

APPENDIX.

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ANNUAL REPORT FROM CITY CIVIL ENGINEER

FOR THE YEAR ENDING MAY 1ST, 1878.

[The following report is here published in compliance with the motion set forth below—the said motion having been duly adopted by the Common Council and Board of Aldermen of the City of Indianapolis on July 21st and 23d, 1879.]

WHEREAS, The annual report of the City Civil Engineer, submitted on May 6th and 7th, 1878 [see pages 945 and 401, Journals of Common Council and Board of Aldermen for 1877-1878], is a brief document, and yet contains information worthy of preservation in other form than in manuscript on the files; Therefore,

*It is ordered by the Common Council and Board of Aldermen of the City of Indianapolis, That before-mentioned report be forthwith published as appendix-matter to the Journals of 1878-1879.*

# ANNUAL REPORT FROM CITY CIVIL ENGINEER.

To the Mayor, Common Council, and Board of Aldermen:

*Gentlemen:*—I herewith submit my third annual report, for the year ending May 1st, 1878.

The past year has been one of unusual inactivity in this Department, owing to meagre appropriations, unavoidable in view of the city's financial condition. This is to be regretted, when we remember the pressing needs of this Department, how much there is to complete, how many necessary additions to be made in order to bring it to its proper standard—a result I have hoped for, and made efforts to obtain; and though not fully realizing the hope, I am happy to say my efforts are not wholly unrewarded.

It is unnecessary to present the claims of this office to your consideration, as you are doubtless conversant with its needs, and, when able, will investigate and provide for its just wants.

But little has been done in the improvement of streets, alleys, etc., this year; and, in comparison with other years, we make but a poor showing.

The following is a list of improvements made during the past year, under my directions:

	TOTAL COST.	CITY'S PORTION.
Wabash street, between Alabama and Delaware streets— graveled, bowldered, and curbed.....	\$ 1,416 65	\$ 1,328 34
Second street and sidewalks, between Meridian and Pennsylvania streets—graded and graveled.....	279 79	11 00
Potomac alley (W. Court street), between West and California streets—graded and graveled.....	204 95	8 70
Church street and sidewalks, between Morris and Ray streets—graded and graveled.....	625 81	43 80
California street and sidewalks, from Washington street to Maryland street—graded and graveled.....	176 40	12 60
Clifford avenue, from Massachusetts avenue to the northwest corner of the United States Arsenal grounds—graded and graveled, and gutters bowl- dered .....	2,302 92	723 96
Court street, between East and Noble streets—graded and graveled, and gutters bowldered and curbed....	1,242 04	73 51
Bellefontaine avenue and sidewalks, from Lincoln avenue to Tinker street—graded, graveled, and paved.....	800 30	41 30
Carlos street and sidewalks, between Morris and Ray streets—graded and graveled.. .....	678 17	50 05
Maryland street and sidewalks, from Helen street, west, to White River—graded and graveled.....	209 00	24 70
Sixth street and sidewalks, between Delaware and Ala- bama streets—graded and graveled .....	285 71	17 00

	TOTAL COST.	CITY'S PORTION
Herbert street and sidewalks, between Illinois and Meridian streets—graded and graveled.....	\$ 12 56	\$ 28 80
Franklin street and sidewalks, from Nebraska street to the first alley north of Yeiser street—graded and graveled.....	625 80	30 80
Fletcher avenue, from Dillon street to Linden street—erecting lamp-posts.....	128 00	0 00
Stevens street, from East street to Virginia avenue—erecting lamp-posts.....	101 40	0 00
Olive street, from Prospect street to Pleasant Run—erecting lamp-posts.....	240 00	0 00
Bellefontaine street, from Home avenue to Seventh street—erecting lamp-posts.....	155 25	0 00
Peru street, from Home avenue to Seventh street—erecting lamp-posts.....	172 50	0 00
First Alley east of East street, from McCarty street to the first alley north of Buchanan street—graded and graveled.....	176 82	4 51
First Alley west of Japan (East) street, from Yeiser street to the first alley north of Yeiser street—graded and graveled.....	31 20	60
First Alley east of Alvord street, between Home and Malotte avenues—graded and graveled.....	347 49	1 20
First Alley north of English avenue, between Cedar and Dillon streets—graded and graveled.....	47 50	6 50
First Alley east of Franklin street, between Yeiser and Nebraska streets—graded and graveled.....	173 70	8 10
First Alley west of Franklin street, between Coburn and Nebraska streets—graded and graveled.....	277 17	8 60
First Alley west of Illinois street, from Morris street to the first alley south of Morris street—graded and graveled.....	36 87	7 87
First Alley east of Cook street, from Georgia street to Louisiana street—graded and graveled.....	105 57	4 60
West sidewalk of Mississippi street between Seventh and Herbert streets—brick paved.....	446 25	9 13
East sidewalk of Park avenue, between Cherry and Vine streets—brick paved.....	46 30	0 00
Sidewalks of Fletcher avenue, between Dillon and Linden streets—brick paved.....	588 66	9 73
Sidewalks of First street, between Illinois and Meridian streets—brick paved.....	160 98	9 10
West sidewalk of Missouri street, between New York street and Vermont street—graded, graveled, and curbed.....	134 40	4 80
Fire cistern at corner of Williams and Mississippi streets.....	505 52	505 52
Total.....	\$13,135 68	\$2,967 62

## BRIDGES.

No new bridges have been constructed during the year.

The iron viaduct over the Union Railway tracks, on Delaware street, was pronounced unsafe, and proposals were received to take down and store the same. A contract for this work was awarded at \$495, the lowest bid, and the bridge was taken down and stored, in parts, at the following named points:

- On Vermont street, at canal crossing.
- On Walnut street, at canal crossing.
- On St. Clair street, at canal crossing.
- On Fifth street, at canal crossing.
- On Wilkins street, at Pogue's Run crossing.
- On Ohio street, at Pogue's Run crossing.
- On Hanna street, at Pogue's Run crossing.
- In City Yard, near Lockerbie street.

This disposition was thought desirable, as bridges were likely to be built at the points named, in which the old material could be used.

## SEWERS.

But one sewer was commenced, and that is now being built. It is a two-foot brick sewer, beginning at the east line of the Central Station House and running, in and along Pearl street, to the first alley east of Delaware street; thence, south, in and along said alley, to Maryland street; thence, west, in and along Maryland street, to and connecting with the Virginia avenue sewer.

## CONTRACTS.

There are a few contracts on hand, some of which are about completed, while the others are under way.

The following are contracts uncompleted:

- For grading and graveling the first alley north of Fletcher avenue, from Cedar street to Dillon street.
- For grading and graveling the first alley east of Meridian street, between Phipps and McCarty streets.
- For grading and paving the east sidewalk of Pendleton Pike, between Clifford avenue and Orange street.
- For grading and graveling East street and sidewalks, from Morris street to Minnesota street.
- For grading and graveling the alley between Broadway street and College avenue, from Butler street to Home avenue.
- For constructing a brick sewer, from the east line of the Central Station House, in and along Pearl street, to the first alley east of Delaware street; thence, south, in and along said alley, to Maryland street; thence, west, to and connecting with the Virginia avenue sewer.
- For grading and graveling the first alley east of the lower arm of the canal, from Washington street to its southern terminus.
- For building stone abutments on the Central canal, at the crossing of Vermont street.

## WEATHER RECORD.

During the year I have kept, as formerly, a daily record of meteorological observations, of which a monthly mean is given below:

MONTHS 1877-8.	Monthly Mean Barometer.	Monthly Mean Temperature.	Monthly Mean Relative Hu- midity.	Prevailing Direction of Wind.	Total amount of Rainfall.	Highest Tem- perature.	Lowest Temper- ature.	No. of Days of Snow or Rain.
	Inches.	Degrees.	Per cent.		Inches.	Deg's.	Deg's.	
May .....	29.992	62.3	55.9	S E	2.09	88	31	7
June .....	29.907	71.7	70.1	S	6.21	89	45	18
July .....	29.931	76.1	67.6	S W	4.19	90	54	11
August.....	29.926	73.5	68.7	Calm.	4.13	89	57	12
September....	29.997	66.5	70.4	S W	2.04	85	42	11
October.....	29.983	58.6	68.1	S	3.22	83	35	12
November .....	30.038	43.1	71.4	W	3.64	61	9	18
December.....	30.097	46.8	72.5	S	2.45	67	20	18
January .....	30.022	34.7	69.1	S E	2.38	54	-2	20
February.....	30.107	39.5	65.7	N W & N E	2.10	61	18	15
March.....	29.912	50.3	61.5	S E	1.23	72	23	17
April.....	29.746	58.8	60.2	N W	5.51	80	35	17

## GAS DEPARTMENT.

Since last report, forty-eight additional lamp-posts have been erected. Of these, nineteen were ordered to be lighted on and after April 1st, 1878; the others (twenty-nine in number) were ordered to be lighted on and after April 20th, 1878.

The location and number of the new lamps are as follows:

On Bellefontaine street, from Home avenue to Seventh street.....	9 lamps.
On Peru street, from Home avenue to Seventh street.....	10 "
On Stevens street, from East street to Virginia avenue.....	6 "
On Fletcher avenue, from Dillon street to Linden street.....	8 "
On Olive street, from Prospect street to Pleasant Run.....	15 "
<b>Total new lamps.....</b>	<b>48</b>
<b>Number at last report.....</b>	<b>2,784 lamps.</b>
<b>Present number .....</b>	<b>2,832 lamps.</b>

These public lamps are lighted, extinguished, cleaned, and kept in repair by the Indianapolis Gas-Light and Coke Company, for which it receives \$29 per annum for each lamp.

The same company supplies gas, by meter measurement, to all of the engine-houses, tunnel, market-house, station-houses, White River bridge, and Military Park. This formerly cost \$2.50 per thousand cubic feet, but is now supplied for \$2 per thousand cubic feet.

Below is given the number of cubic feet consumed, during the year, at the various engine-houses, station-houses, etc.:

Number 1 engine-house .....	85,200 cub. ft.
Number 2 engine-house .....	49,400 "
Number 3 engine-house .....	71,500 "
Number 4 engine-house .....	40,900 "
Number 5 engine-house (including Sixth street station-house).....	152,300 "
Number 6 engine-house .....	94,700 "
Number 7 engine-house .....	81,700 "
Head-Quarters .....	80,500 "
Number 2 hook and ladder.....	52,400 "
Number 8 hose-reel .....	20,400 "
Number 9 hose-reel .....	19,000 "
City Hall (discontinued in December, 1877).....	84,400 "
Central Station-House.....	197,800 "
Illinois street tunnel (let by contract on March 1st, 1878).....	192,200 "
River bridge.....	62,300 "
East Market .....	143,700 "
Military Park (not lighted during winter).....	15,000 "
<b>Total cubic feet.....</b>	<b>1,443,400</b>
Costing.....	\$3,329 54
2,784 public lamps, one year, at \$29.00 each.....	80,736 00
19 public lamps, one month, at \$2.41 $\frac{2}{3}$ each .....	45 92
29 public lamps, one-third month, at 80 $\frac{2}{3}$ cents each.....	23 36
<b>Total gas bill for year.....</b>	<b>\$84,134 82</b>
<b>Rebate, as per contract of February 4th, 1878.....</b>	<b>5,000 00</b>
	<b>\$79,134 82</b>

There are many suggestions that might be offered for your consideration, but I defer, that they may be brought forward in detail at some future date.

I have endeavored, during the year just closed, to conduct my Department with as much economy as possible.

My office force has been reduced to its utmost limit; yet, working under such disadvantage, we have accomplished all that could be expected under the circumstances.

It is a pleasure to express my thanks to the members of the Common Council and Board of Aldermen, for courtesy extended to me in our official and personal relations. My thanks are, also, due my assistants, whom I commend for their integrity and attention to duty.

Respectfully submitted,

BERNHARD H. DIETZ, City Civil Engineer.