water, which is allowed to occur and increase constantly throughout this city, is checked or brought within reasonable control, it will be absolutely necessary, for the safety of the city, to continue this precaution; whereas, if the great bulk of waste were suppressed, which is quite practicable, the necessity in the majority of cases would no longer exist, as the normal pressure of the water would be so greatly augmented.

So much has been written in previous reports upon the difficulties under which the department labors, and the evils arising from this extravagant waste of water, that I feel any further allusion to it here would be unnecessary.

Improved pipe scraping machines are now being made at the workshops of the Board for further cleaning operations, to be carried out during the coming working season, and I have little doubt when these are completed that the workswill be in a still more efficient condition.

Referring to Nicholson's Dam, at Long Lake, which is a large earthen structure surmounted with a stone parapet, it has been stated in previous published reports that "the original proposal to deposit material along the face of the Dam in order to make good the deficiencies in the inner slope, has not yet been adopted," and, "this work cannot be neglected without running the risk of portions of the new wall sliding in the lake."

I have now to report that after a heavy N. E. gale last autumn, about 200 feet of this wall began to show signs of movement, and since that time this portion of the work has gone inwards towards the lake from 4 to 6 inches.

Although it is not apprehended that any serious consequences would immediately follow, if any part of the parapet wall were to fall, yet it is highly advisable, as well for the sake of economy as for the safety of the Dam, to run no risks in the matter. I would therefore call attention to the necessity of making good the damage, and completing the work as designed in 1877, without any delay. The estimate for this in 1879 was \$1,500, but owing to the repairs now needed, that estimate will probably be exceeded. Much of the work can be done to best advantage while the lake remains frozen.

Appended will be found a plan showing the arrangement of the pipes, valves, hatch-boxes and man-holes, at St. Andrew's.

cross, the point at which the 24 inch and 15 inch High and Low Service mains terminate. There are other localities in the city where the pipes are almost as complicated, but owing to the fact that no measurements, sketches or other data have been preserved, it is impossible now to make correct drawings without digging up the ground to ascertain, beyond a doubt, how they were originally laid. I may again repeat. as in some former reports, that there are no correct or proper plans of the water works in existence, without which it is extremely difficult to deal readily and intelligently with questions constantly arising. To prepare these plans, as they should be, would involve several months of steady labor by a competent Engineer, unhampered with any other duties. I have previously had occasion to recommend that in the interests of the city this work should be done. The attempt has been made, on several occasions, to utilize the labor of Engineering Students, in making the necessary surveys, measurements and plans, for the above purpose, but so far the results have not been satisfactory.

Your Board is aware that the old style of fire-hydrants, of which there are about 250 in use, are set in brick chambers, or man-holes covered with large cast-iron hatches. These hatches have been known to occasion accidents, besides which the plan is objectionable, chiefly on account of the liability of the hydrants to become frozen during severe weather in the winter. The new hydrants, introduced a few years ago, being protected by a frost jacket, are free from this difficulty, as far as it is practicable to make them 80. As more hydrants will soon be required, and there are a number of old ones in store, I am now having one of them altered and provided with a frost jacket, by way of experiment, to see if they cannot all be utilized in that way. The cost of the alterations I do not think will be heavy, and if they should prove satisfactory I would advise gradually altering all the old hydrants in the same manner, as occasion may require their temporary removal for repairs.

I feel that this section of my report should not be brought to a close without a reference to the loss which the Board and the City have sustained in the removal by death of Mr. John P. Muir, a respected citizen, and an old public servant, who was for many years connected with the City Works. Mr. Muir held the position of Superintendent of the Water Works, under the old Halifax Water Company, and under the Commissioners after the City purchased the Works. At the formation of the present Board of Works, in 1872, the office of Superintendent being abolished, Mr. Muir was unanimously elected Foreman of City Works, by the Council. This position he continued to fill with credit, being a hard worker and zealous in the discharge of his duties. Although his health had been failing for some years back Mr. Muir was able to attend to his duties with few interruptions up to the 4th of May last, when he was prostrated by weakness and complications of a serious nature, which terminated in death on the 14th of the present month.

#### SEWERS.

A brick sewer, in accordance with the improved sewerage plan, was built in Inglis street, from South Park street to Ivanhoe street, a distance of 370 feet. One man-hole and two ventilators were built in this sewer, the size of which is 33 inches in height by 22 inches in width, and the average depth from the surface to invert is 10 feet.

The cost will be found in the list of contracts let.

The above was the only new sewer built during the season.

#### STREETS AND ROADS.

Accounts of work done in this department will be found in the Schedules appended.

On the 18th of May last, a contract was entered into with Mr. John Naylor for cleaning and watering the principal streets and roads for a term of three years, at the rate of \$1,000 per month. In performing the work he is allowed the use of one of the city road scrapers, two sweeping machines, and thirteen watering carts; all additional apparatus required is furnished by the contractor. The length of the streets and roads included in the contract is as follows:—

1.	To be cleaned	weekly 12,570 feet 2.38 miles
2.	do.	fortnightly. 26,460 feet 5.01 miles
3.	do.	monthly 102,340 feet 19.38 miles
4.	To be watered	daily 115,380 feet 21.85 miles

Schedules giving the names of these streets and the points where the work commences and terminates are given in the appendix.

As a rule the cleaning operations have been faithfully attended to, but the same remark cannot be applied to the watering, and, if it is the intention to keep the contractor close to the mark in this respect, it will be necessary to employ some trustworthy person to do little else than follow up the work as it is done.

A new style of pavement for foot paths known as "Improved Brockenshire Pavement"-which is an artificial asphalt-was introduced in the Summer of 1880. The experimental portions then laid having successfully withstood the extremes of both Summer and Winter, it was decided to give the material a trial on a larger scale, which was done last Autumn. The old brick sidewalk on the east side of Barrington Street, between George Street and Prince Street, (which is one of the greatest thoroughfares in the city,) having long since become unfit for use and almost dangerous was taken up, and "Improved Brockenshire Pavement" was laid in its place. This and other smaller portions of sidewalks laid by the Agent of the Company have, up to the present date, proved satisfactory. The owners of property in front of which this material has been used and the public seem pleased with the pavement, and should it continue to give satisfaction, its general adoption in the place of our worn out brick foot paths would appear advisable. Compared with most other styles of pavement it has the advantage of cheapness on its side. Its ultimate wearing qualities can only be determined after it has been in use some years. Its cost is about 75 cents per square yard of which the proportion paid by the city to the agent last year was 40 cents per square yard.

Owing to the extension of the Intercolonial Railway into the city during the past season, Water Street from Gray's Lane northwardly has been so much narrowed that it cannot conveniently accommodate the heavy traffic to and from the North Street Depot, which formerly passed through that thoroughfare. Much of this traffic is now forced to go by way of Lockman Street which at some points is little more than 30 feet wide. To attempt to drive a light vehicle through either of these streets at times when much business is being done is a feat attended with considerable risk, and if the traffic between the centre of the city and North Street Depot should increase much more, the probabilities are that there will be occasional accidents of a more or less serious nature, until some better accommodation is afforded.

A short time ago a petition from a number of citizens was presented to the City Council asking for a new street to be opened from North Street to Cornwallis Street, midway between Lockman and Water Streets, a special report on which was sent to you. The object of the petitioners is to provide for the heavy and increasing traffic to which I have just alluded. . My own impression is that the purpose of the petitioners would be equally well served, and it would be a better public improvement to widen Water Street to a width of 80 or 90 feet from the sharp bend opposite Cunard's wharf to North Street, especially as we have already more streets to maintain, light and drain than the city can afford to do creditably.

I would recommend taking into serious consideration the advisability of paving Water street with blocks of granite. This thoroughfare consumes thousands of loads of hand broken stone annually in repairs. In a very few days after the surface of the roadway has been thoroughly renovated, the stones become ground into powder and form the mud, dust and dirt of Halifax every day life. A granite block pavement, although at first more costly than macadam, would, if faithfully laid, prove the cheapest in the long run, and if attended to with ordinary care, there would be no mud or dust from it.

I have in previous reports called attention to the advisability of the city acquiring new workshops with ample yard room for the Board in some central locality not far removed from the Board's offices. There is little doubt that a suitable property could be obtained at a reasonable rate on Albermarle, Gratton or Argyle Street. If this were done the work of the department could be better attended to and cottrolled. Some of the permanent hands could reside upon the premises. The advantages of which would be that a better system of discipline could be maintained at less expense than is now incurred; they would always be in readiness night or day for any emergency that may arise, and the city horses could be kept there cheaper and to more advantage than under the present system of paying for their board elsewhere.

The North Slip property having been conveyed to the Dominion Government for the purpose of the extension of the Intercolonial Railway into the city, the Board will shortly be deprived of that public landing place and storage yard for street materials. Unless some other landing place is acquired in the North End for the same purpose, the city will be put to the expense of wharfage or of paying additional rates for truckage on materials landed further

#### CITY ENGINEER'S REPORT.

South and used in the North suburbs. It would be economy to have at least three such landing places with moderate storage room at each for these materials; one in the North, one in the Centre, and one in the South end of the city. The public wharf at the South Slip could be utilized for the purpose as the central wharf, though its limited area is an objection and adds to the necessity of having the principal storage yard in connection with the workshops in some central locality. The city water lot on South Hollis Street could advantageously be converted into a landing and storage place for the South End.

Before closing this report I would call attention to the fact that the general practice has always been, whenever new streets are dedicated to the city or changes of any kind are made affecting the boundaries of streets or properties, to place the plans on file in the Crown Land Office, so that there are now a large number of these plans in the custody of the Crown Land Department which cannot be of the slightest interest or value to the Government. Such plans in the future should be filed in this office, and those now in the hands of the Government-if they cannot be transferred to the city-ought to be correctly copied and the copies kept here where they are needed for constant reference in determing lines and settling disputes. On such work as this, in making and perfecting the sewerage plans and details, besides a large amount of similar and more important work required in the Water Works Department, and in the keeping of clear and proper records of each years work, there is more than ample employment for a competent Assistant Engineer in this office, and it would be in the public interests to engage one permanently.

#### Respectfully submitted,

#### E. H. KEATING,

City Engineer.

#### Contracts Let in 1881.

DESCRIPTION.	RATES.	Additional work and extras.	Total Amount Paid.	CONTRACTS.	Date of Contract.
The state of the second	8	s	\$		1
Castiron sleeves clips,&c			1,004.46	Douglas & Co	16th June
Scraping Machines,			377.00	Munro & Wisdom	16th March
Scraping Machines, Street Cleaning & Watr'g	1000 per month.		5,466.66	John Navlor	18th May
Painting Offices of Board			179.42	John Naylor J. E. M. Taylor	23rd May
Cobble stones, 376 loads.	of 18 cwt.		278.24	Blakney	n't offers
Sand, 1,552 bushels	2 cts. per bushel		31.04	Henry Horn	Sector All
Gravel, 16,860 " Granite curbs, 1394-10	2 "		337.20	C. Tufts	
Granite curbs, 1394-10	0.61		850.85	Andrew Yeadon	20th June
" shallow, 170-6	0.50		85.25	do.	"
" Gutter stones, 171-9	0.50		85.88	do.	66
" shallow, 170-6 " Gutter stones, 171-9 " Crossings 142-2 Altr'ns Old Skating Rink	0,50		71.08	do.	**
Altr'ns Old Skating Rink	1,963.95	33.50	1,997.45	McIntosh & McInnes	14th June
Temp'rary do. for Exhb'n	46.00		46.00	do.	6th Sept.
Permanent Exhb'n Sheds					a second a second
Cattle Sheds, 875 feet	2 20		1,925.00	McIntosh & McInnes	2nd Aug.
Poultry " 400 "	0.30 0.50		120.00	do.	a
Pigs & Sheep Sheds 400 ft	0.50	20	220.00	do. do. do.	
Miscellaneous contracts.	583.05	119.98	703.03	do.	6th Sep.
Implement Shed, 200 ft.	4.00	324.67	1 124.67	William Brush	3rd Aug.
Machinery Hall, 200 ft.	4.40	618.79	1,498.79	do.	
Open Hose Sheds, 265 ft.	2.00		530.00	do. do. do.	"
Closed " 212 ft.	3.16		669.92	do.	"
Refreshment Shed, 156 ft. Miscellaneous contracts.	2.13				21st Aug.
Miscellaneous contracts.	228.50	35.22	263.72	do.	6th Sep.
2 Public Wells, Ward 6			107.37	Simon McQuarry	20th Sept.
Brick Sewer, Inglis St	. 1,197.00			Andrew Wood	
Fence 'round Pb'lic G'ns	0.58 per feet )			-	-
Double Gates for do Single do.	33.00 per pair - 24.00 each	34.30	788.14	William Brush	10th Oct.
Bell Tower, Queen St	696.00	Not Co	mpleted	William Brush	7th Nov.

Rainfat, Snow, and Total Precipitation, 1881.

	IN TH	E CITY OF	HALIFAX.	AT L	OWER CH	AIN LAKE.	
MONTH.	Rain.	Snow.	Total Precipita- tion.	Rain.	Snow.	Total Precipita tion.	
The state of the second	Inches.	Inches	Inches.	Inches.	Inches.	Inches.	
January	2.737	8.7	3.607	2.76	5.0	3.30	
February	2.939	23.9	5.329	3.46	16.0	5.07	
March		6.4	6.556	5.70	1.5	5.85	
April		2.6	3.498	3.13	2.5	3.43	
May		1 0	2.460	1.89	0	1.89	
June		0	5.301	4.60	0	4.60	
July		0	3.177	3.52	0	3.52	
August		0	3.062	3.30	0	3.30	
September	3.105	0	3.105	3 28	0	3.28	
October		0	4.206	4.09	0	4.09	
November		13.0	4.420	2.90	8.0	3.50	
December	6.574	4.6	7.034	6.37	5.0	6.82	
	45.832	59.2	51.755	45.00	38.0	48.65	

## CONTRACT FOR CLEANING STREETS.

Lists of Streets cleaned weekly.

No	Name of Street.	From	То	Distance
110.	Name of Street.	From	10	Feet.
1			Jacob	
2	Bedford Row			95C
3	Bell's Lane	Barrington	Water	120
4	Buckingham	"		230
5	Cheapside			130
6	Duke	Barrington	Water	470
7		Sackville		1,460
8	George	Barrington	Steamboat Dock	800
9	Hollis	Salter	Water	1,960
10	Jacob	Barrington		70
11		Bedford Rcw		100
12	Prince	Barrington		650
13	Sackville			640
14	Salter	Hollis		220
15			Jacob	2,840
	San Start Start	- Program Brows -	Total	12.570 f

## CONTRACT FOR CLEANING STREETS.

NT.	N	From	Π.	Distance
No.	Name of Street.	From	То	Feet.
1	Argyle			2,310
2	Bell's Lane	Argyle	Barrington	110
3	Bishop.			270
4	Blowers	Argyle	Granville	320
5	Brunswick	Jacob	Hurd's Lane	280
6	Buckingham	Argyle	Barrington	130
7	Campbell Road		Ross	2,860
8	Cornwallis	Lockman	Water	270
9	Duke	Argyle	Barrington	130
10	Gerrish	Lockman	Water	330
11	Granville	Salter	Sackville	560
12	Hollis	Morris	Salter	1,100
13			Barrington	570
14		Jacob	Campbell Road	5,700
15	Lower Water	Fawson	Salter	1,520
16	Morris	Pleasant	Water	650
17	North	Lockman		360
18	Pleasant	South	Sackville	2,370
19		Argyle		130
20		Lockman.	Water	150
21			Barrington	140
22	Salter	Pleasant	Hollis	300
23	Spring Garden Rd	Grafton	Pleasant	310
24	St. Paul's			140
25		Hurd's Lane	Campbell Road	5,150
26	Wallace			300
	and the second second		Total	26,460 f

Lists of Streets cleaned fortnightly.

### CITY ENGINEER'S REPORT.

## CONTRACT FOR CLEANING STREETS.

Streets cleaned Monthly.

No.	Name of Street.		0	
1000	and the second	From	To	Feet.
0	Agricola	Cunard	McCarra	3,930
2	Albermarle	Blowers	Jacob	2,330
3	Albert			300
4	Almon	Agricola	Gottingen	880
5	Annandale			260
10030	Artillery Place			200
7	Artz Lane			720
0.02010	Bates Lane			270
1004-001	Bauer			630
1.	Bell Road.		Robie	2,750
1000				880
	Bilby	Agricola	Gottingen.	480
		Inglis.	Victoria Road	
10100101		Albermarle	Argyle	300
	Brenton		· · · · · · · · · · · · · · · · · · ·	890
202010	Briar Lane.			230
	Birmingham			1,330
	Brunswick	Sackville	Jacob	1,970
18		Hurd's Lane	North	3,650
	Brunswick Lane			190
20	Brenton Place			200
21	Buckingham	Brunswick	Argyle	460
22	Carlton	College		330
102000-001 B	Chestnut Place		1 0	260
24	Church			620
100000000000000000000000000000000000000	Cogswell	Park	Brunswick	1,580
15356 (MIN)	Cornwallis.	Park	Lockman	1,710
3-66581/10	Creighton		Lookinani.	3,390
	Cunard	Windsor	Gottingen	2,860
	Cunard Court			170
27-12-20 C 1 - 12-	Dresden Row	South a second		1,700
17-21-20(1)   1-		·····		420
A Proof Control	Dundonald	Demonstration		420
23291112	Duke	Brunswick	Argyle	
SARGEON F	Falkland			700
34 ]	Fawson			350
		John	Maynard	580
	Gas Lane			300
		Brunswick	Argyle	470
			Lockman	1,440
	Gottingen	Cogswell	Young	6,100
	Grafton	,		2,690
				340
			400 feet west	400
	Harvey			650
			South	620
100000-00	A DESCRIPTION OF THE OWNER OF THE PARTY OF T			530
			Pleasant	2,300

## CONTRACT FOR CLEANING STREETS.

Lists of Streets cleaned Monthly .- Continued.

No	Name of Street	From	70.	Distance.
No.	Name of Street.	From	То	Feet.
i de la composición de			Brought forward	52,830
47	James			350
48	John			690
49	Johns			300
5C	Kent			860
51	Lucknow.			970
52	Maitland	••••••		1,760
53	Maitland Terrace.			270
54	Maynard			3,250
55	Mitchell			350
56 57	Morris	Tower Road		2,220
58	Moren	D.1.		390
59	North		Lockman	2,290
60	North George North Park		300 feet North	300
61	Pleasant		Cunard	1,040
62	Poplar Grove	South	Bauld's House	2,930
63	Prince	Brunswick		300 480
64	Prince William			200
65	Proctor's Lane	Brunswick	Lockman.	200
66	Queen	Drunswick	LJCKman	3,540
67	Robie	Quinneal Read		1,370
68	Rottenburg	Dresden Row	Dundonald	680
69	Russell		Dundonaid	1,250
70	Sackville		Argyle	2,740
71	Sarah	Moren	Agricola	180
72		Tower Road	South Park	260
73		Hollis to 400 ft.		400
74	South Park		Inglis	2,820
75	South Hollis			300
76	Smith			400
77	Summer	Spring Garden Rd	Bell Road	2,050
78		Robie	Grafton	3,520
79	Starr.			560
80	Tobin			900
81	Tower Road	Inglis		3,000
82	Victoria Road			2,060
83	West			1,260
84				360
85	Young	McCara	Southwardly	620
	and an exception	und and and and	Total	102,340

## WATER DEPARTMENT.

Lists of Streets where Water Pipes have been laid in 1881.

Name of Street.	From	To	Diameter of pipe —inches.	Length of pipe —feet.
Bennett's	Wharf	1 Fire Hydrant.	6	11
Glacis Barracks.	North End	Soldier's Qrs 1 Fire Hydrant.	6in to 3in	4
North End	Magazine	Campbell Road	6	162
Service pipes	Put in to	1 Fire Hydrant. Houses lead Lead pipe	101334	$1,799 \\ 182$
No. 0	f feet excavated	during the year 1	881	2.158

Diameter.	No. of pieces.	Weight of one.	Weight in Ibs.	Weight of whole.	Cost per lb.	Total Value.	• REMARKS.
27		2651	29,168				
24		3192					
20		1263					
15	1 7	1029		69,486	158	\$1129 14	
12	220	680	149,600		"		
9	267	533	142,311		"		
6	30	328			"		s structure to obtaile
4 3	357				"		State and State
3	55		7,040	378,763	189		
11/2	121	22					Svce Stand Pipes
1.5	127	10					" Plates.
	150	4					" Caps.
1	87	11/2	1301	4,6621	4	186 50	
						\$8,474 26	Silica Bonnues (%)

Pipe Stock on hand December 31st, 1881.

Wood Wedges.

Diameter.	No. of pieces.	Weight of one.			Weight of one. Weight in lbs.							Weight of whole.								Total Value.							REMARKS.	
24 20 15 12	2120																	-			14							
20	600																							•	•	•		
15	6000												•	•						. 1		•	•	•	•	•		
12	2000																		•				•		•	• •		
9	1800																		•							•		. A State State
9 6	7420											1	1	9,	9	4	0		1			\$	1	9	9	4	<b>4</b> 0	)
Key.	2000	١.			•	١.		•				1		2,	0	0	0	1		5					4	(	00	)!
		1																			-	s	2	0:	3	4	10	5

### CITY ENGINEER'S REPORT.

_	=	Dranch I tpes and					
No. of Pieces.	Diameter.	Descriptions.	Weight of one in lbs.	Weight of the whole.	Total weight.	Cost.	Total cost.
3	27	Bell Mouth Pieces.	831	2493	2,493	$3\frac{11}{12}$	\$97 60
1		Cap	290				
14		Thimbles		5544			a in a h
8	CONCEPT:	Thimbles		1872			
$\frac{1}{3}$		Cap		200			
3 3	15	D. B. of 3 in		2688 1980			
1	and the second second	S. B. of 15 in	812				自会自动的 合合
2		V. B. of 15 in		2024			和以此的
1	10000123	Cap	54	10000			S. 1999
1		Clamps,	110				
7	15	Thimbles	234	1638			
1		S. B. of 12 in red'g to 12 in	500				
1		Reducing to 12 in	400				
1	15						
2	15	J III	252				a starting was
2 3		Reducing to 6, no facet	232	464		•••••	
1		D. B. of 9 in A Piece	500				
6	and the second second	Caps	45				
14	100000000	Thimbles	10000000	2240			- 10-10 - 1
2		S. B. reducing to 9 in	200				i in
3	12	" " 6 in	231				
- 3	12	Reducing to 9, no facet	252				
2	9	Extra Branches	384	768			1. All
2		S. B. of 9 in	400	800			
12	0.0003	D. B. of 9 in		4212			
7	1 1 1 2 2 2 2	Offsets	136				
5		Caps	36				
10 3	9	D. B. of 9 in $\ldots$		4110			S
7	9	" 6 in Reducing to 6, no facet	121	1062 847		928	1 1 10 10 10 1
7	g		107	100 C 100			12 N. 12 L
22			ALCOND-S	3 4906			P
14				2520			
10		S. B. of 6 in		3 2030			1. S. 12.
6	6	" 4 in		1080			and the second second
7	1 6	" 3 in	160	480	)		and a second
7	6	Reducing to 4 in, no facet			3		1.1.1.1.
77.07	8 6	,	114				S MARINE
7			9	Contraction of the local sectors of the local secto			Strace (
1		эш,	7				and the second s
18		Thimbles					
21		i Caps D. B. of 4 in	12	7 10 3 258			
21		S. B. of 4 in	112			•   • • • • • • • • •	
		<b>A</b> . B. of <b>4</b> in	8				
		In. D. OI 2 III	. 0	0 40			

## Branch Pipes and Irregular Pieces.

No. of pieces.	Diameter.	Descriptions.	Weight of one in lbs.	Weight of the whole.	Total Weight.	Cost.	Total cost.
25	4	Thimbles	29	725			
27	4	Caps	8	298			Inter the
7	4		74	518			and R
5	4		84				Section.
4		D. B. of 3 in	90	STOR (5)			AN LOT OS!
4 5 2	3	S. B. of 3 in	81	405	· · · · · ·		Sections.
2	3	" 2 in	75				S. CLAE
69	3	Thimbles		1794			
24	3	Caps	8				IT.EAL
8			28		• • • • • •		1
1	2		23	23			. Salare
8	2	A. B. of 2 in	23	184	24,398	234	ASTAS AS
6		Split Thimbles & Bolts.		3720			ating at
2	20		453	906			A STREET
14	15		200	3640			and starts.
191	12			4329 3192			
24	9			2024			1.00 1.00
22	6			1152			
18	43		48	288	19,251	$2\frac{3}{4}$	\$529.39
6		Pipe Scraper 3 sets valves	40	200	10,201	\$138.50	Ç020.00
1	$\frac{24}{20}$	Pipe Scraper 3 sets valves				100.00	adamin's
1	15					100.50	entities for the for the
1	12					60.00	18 . E . E
1	9					47.00	
1	. 6			1.1.1		35.00	481.00
4	12	Stop Cocks				7920	316.80
5	9	······································				55.CO	275.00
9	6	"				32.00	288.00
5	4	"				24.00	120.00
1	3					18.00	18.00
1	2	"				12.00	12.00
6		Gun Metal Screws	28	168			
6	12		18	108			
6	9		14	84			
10	6		.9	90			
9	4	" "	6	54			
2	3	" "	5	10			000.10
8.		Nuts	5	40	554	65	360.10
1	4	Fire Hy. (without jackets)				66.50	66.50
6	4	Old Pattern do.			•••••	50.00	300.00
11		Old Fire Hydrants				4.00	44.00
3	2	Domestic Hydrants, wood'.	!		!	4.00	12.00

Branch Pipes and Irregular Pieces .- Continued.

## CITY ENGINEER'S REPORT.

No. of pieces.	Diameter.	Descriptions.	Weight of one in lbs.	Weight of the whole.	Total weight.	Cost.	Total cost.
2	3	American Meters, gem				\$75.00	\$150.00
1		Scotch Meters, kennedy				94.70	94.70
1	13			S		48.00	48.00
2 1 2 3 2	ł	" " "				17.50	35.00
3	3	Siemens Meters				22.50	67.50
	34	Pressure Gauges				16.50	33.00
100	-	Extra pieces for Fire Hy.				1.00	100.00
1		Lead Pipe			1804	$6\frac{3}{4}$	
		Tin Tubing			260	40	104.00
	1	Brass Fittings			534	80	427.20
1500		Blacksmith Tools					100.00
-		Carpenter Tools				· · · · · · · · · · · · · · · · · · ·	100.00
-		Grand Total				tion at	

Branch Pipes and Irregular Pieces .- Continued.

### RECAPITULATION.

Lbs.		Description.		Cost per lb. or price.		e. 1	Total Value.
3 Nos. 1	78,763 $4,662\frac{1}{2}$ 19,940 2,000 2,493 62,750	"           Wood Wedges           "           "           Keys           Branch Pipes, &c           "	A STATE AND A STATE	$1_{100}^{89}$ 4 1 $3_{1224}^{151224}$	1856	62 50 40 00 60 35	a construction
Nos.   	6 25 39 8		6650 5000	2 <sup>3</sup> / <sub>4</sub>	300	00 80 10 50	
  Lbs.	3 10 2 100 1804 260	Domestic Hydrants Meters from 3 inch to $\frac{1}{2}$ inch Pressure Gauges Fire Hydrant Fillings Lead Pipe Tin Tubing Brass Fittings Blacksmith Tools	400 1650	$6\frac{3}{40}$ 80	12 395	00 20 00 27 00 20	

.

		and the estimated back super a second
amized, 1881.	REMARKS.	882 56 1680 Where required. 1680 Where required. 11102 Where required. 1722 Where required. 1722 Where required. 1008 Not finished. 3218 Where required. 3218 Where required. 3218 Slight repairs. 3218 Slight repairs. 321
	No. Bushels Broken Stones	
	Macadamized.	FT.         FT.           450         20           187         250           187         20           187         20           187         20           187         20           187         20           1950         300           200         3600           200         3600           200         3600           3600         3600           3600         3600           300         300
cade	Graded.	
List of Streets Graded and Macadamized, 1881	ι Ω	Half way to Wallace. Spring Garden Road. Half way to Victoria Road Morris. South Park. South Park. Bauld's. Bauld's. Cobourg Road. West End. West End. Comourg Road. Robie. West End. Cometery. Steam Boat Wharf.
	FROM	Morris. Rottenburg. Inglis . South Park. Harvey. Pleasant. Victoria Morris. Jubilee. Jubilee. S. G. Road. S. G. Road. Barrington. Granville.
	ATBERTS.	Hollis. South Park South Park South Cark Morris. Morris. Tower Road Tower Road Jubilee Jubilee Carlen Carlen Prince George George
018.0	.bleW to .QN	11 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

STREET DEPARTMENT. MO. 1.

68 .

CITY ENGINEER'S REPORT.

	[]	•
Continued.	REMARKS	84 Where required. 3444 Part course gravel. 3052 Where required. 252 Where required. 7462 378 Where required. 7463 378 Where required. 378 Where required. 3402 3402 1470 3402 3402 Where required. 3542 Slight repairs.
81C	Broken Stones No. Bushels	
, 18	Macadamized.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
List of Streets Graded and Macadamized, 1881CONTINUED.	Graded.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	10	Prince
	FROM	Prince.       Sackville.         Duke.       Jacob.         Duke.       Jacob.         Argyle.       Jacob.         Argyle.       Abernarle         Argyle.       St. Andrew         Gottingen.       Robio.         Cornwallis.       Gerrish.         Jacob.       Cornwallis.         Jacob.       Robio.         Jacob.       Robio.         Vandew       Gottingen.         Campbell Road Gottingen.       Richmond.         Madeungen.       Richmond.         Kaye.       Campbell Road Gottingen.         Kaye.       Campbell Road Gottingen.         Campbell Road Gottingen.       Kaye.         Campbell Road Gottingen.       Campbell Road Gottingen.
Ĺ'n	6TAKET	Hollis Water Park Jacob Jacob North Kovth Lockman Gottingen Barrington Quinpool Road Quinpool Road Quinpool Road Quinpool Road Vourg Young Young Vourg Sourg Young Vourg V
	No. of Ward.	6.42 4 102 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

### CITY ENGINEER'S REPORT.

#### No. 2.

## List of Streets in which Curbings have been set.

WARD.	STREETS.	FROM.	то.	NEW.	RESET.	REMARKS.
-				FT.	FT.	
1	5. G. Road	Front of	Mr. Romans.		30	
2]	Barrington	Sackville	Blower		300	
"	Grafton	S. G. Road	**	418		
3]	Barrington	St. Paul's	Prince	170		
"	Argyle	Sackville S. G. Road St. Paul's Barrington	"	173		and the states of
"]	Prince	Barrington	Argyle	156		South side. 1
"	"			142		North side.
41.	Albermarle.	Buckingham.	Duke	1 305	196953	East side
**	Buckingham	Front of	Mr. Parker		24	
•••		Corner of.	Grafton		30	
**	Barrington	**	Bell's Lane	11	45	
"	water	Foot Bell's	Lane		150	Where required
4	**	Proctor's Lane	Cornwallis.		300	Where required
	Cogswell.	Bower.	North Park	179	1	
"	North.	At Gratings	1	1 9	1	1

N	~	3.
11	0.	0.

List of Crossings.

WARD.	STREETS.	· FROM.	то. 🔹	NEW.	RESET.	REMARKS.	
1	121 25			FT.	FT.		
1	Pleasant	South side	Victoria		37	Paved with granit	e blocks.
1	**	North side	Harvey		36		"
1	**	South side	Morris.		1 36		**
1	Morris	East side	Pleasant		38	66	**
î		West side			37	"	ss' .
i		East side	Church	12%	38 37 36	66	•.
7		South side				66	**
1		Corner of					
1 8.0	S. G. Road.	66 Corner of	Grafton		94	Partly done.	
14.2	S. G. Road.	"	Gratton		22	rarry done.	
45	6 6		Queen				
66			Birminghan	a			
		and the second	South Park		21		
3	Granville	North side	George	. 33		Double crossings.	
3	George	East side	Granville	. 38			
4	George Water	North side	Bell's Lane.		28		
4	"	South side			27		

## No. 4.

## List of Streets in which Gutters have been paved.

WARD.	STREETS.	FROM.	то.	NEW.	RESET.	REMARKS.
				FT.	FT.	
1	Pleasant	South	Kent. South Park. Mr. Butler. Lucknow.	450		West side.
1	S. G. Road	Barrington	South Park		150	South side.
1	Dresden Row.	Opp. Hon	Mr. Butler		100	East side.
1	Victoria Road.	Near	Lucknow	75		North side.
1	Hollis	Morris	Half way to Wallace		250	West side.
2	Barrington	Sackville	Blower		300	East side.
2	Grafton	S. G. Road	"		418	West side.
3	Argyle	St. Paul's	Half way to Wallace Blower Prince Argyle Duke. Bell's Lane Cornwallis North Park		173	East side.
3	Barrington	"	**		170	West side.
3	Prince	Barrington	Argyle		142	North side.
3	"	" …			156	South side.
4	Albermarle	Buckingham	Duke		305	East side.
4	Barrington	Near	Bell's Lane	11	45	West side.
4	Water	"			150	South side.
5	"	Proctor's Lane	Cornwallis		300	Where requir'
5	North	Gottingen	RobieNorth	1500		South side.
5	Creighten	Near	North	200		South side.
6	Russell	Campbell	Gottingen	200		Where requir's
6	Young	North Star	Union	150		North side.
6	"	Kaye	Union Opp. Mr. Quinn Renforth	450		South side.
6		Campbell Rd	Renforth	150		Both sides.
6	N. W. Arm Rd	Opposite	Mr. Hurley	100		North side.
6	Almon	Gottingen	Young	225		Both sides.

### NO. 5.

Lists of Sidewalks Graded and Gravelled, 1881.

Ward.	STREET.	FROM	то	Distance in ft.	Bushels of Gravel.	REMARKS.
1	South Park	Inglis	Half way Vict. Rd. S. Garden Road	187		Not Finished.
1	"	Victoria Road	S. Garden Road	2100		Graded.
1	Rottenhurg	South Park	Brenton	1 995	12222012	North Side Graded
1	Tower Road	" …	Morris Birmingham	600		East Side Graded.
1	Morris	Pleasant	Birmingham	1200	770	North Side.
1			Church	200	182	where Required.
1	Pleasant	South	Kent	450		West Side.
1		Morris	Wallace	375	168	Rock Cut Down. East Side Graded. Gutter Cut Out. Graded Gutter Cut Out.
1	Dundanald	Near	Inglis	200		East Side Graded.
10	Dundonald	Morris	To Factory	200	84	Gutter Cut Out.
2	S. Garden Road	South Park	Robie	200		Both Sides.
2	Grafton	S. Garden Road	Cemetery	418		West Side.
5	Barrington	Sackrille	Blower	300		Where Bricks were bad New
~	Darring con	Sackvine	••••••	300	20	ones put down.
3	Argyle	St. Paul's	Prince	173	224	ones par domin
-3	Barrington			170		West Side.
3	Prince	Barrington	Aroyle	156		Both Sides.
3	Barrington	George	Prince	345		Brokenshire Patent.
						East Side.
3	"	Prince	Mr. Knight.	300	100	West Side.
3	Prince	Opposite	Mr. Knight	31		Brokenshire Patent.
4	Albermarle	Buckingham	Duke	305	252	East Side.
4	Barrington	Near	Bells Lane	40		West Side.
4	and the second se		Duke	1.000.000	Pares.	Where Bricks bad New ones put down,
4	Buckingham	Opposite	Mr. Parker	24		
			Duke	300	1	Where Bricks were bad New ones but down.
	Linesand strange and strange		Cornwallis	10000	128502.00	Where Bricks were bad New ones put down.
5	Cogswell	Bauer	North Park	179	294	
5	Maynard	Cornwallis	North Park Cogswell Maynard Cunard	600	658	West Side.
2	Cunard	Robie	Maynard	1325	798	Where Required.
5	Agricola	west	Cunard	450	322	East Side.
5	Cottingen	Cornwains	Hura s Lane	1050	400	East Side where Pequired
5	North	Cottingen	Pobio	1500	12/9	East Side. East Side where Required. Rock Cut Down. West Side Where Required.
5	Creighton	Noar	North	200	250	Wast Side
5	Maitland	Gerrish	Prince William	450	938	Where Required
5	Windsor	Near	Compton Avenue	900	70	Graded.
- 5	Craighton	Cowsich	Cumand	595	1 000	Dath Sidar where Required
5	Gerrish	Gottingen	Maynard.	450	84	Where Required.
5	Barrington	Opposite	Mr. O'Mallev	35	98	Where Required. East Side. Both Sides where Required. West Side Graded.
6	Campbell Road	Young	Kenny	1800		Both Sides where Required.
6		Duffus	Nowth	400		West Side Graded.
6	Russell	Campbell Road	Gottingen	400		Where Required Both Sides
6	Young	- "	North Gottingen Renforth Union	150	84	Both Sides.
6		North Starr	Union	150		Where Required Both Sides Both Sides. Graded. South Side Graded. North Side. Both Side. West Side where Required. West Side
6		Kaye, opposite.	Mr. Quinn	450		South Side Graded.
-6	N. W. Arm Rd.	Opposite	Mr. Hurly	100		North Side.
6	Almon	Go tingen	Young	225	28	Both Sides.
0	water	North	Gerrish	1.75	224	West Side where Required.
-	North	Artz Lane	"Brunswick	600	280	West Side.
. (	North	Loekman	Brunswick	3/5	0 84	North Side.

## CITY ENGINEER'S REPORT.

### No. 6.

## List of Sewer Pipes, Branches, etc., in Store.

No.	Size.	CROCK PIPES AND BRANCHES.	Size of Branch
2	15	Single Branches	15
11	15		12
4	15	" "	9
1	15	" "	3
8	12		3
10	12	" "	9
11	12		12
51	9		9
52	9	" "	6
3	9		3
3	12	Double Branches	9
1	12		3
15	9		6
7	9		6
2	6		6
2	15	Angle Branches	15
11	15	ingle branches.	12
4	15		9
ŝ	15		6
9	15	Pipes	6
4	12	(i)	
4	9		12 Protest
12	6		
5	3		
1	15	Bend	
5	15	TIL	-
27	12	E1DOWS	
44	12		10000

## CLERK OF WORKS REPORT.

## OFFICE OF COMMISSIONERS, BOARD OF CITY WORKS, March 20th, 1882.

To the Chairman and Commissioners Board of City Works:

GENTLEMEN,—In accordance with the usual practice, I have the honor to herewith submit, for your information, the annexed Report for the year ending December 31st, 1881, of the various disbursements for the different Departments under your control.

All of which is respectfully submitted.

J. B. JOHNSTON,

Clerk of Works.

### Statement showing Expenditure for Maintenance Account, Water Department, for year ending 31st December, 1881.

#### COST OF SERVICE.

Labor	6.322	69
Salaries	3,239	
Stationery	63	54
Printing and Advertising	48	21
Rent of Stores and Workshops	450	00
Gas	11	75
Hardware, Lead Pipe, etc	220	90
Sundry Castings	875	60
Insurance		50
Sundry Accounts for Bricks and Cement	181	34
Miscellaneous Accounts	381	70

\$11,797 48

#### MONTHLY DISBURSEMENTS.

a molal most relative dit was a to to

January	.\$ 601	24
February		00
March	. 674	22
April	. 845	15
May	. 706	53
June	. 291	67
July	. 1,462	76
August	. 572	40
September	1,153	60
October	1,626	45
November	1,257	42
December	1,380	03
	\$11 797	18

CLERK OF WORKS REPORT.

### Statement showing Expenditure for Construction Account, Water Department, for the year ending 31st December, 1881.

### COST OF SERVICE.

Service Extension to houses (labor)	\$ 412	263
Sundry Castings	1,387	
Hardware and Lead Pipe	525	
Wooden Wedges	30	16
Dry Fountains, duty and charges	70	26

\$2,425 681

#### MONTHLY DISBURSEMENTS.

January	s	
February	37	89
March		
April		26
May		21
June		
July		993
August		27
September		48
October	791	83
November		10
December		65
All all and a second and a second and a second	<u>e earo</u> :	120

\$2,425 681

## WARD 1.

### Statement showing Expenditure for Labor, Cartage and Material for Street Work executed during the year ending 31st December, 1881.

### DR.

GENERAL REPAIRS THROUG WARD.	HOUT THE
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
the set of a second second	<b>—————————————————————————————————————</b>
MORRIS STREET (Metalling, Rasings, etc.	aising Cros-
To amount paid for labor	
" " cartage	231 54
" " materia	1 503 61
mutorit	
and the second second second	- 1000 20
SOUTH PARK STRERT (Gradin etc.)	
To amount paid for labor	
" " cartage	289 72
" " materis	J 3 24
materic	600 22
A STATE AND A STAT	000 22
PLEASANT STREET (Repairs Paving Gutter.)	Sidewalk,
To amount paid for labor	
	168 88
" " materia	242 35
mutorit	652 33
	031 00
SOUTH STREET (Grading.)	
To amount paid for labor	\$ 120 97
" <sup>°</sup> cartage	65 41
	1
	186 38

## CLERK OF WORKS REPORT.

Hollis Street (Repairs and Cleaning Drain.)				
To amount paid for labor	\$ 57	70		
" " cartage		24		
" " material		64		
			112	58
VICTORIA ROAD (Paving Gutter and Building Catch-pit.)			112	00
To amount paid for labor	s 11	75		
" " cartage	5	40		
" " material	15	58	32	73
TOWER ROAD (Repairs Sidewalk.)				
To amount paid for labor	\$ 179	90		
" " cartage	100	82		
" " material	85	68		
			366	40
BIRMINGHAM STREET (Building Catch-pit)			1.101	
To amount paid for labor	\$ 11	67		
" " cartage	2	16		
" " material	8	58		
CARLETON STREET (Repairs.)	-		22	41
To amount paid for labor	\$ 35	50		
" " cartage	27	00		
			62	50
SPRING GARDEN ROAD (Crossing, etc.)				
To amount paid for labor		91		
" " cartage		37		
" " material	24	64		
			54	92
HENRY STREET (Repairs.)				
To amount paid for labor	\$ 54	30		
" <sup>1</sup> " cartage		60		
			66	90
EDWARD STREET (Repairs.)				
To amount paid for labor	\$ 24	43		
DRAINS (Sundry Repairs.)				
To amount paid for labor				
cartage		88		
" " material	10	40	and and	North C
			114	16
		\$	3,456	88

College of the state of the second

1881.	Cr.
Jan. 1.	By amount to credit \$ 453 39
	" of appropriation 2300 00
	" " 625.00
1882.	- Distanting Contraction of the Astronomy and
Jan. 1.	To amount overdrawn

## WARD 2.

Statement showing Expenditure for Labor, Cartage and Material for Street Work executed during the year ending 31st December, 1881.

### DR.

GENERAL R WARD.	REPAIRS	THROUGHOUT THE				
To amount	t paid for	labor	97	77		
"		cartage		74		
"	"	material		72		
					140	23
SPRING GARD	EN ROAL	, (Repairs Sidewalk,				
Raising	Crossing	s. etc.)				
		labor \$	358	29		
"	"	cartage				
**	"	material		12		
					569	75
JUBILEE ROA	AD, (Repa	uirs.)				
To amount	paid for	labor\$	156	05		
"	1 "	cartage	53			
"	"	material				
					209	51
T	~	(D) · (C) ))				
		(Relaying Curb.)				
To amount	paid for	labor \$	36	40		
"	"	cartage		64		
"	"	material	7	95		
					52	99

#### CLERK OF WORKS REPORT.

LOUISBURG STREET, (Building Culvert.)		3		
To amount paid for labor \$	94	50	the way	-A
" cartage		64		a sea a
" " material		20		
material	19			-
	100		42	14
GRAFTON STREET, (Curbing.)				2
To amount paid for labor \$	114	58		
" " cartage	. 6	84	more	
	255	29		
and the second	01000	Baaaa	376	71
QUINPOOL ROAD, (Repairs.)			ME O	• -
	199	17		
	122			
" cartage	26	28		
-			148	45
CARLTON STREET, (Forming Gutter.)				
To amount paid for labor \$	12	75		
" cartage			1	
-	- 10-		25	35
	2.		-0	
		e	1,565	72
1881. Cr.	No april	Φ.	1,000	10
		. er		
Jan. 1. By Balance\$				
By Amount of appropriation 1	1,525	00		
	-	\$	2,492	75
1000		=		
1882.			and CC	
Jan. 1. By amount to credit			\$927	02

## WARD 3.

Statement showing Expenditure for Labor, Cartage and Material for Street Work executed during the year ending 31st December, 1881.

DR.

GENERAL REPAIRS WARD.	THROUGHOUT THE		
To amount paid fo	r labor\$		AWT
	cartage	18 26	
" "	cartage	42 40	
2 00	insterial	\$	144 74

ARGYLE etc.	STREET (Curbing, Paving Gutter,				
	ount paid for labor	12 4	20		
10 am					
2.1 2.3	cartage	4 (	08		
	" material 10	8 5		S	
	84 HI S W Todal vor his	1	-\$	156	47
	STREET, (Curbing, Paving Gutter, airs Sidewalk.)				
To am	ount paid for labor 9	7 6	0		
"	" cartage A	2 1			
"	Callage				
	" cartage 4 " material 36	0 4	63		
			-	500	15
GRAFTON	STREET, (Repairs Sidewalk.)				
To am	ount paid for labor 2	5 6	8		
11		2 2			
	" material		2		
	material	'	-	-0	00
nes vera			-	,58	62
1881.	Cr.				
Jan. 1.	By balance\$ 6	8 2	2		
	By amount of appropriation 122	5 0	0		
	by amount of appropriation 122	0 0		293	90
	Contraction of the second s		-91	,495	22
1882.				-	-
Jan. 1.	By Balance to credit		.\$	65	37

## WARD 4.

Statement showing Expenditure for Labor, Cartage and Material for Street Work executed during the year ending 31st December, 1881.

### DR.

GENERAL	REPAIRS	THROUGHOUT	THE	
WARI	D			

To amount	paid for	labor \$	12	13		
" 00		cartage		44		
a a a	"	material	2	96		
					16	53

#### CLERK OF WORKS REPORT.

WATER S	STREET (Rela	ying Curb, etc.)				
		labor \$	136	27		
ĸ		cartage	70			
"	"	material	149			
	.188	i gradantosti belli tu j			\$ 355	77
AIBERMA	RLE STREET	(Curbing)				
		labor \$	108	11		
10 amo	func para loi			58		
"	"	cartage			222 31	
	10 12 2	material	188	21	000	00
		CHIER			383	23
BARRING	TON STREET	(Relaying Curb.)				
To amo	unt paid for	labor \$	32	94		
"	1 (1	cartage	10	80		
"	"	material	9	44		
		e la bor,	- Eritan	<u>b1</u>	53	18
NORTH H	ARK STREE	T (Repairs.)				
To amo	unt naid for	cartage\$	27	57		
	"	cartage	18			
					46	47
	16 66 8	100 r. 100 r. 100 r. 100		00	20100	
1881.		La Anirotata			\$855	18
Jan. 1.	To amount	overdrawn			32	51
-oan, 1.	10 uniouni		111.0	10.1		1251
				\$	8 887	69
1881.		Cr.		1.		
	By amount	of appropriation \$	12	25		
1882.						
Jan. 1.	By balance	to credit\$	337	31	C. KI	25. V
					N and a start of the	
	10.002.10				TOTSE!	
		and a second a second and a second a s				

CLERK OF WORKS

## WARD 5. minister and anti-

### Statement showing Expenditure for Labor, Cartage and Material for Street Work executed during the year ending 31st December, 1881.

GENERAL REPAIRS THROUGHOUT THE WARD.	bien		amo "	
To amount paid for labor\$	41	61		
" " cartage	50			
" " material	and the second second	52		
material	20		115	65
	1.131.81	1110	110	00
NORTH STREET, (Excavating and Paving Gutter, Building Catch-Pits, etc.)				
To amount paid for labor	409	98		
" " cartage	100			
" " material	205		2.	
	200	TU	715	50
	10		715	90
COGSWELL STREET, (Curbing.)				
To amount paid for labor \$	36	91		
" <sup>1</sup> " cartage	9	74		
" " material	109			
material	100	00	156	64
GOTTINGEN STREET, (Metalling Roadway, Repairs Sidewalk.)				
To amount paid for labor	90	34		
" " cartage	170	22	- Al	
" " material	320	32		
		1. Sec. 1.	580	88
WATER STREET, (Relaying Brick Side- walks, etc.)		By I		
To amount paid for labor	293	07		
	75			
" " material	315			
1112001121	510	10	1:00	
			683	16
CREIGHTON STREET, (Paving Gutter, Repairs Sidewalk.)				
To amount paid for labor	76	80		
" " cartage	18	52		
" " material	19			
	10		115	96
			110	20

-		CRK OF WORKS REPORT				8
AGRICOLA	STREET, (	Repairs Sidewalk.)				
		r labor \$	24	53		
	"	cartage		80		
"	and a contract	material		52		
	1881.				49	8
CUNARD	STREET, (R	epairs Sidewalk.)				
To amo	ount paid fo	r labor\$	21	30		
. "	• "	cartage	17	82	517	
"	"	material	10	08		
		100000 00000 000 000 000 000 000 000 00	1	<u></u>	49	20
BRUNSWIG	CK STREET,	(Repairs Sidewalk.)				
To amo	ount paid fo	r labor\$	42	55		
	• "	cartage	23	84		
"	"	material	9	84		
	N 580 4	tal	THE THE		76	28
LOCKMAN	STREET, (	Metalling Roadway.)				
		r labor\$	25	83		
"	"	cartage	113			
'n	"	material	270			
		Services and a the			41C	75
MAYNARD	STREET, (	Repairs Sidewalk.)				
To amo	unt paid fo	r labor\$	26	81		
"	•	cartage	33	04		
, "	**	material	9	60		NY.
		a second a state of the second state as	1957 18	<u>. 101.0</u> ľ	69	45
WINDSOR	STREET, (I	Repairs.)				
To amo	unt paid for	r labor\$	36	40		
"	1 "	cartage	16	38		1
					52	78
QUINPOOL	ROAD, (G	rading.)				
			108	29		
i o amo	"	cartage		18		
			10		126	47
		And an and the second second		12001		
1881.		Cr.		S	3,202	49
Jan. 1.	Br Palan	c	909	67		
oan. 1.	By Approx	priation 2	025	00		
	by approp	Jindoloff, 2	,040		3.217	67
-				φ.	,=10	01
1882	1					
-	DDJ					
Jan. 1.	By Balanc	e to Cash			.\$15	18

#### MAR OF WORKS, REP.

# WARD 6.

Statement showing Expenditure for Labor, Cartage and Material for Street Work executed during the year ending 31st December, 1881.

### DR.

GENERAL REPAIRS WARD.	THROUGHOUT THE				
To amount paid for	labor	1	63		
" "	cartage	5	04		
	material		38		
	_			58	05
RUSSELL STREET (G Gutter.)	rading and Paving				
To amount paid fo	r labor\$	637	76		
"""	cartage	105			
" "		1	50		
	ANALANALAR PRIMAL TOL	1991	1	745	22:
CAMPBELL ROAD (Re	enairs Sidewalk)				
	r labor\$	360	60		
10 amount paid 10		210			
	cartage	221			
	material	241	24	792	005
	· · · · · · · · · · · · · · · · · · ·			192	201
WATER STREET (Rep	airs sidewalk, etc.)				
To amount paid for	r labor\$		66		
	cartage	34	30		
	material	25	92		
		1.11		132	88
KAYE STREET (Repa	irs.)				
	r labor \$	33	70		
" puta io	cartage		60		11-
		ing 3		55	30-
HANOVER STREET (R	epairs)				
		19	61		
To amount paid for	r labor\$				
05 808,24	cartage	Э	40	97	01
	· · · · · · · · · · · · · · · · · · ·	1	_	20	01
VIETH STREET (Repa	irs.)	ST. 7			
To amount paid for	r labor\$	18	47		
" " "	cartage	44	25		
a a	material	119			
				181	79
			-		

### CLERK OF WORKS REPORT.

To amount	paid to	r labor \$	13	50	11.00	*
"	"	cartage	11	30		
10 01100			T.T.D.	ta.	24	8
YOUNG STRE	ET (Rep	airs.)				
To amount	paid fo	r labor \$	216	13		
"	"	cartage	79	96		
46	"	material	81	17		~
Danman Gunn	(D	AMEOUS ACONT	112	\$	377	20
RECTOR STRI			00	00		
To amount	paid for	r labor\$		02 80		
		cartage	10	00	39	8
NORTH STREE	ET (Repa	irs Sidewalk, Build-			00	0.
ing Cate					.168	
•	-	labor \$	27	20		
"	"	cartage	32	16		
"	"	material	107	02	Srin "	
a		and alling has	-	the second	166	38
		Repairs.)	horisa	-		
To amount	paid for	labor\$	74		01	
an seran		cartage	32	40	107	90
NORTH WEST	APM R	DAD (Repairs.)	i.		101	40
		labor \$	48	16		
10 amount	"	cartage		00		
Cide way state					64	16
Armor Conn	m (Dani	Cutton) of Longvill				
ALMON STREE			07	00		
10 amount	paid for	labor\$	67 36			
а .	"	cartage	42			
			197		146	68
LOCKMAN STI	REET (Re	epairs Sidewalk.)				
		labor\$	65	02		
"	"	cartage	33			
"	"	material	9	50	10-	
D	(D .	ation indicession on	21120	1.5	107	64
BAYER'S ROAD						
To amount	paid for	labor			28	51
				A CONTRACTOR		1000

1882. Jam 1. By Holencon ..........

1881.	CR.		tanora o	
Jan. 1.	By balance	\$ 485	34	
	By appropriation	2925	34	
1882.	and an and the three best and	1) TR	\$3410	34
Jan. 1.	By balance to credit		\$ 357	25

### MISCELLANEOUS ACCOUNT STREETS.

Statement showing Expenditure for Labor, Material etc., (not charged to Wards,) for the year ending 31st December, 1881.

DR.

1881.

To amount paid for Hardware and Tools, also material for supplying the different Wards, such as Gravel, Paving Stone, Road Metal, Granite Curbing and Crossing, and which is charged to their separate accounts when -\$6133 46

1881.

CR.

Jan.	1.	By Balance	32201	40
		By Appropriation	250	00
		By sundry credits for materials		
		delivered to Wards	2488	71
		By Balance	1193	35
		for interess and the for	him	\$6133 46

#### 1882.

1881.

Jan. 1. To Balance ..... .....\$1.193 35

### General Cash Account Streets. DR.

To amount expended during the year.\$17,038 48 Dec. 31. 1881. CR.

Jan. 1. By amount to credit.... \$ 4468 77 By amount of Approp..... 13000 00 \$17,468 77

1882.

By Balance......\$430 29 Jan. 1.
# CLERK OF WORKS REPORT.

Details of Streets Account.

1882.

J

Jan.	1.	Amount to	credit	for	Ward	2\$	927	02
			"	"		3	65	
				•. ••		4	327	31
				"		5	15	18
		"	4 10	"		6	357	25
						9102	1992	
		Overdrawn	by W	ard	1	\$	78	49
			Misce	llan	eous ac	cet.	1193	35
		1.7.67			1.1.1. (F.)		<u></u>	

Balance to credit of Streets account ..... \$430 29

## Monthly Cash Disbursements.

January \$	1,106	26
February	733	56
March	86	21
April	466	36
May	667	84
June	1,606	45
July	3,265	29
August	887	60
September	2,929	22
Uctober	3,845	51
November	1,444	
December		

## \$17,038 48

## INTERNAL HEALTH.

Statement showing Expenditure upon the various services included under the above heading, also Monthly Cash Disbursements for year ending 31st December, 1881.

#### COST OF SERVICE.

Liming Gratings\$	27	85-
Watering Streets (days works)	88	08
Cleaning " (days works)	1,262	03
Watering " (Naylor)	5,466	66
Spreading Ashes, etc	48	90
Cleaning Gutters, Gratings and Catch-pits	1,180	38
Examining and Cleaning Sewers	156	94
Cleaning Snow round City Property Removing Ashes from " General Work, keep of Horses, etc.	902	30
Removal of Ashes (contract)	1,560	00
Sundry Accounts.	192	

\$10,885 86

ŝ

#### MONTHLY DISBURSEMENTS.

JanuaryS	79	90
February	122	15
March	218	27
April	944	04
May	552	86
June	1,326	15
July	1,462	35
August	1,218	31
September	1,750	78
October	1,567	42
November	1,165	90
December	477	73

\$10,885 86

## SEWERAGE ACCOUNT.

Statement showing Expenditure on Sewerage Work for the year ending 31st December, 1881.

COST OF SERVICE.

\$425 62

#### CLERK OF WORKS REPORT.

## CITY PROPERTY.

Statement showing Expenditure, also Monthly Cost Disbursements for the year ending 31st December, 1881.

COST OF SERVICE.

Sundry Repairs City Building\$	323	30
" Central Engine House No. 5 Engine House Spring Gar-	16	98
den Road Sundry Repairs No. 6 Engine House Queen	34	17
• Street	40	49
Sundry Repairs Gerrish Street Engine House	1	25
" Engine House Gottingen Street		85
" Exhibition Building	186	
" Offices Board of City Works	187	
" North End Slip	12	
" Fence Freshwater Lots		90
" To Stores		68
Advertising		60
Fuel		55
Insurance	196	
Keeper of City Clock	100	
" Exhibition Building	104	
Hardware	75	Constraint (Constraint)
Gas Oil Lamps		17
Miscellaneous	322	
	014	10

#### \$1,798 81

#### MONTHLY DISBURSEMENTS.

January \$	61	18
February	198	90
March	3	25
April	434	11
May	63	79
June	11	75
July		-
August		
September	120	75
October	598	68
November	79	07
December	228	08

\$1,798 91

#### CLERK OF WORKS REPORT.

## EXHIBITION FUND.

Statement showing Expenditure for Extension of Exhibition Building during the year 1881.

### DR.

To amount paid Mackintosh & McInnis on account contract	as la	indry Rep	
Cattle Sheds, etc\$2	603	20	
To amount paid William Brush			
on account contract Imple-			
ment Sheds, etc 4	666	06	
To amount paid for Labor in			
connection with Buildings,	-		
etc	626	44	
To amount paid Inspector	51	00	
" " McDonald & Co	838	65	
" " George Fraser,			
Agent, Roofing	120	00	
To amount paid Sundry small			
Accounts	82	81	112
Balance	86	84	
		-\$9,075	00

#### CR.

Amount of Loan	0	00	
Amount of premium on do. @ 1 per cent	5	00 .	
ance with resolution of City Council	0	0 <b>0</b> 	0

1882.

Jan. 1. By Balance brought down.....\$86 84

	January	February.	March.	Aprii.	May.	June.	July.	August.	September.	October.	November.	December.	1881.	1880.
ater Service, Maintenance Account	\$ 601 24	\$1226 00	\$ 674 22	\$ 845 15	<b>\$</b> 706 53	\$ 291 67	1462 709	\$ 572 40	\$1153 60	\$1626 45	\$1257 42	\$1380_03	811,797 48	\$ 10,589 28
ater Service, Construction Account		37 89		14 26			517 994					- F		3,343 92
rect Service	1106 26	733 56	86 21	466 36	667 84	1606 45	3625 29	887 60	2929 22	3845 51	1444 18		17,038 48	14,853 77
ternal Health	79 90	122 15	218 27	944 04	552 86	1326 15	1462 35	1218 31	1750 78	1567 42	1165 90	477 73	10,885 86	8,015 50
werage													425 62	1,543 03
ty Property	61 18	198 90	3 25	434 11	63 79	11 75			120 00	598 68	79 07	228 08	1,798 81	2,962 23
hibition Building Fund		1.2											9,075 00	1,986 30

Abstract Statement showing the Expenditure for each Service per month, with totals, for the years 1880 and 1881.

J. B. JOHNSTON,

Clerk of Works.

## FIRE DEPARTMENT.

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the extension frame to see the second states we are the second second second second second second second second

#### [Extract Minutes of Board Fire Wards, October 14th, 1881.]

Read Annual Report of Chairman. On motion it was Resolved that the Report be received and adopted, and sent to the City Council for publication in the Civic Annual Report.

[A true extract.]

#### R. L. SUTLIFFE,

Secretary Board Fire Wards.

## CHAIRMAN OF FIRE WARDS REPORT.

#### HALIFAX, N. S., Oct. 14, 1882.

#### To the Board of Firewardens of the City of Halifax :

GENTLEMEN,—Permit me to present to the Board, this, my Annual Report, as Chairman of Fire Wards for the year ending October, 1881.

During the year nine miles of wire-string have been placed in position, the Boxes have been painted and varnished, and New Batteries in good condition.

No. 1 and 2 Steam Fire Engines have been re-fitted, and are at present in as good working order as when landed here about twenty years ago.

During the past Summer I have visited several cities throughout the Dominion, and was well received by the Chiefs of their Fire Department, and while thanking them for the kindness and courtesy extended me as Chairman of the Halifax Fire Department, I may say without underestimating the efficiency of their Fire Departments, that Halifax is ahead of any that have been visited.

I here take the opportunity of returning sincere thanks to the various Insurance Companies who so kindly contributed towards the purchase of the self-controlling nozzles, which, since their introduction into the Department, have been the means of saving much valuable property.

During the coming Winter we will be called upon to request the City Council to supply the Department with 1,000 feet Rubber Hose for the Engine House at Islesville, as a new Division is about being organized in that vicinity.

Before concluding my Report for the year, I return my hearty thanks to the several members of the Board of Fire Wards for their earnest co-operation on all occasions during the period I have been in office. I also return thanks to Capt. Shepherd, his officers and men of the Union Engine Company, also to Capt. Taylor, his officers and men of the Union Protection Company for their various co-operation and assistance on all occasions, and also to Capt. Hurley, his officers and men of the Union Axe Company.

I remain yours sincerely,

JOHN EAD,

Chairman Fire Wards.

List of Fires for the year ending October, 1881.

#### 1880.

- Oct. 9. Box 41—"Herald" Office, Granville street; damage slight.
- Oct. 19. Box 28—House Campbell road, lately used as City Railway Office, occupied by N. Glennon; totally destroyed.
- Oct. 19. Box 28—House Campbell road, lately used as City Railway Office, occupied by N. Glennon; breaking out second time.
- Oct. 22. Box 28—Barn Young street, owned by Joseph Kaye; totally destroyed.
- Nov. 1. Box 28-Barn Russell street; slightly damaged.
  - 24. Box 25—Two Houses, corner Walnut & Chestnut streets, owned by H. K. S. Neal; totally destroyed.
  - 30. Box 24—House Cunard street, owned by John Murphy; slightly damaged.
- Dec. 2. Box 5—House Chebucto street, owned by John Veriker; totally destroyed.
- 18. Box 18—Tailor shop, Brunswick street, occupied by Davidson & Pickering; damaged badly.
  - 11. Box 7-Tannery, South street, owned by J. F. Crowe & Co.; totally destroyed.
- 19. Box 16-City Building; slightly damaged.
  - 20. Box 18—Commercial Buildings, Lockman street, owned by Lawson estate; damage slight.
- 28. Box 25—House Maple street, owned by William Horton; totally destroyed.

#### 1881.

- Jan. 4. A cottage at N. W. Arm, owned by J. M. Chisholm; totally destroyed.
- 10. Box 41—Building Prince street, owned by Studly estate; slightly damaged.
  - 11. Box 27—6 dwellings on Duffus street, occupied by tenants; totally destroyed.
  - 21. Box 21—House and shop corner Creighton and Falkland streets, owned by Thompson and Bullock; slightly damaged.

#### FIRE DEPARTMENT.

Feb.	4.	Box 16—Barque in the Harbor owned by Gas- tonguay and others; slightly damaged.
Alateri	<b>11</b> ,	Box 35—Corn mill Hamilton's wharf, owned by S. A. White & Co.; badly damaged.
Mar.	6.	Box 16—Caledonia Hotel Water street, owned by E. G. & C. Stayner ; damage slight.
200	19.	Box 25—Two dwellings Cedar street, owned by J. Houlett and W. McNaughton; totally destroyed.
	20.	Box 24—Deaf & Dumb Institution, Gottingen street; damage slight.
	29.	Box 26—House Gottingen street, owned by Geo. Philips; damage slight.
	30.	Box 13—Boarding house, occupied by Thomas Symonds, Hollis street; damage slight.
Apl.	2.	Box 3.—House Grafton street, owned by John Walk; damage slight.
	5.	Box 21—False alarm
01.64	5.	Box 35—Rodger's Tinshop, between Water and Lockman streets; damage slight.
	10.	Box 21—House Gottingen street, owned by Est. Irwin; damage slight.
	14.	Box 34—Chimney of house owned by P. Godfrey on Lockman street.
	16.	Box 26-Two houses on Bilby street owned by P. Dillon; badly damaged.
May	4.	Box 4.—Building on Annandale street owned by John Murphy; slightly damaged.
June	7.	Box 26—House Maccara road owned by P. Hurley; totally destroyed.
•	12.	Box 16-Tug Boat at Butler's wharf; damage slight.
	19.	Box 17—False alarm.
	20.	Box 25-Barn on Quinpool road; damage slight.
	22.	Box 35-McCaffrey's cooperage, Upper Water street; damage slight.
	26.	Box 25—House on Swaine street owned by Ald. Woodill; totally destroyed.
July	16.	Box 26-Catholic Orphanage, Gottingen street; badly damaged.

18. Box 23-House Gottingen street, owned by Mr. Evans; damage slight.

Box 18-J. K. Munnis, tailor shop, Water street; Aug. 13. damage slight.

- Box 41-R. Uniacke's building, Barrington street : 17. damage slight.
- Box 26-House Three mile house road, owned by 23. G. P. Henry; totally destroyed.

Sept. 8. Box 3-G. E. Smith & Co. store, Lockman street; damage slight.

Total-43 alarms.

#### List of Apparatus, October, 1881.

For 12 -Bon the former opening by Thouses symonds. Hollis street; damings dight

There is at present the following apparatus and fixings in the use of the Department:

Three (3) Steam Fire Engines.

Two (2) Hand Fire Engines.

Eighteen (18) Hose Carriages.

Eighty (80) lengths, equal to 4,000 feet, of Rubber Hose.

Seventy-two (72) lengths, equal to 3,500 feet, of Leather Hose.

Eight (8) lengths of Rubber Suction Hose, equal to 75 ft. 50 feet of which is new.

Six (6) Ladder Carts.

Twenty-nine (29) Ladders of sundry lengths.

One (1) Fire Extension Ladder. Soat

One (1) Patent Hose Oiler.

Five (5) Grapnels and Chains.

One (1) Hose Sled.

Two (2) Fuel Carts.

The above are located as follows :-

#### CENTRAL ENGINE HOUSE.

One (1) Steam Fire Engine, "Victoria," No. 1.

Steamer's Hose Reel. "Albert," No. 1, Ten lengths of Rubber Hose.

No. 1 Hose Reel "Salamander;" Ten lengths of Rubber Hose.

100

No. 2 Hose Reel "Vista," Ten lengths of Rubber Hose. Two (2) spare Reels, containing 12 lengths of Leather Hose.

Two (2) Ladder Carts, Eleven Ladders.

One (1) Patent Extension Ladder.

Two (2) Grapnels and Chains.

One (1) Fuel Cart.

One (1) Patent Hose Oiler.

One (1) Hose Sled.

#### GERRISH STREET ENGINE HOUSE.

One (1) Steam Fire Engine, "Albert," No. 2.

Steamer's Hose Reel "Emerald," No. 2, Ten lengths Rubber Hose.

No. 4 Hose Reel "Resolute," Ten lengths Rubber Hose. One (1) Spare Hose Reel, Leather Hose.

One (1) Ladder Cart, 6 Ladders.

One (1) Grapnel and Chain.

One (1) Fuel Cart.

#### QUINPOOL ROAD ENGINE HOUSE.

One (1) Hose Reel "Perseverance," No. 7, Ten lengths Rubber Hose.

#### SPRING GARDEN ROAD ENGINE HOUSE.

One (1) Hand Fire Engine "Alma," No. 5.

One (1) Hose Reel "Mayflower," No. 5, Ten lengths Rubber Hose.

One (1) Ladder Cart, 5 Ladders.

One (1) Grapnel and Chain.

#### QUEEN STREET ENGINE HOUSE.

One (1) Steam Fire Engine "Chebucto," No. 3.

One (1) Hose Reel "Alma," No. 6, Ten lengths Rubber Hose.

One (1) Hose Reel, Ten lengths Leather Hose.

#### ISLESVILLE ENGINE HOUSE.

One (1) Hand Fire Engine "Ætna," No. 5, (Not in working order.)

One (1) Hose Reel containing 10 lengths Leather Hose.

One (1) Ladder Cart, 5 Ladders.

One (1) Grapnel and Chain.

#### FIRE DEPARTMENT.

REEL HOUSE UPPER WATER STREET. One (1) Hose Reel, Ten lengths Leather Hose. REEL HOUSE LOWER WATER STREET. One (1) Hose Reel, Ten lengths Leather Hose. REEL HOUSE LOCKMAN STREET. One (1) Hose Reel, Ten lengths Leather Hose. REEL HOUSE PLEASANT STREET. One (1) Hose Reel, Ten lengths Leather.

STALLS CATORS PRACE TRUESS FORTHER

One (1) Mose Reel " Magilower" No. 6. Ten Interfice

JOHN EAD, Chairman.

(mathing a trail rabbal (F) and

## CEMETERY COMMITTEE'S REPORT.

ABORDON STRATCHED PROVIDENTS

## HALIFAX, N. S., Dec. 1st, 1881.

## To His Worship the Mayor and Members of the City Council of Holifax :

The Committee of Camp Hill Cemetery have the honor to submit the within as their Report for the civic year ending the 30th September, 1881, together with a statement of the receipts and expenditures; also a Register showing the number of interments, religious denominations, etc.

The Committee during the past year have had quite a quantity of earth carted into the Cemetery, and considerable filling and grading performed on the new ground; also, caused the removal of a number of forest trees, totally unsuited for a Cemetery, and have had the remaining ones renovated and pruned, so as to give them a pleasing and more suitable appearance. From the financial statement appended hereto, you will perceive that a balance of \$2,482.69 stands to the credit of the Cemetery, without taking into account the amount of interest accrued on special deposit in bank.

There were nine hundred and twenty-eight lots remaining unsold in Camp Hill Cemetery on September 19th, 1881, exclusive of the space reserved in the centre of the Cemetery.

Westernander and the second se

Universaliata. Plymouth Brothern

All of which is respectfully submitted.

THOMAS CLAY,

Chairman

#### CEMETERY COMMITTEE'S REPORT.

## Number of Interments in Camp Hill Cemetery for the year ending 30th September, 1881.

1880.	STREET COMMENDERS	110.33
October		. 23
December		. 22
January		. 26
March		. 32
April		. 31
May	L'USISHE ALLER, CHIA J. 12 OSTILLIA	. 21
June		. 23
July		. 12
August		. 29
ave hed qui	multee luring the past year h	0
	Total	.277

## Abstract of Interments in Camp Hill Cemetery for the year ending 30th September, 1881.

unning the o Constant that have had the terraining one

grading performed on the new ground; also,

From the Brencial statoment

Male Adults	66
Female Adults	76
Males under 10 years	
Females under 10 years	62
m. ( )	
Total	211

## Religious Denominations.

Episcopalians1	13
Presbyterians	58
Wesleyans	52
Baptists	34
Universalists	3
Plymouth Brethern	3
Unknown.	14
Total2	77

## CEMETERY COMMITTEE'S REPORT.

## Statement of Expenditure and Receipts for Cemetery from 1st October, 1880, to 1st October, 1881.

188	80.	Dr.	
Oct.	1.		00 40
			89
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	90
			34
			05
	30.	,	55
Nov.	28.		70
188	81.		
May	15.	James Hutton, labor	30
	30.		70
June	1.		04
			00
July	17.	" " 24	00
Aug.		" "	00
Sept.			00
~~p.	0/13	Balance below 2482	
		\$2709	56
18	80.	Cr.	0.023
Oct.		By Balance per account\$2293 56	
Dec.	A CONTRACTOR		
		Lots sold to date 160 00	
18	81.		
Apl.	30.	Lots sold to date	
Sep.		· " " 160 00	
		\$2709	56
18	91		

Oct. 1. By Balance brought down.....\$2482 69

## REPORT OF OIL LAMPS COMMITTEE:

The Devider, 1850 to 181 Million 188

In accordance with a resolution contained in Minutes of Council, dated March 22nd, 1882, the Committee on Oil Lamps for year 1880 and 1881, reports as follows:

The contract for lighting and keeping in repair the several Oil Lamps in the City of Halifax was awarded to John Egan, his tender being \$997.00. As far as the Committee is aware Mr. Egan's duties have been satisfactorily performed.

There have been Two Oil Lamps erected during the year; one on corner of Pryor Street and Jubilee Road, and one on Robie Street.

By Balance becucht down ......

GEORGE MCLELLAN,

Chairman.

## CITY CLERK'S REPORT.

OFFICE OF CITY CLERK,

Halifax, April 19th, 1882.

To His Worship the Mayor and City Council:

At your request I have the honor to submit the following Annual Report of the amount of Fines imposed and Fees exacted in Police and City Courts from the 1st October, 1880, to 30th September, 1881, with a general summary of the amounts collected from 1st May, 1880, to 30th April, 1881.

I have the honor to be,

Gentlemen, '

Your obedient servant,

THOMAS RHIND,

City Clerk.

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