. expenses ..	6.13

Supplies, etc.	\$1,146.11
Wm. Groves labor	40.00
F. Rhodenbecker, labor	29.70
J. Nimz, labor	22.50

Total labor

Water Works Fund total, including salaries

Special Water Works Fund

Holland, Ackerman & Hollands contract	\$60.78
C. H. Major & Co., supplies	17.50
L. E. Wenzel, supplies	2.50

Special Water Works fund total

Park Fund

John Davis, labor	\$23.20
Lyle E. Davis, labor	4.00

Park Fund total labor

Street Fund

Chris Allmendinger, labor	\$26.85
L. G. Bird, labor	56.65
Alfred Brown, labor	21.50
Jno. Gross, labor	22.50
Fred G. Hanselman, labor	48.75
Hilly Hughbanks, labor	22.50
Sam. Kalmbach, labor	3.50
Matt Koch, labor	15.75
Fred Malke, labor	22.50
James Mason, labor	39.50
W. H. Romig, labor	15.60
Geo. Zifle, labor	22.05
Jacob Young, team	9.78

Street Fund total labor

RECAPITULATION

Contingent	\$ 648.07
Fire	1,032.00
Police	917.94
Street Lighting	1,466.14
Water Works	1,868.31
Special Water Works	80.78
Park	27.20

Street

Total City Funds

Ann Arbor, Mich., Feb. 16, 1920.
To the Finance Committee of the Common Council,

Gentlemen I have examined the foregoing accounts against the city of Ann Arbor, and I hereby certify that they are correct to the best of my knowledge.

ISAAC G. REYNOLDS,
City Clerk.

To the Honorable, the Common Council, Gentlemen: Your Finance committee has reviewed the foregoing report. Warrants for salaries were drawn Feb. 16, 1920. We recommend that same be approved and that warrants be ordered drawn for the foregoing accounts.

GEO. LUTZ,
O. R. MAYER,

Finance Committee.

Ald. Lutz moved the adoption of report, which was adopted by following vote:

Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

Ald. Lutz presented the following estimate:

To the Honorable Common Council, Ann Arbor, Mich., Gentlemen: I submit herewith, the fourth estimate of the cost of preparing a comprehensive plan for a system of storm water drainage for the city of Ann Arbor, and recommend the payment of the amount due Hoad and Decker. Consulting Engineers, Contractors. Amount due \$1500.00.

Respectfully submitted, Geo. H. Sandenburg, City Engineer.

Moved by Ald. Lutz, that estimate be allowed and City Clerk instructed to draw warrant for amount due.

Adopted by following vote: Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

Fire and Finance Committee Report.

To the Honorable, the Common Council, Gentlemen: Your Fire and Finance Committees, to whom was referred the recommendation of the Fire Commissioners relative to compensation of employes of Fire Department, respectfully recommend that the compensation per month beginning February 1, 1920, shall be as follows: Chief, \$175.00; Assistant Chief and Engineer, each \$150.00; two Captains, each

\$143.00; first year firemen, each, \$125.00; after one year's service, each \$137.50.

Respectfully submitted, R. E. Reichert, Chris. T. Donnelly, O. R. Mayer, Geo. Lutz, Fire and Finance Committees.

Ald. Reichert moved the adoption of the report, which was adopted by following vote: Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

Police Committee Report.

To the Honorable, the Common Council, Gentlemen: Your police Committee has had under consideration several proposals to trade in Police Dept. car for a new car and respectfully recommend that proposal of Ann Arbor Garage to furnish one Dodge Bros. touring car with 32 x 3 1-2 cord tire for \$1,215.00 and allowing \$300.00 for old car be accepted.

Respectfully submitted, Geo. Lutz, S. Heusel, Police Committee.

Ald. Lutz moved the adoption of report, which was adopted by following vote: Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

Bond Committee Report.

To the Honorable; the Common Council, Gentlemen: Your Bond Committee has had the following plumber's bond under consideration and respectfully recommend that same be approved: C. C. Sessions, principal; Frederick Heusel, Fred J. Heusel, Jr., sureties.

Respectfully submitted, C. C. Freeman, Member of Bond Committee.

Ald. Freeman moved the adoption of report, which was adopted by the following vote: Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

Officers' Reports.

TREASURER'S REPORT

Month Ending Jan. 31, 1920

CITY FUNDS—

Receipts—

Contingent—Milk	\$ 5.00
Plumber	1.00
Bill Poster	25.00
Peddler	10.00
Theaters	230.00
Billiards and Pool ..	136.00
Bowling Alleys	40.00
Taxes	9.00

Manhole	2.59	
Rent on ward buildings	30.00	
Damage to Engineer car	13.89	
Interest on bank bal.	667.11	
Fees on tax col.	727.22	
		\$1,896.81
Police;—City fees	6.25	
Fine money	627.25	
		\$627.25
Street—St. sweeper ...	2.06	
Junk sold	3.00	
Plank	6.96	
		\$12.02
Park—Shrubs	28.41	
Spraying	2.75	
Rent	10.00	
		41.16
Sidewalk Building—		
Walks built by city	\$ 81.68	
Waterworks, from Manager of dept.	\$21,184.58	
Uncollectable City tax	4,789.94	
Totals	\$28,633.44	
On hand January 1, 1920	206,114.47	
		234,747.91
Warrants paid	32,241.87	
On hand Feb. 1, 1920	\$202,506.04	
Disbursements—		
Contingent	\$5,289.23	
City cemetery	92.25	
Dog license	2.00	
Fire Department	3,080.39	
Poor	79.51	
Police	1,693.40	
Street	1,409.75	
Water	5,698.25	
Park	354.13	
Street Light	1,521.93	
Bridge, Culvert and Crosswalk	66.45	
Waterworks	11,406.61	
Special Water Works	1,547.97	
Total	\$32,241.87	
On Hand—		
Contingent Fund	36,193.99	
City Cemetery	710.32	
Dog License	731.11	
State Dog Tax	100.00	
Fire Department	7,983.28	
Poor	913.40	
Police	8,225.19	
Street	8,913.52	
Water	1,197.81	
Park	1,761.08	
Street lighting	8,982.77	
Sidewalk building	52.14	
Bridge, Culvert & Crosswalk	24,907.16	
Waterworks	86,173.85	
Rejected tax	143.36	
Special Water Works	23,207.11	
Curb and Gutter No. 1	36.42	
Street Equipment and barn ..	1,039.20	
Totals	\$211,271.71	
Overdrawn—		
Uncollected Tax	\$ 1,739.31	
Delinquent Tax	5,663.56	

Curb and Gutter No. 2.....	1,019.04
Edward Street Grading	343.76
Total	\$ 8,765.67
Warrants Outstanding—	
Contingent	\$ 159.32
Street	145.64
Park	6.65
Water Works	134.13

Total	\$ 445.74
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STATE, COUNTY AND SCHOOL FUNDS—

Receipts—	
State tax collections	\$ 14,602.07
County tax collections	17,483.35
School tax collections	33,502.85

Totals	65,588.27
On hand Jan. 1, 1920	331,157.13

\$396,745.40

Checks paid	185,000.00
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On hand Feb. 1, 1920	\$211,745.40
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Disbursements—	
State Tax	\$40,000.00
County Tax	60,000.00
School tax	85,000.00

Total	\$185,000.00
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On Hand—	
State Tax	\$53,894.17
County Tax	52,421.39
School Tax	105,429.84

Total	\$211,745.40
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On hand Feb. 1, 1920	\$211,745.40
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SEWER FUNDS—Receipts—

Tax Account—	
Dist. No. 68	17.49
Dist. No. 72	861.67
Dist. No. 76	22.19
Dist. No. 79	24.64
Dist. No. 83	40.40
Dist. No. 84	1,886.27
Dist. No. 85	19.09

Totals	\$2,871.75
On hand Jan. 1, 1920	3,914.17

\$6,785.92

Warrants paid	1,291.50
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On hand Feb. 1, 1920	\$5,494.42
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Disbursements—	
Labor Account—	
Dist. No. 86	12.63
Dist. No. 89	547.99
Dist. No. 94	91.88
Tax Account—	
Dist. No. 75	639.00

Total	\$1,291.50
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On Hand—Labor Account—	
Dist. No. 68	477.27
Dist. No. 69	107.98
Dist. No. 71	70.29
Dist. No. 72	3,191.76
Dist. No. 75	94.98
Dist. No. 76	140.91
Dist. No. 77	102.49
Dist. No. 78	27.51
Dist. No. 86	217.29
Dist. No. 82	538.33

Dist. No. 86	205.23
Dist. No. 87	68.57
Dist. No. 88	430.31
Dist. No. 89	408.82
Dist. No. 90	2,133.38
Dist. No. 91	749.80
Dist. No. 92	573.00

Tax Account—	
Dist. No. 54	2.73
Dist. No. 59	215.65
Dist. No. 64	34.37
Dist. No. 65	25.03
Dist. No. 66	16.54
Dist. No. 67	89.33
Dist. No. 73	58.22
Dist. No. 78	32.10
Dist. No. 79	70.36
Dist. No. 82	411.85
Dist. No. 83	226.66
Dist. No. 84	32.60
Dist. No. 85	379.60
Dist. No. 86	131.64

Total	\$11,264.60
Overdrawn	\$ 5,770.18

\$ 5,494.42

Overdrawn—Labor Account—	
Dist. No. 70	\$ 165.74
Dist. No. 73	156.75
Dist. No. 74	28.83
Dist. No. 79	27.21
Dist. No. 81	37.60
Dist. No. 83	327.85
Dist. No. 85	223.75
Dist. No. 93	278.89
Dist. No. 94	91.88

Tax Account—	
Dist. No. 68	684.49
Dist. No. 69	38.55
Dist. No. 70	46.40
Dist. No. 71	54.48
Dist. No. 72	2,742.63
Dist. No. 74	14.59
Dist. No. 75	306.44
Dist. No. 76	214.68
Dist. No. 77	191.57
Dist. No. 80	127.90
Dist. No. 81	4.68
Dist. No. 87	5.27

Total	\$ 5,770.18
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Warrants Outstanding—	
Tax Account—	
Dist. No. 72	\$ 100.59

Total	\$ 100.59
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PAVEMENT FUNDS—

Tax Account—Receipts—	
Dist. No. 16	30.45
Dist. No. 17	9.26
Dist. No. 18	9.49
Dist. No. 19	6.81
Dist. No. 21	18.53
Dist. No. 23	8.94
Dist. No. 25	9.03
Dist. No. 26	9.47
Dist. No. 27	5.75
Dist. No. 29	14.50
Dist. No. 30	18.68
Dist. No. 34	14.29
Dist. No. 36	523.34

Total	\$ 678.54
On hand Jan. 1, 1920	72,302.13

\$72,980.67

Warrants paid	6,458.99	School funds	211,745.40
On hand Feb. 1, 1920	\$66,521.68	On hand, Sewer funds	5,494.42
Disbursements—		On hand, Pavement funds	66,521.68
Labor Account—		Total	\$486,267.54
Dist. No. 38	790.07	On hand, State Savings Bank, ..	\$481,655.87
Dist. No. 39	4,002.23	Cash on hand	4,611.67
Dist. No. 40	1,138.53	Total	\$486,267.54
Dist. No. 44	488.26	ROSS GRANGER, City Treasurer.	
Tax Account—		To the Honorable, the Mayor and	
Dist. No. 36	40.00	Common Council of the City of	
Totals	\$6,458.99	Ann Arbor, Michigan:	
On Hand—Labor Account—		The Board of Water Commis-	
Dist. No. 29	\$ 254.34	sioners have the honor to present	
Dist. No. 32	243.61	herewith the sixth Annual Report	
Dist. No. 36	1,854.01	of the Water Works Department	
Dist. No. 37	834.77	covering the fiscal year from Feb-	
Dist. No. 39	9,995.43	ruary 1, 1919, to January 31, 1920.	
Dist. No. 40	12,497.10	The policy of your Water Com-	
Dist. No. 41	13,217.81	missioners is to give its attention	
Dist. No. 42	309.01	first to the providing of a sufficient	
Dist. No. 43	12,713.85	quantity of water because of the	
Dist. No. 44	15,685.59	imperative need of adequate fire	
Tax Account—		protection, and secondly to the im-	
Dist. No. 11	789.70	provement of the quality of the	
Dist. No. 13	50.27	water supplies.	
Dist. No. 22	312.52	The past year has shown great	
Dist. No. 23	1,080.65	progress in accomplishing this pol-	
Dist. No. 24	4.41	icy. The No. 3 Pumping Station	
Dist. No. 28	675.66	(Steere Farm Development) was	
Dist. No. 32	235.25	put in service in the forepart of	
Dist. No. 33	256.74	July of the past year and since	
Dist. No. 34	2,035.72	August 1st, no water other than	
Dist. No. 36	2,486.25	from artesian sources has been	
Dist. No. 37	400.98	supplied the city. The co-opera-	
Total	\$75,933.67	tion and support of the city offi-	
Overdrawn	\$ 9,411.99	cials and of the citizens to the pol-	
On hand Jan. 31, 1920.....	\$66,521.68	icy of metering all consumers has	
Labor Account—Overdrawn—		shown exceptionally good results in	
Dist. No. 30	\$ 265.89	reducing the wastage of water and	
Dist. No. 31	126.15	will undoubtedly show further re-	
Dist. No. 35	267.24	sults when the metering work is	
Dist. No. 38	730.13	completed, thus conserving the sup-	
Tax Account—		ply of artesian water.	
Dist. No. 10	1,493.89	A considerable amount of ex-	
Dist. No. 12	214.40	tensions to the Distribution System	
Dist. No. 14	537.18	will probably be required during	
Dist. No. 15	659.20	the coming year to meet the rapid	
Dist. No. 16	931.46	growth of the city and to provide	
Dist. No. 17	37.81	for the future requirements in	
Dist. No. 18	702.63	streets soon to be paved.	
Dist. No. 19	211.43	NO. 3 PUMPING STATION	
Dist. No. 20	749.45	(Steere Farm).	
Dist. No. 21	887.82	The construction work on this	
Dist. No. 25	302.39	station which was in progress at	
Dist. No. 26 .....	.39	the time of the last annual report,	
Dist. No. 27	680.39	was completed and the station put	
Dist. No. 29	159.91	in service in July, 1919. This sta-	
Dist. No. 30	329.03	tion now contains one electrical	
Dist. No. 35	124.00	driven centrifugal pump, having a	
Total	\$ 9,411.99	rated capacity of 3,300,000 gallons	
State Savings Bank, Ann Arbor, Mich.		per day but is actually supplying	
Feb. 2, 1920.		at the rate of about 3,700,000 gal-	

This is to certify that the City Treasurer had on deposit at this bank at the close of business January 31, 1920, \$481,655.87.

C. J. WALZ, Cashier.

Recapitulation

On hand, City funds

\$202,506.04

On hand, State, County and

The construction work on this station which was in progress at the time of the last annual report, was completed and the station put in service in July, 1919. This station now contains one electrical driven centrifugal pump, having a rated capacity of 3,300,000 gallons per day but is actually supplying at the rate of about 3,700,000 gallons per day, but generally has not

been required to operate longer than 18 hours. Provisions are made at the station for the installation of a second pumping unit and during the coming year, after being satisfied as to the probable dependable supply that may be obtained from the wells, the Commissioners propose adding the second unit, thereby providing a reserve unit and increasing the pumping capacity of the station.

One operator's house is completed and is occupied by the chief operator. Within the coming year it will probably be necessary to construct an additional operator's house.

Present operations have indicated that the suction basin originally contemplated may not be necessary, although final decision is reserved on this matter until it is learned whether the effect of pumping the ground water level to the lowest limits will cause an inflow of sand.

WATER SUPPLY AT NO 3 STATION

When the Water Works Department began constructions at the No. 3 Station, the water level in the existing artesian wells was two to four feet above the normal ground surface and until the beginning of pumping there was no material change, other than the usual seasonal, of the water level in the wells. During the spring of 1919 the twelve 12-inch wells were driven but generally were not permitted to flow. Upon beginning pumping operations in July, the water level in these artesian wells was immediately lowered some 4 or 5 feet. During the fall the maximum draft on the wells lowered the water surface to about 6½ feet below the ground level. On January 31, 1920, following the prolonged cold weather, the maximum draft was about 5½ feet. During the six or more hours the station is not operating the water rises to practically the ground surface. The maximum draft permitted by the pump at the station would be about 25 feet below the ground level.

WATER RIGHTS AT NO. 3 STATION.

The City own the water rights at the No. 3 Pumping Station only on the City property, and should

the water level in wells other than the city property be affected by the pumping at the station, it has been held that the city is responsible for any damage resulting there from.

With this in mind, as soon as pumping operations appeared to affect the neighboring wells, your Commissioners acting with the Water Committee of the Council, the City Attorney and Engineer and the Mayor, and with the consent of the property owners, drove new wells with 5 inch iron casing to replace all pump wells where there appeared to be any likelihood of present or future damage from the lowering of the water level. In every case the new location of the cylinder of the pumps were below the level of the City pumps at the Station to ensure the pump getting water so long as the City pumps obtained water. These wells were driven on the following farms: W. E. Hutzel, Amos E. Lohr, Geo. Wilsey, Miss C. Davison (L. Breisch).

There were a few properties adjacent to the force main where services were given through meters, name y at A. Schenk and J. Lawrence farms to replace former pump wells.

In addition to the pump wells there were a number of former flowing wells in which the water had lowered to or just below the surface of the ground, of which those on the Osborn, East Bros and James Steere farms had been used for irrigation, and those of J. Lawrence, James Steere, Mrs. Joseph Steere, Augustine, Canby, and C. Davison (L. Breisch) had been used for household or for watering stock.

Gasoline driven pumping outfits were purchased, set up and piped for the Osborn and East Bros. farms. James Steere, Augustine and Canby were supplied through meters from the 20 inch force main and a pump and tank were installed at the C. Davison (L. Breisch) pasture.

In none of the above cases have the property owners released the City from any claims of past or future damage in connection with their water rights. The water supplied to the above services from the force main during the fall to about December 15th, amounts to 1,700,000 gallons, which if sold to

consumers in the city at rates approximating cost would be equivalent, to \$250.00. The cost of the labor and materials of the work on these properties to date is \$3,714.50, and there are on file to date some \$19,283.66 claims of damage on account of water rights for the past year.

Inasmuch as the City has the right of eminent domain and may condemn the properties, thus acquiring the water rights with the properties and can later dispose of the farm property retaining the water rights, we respectfully recommend a bond issue sufficient to acquire such properties as may be affected by the pumping operations.

No. 2 PUMPING STATION (Washington Street).

The pumping equipment at this station consisted of a 1,500,000 gallon per day steam driven, duplex, double acting pump installed in 1896 or 7 and now obsolete, and a 2,000,000 gallons per day steam driven pumping engine installed in 1907. All fuel for this Station must be teamed from the Ann Arbor Railroad siding. The difficulty in obtaining fuel and having it teamed, together with the poor economy obtained by the steam installation, convinced the Commissioners of the advisability of replacing the obsolete steam pump with an electrically driven unit.

A contract was, therefore, let for the purchase of such a unit. This unit is in place and will be ready for operation within a week or so, thereby permitting the 2,000,000 gallons per day steam pumping unit to be put in reserve. This change to electric drive will also permit the semi-automatic operation of the station requiring less continuous attendance. A Liquid Chlorine outfit at the suggestion of the State Board of Health, has been added to this station for emergency use in chlorinating the water.

WATER SUPPLY AT NO. 2. STATION.

All the water at this station is obtained from artesian wells. The wells and collecting system, however, are far from satisfactory and it is intended during the summer to do such cleaning of wells, reconstruction and the like, as will

put the water supply on a par with that of No. 3 Station.

NO. 1 PUMPING STATION (Barton Dam).

This station has been held in reserve during the latter part of the past year. During the coming year it is intended to shut down the steam entirely and to operate the electrical pumps for sufficient period each day to deliver the artesian water from this station to the distribution system, thereby keeping those reserve pumps in first class condition.

RESERVOIR.

In July, 1919, after putting the No. 3 Pumping Station in service, your Commissioners believing that there was then sufficient pumping capacity to supply the city by direct pressure, cleaned the Chubb Road Reservoir. The reservoir had not been cleaned for about 20 years and notwithstanding the long period of use, there was not an excessive amount of sediment. The cleaning was accomplished with the City fire hose and pumping engine, the sediment being of a clayey nature and very difficult to remove from the round loose boulders. There is some seepage from this reservoir through the earthen embankment and, as suggested in our last report, in the near future this basin should be lined with concrete.

A new overflow was constructed of 12 inch cast iron pipe replacing the former 6 inch sewer tile.

During the cleaning period which lasted about 5 days, it was found that pumping at the rate of 9,500,000 gallons per day together with the storage of the elevated tank, was not sufficient to supply the 3 hour evening sprinkling period. It was estimated that at least 15 million gallons per day of pumping capacity would have been required to maintain normal pressure over this 3 hour period. This indicates the great value of the reservoir to the system in taking care of the hourly fluctuations. The reservoir capacity, however, is now about equal to one day's supply, and at some future period additional capacity will probably be required. The ground water containing some iron, should be stored in a covered reservoir to prevent the growth of algae that develop in the sunlight,

and eventually the reservoirs will require covering.

DISTRIBUTION SYSTEM.

The additions to the distribution system during the past year amounted to 3,189 feet of 6 inch cast iron pipe, being less than in previous years. This was due to the large amount of extra work entailed in placing mains and services in streets being paved and to the shortage of labor and difficulties in obtaining materials. The policy of the Commissioners regarding additions to the plant, as expressed in the last report, is to restrict expenditures per year from the consumers' revenues to 10 percent of the Gross Revenues, believing that a 10 percent net profit on the business done is all the consumers should be required to pay.

FINANCIAL.

The revenue from operation of the past year amount to \$106,580.22 an increase of \$6,631.66 over the previous year. A complete summary of the financial operations is shown in the following table:

Summary of Financial Operations.

REVENUE

Operating ..\$105,896.01

Miscellaneous 684.21

Income from

Operation 106,580.22

Non-Operating 3,139.60

Unamortized

premium on

bonds ... 6,384.39

Gross revenue\$116,068.21

EXPENSE.

Operation ...\$38,192.13

Maintenance 3,013.32

Non-operating expense—

General ..\$ 684.21

Abandoned

property 1,050.50

Deferred op-

erating .. 7,695.61

Total expense\$ 50,635.77

Net earnings from oper-

ation\$ 65,432.44

Deductions from Operation:

Interest on

funded

debt\$32,780.00

Deprecia-

tion 11,512.37

Plant addition

from earn-

ings 19,920.21

Total deductions from

earnings\$ 64,212.58

Net gain from operation,

Jan. 31, 1920..... 1,219.86

Net gain from operation,

Jan. 31, 1919..... 1,528.78

Balance surplus earn-

ings, Jan. 31, 1920..\$ 2748.64

METERS.

Immediately after the funds from the bond issue for meters was put at the disposal of the Commissioners, contracts were placed for water meters and for their installation, the latter contracts being placed with the master plumbers of the city. These meters are now being installed, about one-half of the work being now completed, and it is expected that the balance will be installed during the spring.

With all consumers metered there will be no set sprinkling hours, and it is expected that all consumers will have better service by the elimination of the restricted hours.

The report on the rates to be charged is still in the hands of the Engineering Committee, who are expected to complete it in order to put it into effect beginning with the April first quarter.

CONCLUSIONS.

The Commission take this opportunity to commend the loyalty and co-operation of the employes of the Department during the past year.

The detailed report of George S. Vandawarker, Manager of the Water Works Department, for the fiscal year ending February 1, 1920, is attached hereto.

Geo. J. Mann, John Lindenschmitt,
Wirt Cornwell, Commissioners.

ANNUAL REPORT OF WATERWORKS DEPARTMENT FROM

FEB. 1, 1919, TO FEB. 1, 1920.

Operation.

Station No. 1, salaries and supplies\$ 4,122.48

Station No. 1, sterilization 513.58

Station No. 1, power 5,769.00

Station No. 2, salaries and supplies	3,031.22
Station No. 2, fuel	2,567.80
Station No. 3, salaries and supplies	2,305.54
Station No. 3, power	6,633.41
Station No. 3, water rights	62.85
Expense general	5,649.30
Expense office, salaries and supplies	5,970.18
Utilities expense	903.54
Insurance	663.23

\$ 38,192.13

Maintenance.

Repairs station No. 1	\$ 66.40
Repairs station No. 2	96.86
Repairs mains, hydrants and valves	686.39
Repairs services	1,033.83
Repairs meters	105.79
Repairs reservoir	1,024.05

\$3,013.32

Miscellaneous Charges.

General	\$ 684.21
Abandoned property	1,050.50
Deferred operating	7,695.61

\$ 9,430.32

Total operating		\$ 50,635.77
Interest on bonds		32,780.00

\$ 83,415.77

Revenue.

Flat rates	\$ 68,574.89	
Meter rates	34,993.79	
Meter rentals	215.05	
Service taps	1,773.28	
Mason work	226.00	
Shuts. i. e. off and on	113.00	\$105,896.01

Non-Operating Revenue.

Unamortized premium on bonds	6,384.39
Miscellaneous	\$ 3,787.81

\$ 10,172.20

Gross revenue		\$116,068.21
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Less—

Operating	\$ 38,192.13	
Maintenance	3,013.32	
Miscellaneous charges	9,430.32	
Interest on bonds	32,780.00	
Depreciation	11,512.37	94,928.14

Operating net profit

\$ 21,140.07

Value added to plant, 1914, (from earnings) ..	\$ 19,760.93
Value added to plant, 1915, (from earnings) ..	21,233.28
Value added to plant, 1916, (from earnings) ..	46,676.73
Value added to plant, 1917, (from earnings) ..	89,289.86
Value added to plant, 1918, (from earnings) ..	14,773.13
Value added to plant, 1919, (from earnings)	\$ 19,290.21
Value added to plant, 1919, bonds	295,730.68
	315,020.89

Total additional value		\$506,754.82
Original cost		450,000.00

Total cost of plant

\$956,754.82

Depreciation reserve, 1914 to 1918	\$ 37,207.13	
Depreciation 1919	11,512.37	48,719.50
		<hr/>
Value of plant to date, Jan. 31, 1920.....		\$908,035.32

Value Added to Plant, 1919.

Extensions and construction—		
Station No. 1	\$ 63.65	
Station No. 2	619.39	
Station No. 3	60,917.71	
Distribution	186,099.90	
Reservoir	188.70	
Water supply	63,897.33	
Tools and construction equipment	1,208.80	
Office furniture and fixtures	1,143.51	
Utility equipment	881.90	
		<hr/>
		\$315,020.89

Income.

1914	\$ 80,489.45
1915	88,045.44
1916	95,591.91
1917 (sprinkling curtailed)	94,090.94
1918	100,615.63
1919	106,580.22

STATEMENT OF AFFAIRS.

Assets.	Liabilities.
Fixed assets—	Fixed liabilities—
Cost of plant	Bonds payable
\$956,754.82	\$780,000.00
Current assets—	Budget ap-
Cash on	prop. ...
hand\$ 550.14	21,616.00
Treas. bal. .. 92,146.83	\$801,616.00
Special de-	Accrued liabilities—
posit	Interest on funded debt ..
22,000.00	\$12,260.00
Accounts rec. 2,593.83	Current liabilities—
Prepaid ac-	Accounts payable
counts	\$12,162.19
541.78	Reserves—
117,832.58	Sinking fund
	\$22,000.00
	Depreciation
	48,719.50
	70,719.50
Total assets	Total liabilities
\$1,074,587.40	\$896,757.69
	Surplus in
	plant ...
	\$166,355.81
	Net profit
	1919
	11,473.90
	<hr/>
	Present capital
	\$177,829.71
	<hr/>
	\$1,074,587.40

Miscellaneous Reports.

Gallons of water pumped for Flat Rate consumers, fire pur-	
poses, and flushing sewers	842,331,732
Gallons pumped through meters	326,973,268

Total number of gallons pumped during 1919.....	1,169,305,000
Number of Flat Rate consumers	4,515
Number of meters in use	521
New meter consumers for 1919	58
New house connections for 1919.....	113
Hydrants paid for by city ..	258
Free hydrants	30
New hydrants installed in 1919	3

Meters In Use.

Size	5/8"	3/4"	1"	1 1/2"	2"	3"	4"	6"	Total
Number of meters	160	172	80	24	67	7	9	2	521

Water Pumped From Feb. 1, 1919, to Feb. 1, 1920.

	Station 1.	Station 2.	Station 3.	Total.	Average daily con- sumption
February ..	76,976,000	14,000,000	.....	90,976,000	3,249,142
March	83,233,000	15,500,000	.....	98,733,000	3,184,935
April	72,698,000	15,000,000	.....	87,698,000	2,923,666
May	79,041,000	15,500,000	.....	94,541,000	3,049,709
June	72,323,000	15,000,000	21,041,000	108,364,000	3,612,133
July	60,970,000	15,960,000	43,408,000	120,338,000	3,881,871
August	8,560,000	15,244,000	77,508,000	101,312,000	3,268,129
September	298,000	14,339,000	82,586,000	97,223,000	3,240,766
October . . . . .	.....	15,420,000	82,669,000	98,089,000	3,164,161
November . . . . .	.....	14,873,000	74,353,000	89,226,000	2,974,200
December .. . . . .	.....	13,447,000	74,338,000	87,785,000	2,831,774
January	7,077,000	16,902,000	71,041,000	95,020,000	3,065,161
				1,169,305,000	3,203,570

The following extensions were made in 1919:

- 930 feet of 6-inch pipe on Wall St., from Fifth Ward school toward river.
- 820 feet of 6-inch pipe on Detroit St., from Catherine to Kingsley.
- 786 feet of 6-inch pipe on Boulevard Drive from S. State to Cook Spring Co.
- 653 feet of 6-inch pipe on Jackson Ave., from fire hydrant to city limits.
- 156 feet of 2-inch pipe on Wells St., from Ferdon Rd. to Baldwin Ave.

Water Mains in Ann Arbor City.

	20"	16"	14"	12"	10"	8"	6"	4"	¾" to 2"
1918	11707	26211	5584	18996	4291	11452	199321	19992	42305
1919	5987	12					3189		156
	17694	26223	5584	18996	4291	11452	202510	19992	42461

Respectfully submitted: WATER WORKS DEPARTMENT of the City of Ann Arbor, by Geo. S. Vandawarker, manager.

Reports of City Treasurer, Clerk and Acting Marshal for month of January and annual report of Water Works Dept. received and ordered to take usual course.

Ann Arbor, Mich., Feb. 16, 1920. The Board of Water Commissioners, Ann Arbor, Mich., Gentlemen: The Engineering Committee of whom was requested a recommendation as to the rates to be charged for water with a completely metered system, respectfully report that the rate is not entirely completed but that it will be completed before March 15th. Yours respectfully, Engineering Committee, H. K. Holland.

By Ald. Chris. T. Donnelly:

Resolved, that the salary of Mr. M. C. Ryan, sanitary policeman, be \$137.50 per month, beginning with Feb. 1, 1920.

Adopted by the following vote: Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

By Ald. Mayer:

Resolved, that the Railway Committee be instructed to take up the

matter of having guard gates placed at the intersection of Ann Arbor Railroad and all streets between and including Liberty st., and Madison st.

Adopted by the following vote: Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

By Ald. Lutz: Resolved, that this body does hereby declare for a general revision of the Charter of the City of Ann Arbor.

Resolved, further, that the question of a general revision of the Charter of the City of Ann Arbor be submitted to the electors of said City at the general city election to be held on the fifth day of April, 1920 and that at said election a charter commission be elected for the purpose of revising said charter.

Resolved, further, that the City Attorney is hereby directed to prepare the necessary resolution for the submission of said question to the electors on said date.

Adopted by the following vote: Yeas, Ald. Heusel, Mayer, Proch-

now, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

By Ald. Lutz:

Whereas, this Council has declared for a general revision of the Charter of the City of Ann Arbor by the required vote, therefore, be it

Resolved, that the proposition of a general Charter revision of the Charter of the City of Ann Arbor be submitted to the electors at the general City election to be held on the Fifth day of April, 1920.

Be it further resolved, that the polling places shall be as follows: First Ward, The Voting Room Basement of City Hall; Second Ward, Ward building on South Ashley St; Third Ward, Ward Building on Miller Avenue; Fourth Ward, Voting Room, Basement of Armory, Fifth Avenue; Fifth Ward, Ward Building, Corner of Swift and Pontiac Streets; Sixth Ward, Voting Room in Old Engine House on East University Avenue; Seventh Ward, First precinct, Ward Building on Mary St.; Second Precinct, Voting Room in Eberbach School, Corner of Wells Street and Forest Avenue.

Resolved, further, that the polls shall open at Seven o'clock a. m., and remain open until Eight o'clock p. m. and that the Supervisors and Aldermen act as election inspectors according to the Charter.

Resolved, further, that the bal-

lots shall be of white paper of equal width and length and shall read as follows:

For a general revision of the City Charter

Yes ()

No ()

Resolved, further, that at said election there shall be elected a Charter Commission as follows:

One Commissioner from each ward of said City, and four Commissioners at large.

Resolved, further, that the canvass and termination of said votes be made pursuant to State law and City Charter.

Resolved, further, that the City Clerk is hereby directed to prepare the ballots for said election and to make all necessary arrangements for said election.

Adopted by the following vote: Yeas, Ald. Heusel, Mayer, Prochnow, Donnelly, Spathelf, Moore, Freeman, Lutz, Reichert, Pres. Lewis, 10. Nays, none.

Moved by Ald. Lutz, that Mayor and President of Council be appointed a committee to ascertain if it is advisable to adopt Eastern time during the summer months. Adopted.

Moved by Ald. Lutz, that the Chamber of Commerce be requested to circulate nominating petitions for candidates for Charter Commissioners. Adopted.

On motion of Ald. Donnelly, Council adjourned.

ISAAC G. REYNOLDS.

City Clerk.