COUNCIL PROCEEDINGS.

[OFFICIAL]

COUNCIL CHAMBER, Ann Arbor, Mich., Sept. 7, 1891.

Regular meeting.

Council met and was called to order by the president.

Roll called: A quorum present.

Absent—Ald. Ferguson and Rehberg.

Minutes of previous meeting read and approved.

COMMUNICATIONS FROM THE MAYOR.

CITY OF ANN ARBOR. MAYOR'S OFFICE. August 19, 1891. (To the Honorable, the Common Council:

I herewith return to you, with my disapproval, so much of the record of your proceedings at your last stated meeting as relates to the purchase of a map for the walls of the Council Room at an expense of one hundred and sixty dollars.

The contingent fund, out of which this expense must be borne, is already overdrawn and I respectfully ask your honorable body to forego your personal convenience in this matter until such time as the city's financial condition will warrant so large an outlay for objects which are undoubtedly artistic, but whose utility is not always measured by the cost of their production.

Respectfully,

WM. G. DOTY, Mayor. Ald. Kitson moved that the communication be laid on the table, to be taken up later in the evening, which motion prevailed.

CITY OF ANN ARBOR, MAYOR'S OFFICE, August 19, 1891. To the Honorable, the Common Council:

GENTLEMEN:—I herewith return to you with my disapproval so much of the record of your action at your last stated meeting as relates to the following resolution:

"By Ald. Wines.—Resolved, that the sum of three hundred and fifty

dollars be and the same is hereby appropriated from the street fund for coping on South University avenue.''

While I am of the opinion from personal inspection that the expenditure of this sum of money would materially add to the attractiveness of that beautiful avenue, I am yet reminded that the condition of the city's funds, as shown by the last report of the Treasurer, is not such as will warrant the expenditure of public money during the remainder of the fiscal year for objects which are more largely ornamental than necessary.

In this connection I take the liberty to quote from the Report of your Committee on Streets, made to your honorable body at your meeting August 3rd inst. and adopted by you the same evening:

"The coping on South University avenue is a matter which may be deferred until next year to advanvantage."

I am convinced that your Street Committee gave the subject their careful attention and that their expert opinion is worthy of your thoughtful consideration.

A perusal of your late proceedings discloses the fact that your honorable body reconsidered the vote by which the said Committee report had been adopted, but I find no record of the reconsideration of the report itself.

Had such action been had, I am confident that your wise and deliberate judgment would, again, have been adverse to the appropriation.

Respectfully,

WM. G. DOTY, Mayor.

Ald. Hall moved that the communication be layed on the table, to be taken up later in the evening, which motion prevailed.

CITY OF ANN ARBOR, MAYOR'S OFFICE, August 19, 1891. { To the Honorable, the Common Council:

GENTLEMEN:—I herewith return to you with my disapproval so much of the record of the proceedings of your honorable body, at your last stated meeting, as relates to your action in regard to culverts on Hill street, Fifth street, and Felch street in said city.

Reference to the report of your Street Committee made to your honorable body August 3, inst., and adopted by you the same evening, discloses the following statement in regard to these culverts:

"In regard to the culverts, we think that inasmuch as the streets are little frequented and a small outlay for planks and timbers would put them (the culverts) in as good a condition as new, it is not advisable at this time to undertake the construction of entirely new culverts."

I fail to find in the record of your proceedings any reversal of your deliberate, legislative judgment of August 3, the vote by which that report was adopted having only been reconsidered and not the report itself. To my mind the record does not show even a substantial compliance with the provisions of Section 137 of the Charter in regard to public improvements and the expenditure of money therefor.

In view of the large overdraf upon the street fund, now amounting to over \$5,000.00 (a pleasant fiction for a debt of that amount in this department) and in view of what I can but conceive to be inconsiderate action on your part which your calmer judgment wolud refuse to approve, I respectfully ask a continuance of your efforts for municipal economy in the lines suggested by your committee.

From personal inspection I am convinced that all of the aforesaid culverts could be advantageously repaired at slight expense, except possibly the Felch street culvert, where the necessity is greater; for the repair of this culvert I especially bespeak the considerate attention of the authorities, to the end that the public convenience and safety may there be preserved and assured.

Respectfully,

WM. G. DOTY, Mayor.

Ald. Kitson moved that the communication be laid on the table, to be taken up later in the evening, which motion prevailed.

ANN ARBOR, MICH., Sept. 5, 1891. To the Hon. the Common Council:

GENTLEMEN: The subjoined correspondence between myself and the City Attorney, relating to act No. 193 Session Laws of 1889 (Soldiers Relief) and the powers and duties of the Common Council and City officers thereunder is respectfully submitted to your honorable body with the recommendation that the aldermen individually and the Council as a body take such proper proceedings in the premises as are required by law.

WILLIAM G. DOTY, Mayor.

ANN ARBOR, MICH, Aug. 29, 1891. Hon. Ezra B. Norris, City Attovney:

SIR: Certain warrants upon the Soldiers Relief Fund in the city treasury, having been presented to me for my countersignature, and I being of the opinion that the provisions of the statute (Act 193 Laws of 1889) have not been sufficiently observed as yet to authorize the legal issuance of such warrants, I respectfully refer said act to your notice and ask your official opinion as the city Counseller as to the duty of the Common Council and the city officers in the premises.

Respectfully,

WM. G. DOTY, Mayor.

CITY ATTORNEYS OFFICE, ANN ARBOR, Sept. 5, 1891.

Hon. Wm. G. Doty, Mayor:

DEAR SIR: Your note of Aug. 29th, calling my attention to act No, 193. Session Laws of 1889, relating to the relief of honorably discharged and in-

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digent Union soldiers, sailors and marines outside of the Soldiers Home, and requesting a short statement of the manner of its execution has been duly considered. duly considered. doubtless for the purpose of collecting the money on the then next city roll. Many of the cities and probably all villages of the state collect their city tax during the summer months and

Section 3 of said act requires that during the month of May the aldermen of each ward shall make a list of all the persons resident in their respective wards entitled to aid and deliver such list to one of their number who shall meet with the Soldiers Relief Commission of the county, and together certify such list to the Common Council, along with their estimate of the money required for such fund That thereafter the during the year. Commission and Council are required to meet and jointly determine from such certified list who are entitled to relief and fix the amount per month. After such determination it is a duty of the Council to certify to the list so determined to the City Clerk, who is then and only then authorized to draw his warrant on the Relief fund in favor of the persons named in such certificate and for the particular sum stated therein.

There is also a provision in the statute for emergency relief so called, which is not important in this connection.

On inquiry I find that no action has been taken during the present year by either the aldermen. Relief Commission or Common Council. I also find that there is money on hand belonging to the Relief fund. That there are many deserving persons resident within the city who are justly entitled to relief and that applications for such relief are now pending as suggested in your communication.

This state of facts raises the single question, can the aldermen, Commission and Council now authorize relief, they having neglected to make the list during the month of May as required by law? I do not doubt but that they may do now what the law made it their duty to do at another time.

There can be no question but that in so far as to the money which is now in the fund it could be lawfully paid out of a list made at this late day. It could be of no importance when the list was in fact made; the only important thing in this connection being that it be made by the proper officers.

The reason for requiring the list to \$425, and be made in the month of May was adopted:

doubtless for the purpose of collecting the money on the then next city roll. Many of the cities and probably all villages of the state collect their city tax during the summer months and the estimate of the amount of money required for this particular fund was thus required to be on file in time to be made a part of the regular city tax levy.

The city of Ann Arbor, as you are advised. collects its city tax at the same time and on the same roll with the state and county taxes. I am therefore of the opinion that if the estimate is on file in time to be certified along with the regular city tax levy, the certification will be in all things regular and the tax for this particular fund a legal one. I am also of the opinion that the various officers and boards charged with the execution of said Act may now lawfully proceed to perform their respective duties. That payment out of the fund now on hand. the Council and Commission having first certified a list to the City Clerk, will be lawful. And the estimates having been certified, the next tax levy for this fund valid.

All of which is respectfully submitted.

Respectfully yours,

E. B. NORRIS, City Attorney.

Ald. Hall moved that the communication be received and placed on file, which motion prevailed.

PETITIONS AND COMMUNICATIONS.

To the Common Council:

We, the Board of Public Works, respectfully recommend that the following sidewalks be ordered built:

On Observatory street from Geddes avenue to Ann street.

On Ashley street, west side, from Madison to Williams street, and the following sidewalks be renewed in front of the following property: Patrick McNally, on Catherine street, west; Mary Ann Bourns, W. W. Whedon, Agt., on Catherine street, east.

We further recommend, and hereby submit, plan and specifications, of proposed new Iron Bridge, No. 3, for your inspection and approval.

The bids for repairs of Bridge No. 2 were found to be as follows: C. Helber, \$485, and Wisner & Renchler, \$425, and the following resolution was adopted:

) '

Whereas. The two bids for repairs on Bridge No. 2 are higher than work is worth, as estimated by Street Commissioner Sutherland, therefore be it

Resolved, That we recommend to the Common Council that the bids of Helber and Wisner & Renchler be rejected and we further recommend that the work be made under the direction of Street Commissioner Sutherland.

Respectfully submitted,

By order of the Board of Public Works.

W. J. MILLER, Clerk.

Referred to Street and Sidewalk Committees.

A petition signed by A. C. Nichols and seventeen other residents and property holders of the City of Ann Arbor, asking for the location of an electric street lamp at the corner of Geddes avenue and Hill street.

Referred to Lighting Committee.

A petition signed by Noah G. Butts and twelve other residents and property holders of the City of Ann Arbor, asking for the location of a fire hydrant on the corner of Washington and 14th streets.

Referred to Water Committee.

A remonstrance relative to the erection of the Standard Oil Company's receiving tanks on Felch street received and referred to the City Attorney. REPORTS OF STANDING COMMITTEES.

FINANCE.

To the Common Council:

Your Committee on Finance respectfully report that they have had the following bills under consideration and would recommend their allowance at sums stated.

CONTINGENT FUND.

W, J. Miller, salary	66	66
E B, Norris, "		00
Dr. E. A Clark, salary for May, June		
and July	25	00
Wm. A. Thorpe & Co., rubber stamps.	2	10
J. L. Skinner, type writing. (sewer re-		
port)	3	50
Geo. Wahr, supplies, per Jas. R. Bach	25	10
Ann Arbor TH, Electric Co., street		. 1
lighting	588	90
Ann Arbor TH. Electric Co, city		
clerk's office	2	00
Geo. Wahr, supplies, per W. J. Miller,		
from April 1851	19	35
James Kearns, abstract work	3	00
Sid W. Millard, printing	2	50

Jacob Starks, 1 month's salary and cleaning old carpet	9	33
W. W. Watts, repairing type-writing	1	25
William Herz, supplies		40 92
A. A. TH. Electric Co., moving poles	_	75
W. J Miller, express charges	2	20
S. W. Beakes, printing	48	40
(Trotal)	091	96

STREET FUND.

Nelson Sutherland, salary,	66 66
Smith Motley, W. J. Just, lumber	50 00
W I Just lumber	72 94
Geo. Wahr, supplies for Engineer.	
Geo. wanr, supplies for Engineer.	
Frank Sutherland, labor	33 14
M. B. Murphy, labor	3 00
M. Schneider, labor	75
Anton Shaffold, labor	4 50
Douglas Bycraft, labor	1 50
Doughas Byerart, fabor	
Geo. Devine. labor	3 00
Frank Shultz, labor	6 00
Herman Bucholz, labor	7 50
Herman Luepka, labor	1 00
Karl Yarndt, labor	15 38
Oberley Dedko Johon	
Charles Radke, labor	28 28
Willis Clark, labor	31 16
Wm. Kuehn, labor	26 78
Micuael Kinney, labor	22 28
J. Drake, labor	31 10
F Williams Jahan	
E. Williams, labor	43 16
Patrick McCabe. labor	43 95
Joseph Hutzel, labor	25 23
Michael Williams, labor	36 91
lacob Michanfielder, Jahor	29 18
Jacob Michenfielder, labor Wm. Cleaver, janitor 6th ward engine	29 10
	10 50
house	12 50
Wm. Nimps, labor	36 78
Wm. Nimps, labor Gustave Walters, labor	26 78
Nelson Sutherland, horse and cart	26 07
	13 75
Joseph McCabe, horse and cart	
Hiram Kitredge, teaming	48 43
Richard Burns, teaming	16 98
Daniel Crawford, teaming	$15 \ 05$
P. D Rogers, teaming	3 50
W H Wolls teaming	14 00
W. H. Wells, teaming	
John McHugh, teaming	6 48
Geo. Leonard, teaming	17 50
Jacob Hauser, teaming,	1 40
Thomas Hannon, teaming	3 50
Mathew Schnierle, teaming	23 98
Michael Kusterer, teaming	175
Michael Kusterer, teaming	
Caspar Rinsey, 11 bbl salt, etc	11 10
Wm. Allaby, boxes	60
F. M. Hallock, lumber	3 22
John Baumgardner, stone	90 04
Michael Staebler, repairs	16 35
Goo Manadan panajna	
Geo. Marsden, repairs	7 60
T. L. Hewitt, building sidewalk	69 53
Geo. B. Schwab, specification for bridge	3 00
Emil Baur, street sweeping	10 00
Emil Baur, street sweeping W. G. Snow, use of hack by B. of P.	
Works	2 50
John Burns, labor	$\tilde{1} 50$
John Burns, labor	_ T 90

Total..... .\$ 1 069 10

FIRE DEPARTMENT FUND.

2 10	Fred Sipley, salary	60 00
	C. A. Edwards, salary	50 00
3 50	Louis Hoelzle, salary	45 00
25 10	Henry McLaren, salary	45 00
	Charles Carroll, salary	40 00
88 90	Morgan Williams, salary	40 00
	Herman Kirn, salary	8 00
2 00	Robert Ross, salary	8 00
	Louis Weinmann, salary	8 00
19 35	John Kinney, salary	8 00
3 00	Sam McLaren, salary.	8 00
2 50	Bach, Able & Co., supplies	2 78

4

A. R. Schmidt, shaft for H-L truck Mrs. B. Ream, washing	-	00 00
Clark & Jones. supplies	8	40
Geo. Jedele, hay	- 11	-60
David Malloy, repairs, harness	2	50
Heinzmann & Co., oats	5	00
William Herz, paints, etc	19	60
Total	\$ 381	88

POLICE FUND.

James R. Murray, salary	65 0	0
David Collins, salary	50 0	0
Noble C. Tice, salary		Û
J. A. Polhemus, use of hack		0
Wm. G. Snow, use of two 1 horse and	l I	
carriage	25	0

Total.....\$ 168 50

POOR FUND.

Fred Sipley, salary (Poor Supt.,)	10	00
Mrs Evans, aid.	6	00
Miss Shaw, aid	3	0Ō
Robert Martin, 10 cords wood	- 30	00
J. Kapp, sawing wood	- 3	85
John Goetz & Son, groceries	1	44
W. F. Lodholz, groceries	- 8	$\overline{59}$
Wm H MeIntvre "		42
Wm. H McIntyre, " Rinsey & Seabolt, "		66
C. Rinsey, groceries		62
Jacob Werner, groceries		00
Jacob werner, grocenes	J	00
Total	77	58
CEMETERY FUND.		
Jacob Kalmbach, labor 8	4	00
Jacob Kalmbach, labor\$	4	00
Jacob Kalmbach, labor\$ RECAPITULATION.	4	00
RECAPITULATION.		
RECAPITULATION. Contingent Fund	831	26
RECAPITULATION. Contingent Fund	831 1,069	26 10
RECAPITULATION. Contingent Fund	831 1,069 381	26 10 88
RECAPITULATION. Contingent Fund	831 1,069 381 168	26 10 88 50
RECAPITULATION. Contingent Fund	831 1,069 381 168 77	26 10 88 50 58
RECAPITULATION. Contingent Fund	831 1,069 381 168 77	26 10 88 50 58
RECAPITULATION. Contingent Fund	831 1,069 381 168 77 4	26 10 88 50 58 00

Respectfully submitted. E. G. MANN,

WM. HERZ,

L. P. HALL,

Finance Committee.

Ald. Hall moved that the report be accepted and adopted and warrants ordered drawn for the same which motion prevailed by a yea and nay vote as follows.

Yeas—Ald.Mann, Wines, Herz, Martin, Allmendinger, Fillmore, O'Hearn, Taylor, Hall, Kitson and Pres. Cooley —11.

Nays—None.

SUPPLEMENTARY REPORT.

CONTINGENT FUND.

> WM. HERZ, LOUIS P. HALL, Finance Committee.

Ald. Mann moved that the supplementary report be accepted and adopted and a warrant drawn for the same which motion prevailed by yea and nay vote as follows:

Yeas—Ald. Mann, Wines, Herz, Martin, Allmendinger, Fillmore, O'-Hearn, Taylor, Hall, Kitson and Pres. Cooley—11.

Nays-None.

ORDINANCE.

The third reading of an ordinance entitled "An Ordinance relative to the Use of Street Railway Cars by the Public." The president having stated the question to be: Shall this ordinance pass. On motion of Ald. Wines, the ordinance was recommitted.

STREET.

To the Common Council:

Your Committee on Streets to whom was referred the petition of G. F. Allmendinger, . W. Rogers and more than ten other freeholders of the City of Ann Arbor, praying among other things for the laying out of a street extending on the lines of Fourth avenue projected southerly from Madison to Hill streets, respectfully report that they have had the subject matter of such petition under consideration and recommend that the prayer of said petition be granted and that a street be laid from Madison street to Hill street on the line of Fourth avenue, projected southerly and said street be called Fourth avenue.

Your committee further reports that the following named persons own or are otherwise interested in lands and premises, the right of way over which it will be necessary to acquire by gift, purchase, or otherwise for such proposed street or extension to wit:— Franklin L, Parker and estate of Lucy Morgan.

> LOUIS P. HALL, E. G. MANN, WALTER L. TAYLOR, CHRISTIAN MARTIN, V A. N. FILLMORE, Street Committee.

Received and filed.

WATER.

The petition for a fire hydrant on

Brooks street, third ward, was denied | for sewage in towns of moderate population for the reason that all property was fully protected.

The Committee on Water recommended that the six-inch water main be extended 800 feet on Pontiac street. fifth ward, also 700 feet on 13th street, fourth ward, and a fire hydrant placed at the north end of each extension above named.

UNFINISHED BUSINESS.

Ald. Martin moved that the report of the Sewerage Committee be now taken from the table, which motion prevailed by a yea and nay vote as follows:

Yeas-Ald. Mann, Wines, Martin, Taylor, Hall, Kitson and Pres. Cooley -7.

Nays-Ald. Herz, Allmendinger, Fillmore, O'Hearn-4.

By Alderman Martin:

Resolved, That the report of the Sewerage Committee be received and spread on the record.

Yeas-Ald. Mann, Wines, Martin, O'Hearn, Fillmore, Allmendinger, Taylor, Hall, Kitson, Pres. Cooley-10. Nays-None.

The report of the Committee is as follows:

To the Common Council of the City of Ann Arbor:

Your committee on sewerage appointed to act jointly with the Board of Public Works and a committee of five from the Business Men's Association, would respectfully sub-mit that they have had the Subject under consideration and hereby present the following report:

We are early convinced that the report subwe are carry convinced that the report of March 1890, by Prof Charles E. Greene, was the only system of sewerage to adopt in this city, and in view of the fact that he then made a thorough study of the subject in connection with a proper survey of the city, we did not deem it necessary that the same preliminary work should be done over again, and accordingly resubmit his report to this council as a part of our own report. We therefore attach his original report and sewerage map to this report.

Your committee wishes to call special at-tention to several parts of Prof. Greene's re-port, as well as to some of the matter con-tained in the report of the committee on sewerage made to the council March 17, 1891, when Prof. Greene's report was made.

In view of the improved methods of caring

it is clear that a large amount of money is not needed either in laying the main sewer or in the construction of the laterals. As an or in the construction of the laterals. As an illustration we wish to quote the cost of the sewers in the city of Schenectady, New York, a place whose permittion in the day. a place whose population in 1880 was 15,320.

EXCAVATIONS.

DEPTH.	FEET.	PRICE PER FOOT.	COST.
Less than 6 feet. 6 to 8 ft. 8 to 10 ft. 10 to 12 ft. 12 to 14 ft. 14 to 16 ft. 16 to 18 ft.	$14,509.2 \\ 28,336.4 \\ 5,186.1 \\ 2,805.5 \\ 1,395.0 \\ 250.0 \\ 50.0 \\ 50.0 \\ $	13 cents. 2 20 " 30 " 35 " 50 " 1 00 "	\$1,886 20 5,667 28 1,555 83 981 92 557 20 125 00 50 00
Total	51,532.20		10,823 43

PIPES LAID AND FURNISHED.

DIAM.	LENGTH.	PRICE PER FOOT.	COST.
6 inch 8 " 10 " 12 " 18 "	$\begin{array}{r} 202.00\\ 38,254.00\\ 5,187.20\\ 5,487.30\\ 3,313.00\end{array}$		
Total			12,229 37

ACCESSORIES.

8				
24 Man-holes	ats	\$ 30	00	\$ 720 00
4 Flush-tanks	at	45	00	180 00
27 " "	at	40	0)	1,160 00
137 Lamp-holes	at		00	822 00
45.690.8 lineal feet	a.			
repairing of pave-				
ment	at	0	$03\frac{1}{3}$	1.599 18
6,293 B. M. lumber	at	20	00 3	131 86
Extras	au	40	00	210 65
			1	
Outlets				$125 \ 00$
Iron pipe laid				$791 \ 18$
			1	
				•
2	a.:	Tot	tol 1	\$5,739 87
		101	lai	40,109 01

It is said that "The work afforded the con-tractor a reasonable profit;" but it is doubtful if at present prices it could be duplicated. The entire cost of the system including man-holes, flush-tanks and all accessories, all expenses of engineering and preparation of plans and records, expenses of sewer committee, and all costs of whatever nature chargeable to sewers, was 72 cents per lineal foot; therefore the entire cost of the system of 51,532.2 feet of sewers at 72 cents per foot was \$37,103.18.

The above figures are taken from a statement of actual cost given by Cady Stayley and

6

George S. Pierson, C E., in a treatise on the "Separate System of Sewerage."

There is no doubt but what the ultimate total cost of the main and lateral sewers in this city will be more than the amount quoted above; but as only the main sewer will necessarily be be built by the city, and the construction of the laterals distributed over a number of years, the matter of cost is of but moderate importance when compared with other considerations.

The cost of the average mile of the sewer in the city of Kalamazoo was \$5,771.36. Prof. Greene's system for a main sewer from the railroad bridge to Grove or Packard street is 14.900 feet or 2.82 miles which at a cost of \$5.-771.35 is \$15,178.0. It would therefore seem as though the estimated cost of the main sewer at \$20,000 is on the safe side.

Calling the population of Ann Arbor 10,000, the cost of the main sewer per capita will be \$2.00. But this 1s not the way our taxes are assessed. The equalized valuation of Ann Arbor is over \$6,000,000 of which \$20,(00 is less than one third of one per cent, so that a person who has property assessed at \$100 will pay less than $33\frac{1}{3}$, \$200 will pay less than $66\frac{2}{3}$, \$300 will pay less than \$100 \$400 will pay less than $\$1.33\frac{1}{3}$, \$500 will pay less than $\$166\frac{2}{3}$, \$600 will pay less than \$200. \$700 will pay less than $\$2.33\frac{1}{3}$. \$500 will pay less than $\$166\frac{2}{3}$, \$600 will pay less than \$200. \$700 will pay less than $\$2.33\frac{1}{3}$. \$300 will pay less than $\$166\frac{2}{3}$, \$00 will pay less than \$2.00. \$700 will pay less than $\$2.33\frac{1}{3}$. \$300 will pay less than $\$1.66\frac{2}{3}$. \$00 will pay less than \$3.00, \$1,000 will pay less than $\$0.33\frac{1}{3}$. \$1200 will pay less than \$4.00, \$1.500will pay less than \$3.00. \$1800 will pay less than \$0.00, \$2,000 will pay less than $\$1.66\frac{2}{3}$. \$3.000will pay less than \$100.

The question now arises who will have to pay for this main sewer; manifestly, from a glance at the forgoing table, the man who holds property and the more he has the more he must pay. It may perhaps be well to consider the fact that when sewers are laid and used in Ann Arbor that the poor man receives as much benefit from them as the rich man without having been obliged to pay for anything like what might have been his share should the tax have been levied per capita; so that the idea that the poor man is to have his burdens increased is false, to a large extent, for in many cases he will have an opportunity of earning many times the amount of his increase of taxes due to a main sewer.

That it is necessary to tax this City anywhere from one hundred thousand to two hundred thousand dollars, with which to build sewers, is in our judgment without foundation, and the continued prevalence of the idea as opposed to the judgment of Prof. Greene, one of the foremost engineers in this country, seems unwarrantable and calculated to put in jeopardy the good health and deservedly enviable reputation of our city. "Your Committee is of the opinion that the

"Your Committee is of the opinion that the yearly cost of building vaults and cesspools in this city and of keeping the same in proper condition will range in amount from \$5 000 to \$10,000. While this work is of but temporary value, its cost would in three, or at most four years time pay the entire expense of the main sewer, which the city must build "It is well known that Ann Arbor is this year building between 200 and 300 new houses. Taking the lowest estimate, 200 houses, one can easily determine the minimum expense of building vaults and cesspools during the present season.

200 vaults and out-buildings at \$25, 200 cesspools at \$15,	\$5,000
200 cesspools at \$15,	3,000
50 vaults renewed at \$10,	500
50 cesspools renewed at \$15,	750

We are confident that these figures are below the amount of money actually expended.

When it is observed that this money is all expended for temporary work, and that the earth underlying our city is being polluted in this wholesale way, is it not high tine that this city of culture, education and advancement should awaken from its inactivity and demand, with a unanimous voice, that its government provide some better way at the earliest possible day.

Many of our citizens seem to think it necessary that before sewers can be of any value or use to a house, that they must be in direct connection with the water works : this is not so. A sewer can and should be used by every person who has a sink in which dishes are washed; it can be used by every person who has a sewer connection in his back yard, if he is so unfortunate as not to possess a sink ; it can be used to carry off the refuse from his vault. All of this can be doné without a drop of water from the water works, and the notion that sewers means money for the water works, necessarily is unfounded.

The matter of the disposal of our sewage has been considered and we recommend that the outlet be placed below the first railroad bridge, east of the city. That it will influence the quality of water to some extent flowing in the river at that point, nobody will question, but we do not think it necessary that Ann Arbor should initiate works of whatever nature to purify the effluent so long as no other city in Michigan has thought it necessary to do the same. But when the time comes that such work shall be established there is every opportunity desirable in that locality. Land could be easily obtained for a sewage farm, or precipitation works could be constructed for clarifying the effluent before it should be allowed to enter the river. There is also the ruins of an old dam in the locality which could be renewed at a small expense, and water kept in storage for such seasons as might require that the river at the outlet be flushed, and the effluent swept down the river with a large volume of water, even in the driest season; or the bed of the river can be confined to a narrow channel and made to do its own scouring and mixing at all seasons of the year.

A letter from L. E. Cooley, Chief Engineer of the Sanitary District of Chicago, says that the law for the dilution of sewage for Chicago required a flow of 20,000 cubic feet per minute for each 100,000 people as a minimum; or 31/3 each cubic feet per second for thousand of population. That would make for Ann Arbor a required flow of water in the Huron River of $33\frac{1}{3}$ cubic feet per second. He further says that from a more extended research he is now satisfied that for Chicago this is too low, as that City probably produces organic refuse at more than double the rate of the ordinary resident city or country town under 40 000 of population, so that the rate of $33\frac{1}{3}$ cubic feet per second, as stated above is ample to dilute the sewage of this city. The flow of water in the Huron River may be approximately computed from the power developed at the diffe ent mills. At Swift's Mill the power for the dry season is estimated to be for the minimum about 50 horse-powers with a head of 11 feet. which corresponds to a flow of about 53 cubic feet per second, or 3,180 cubic feet per minute. At the Superior Mills the dry weather power is placed at 75 porsepowers with a head of 16 feet, which corresponds to a flow of about 55 cubic feet per second, or 3,300 cubic feet per minute.

These figures probably mark the lower

a period of two or three months only. It is certainly much more than this at all other times of the year. On a basis of $3\frac{1}{3}$ cubic teet per 1,000 inhabitants, the minimum flow

would care for a population of about 16,000. Mr L. E. Cooley further says, " My impres-sion is that at this time it may be said that 20,000 to 40,0 0 cubic feet per minute for each 100,000 of population will mark the limits which will insure freedom from nuisance, and that in any event the stream will im-prove rapidly as it flows down the valley. One hundred cubic feet per second should care for a population of from -5,000 to 30,000 people. The low water is a small fraction of the year and your sewage probably below the average city per capita, all of which is favorable. I judge you have a merai margin vision. If there is any doubt, it is always possion. If there is any doubt so that at a future I judge you have a liberal margin to go ble to plan your system so that at a future time the dry weather flow can be picked up by an intercepting sewer and carried to a . sewage farm, or treated chemically.

Your committee is therefore confident that if the water ordinarily flowing in the Huron River is properly mixed with the sewage of the city as it flows out of the main sewer, in its already diluted condition, it would fail utterly to give rise to any unpleasant odor or unsanitary influence on the locality below the outlet. Kalamazoo, as far as we can learn at this distance, is perfectly satisfied with its separate system of sewerage, and has e perienced difficulty in only one or two streets where the fall is very sight, and this can be remedied by using a little targer pipe. This can hardly be a cause of complaint in a system of sewers in this city because of the large fall that can be easily obtained from the better the set of the natural contour of our street levels.

The report of a former committee on sewer-age says, "The members of the committee were all originally opposed to emptying the sewage of the city into the Huron; but a study of Prof. Greene's plan and of further information furnished has convinced them that it is safe and in fact the only feasible method, of disposing of the city's sewage."

We feel certain that the conclusion of the former committee was correct, and also that the establishment of a system of sewers in this city will conduce to its healthfulness and prosperity. Ann Arbor is already recognized as one of the most beautiful residence cuies in Michigan, and is rapidly approaching a day when it will be admitted, by all those who are familiar with other cities, to be the most desirable. But before that day comes we must stand abreast of our sister cities and thoroughly sewer every locality within its limits.

In view of the foregoing statement we therefore recommend that this council call tor a meeting of the electors as provided by our charter for the purpose of deciding 1f \$20, (00 shall be raised by tax to defray the expense of building a main sewer from its pro-posed terminus below the first railroad bridge to Grove or Packard St.

If it shall be the pleasure of this council to adopt this report, work on this main sewer can be begun in the fall and it can be made to provide many a day's work for the laboring man at a time of the year when he most needs it. Respectfully submitted,

CHRISTIAN MARTIN, L. D. WINES, M. E. COOLEY, Committee.

To the Committee on Sewers:

In accordance with the desire of the

limits of flow in the river at this city, and for [Committee, I have made a special examination into the ways for sewering Ann Arbor, with a view of reporting to the Committee what plans seem to me the most expedient and best, if the City Council should decide upon beginning an improvement of this kind; and I present herewith a map which gives a general view of the system suggested.

In all large villages and cities the disposal of the solid and liquid refuse becomes a seroius problem. Where no means have been taken to get rid of the necessary accumu ations of filth, incident to a considerable population, the refuse which should have been removed far from the dwellings has been flung upon the ground or deposited in vaults and cesspools, to poison the air and sink into the ground.

In excavating for the cellar of a new house, on premises which had been previously occupied for a number of years, and where there were three privy vaults, there were uncovered and removed two cisterns, and three cesspools which had evidently been built in succession as their predeces-sors became clogged and useless. Whether any other existed outside of the cellar excavation is unknown. Any observant citizen is aware of similar instances. There comes a time when even the porus gravel of Ann Arbor is l'kely to be overloaded with im-purity, unless a remedy is found

With the general introduction of water to our houses, and the use of both tubs and water-closets, there is additional need for sewers. There are various ways which have been tried, more particularly in Europe, for getting rid of the refuse of a city. Such i: the pull system, used at Birmingham and Manchester, England, where the contents of snull movable receptacles are removed from time to time by carts. It is, at best, an offensive method for the collection and disposal of household wastes, and its nature is such that it would not be tolerated in any community in this country.

The earth closet system and modifications of it had at one time earnest advocates. Here pulverulent deodorizers are applied to the excreta during their storage upon the premises, and the mixture is subsequently removed and used for agricultural purposes. The most important types are the earth closet proper, the ash closet, While the and the charcoal closet. powers of dry earth as an absorbant and deodorizer are undoubted, and while such a return of waste products to the soil as is contemplated by this or the previous system is most scientific and desirable, the large quantity of earth required for a city, even if used repeatedly, the storage on the

premises, the careful attention requir- annoyances overbalance the advaned which will often fail to be rendered, and the constant rounds of carts for removal, are serious objections to its

introduction on a large scale. Neither of these Methods provides for the water from bath tubs, basins, water closets and kitchen sinks, and as the introduction of a water supply leads directly to a multiplication of such conveniences, some way should be provided for the removal of the half million to a million gallons daily poured into this city, and which must pass away in a more or less impure It is therefore seen that the state. establishment of a perfect system for the removal of human excreta does not relieve the community from the necessity of constructing a complete system of sewerage for the removal of these liquid wastes. The cost of such sewerage system would not be affected by the exclusion of so small a part.

It has also been proved by chemical analysis that the exclusion of human faeces from sewers has a very slight effect upon the composition of the sewage, and therefore the cost of a dry earth or similar system would be an additional and unnecessary expense for a city which has reached that stage of development in which sewers for the removal of liquid wastes have become a necessity.

There are several pneumatic systems for the removal of sewage without the annoyance of scavengers; and as the power to operate them is derived from steam engines, the excessive dilution of the sewage with water is again avoided if possible. They are again avoided if possible. especially applicable to cities of very flat grades, and hence the Lienur system, which works by creating a partial vacum, has been used in several cities of Holland. The Berlier system, which applies an air pressure to tight receptacles, has been tried to a limited extent in Paris. The Shone system is essentially a method of pumping sewage in detail by means of small pneumatic pumping engines situated in different parts of the city, all of which are operated by power generated at a single station. As Ann Arbor has sufficient declivity, we need not resort to such methods One or the other of these methhere. ods is sometimes applied to the removal of contents from closed vaults and cesspools to tanks or barrels, which are then carted away, a modification of the pail system first men-tioned. Such a process has been tried in some places in this country, and was once advertised here under the name of an odorless process. Unless most of the water is excluded, the volume of sewage to be dealt with is formidable, and in any case the

tages.

The Bar

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The water carriage system, as the name implies, depends upon the trans-porting and cleansing properties of water for the removal of sewage. It is the one that has been adopted for the greater number of sewerage works. This system is not restricted to the removal of any specific class of sewage, but is used for the removal of house sewage, the surface storm water, the subsoil water, and such liquid wastes from manufacturing establishments as it is proper to admit into sewers.

An efficient system of sewers should convey all the sewerage away from inhabited districts before any decomposi-tion has taken place in it. The sewers should be so ventilated that any gases contained in them shall have no access to the interion of buildings. The first condition is provided for in the water carriage system by giving the sewers such an inclination that the sewage may flow with sufficient velocity to remove the solid matters suspended in it, and by giving them such transverse dimensions that the stream of bewage shall be concentrated, thereby economizing its scouring power, increasing its velocity, and preventing the stranding of solids along their ininterior. A velocity of from two to two and one-half feet per second will remove all objects of the nature and dimensions of those that are likely to be found in sewers. a mean velocity of three feet per second is generally sufficient to prevent deposits. greater the concentration o The the of stream, the less will be the relative surface of contact between the sewage and the sewer, and consequently the frictional resistance, and the greater will be the velocity and scouring power for a given grade. The quan-tity conveyed by a given pipe increas-es with increase of velocity.

Before determining the sizes of sew-ers, it is necessary to ascertain the volume of sewage that they will have to carry. There are two distinct types of water carriage sewerage calal-حو" and By +1-اط led respectively the "separate" the "combined" systems. By first, the house sewage and other waste liquids, with or without a limited portion of the storm water, are conveyed in one distinct system of sewers, the surface and subsoil waters being conveyed in other distinct sys-By the second, a single systems. tem of channels is provided for the conveyance of all matters.

By far the greater portion, if not all of Ann Arbor needs no under drainage. Her porus subsoil is able to take up readily and allows to soak away rainfall that is moderate inall amount, as it has disposed heretofore

of all our liquid wastes. There are very few places in the city where the surface water in more violent storms cannot still be allowed to find its way into the natural water courses without inconvenience to the public or damage to the streets. For such parts as would be benefited by storm water drains, short and independent underground channels can be provid-ed. I have therefore planned a system for house drainage exclusively. The moderate cost of the "separate" system makes it possible to carry out a system of sewerage when the expense of the "combined" system would in some cases make the construction of sewers impossible. Usually the cost of the combined system is more than three times that of a separate system. Sewers on the "separate" system can be built which need not cost the owner of a lot more than the expense of what would be consid-

ered a good brick cesspool. With reference to the employment of sewers for household wastes only, I will add a few words. That portion of the city lying west of Allen creek, namely, a greater part of the second and third wards, as well as those parts of the first and sixth wards lying south of Packard, Jefferson and Orleans sts. and Forest Hill cemetery naturally drain into Allen creek. Why should not a sewer be built up that creek which would take all the surface and storm water as well, and thus obliterate the creek and improve the land? Those who have noticed the flow of that creek in the time of spring freshets, when a heavy rain fall car-ries off the snow, will judge that the culvert openings now built at the various street crossings are not excessively large. A brick sewer, to be large enough for that storm water, ought to be from five to six feet in internal diameter. Such a sewer would require from 250 to 300 bricks per running foot, and the cost would be some five dollars or more per foot, a serious item. If the property owners through whose land it flows desire at any time to reclaim the bed of the creek and utilize it for building purposes, they may properly consider the question of cost, and inaugurate such an improvement, if the land becomes valuable enough to warrant it; but there is no immediate prospect which would make such an expenditure wise.

As a sewer for house wastes, however, it would be most undesirable. The midsummer flow of the creek is extremely small, and the tributary sewage would make a trickling stream on the comparatively flat bottom of the large sewer, checked in its velocity by the roughness of the

bricks; deposits would accumulate by reason of the sluggishness of the flow, and decomposition would set in and and continue until a shower of rain should flush the sewer. It would not be economical, besides, to carry so large a sewer from the mouth of Allen creek to the outlet of the sewer, wherever that may be. It is unnecessary to discuss, in addition, the water right which exists on this creek.

How comparatively small a pipe is needed to carry the household wastes is shown by a guaging at St. Louis, Mo., of the flow in a sewer seven feet in diameter, where the sewage from 8.200 people, in a district having 1,-390 water taps, was dammed back and passed through a 12 inch sewer pipe, giving then only seven inches depth of flow. The transporting power of water depends on the depth as well as the velocity; substances wholly or largely immersed will be swept along, when they would lodge in a shallow stream. A man can wade through a stream which is knee-deep, even if the velocity of the water reach his waist or shoulders, and a moderate velocity will take him down stream.

The amount of sewage derived from the drainage of houses, public institutions and manufacturing establishments may be approximately taken as equal to the water supply, at that season of the year when water is not used for streets and lawn sprinkling. At present, for Ann Arbor, that amount may be put at from 500,000 to 750.000 gallons daily. The maximum flow is in the morning, and allowance for such flow is to be made in proportioning the sewers. Future growth of population and extensions of the system must also be provided for, and such provision I have endervored to keep in view. The calculations have been based upon 15 persons per 100 feet of sewer, or five persons to a house on each lot of 66 feet, through the outlying residence portion of the city, and double that number in the central part, with an allowance equivalent to some 60 persons per 100 feet in business streets. The quantity of sewage calculated for is 75 gallons per capita, average daily flow, and a maximum discharge at times at the rate of 150 gallons.

Whatever the plan finally adopted for the disposal of sewage, whether by immediate discharge into the river, or by filtration or by chemical precipitation, after which the effluent finds its way to the same channel, or by pumping to some other place for purposes of irrigation or otherwise, the sewage must first be collected, and such bringing of it together will be accomplished

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at the lower levels of the city. Hence the system of pipes laid down on the accompanying map will be necessary, either as a whole or for the main part, whatever disposition is made of the sewage.

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In any case except that of direct discharge into the Huron river, the storm water should be excluded, or should be diverted at proper points by storm water overflows or wasteways, to obviate the necessity of, at times, dealing with such a large volume of water. If it becomes necessary to pump the sewage to some other place, for disposal by irrigation or filtration, it is enough of a task to pump an amount equal to the water supply; for that work alone an outfit nearly if not quite equal to that employed by the water works would be requir-ed and an annual expense for pump-ing and management which would probably amount to \$2,500 or \$3,-000.

No sewage farm that I am aware of has proved a pecuniary success, although promising crops may have been raised, but only an annual ex-pense. From 40 to 80 acres of sandy land, susceptible of drainage, would be required for irrigation. Where filtration, irrigation or chemical precipitation must be resorted to, no adequate return can be counted on from crops or from the sale of sludge and such products, but an annual outgo for maintenance and running expenses may be confidently expected.

We come, then, to the consideration of the direct discharge of the sewage into the river. Sewage from the mouth of a sewer properly built, which conveys the flow through the city with reasonable velocity, so that, from the remotest part, the sewage passes to the outfall before putrifaction sets in, is not offensive to the senses, looks much like moderately dirty washing-water, and is diluted with the contents of the fulsh tanks, and such ground water as leaks in at the slight imperfections in the many joints. The household wastes ought to flow at least one and one-half miles per hour, and will soon reach the river. Observers and inspectors of well constructed sewers, workmen in manholes and at the outfall, all experience no inconvenience and notice very little odor. My experience as a city engineer and my inspection of work in other cities, enables me to speak from positive knowledge on this point.

The contemplated outfall, is 22 inches in diameter, to flow half full. Can one anticipate that the amount of sewage discharged by such a pipe discharge when flowing to a depth of will be noticeable in the Huron river about 0.85 of the diameter. The out-

below the city? It will bear but a moderate ratio to the water which through one wheel at Swift's runs mill.

The water of the Huron river has been comparatively low during the past and preceding year; the small lakes which are its head waters have been shrinking away for a series of years, and the same thing has been reported this last summer of the great lakes which border our state. The cause lies in a greatly diminished rainfall: How small it has been the past year, lew realize. Since 1881 Ann Arbor, as well as the state, has experienced an almost steady falling off in The average anthe precipitation. nual rainfall for Michigan, and for a nual rainfall for Michigan, and for a good agricultural country, may be put at 33 to 35 inches. In Ann Ar-bor the rainfall for 1881 was 40.4 inches; for 1882, 36.2 inches; 1883, 33.3 inches; 1884, 29.3; 1885, 35.-2 inches; 1886, 27.6 inches; 1887, 28.6 inches; 1888, 26.5 inches, and in 1889 only 23.3 inches, 3.6 inches fell in December. Is it any wonder that crops are poor and streams are that crops are poor and streams are low; judging from data from a long series of years, there is reason for supposing that a change will presently take place, and that we shall return to a normal condition of things. If not, the country will become un-productive and there will be no need of such an improvement as the one contemplated.

Further: the sewer at the outfall is proportioned for the discharge of the sewage of the whole city and for a population of from 15,000 to 20,000, so that it will not need rebuilding after the growth of the city. For several years, if the sewers are constructed by degrees as called for, as is usually the case, the sewers will be of limited extent, and the number of houses draining into them compara-tively moderate. It is therefore en-tirely practicable to turn into the main sewer for some time a portion of the flow of Allen creek. By this of the flow of Allen creek. By this means the sewage will be still furth-er diluted, and any objections to turn-ing it into the river will be so far modified or obviated. When the sewage of the city increases sufficiently in volume, the creek water can be shut out, and if the discharge into the river then becomes objectionable, other plans of disposal can be considered.

Pipe sewers are designed to run half full and their sizes are fixed accord-ingly. They have the same velocity of discharge and hence double the capacity when flowing completely full, and a somewhat greater velocity and

fall sewer below the city can run full lower portion of the main or trunk sewer, including everything complete,

A system of sewers branches and tapers like the trunk and limbs of a tree. The main or trunk sewer may empty, 1st, at the first railroad bridge below the city; 2d, at the highway bridge at the east end of Wall street; or, 3d, opposite the slaughter-houses near the foot of Thirteenth street, where the university sewer now dis-charges. It passes by the side of the Michigan Central railroad, crosses under the railroad at Fifth street to Summit street, and thence west to Allen's creek, up which it runs, partly through streets and partly through private property, to Madison street. Whether it is better to go through private property as shown on the plan (although only indicated approximately as to location), or to excavate the depth required in certain to streets, as at the lower end of Main and in First street is a question of Its proposed sizes and lengths $\operatorname{cost.}$ are as follows: From the outfall at the railroad bridge, to Main st., at corner of Summit, 22 inches, length, 6,200 feet; from Summit st. up Allen's creek to Catharine, 18 inches, 2,300 feet; from Catharine to foot of William st., 15 inches, 2,200 feet; from William st. to Hill st. at crossing of creek, 12 inches, 3,500 feet; from Hill street to Grove st., 10 inches, 700 feet.

The general plan shows practically all the houses in the city, the elevations of most of the street intersections above the city datum, the elevations of the sewers at the same points, the grades of the sewers and length of the parts the several which may be modified in some minor details of arrangement without essential change in the general plan. The lines shown are intended to give a liberal provision for future growth, and many of them should not be built until needed. Manholes are to be placed at each intersection, change of direction and grade, and not more than 300 feet apart, so that there shall be a straight reach of pipe between every two man-holes, to per-mit of imspection and removal of accidental obstructions. At each deadend or upper terminus of lateral sewers where the grade is moderate, automatic flush-tanks will be provided supplied from the city water pipes, and discharging rapidly as a flush from 125 to 150 gallons of water, once or twice in twenty-four hours, to thoroughly flush the laterals. All of the pipes except those of the main sewer above mentioned will be eight inches and six inches in diameter.

The cost of the sewers, exclusive of I

sewer, including everything complete, may be put at from \$1.00 to \$1.20 per linear foot, or \$6.000 per mile. The city engineer of Kalamazoo reports for the year 1887, 7,129 1-2 feet of laterals, six and eight inches in diameter; cost, \$5,851.49; average cut 8.56 feet, and average cost per foot eighty-three cents. The average cost is considerably in excess of that for several years previous. This is due chiefly to the more than ordinarily difficult trenching, a considerable advance in cost of sewer-pipe, and less competition on the part of bidders. The total extent of the separate sewerage systems was then twelve miles built at a total cost of \$69,256.13, and an average cost of \$1.09 per ft. Total cost of annual maintenance, with semi-weekly inspection, \$204.97. The main sewers have never been cleaned except by regular flushing, and the pipe upon examination has been found in perfect order. If any one desires to estimate in detail, sewer pipe may be figured at the following prices per foot: 6 inch, 15 cents; inch, 25 cents; 10 inch, 35 cents; 12 inch, 50 cents; 15 inch, 65 cents; 18 inch, 85 cents; 20 inch, \$1.10; 22 inch, \$1.35; 24 inch, \$1.60. Cement, gasket and laying at from four to 12 cents. Excavation and re-filling for six inch pipe, seven feet deep, 35 cents; 12 to 15 feet deep, \$1.05; 12 inch pipe, 7 feet deep, 70 cents; 12 to 15 feet deep, \$1.50. Manholes, \$35.00 each. Flush-tanks, \$50.-00 each.

The trunk sewer at lower end, as far as Main street, is estimated at \$2.00 per foot. The piece from the railroad bridge to the east end of Wall street From Wall street will cost \$3,600. to the foot of Thirteenth street, \$2,-From Thirteenth street to the 000. foot of Main street, \$6.500. The sew-er from the foot of Main street to the foot of Madison street is estimated for 6,000 feet, at \$1.50, or \$9,000. The cost of the trunk sewer, on a liberal estimate, from Madison street to the foot of Thirteenth street, where the university sewer now discharges, will be \$15,000; and here it may terminate until the sewers are used to such an extent that the outfall becomes objectionable there, when it can be extended to the railroad bridge.

That portion of the city from the old cematary and Forest Hill cemetery northward, but thinly built up at present, will be readily sewered down Thirteenth street, and the Fifth ward will be sewered through Wall street eastward, as shown on the plan, bringing everything together at the same place.

The following are some of the many plans adopted for assessing the cost of sewers:

1. By a general sewer tax, paying for the sewers as fast as built.

. By issuing bonds and providing for their gradual payment by general tax.

3. By assessing the property benefited.

4. By paying for sewers by a general tax, and charging for permits to enter private drains.

5. By assessing property adjoining sewers in proportion to the frontage of each lot.

6. By assessing adjoining property in proportion to the area of each lot.

7. By assessing adjoining property in proportion to the value of each lot.

8. By assessing a certain part of the cost (varying from one-fourth to three fourths) on the adjoining property, in proportion to the frontage, area, or value, and raising the remainder by a general tax.

9. By assessing a certain uniform amount per foot front on adjoining property, and paying the remainder by a general tax.

The method of assessing the cost of a sewer upon "the property benefited" gives rise to perplexing questions. The judgement of different individuals will differ widely as to the limits of the district benefited, the proportion of benefit derived by each lot owner, and the relative value of the lots. In assessing the cost of sewers in any section on the abutting property, a difi-culty arises from the fact that some parts of any system will be much more expensive than others, and the extra cost will not be justly chargeable to the adjoining property. In designing any system of sewers, the sewerage of a whole town, and the convenience of all the citizens, will require the construction of mains costing from two to four times as much as the laterals; and the conformation of the ground may necessitate much deeper cuts in some localities than in others. To To compel the owners of lots adjoining the mains and deep cuts to pay all the cost of them, when the extra expense is incurred to benefit distant territory, is a manifest injustice. The burden of expense may be more nearly equalized, either by paying for the whole system by a general tax, or by assessing upon the lots a uniform amount per foot front (or in proportion to area, etc.), and paying the re-mainder by a general tax.

The ordinance now in force at Kalamazoo, as amended after experience, stands as follows: "In the construction of 'lateral sewers,' all property adjoining or abutting upon that portion of a street or alley through or along which the lateral sewer shall extend, shall be assessed at the rate of 33 1-3 cents per foot front, and at the rate of 33 1-3 cents for each foot of connecting sewer that may be necessary (or that may be desired by the property owner) to connect said lateral sewer with said property, and the city shall assume and defray all other expenses incident to the laying of such lateral and connecting sewers. On corner lots, not exceeding four rods by eight rods, when a sewer is built on two sides, the two sides are added together and divided by two to determine the frontage.

Respectfully submitted, CHAS. E. GREENE.

Ann Arbor, Feb. 26th, 1890.

Ald. Kitson moved that the Mayor's vetoes be now taken from the table, which motion prevailed.

Ald. Mann moved that when we adjourn, we adjourn until Thursday evening next at 8 p. m., which motion prevailed.

The Mayor's vetoes being taken from the table, the question being that the action of the Council regarding the map for the Council chamber be sustained, the Mayor's veto notwithstanding, which motion was lost, two-thirds of the aldermen elect not voting therefore by yeas and nays, as follows:

Yeas--Ald. Mann, Wines, Allmendinger, Fillmore, Taylor, Hall, Kitson, Pres. Cooley--8.

Nays--Ald. Martin, O'Hearn-2.

The question being that the action of the Council regarding the coping on South University avenue be sustained, the Mayor's veto notwithstanding, the motion was lost, two-thirds of the aldermen elect not voting therefore, by yeas and nays as follows:

Yeas—None.

Nays-Ald. Mann, Wines, Martin, Allmendinger, Fillmore, O'Hearn Taylor, Hall, Kitson, Pres. Cooley-10,

The Mayor's veto of the new culverts being read, a division of the question was called for. The question being, shall the action of the Council regarding the culvert on Hill street be sustained, the Mayor's veto notwithstanding, the motion was lost, two-thirds ofthe aldermen elect not voting therefor, by yeas and nays as follows:

Yeas-None.

Nays-Ald. Mann, Wines, Martin, Allmendinger, Fillmore, O'Hearn, Taylor, Hall, Kitson, Pres. Cooley-10.

The question being that the action of the Council regarding the culvert on Fifth street be sustained, the May or's veto notwithstanding, the motion was lost, two-thirds of the aldermen elect not voting therefor, by yeas and nays as follows:

Yeas-None.

Nays-Ald. Mann. Wines, Martin, Allmendinger, Fillmore, O'Hearn. Taylor, Hall, Kitson, Pres. Cooley--10.

The question being that the action of the Council regarding the culvert on Felch street be sustained, the Mayor's veto notwithstanding, the motion was lost, two-thirds of the aldermen elect not voting therefor, by yeas and nays as follows:

Yeas-Ald. Allmendinger-1.

Nays-Ald. Mann, Wines, Martin, Fillmore, O'Hearn, Taylor, Hall, Kıtson, Pres. Cooley-9.

REPORTS OF CITY OFFICERS.

CITY TREASURER'S REPORT FOR THE MONTH ENDING AUGUST 31, 1891.

To the Common Council of the City of Ann Arbor:

Balance on hand as per last

MONEY RECEIVED.

Cemetery Fund-Aug.1, Thos.		
Speechley	20. 0	
Contingent Fund-Murray of-		
ficer's fees.		
Contingent FundE. B. Pond		
fines		
Contingent Fund-Miller, sale		
of pound	130.00	
Street Fund-Miller	.75	
m ()		
Total	\$2,537.68	\$2,537.68

MONEY DISBURSED).	
Contingent Fund\$	900.69	
Street Fund 1	,518.09	
Firemen's Fund 1	,373.84	
Police Fund		
Poor Fund	47.80	
Water Fund		
Cemetery Fund	1:1.60	
Soldiers' Relief Fund	2.00	
 Total		\$4,175 27

BALANCE ON HAND, Contingent Fund ov-\$ 768.56 erdrawn Street Fund, overdrawn Firemen's Fund\$ 504.29 5.347.09 Police Fund 469.78 Poor Fund 1.333.99 Water Fund 964.71 Cemetery Fund Soldiers' Relief Fund. 66 93 602 40 University Hospital Aid Bond Fund..... Delinquent Tax Fund 840.00 404.04 overdrawn Dog Tax Fund 100.00 Total_____\$4,882.10 \$6,519 69 Total overdrawn \$1,637.59 Respectfully submitted. S. W. BEAKES,

City Treasurer.

ANN ARBOR CITY, August 31, 1891

ANN ARBOR SAVINGS BANK,) Ann Arbor, Mich., Sept. 7, 1891.

This will certify that the account of S. W. Beakes, City Treasurer, is overdrawn to the amount of sixteen hundred and forty-one and 71-100 dollars. (\$1,641.71).

CHAS. E. HISCOCK, Cashier.

The reports of the City Clerk, City Marshal and Superintendent of the Poor were read and filed.

MOTIONS AND RESOLUTIONS.

By Ald. Martin:

Resolved, That the plans and specification of the new bridge to be constructed at Bridge No. 3, submitted by the Board of Public Works be and the same are in all things approved and Board is hereby directed to advertise for bids for the construction thereof according to the same.

Which resolution prevailed by yeas and navs as follows:

Yeas-Ald. Mann, Wines, Martin, Allmendinger, Fillmore. O'Hearn. Taylor, Hall, Kitson and President Coolev.-10.

Nays-None.

By Ald. Wines:

Resolved, That the Board of Public Works is hereby instructed to determine the amount necessary to grade the streets of South and East University avenues, so as to secure the building of sidewalks on said streets by the University authorities, the council deeming such grading to be a necessary public improvement.

Which resolution prevailed by yeas Taylor, Hall, Kitson and President and nays as follows:

Yeas-Ald. Mann, Wines, Martin, Fillmore. Allmendinger. O'Hearn. Taylor, Hall, Kitson and President Coolev.-10.

Nays-None.

By Ald. Taylor:

The Board of Public Works having submitted the bids for the repairs of Bridge No. 2 with recommendation that all of said repairs be made under the direction of the Street Commissioner, therefore

Resolved, That all of said bids be rejected and said Board of Public Works cause said repairs made under the direction of the Street Commissioner.

Which resolution prevailed by yeas and hays, as follows:

Yeas-Ald. Mann, Wires, Martin, Allmendinger, Fillmore, O'Hearn. Taylor, Hall, Kitson and President Coolev-10.

Nays-None.

By Ald. Martin:

Resolved, That the several Aldermen do proceed without delay, to make a list of all persons residing in their respective wards who are entitled to relief under Act No. 193 of session laws of 1889, and that the Soldiers' Relief Commission are requested to appoint an early day for a meeting with the Aldermen for the purpose of certifying a list of such persons to the Council together with an estimate of the probable sum required for such relief fund for the next fiscal year.

Which resolution prevailed by a yea and nay vote as follows:

Yeas-Ald. Mann, Wines, Martin, Allmendinger, Fillmore, O'Hearn,

Coolev-10.

Navs-None.

By Alderman Hall:

Whereas, The Committee on Streets. after full consideration, have reported in favor of granting the prayer of the petition of C. F. Allmendinger, J. W. Rogers, and more than ten other freeholders of this city, praying for the laying out of a street on the lines of Fourth avenue, from Madison street to Hill street, to be called Fourth avenue. Therefore,

Resolved, That this Council do deem such proposed improvement advisable and hereby give notice to all persons interested therein of the pendency of the same: That the Common Council will meet at the Council Rooms on the 21st day of September next at eight o'clock p. m., of said day, for the purpose of determining the question of or dering the laying out of such proposed street,

2d, The City Clerk is hereby ordered and required to cause due notice of the pendency of such proposed improvement, as well as the time, when and place where this Council will meet to determine the question of ordering the same, to be duly served on all persons interested therein.

Which resolution prevailed by a yea and nay vote as follows:

Yeas-Ald. Mann, Wines, Martin, Allmendinger, Fillmore, O'Hearn, Taylor, Hall, Kitson, and Pres. Coolev-10.

Nays-None.

On motion, the Council then adjourned.

W. J. MILLER,

City Clerk.