

This material is part of the collection of the Philadelphia Water Department and was downloaded from the website www.phillyh2o.org

Please contact the PhillyH2O webmaster for more information about this material.

## REPORT

OF THE

# JOINT WATERING COMMITTEE

OF

## NORTHERN LIBERTIES & SPRING GARDEN

# **WATER WORKS:**

TOGETHER WITH THE WHOLE COST OF THE EXPENSE OF KEEPING THEM IN OPERATION TO DECEMBER 31, 1845.

PHILADELPHIA:
BARRETT & JONES, PRINTERS, 34 CARTER'S ALLEY.
1846.

### REPORT

Of the whole cost of the Northern Liberties and Spring Garden Water Works, and the Expense of keeping them in operation to December 31st, 1845.

The Joint Watering Committee submit to the Boards of Commissioners of the Districts of Northern Liberties and Spring Garden, the following report of the whole cost of their Water Works, and the expense of keeping them in operation to December 31st, 1845.

Previous to the 15th day of July last, the construction and operation of the works were under the control of the Board of Water Commissioners; from that period, they have been under the management of the "Joint Watering Committee."

This report would have been made at an earlier day, but that it might be entirely correct, the Committee deemed it necessary to have the whole accounts of the Commissioners and Committee re-examined, and regularly journalized and posted for all future reference. From these accounts they present Statements A, B, C, and D.

Statement A contains the "whole cost of the works."

Statement B contains expenditures for the districts respectively.

All the matters embraced in these statements were began, completed and settled by the Water Commissioners, and are submitted at this time by the Committee only, because no full statements have heretofore been laid before the Boards of Commissioners on these subjects.

It may be proper to remark that the stated costs of the joint works and districts' mains, are entitled to a credit of \$1,937 57 the estimated value of pipes, castings, tools, &c. yet on hand.

Statement C contains the expense of keeping the works in operation during the year 1845—six and a half months under the direction of the Water Commissioners, and five and a half under that of the Committee.

In this statement there are some items that require explanation. That for "Repairs and Improvements" is very large. Nearly nine hundred dollars is for repairs and alterations of engines, caused by their original imperfect construction, and the subsequent non-compliance of the makers with the terms of their contract. The Committee believe that the districts have an equitable and legal claim upon those gentlemen, for the whole or a part of this sum.

The Committee would also state here, that for some time past both the pump boxes have leaked considerably from fractures in their bottoms, and the valves have worked badly; evidently also from imperfect material or construction. Arrangements have been made with Messrs. Morris & Taws for others, which will be put in as soon as possible.

Most of the remainder of the item for "Repairs and Improvements," was for fixtures and apparatus, or improvements of the real estate, and, therefore, not such as may justly be considered necessary to keep the works in operation, but as tending to increase the value of the property.

The items of "Stationery and Printing," as also that of "Incidental Expenses," are mostly made up of payments for fitting up and supplying the Register's office, and not likely in any future year to reach the tenth of these sums.

The item of "Insurance" is another that will not enter into the expenses of another year, it being for perpetual insurance.

That for "Tools and Ironmongery" will hereafter be comparatively small.

Notwithstanding these heavy expenditures incurred this year, and that will not be required hereafter, the whole cost of keeping the works in operation, it will be seen, is but \$1,767 16 more than was estimated by the Water Commissioners, in their report of December, 1843, as necessary to raise one and a half millions of gallons in each twenty-four hours, and is \$2,332 84 less than was estimated by them it would cost to raise two and a half millions. The actual quantity raised during the year has been an average of 2,035,508 gallons for twenty-four hours, showing the annual

estimate of the Water Commissioners was more than the actual costs has been.

Statement D shows the whole amount of money received by the Water Commissioners, and the Register the purposes for which it has been expended, and the balance left in the hands of the latter.

Statement E exhibits the Profit and Loss of the year's transactions, and is made up in part from the Books of the Joint Committee, and in part from those of the Treasurers of the respective districts.

This statement exhibits a truly gratifying result; for, notwith-standing the extraordinary difficulties and expenses that always attend the commencement of any great work, and which have been shown to have swelled the expenditures of the past year to a large amount, and notwithstanding the whole cost of the works, for reasons stated by the Commissioners, in their report of January 15th, 1845, exceeds by nearly \$40,000 (\$39,589,69) the amount estimated by the Water Commissioners, in their report of December, 1843, thus increasing the interest on cost of works, yet are the profits of the year but \$2,375,79 less than was anticipated by the Water Commissioners, in their report above alluded to,—a sum about equal to the interest on the additional cost of works.

Satisfactory as must be the result of the operation of the works for 1845 to the Boards of Commissioners, and to every citizen of the districts, that which may fairly be estimated for 1846, and which is exhibited in statement F, opens up a still brighter future.

The extraordinary increase of water rents over 1845, is a result not anticipated, but known; they cannot be diminished, but may be increased during the year. The expenditures for the year are put down the same as for 1845, (though shown to be large) it is not therefore to be conceived that the nett profit of the year will be less than estimated.

If, therefore, this estimate prove correct, and there is no reason to doubt it, there will be an increase of Profits of 50 per cent. over that of 1845. Judging from an experience of the cost of keeping the works in operation, and taking into consideration the

probable further outlay that will be necessary to enable the works

to supply the increased demand for water that will evidently be made upon them, it is not unreasonable to expect that in six years, or seven at the most, the whole sums paid by the districts for the erections of the works will be repaid to them; and that, thereafter, the revenues derived from their works, if it be thought proper so to apply them, will pay all the municipal expenses of the districts, and the water at the same time be supplied to citizens at a cost less than what they now pay for it; or if it shall be supplied, as it most likely will be, at a sum only sufficient to pay its own proper expenses, it will be at a much lower price

Appended will also be found *Tables*, prepared by the Register, showing in detail the amount of water rents for the several districts for 1845, and the additions made during the year, also the various purposes for which it is used, and rates at which it is

furnished. Similar statements for 1846 are also annexed.

than was ever expected by the most sanguine advocates of the

Tables showing the length of pipe laid, and number of Fire-Plugs erected in each district, previous to 1845, and during the year, are also annexed,—also showing the quantity of water raised during each month of the year, and its daily average,—also the time of the workings of the Engines, and other matters believed to be interesting to the Boards.

Watering Com.

Spring Garden

Watering Com.

N. Liberties.

All of which is respectfully submitted.

NATHAN SMEDLEY,
JOHN E. YOUNG,
SAMUEL SIMPSON,
HENRY WARNER,
JAMES H. DEAS,
HIRAM AYRES,
ABRAHAM W. HAINES.
JOHN A. BENDER,
CHARLES BROWN,
CHARLES MUSCHERT,
MICHAEL LEVERING,
THOMAS WILMER,
DAVIS LOUDERBACK,

WILLIAM BERGER.

The following description of the Works was furnished by Wm. E. Morris, C. E., under whose superintendence they were constructed:—

ENGINES AND PUMPS.—There are two expansive condensing engines, and two double acting forcing-pumps.

Steam Cylinders are 36 inches diameter, and 6 feet stroke.

pump Cylinders are 18 inches diameter, and 6 feet stroke.

These cylinders are placed in the same verticle line, and the pistons move together. At the opposite end of the beam is attached a fly-wheel, 18 feet in diameter, and the rim weighing 8840 lbs. Working velocity is 13 revolutions per minute.

For each engine there is one boiler, so arranged that either engine may receive steam from either or both boilers.

Extreme length 13 feet 8 inches—outer diameter 7 feet 9 inches.

In the lower part are three 18 inch flues, and above these, 94 three inch tubes,  $[2\frac{3}{4}]$  inches inside, 9 feet 6 inches long.

The fire is made under the bottom of the boiler, and passes thence, first through the flues entering them at the rear end of the boiler, and then through the tubes to the chimney.

Total fire surface, about 1000 cubic feet. Grate surface for

each boiler, 30 square feet—for both, 60 square feet.

The steam pipes and cylinders are clothed with woollen and cased with wood, and the boilers inclosed with brick.

Average working pressure of steam, 16 lbs. per square inch, and the cut-off valves are worked at half stroke.

These valves were not completed at the time the works went into operation, but were started, one on Sept. 15, and the other on Oct 15, 1845.

There is an air vessel attached to each pump, having a capacity of about 172 cubic feet each. The operation of these is such, that no variation can be observed in the flow of water from the ascending main into the reservoir.

CHIMNEY.—This is 83 feet in height, 5 feet 8 inches diameter at bottom, and 6 feet 4 inches diameter at top, constructed with double walls throughout; draught powerful, and the combustion of coal rapid.

The bed-plate of pump stands 2 feet above low water of the Schuylkill.

ASCENDING MAINS.—There are two in number, one for each pump, and the same diameter as the pump cylinder, viz: 18 inches.

Total distance from pump to inside of reservoir, 3250 feet. Total elevation from low water in Schuylkill to average height of surface in reservoir, 115 feet.

RESERVOIRS.—There is but one reservoir, properly speaking, having a division bank 4 feet below top water line, which divides the reservoir into two parts. By reducing the water below this division bank, either part of the reservoir may be emptied, and the use of the other part continued, as an independent reservoir. Usually, the water is pumped into one division, flows over this central bank, and is distributed from the other division.

Contents of reservoir, 9,800,000 gallons—depth of water, 15 feet. The banks of the reservoir are composed of good earth, carted on—the whole lined upon the inside with a course of clay and gravel puddle-stuff, and faced with a brick pavement, laid in the bottom flat, and edgewise upon the slope. The inner and outer slopes vary little from 45 degrees.

DISTRIBUTING MAINS are two in number, 16 inches in diameter. Distance to line of Spring Garden, about 1\frac{1}{4} miles.

Do. "Northern Liberties," 1\frac{3}{4}"

DUTY OF THE ENGINES.—By reference to books of the register, it appears that from 1st of April to 31st December, 1845, 3,582,456 lbs. of large lump anthracite coal, equal to 38,111 bushels, of 94 lbs. each, were consumed, and that the engines run during the same time, in the aggregate, 7,244 hours, equal to 434,640 minutes; and the number of strokes made at 26 per minute, equal 11,300,640.

The height to which the water is elevated, as before stated, is - - - 115 feet.

To this add the additional height equivalent to the friction in the main, 3250 feet long, which, according to formula—Tredgold on Steam Engines, p. 274—is

8.72

Height equivalent to a vertical height of - 123.72ft.

The load upon the piston of pump, under these circumstances, allowing for piston rod  $2\frac{3}{4}$  inches diameter, will be 13,501 lbs.; the coal consumed, as above, 38,111 bushels, of 94 lbs. each. The duty performed will then be as follows:—

13,501 lbs.  $\times$  6ft. stroke  $\times$  11,300,640 strokes

=24,019,818lbs.

38,111 bushels

A little more than 24 millions of lbs. raised one foot high by the consumption of 94 lbs. of coal.

As the cut-off valves were in use but a small portion of this year, a material increase of duty should be realized hereafter.

#### A

### WHOLE COST OF JOINT WORKS.

DR.				4.	
To REAL ESTATE.		<b>0</b> 74 0 0 0			
For property at Schuylkill, -	•	\$7,000			
" for Reservoir, -	••	8,021			
commissions, surveys, taxes, &	ic.	461	44		
				15,482	69 "
To Reservoir.	,	·		00.080	
For labor and materials,	-		-	28,678	59 *
To Works at Schuylkill.				20 507	10.
For labor and materials,	-		-	38,567	In.
To Engines and Pumps.		00 100	10	1	
For paid Merrick & Towne, -	-	28,108 304			
" Sundries,	-	304	vo	28,422	97 6
To Pipes and Castings.				20,422	4.
For pipes and castings and laying sa	ma			32,699	57 4
To Thompson Street.	me,		_	02,000	
For damages opening Street, -	_	1,857	იი		
" laying main in do.		-			Ì
" labor and materials,		6,075	27	ļ	
,				7,932	29 *
To Tools and Ironmongery.				, ,	,
For Sundries,	-		-	713	09 •
To Fuel.					-
For engines, &c	-		-	523	25 -
To Salaries.					
For engineer, superintendent, &c.	•		-	3,995	59 *
To LEGAL SERVICES.				*	~~
For suits with city,	-		-	1,295	00 🔻
To Incidental Expenses.				F00	0.5
For carriage hire and sundries, To Stationery and Printing.	-		-	506	95 *
				050	16
For sundries,	_		-	208	16 *
			•	\$159,074	65
CR.				\$100,014	=
By Surplus Materials.				****	
For sundries sold,	_	232	05	1	
By Northern Liberties.	:				
For cash for construction, -	_	79,421	30		
By Spring Garden.		,			
For cash for construction, -		79,421	30		
•		l		\$159,074	65.

### B

# SEPARATE ACCOUNTS OF DISTRICTS. NORTHERN LIBERTIES.

DR.		142) 4. 13
For pipes and castings from Sixth Street		
to basin,	\$23,202 58	
" laying same,	6,176 12	
" carting same,	273 00	
" proving same,	154 87	
" stop-cocks, branches, &c	153 55	
"fitting up do. for plugs, &c	297 94	
" wharfage, &c. for do	80 93	
3,	\$30,338 99	
" half damages to Ridge R. Turnpike Co.	1 36	15 00 300
5 - 8 1		
	\$30,738 99	
		v N
CR.		
By cash,	\$30,738 99	
•	\$30,738 99	
SPRING GARDE	EN.	
DR.		
For pipes and castings from Broad Street		
to basin—16 inch pipes,	\$14,691 17	
" laying do	4,032 43	
" carting do	172 50	
	\$18,896 10	)
" 10 and 12 inch pipes, &c	16,382 86	*
" laying do	4,623 26	
_	21,006 12	
" stop-cocks,	917 50	<b>)</b> :
" carting 10 and 12 inch pipes,	201,00	•
" castings,	$\cdot \mid 178.32 \mid $	
" wharfage,	93[40]	
" proving pipes,	20441	
" measuring do	10 00	0
	687 13	
" half damage to R. Road Turnpike Co	0 400 00	J
	611 000	- * -
	\$41,906 8	<i>)</i> * ≃
		· ·
CR.	04.000	
By cash,	\$41,906 85 \$41,906 8	5
	<b>41,300</b>	=
	30.7384	4
	and the second s	T.
	/1 C 4 O	1

 $\mathbf{C}$ 

# EXPENSE OF KEEPING WORKS IN OPERATION.

DR.				1		
To Fuel.				l		
For paid to February 28th,	-	\$	760	32		
" December 31st, -			443			
					\$7,204	22
To OIL AND TALLOW.						
For paid to December 31st,	-	-	-	-	391	23
To Salaries.	i					
For paid to February 28th,	-		126			
" " December 31st, -	-	2	,326	35		
· · · · · · · · · · · · · · · · · · ·				-	2,452	40
To Repairs and Improvements.					0.005	
For paid to December 31st,	-	<b>!</b> -	-	-	2,205	95
To Rent.					1	
For Register's office and Engineer	. 8	-	•	-	196	97
dwelling,	_				100	~0
To Tools and Ironmongery.		-	-	-	190	12
For Sundries, To STATIONERY AND PRINTING.	-	:				
For paid to February 28th,	_		90	52		
" " December 31st, -	_		423	1 1		1
Docciniber 5156,			<del></del>		444	14
To Incidental Expenses.						
For fitting up Register's office, -	_		326	65		
" sundries,	_		109			
•			······································		435	77
To Insurance	_					
For paid insurance of works, -	-	_	•	-	483	00
To Taxes.						
For p'd taxes for 1844,	-	-	-	-	67	17
			•			
				,	\$14,067	16
O.T.						=
CR.						
By Northern Liberties,						
For her half of expense of operation	n,	\$7	,033	58		1
By Spring Garden,			. ^^^	-		}
For her half of expense of operation	n,	7	,033	၁ၓ		
		!			\$14,067	110

### D

# CASH IN ACCOUNT WITH THE WATER COMMISSIONERS AND REGISTER.

·								
NORTH	ERN	LI	BERT	CIES	3.			
DR,					1	]	/1	
	_	_	_	_	_ 1	\$117,521	50	
For received at sundry times, -	•	-	•	-	-	Ψ11+,···		\$117,521 50
								\$117,021 M
CD					1		ı	
CR.		.:	9			\$30,738	aall	
By paid for separate account of pipes	. cası	ungs,	æc.	•	- 1	79,421		
" half of whole cost of works-Con	qsirmo	cuon.		•	-	7,033		
" half of expense of conducting wo	/K8	Oper	anon,	-	-			
" balance her part on hand for opera	ation,		-	•	-	327	oə	
					Į.			\$117.521 5
SPRI	NG	GAI	RDEI	٧.				
DR.	······································					1		
For received at sundry times, -	-	-	-	-	•	\$128,641	59	
· · · · · · · · · · · · · ·						<u> </u>	<u> </u>	\$128,641 5
						1	[	
CR.								
By paid for separate account of pipes	. cast	inge.	&c.	-	-	\$41,906	85	
" half of whole cost of works—Co	nstru	coion			-	79,421		
" half of expense of conducting works	rks—	Oper	, ation -		_	7,033		
balance her part on hand for operation	ation	Open	-		-	279		
barance her part on hand for open	111011)		•	-				\$128,641 5
						•	, ,	
KE	NSI	NGT	'ON					
	.14 011		011.				1 [	
μΝ. 						\$4,261	41	
To received at sundry times 1845,	-	-	•	-	-	(P1,201	"'	84,2614
an						1		
CR.						\$2,318	63	
By paid Northern Liberties her part,	•	-	•	•	-	1,943	70	
" paid Spring Garden her part, -	-	•	-	•	-	1,540	1.0	84,261 4
								977-741
RECA	A PIT	'IIL.	ATI(	N.				
DR.							ī	1
	_					\$117,521	50	
To received from Northern Liberties	, "	-	_	_	_	128.641	59	
" " Spring Garden,	•	-	-	_	_	4,262	41	
" Kensington,	-	-	•	•	_	939	05	
" surplus materials,	-	•	•	•	•	20%		\$250,657,5
City						]		
CR.						\$117,193	197	
By paid for Northern Liberties, -	*	•	-	•	•	128,361		
" " Spring Garden, -			- 	- +		2.318		
" " to Northern Liberties on ac		ot £	rensii	igron	,	1,943		
	44	•		1	L	1,740	1'4	] '
" " to Spring Garden "	_					3	. 1	
" to Spring Garden " " on whole cost of works am	ount	rec'o	l for	surp.	1112	000	lne!	
" " to Spring Garden " " on whole cost of works am materials,	ount -	rec'd	i for	surp	-	232	05	
" " to Spring Garden " " on whole cost of works am materials,	ount -	rec'd	i for	•	-	232	05	
" " to Spring Garden " " on whole cost of works am materials, Balance on hand for operation— Northern Liberties' part, -	ount -	rec'd	i for	327	63	232	05	
" to Spring Garden " on whole cost of works am materials, - Balance on hand for operation— Northern Liberties' part, -	ount - -	rec'd	i for	•	63			
" " to Spring Garden " " on whole cost of works am materials, Balance on hand for operation—	ount - -	rec'd	i for	327	63	607		8250,657 5

E—PROF	TT À	ND 1	LOS	3S (FO	n. 1	1845).			
• DR		**************************************	· ····						Ī
TO INTEREST AT 6 PER CENT.				Intere					
On cost of works,		58,842		,					
" Northern Liberties main,	• 3	30,738	99	1,536	95				**
" Spring Garden do. whole cost, "		06 85							
"On less charged by district to individuals,	. 18,5	14 72			l				
	23,3	92 13		1,403	53	\$12,471	04		775 716
" Expense of conducting wo		•		•	-	14,067		patricular a south of	
Profit, -	•	-	•	•	-	16,700			
CR.	•							\$43,238	58
By WATER RENTS.					I				
Northern Liberties,	• (	-	•	20,085	00				
Less collections,	-	•	•	502	12				
					_	19,572	88		
Spring Garden,	•	-	•	20,344					
Less collections and loss, -	•	-	-	1,266	35	19,078	ne		
Kensington, for received to J	inne 1st.		_	4,262	41	10,010	40		٠.
do. for rec'd subsequ			ban	•					
of Northern Liberties, -	-	•	•	325	01				
				<del> · · · · · · · · · · · · · · · · · · </del>	[	4,587	42		
					ļ			\$43,238	58
		· ,,,							***************************************
F-PROFIT AN	D LO	SS E	ST	IMAT	EI	FOR	18	46.	
DR	4.	······································			1			1	1
Interest on whole cost of work a	ıs per st	tateme	nt,						
Less interest on profit for 1845,	-	-	<b>-</b> '	977	95				
Interest for 1845,		*	. <del>-</del>	-	-	\$11,493			100
Expense of conducting works as	in 1846	-cert	ainly	y not me	re,	14,067		Marian Maria	- A-A-A-11
Profit,	•	•	-	-	-	25,613	00	*	
CR								\$51,173	20
By WATER RENTS.	•								
Northern Liberties duplicate,		_		\$21,222	50				
Additions estimated, -	;	•		600					].,
-				21,822	!				
Less collections, -	-			545	- 1				
BT			-	~ ~ ~ ~		A1 A**			

Interest for 1845, -		-		-	-	-	\$11,493	09	
Expense of conducting work	s as i	n 184	6-ce	rtain	y not mo	re,	14,067	16	Mar markety water
Profit,	•	•	•	-	•	-	25,613	00	· ·
									\$51,173
	CR.								
BY WATER RENTS.							•		
Northern Liberties dupli	cate,	*	-	-	\$21,222	50			
Additions estimated,	- '	•	•	•	600	00			
•				•	21,822	50			
Less collections,	-	-	*	-	545				:
Nett receipts,		_		_			21,277	00	<b>N</b>
Spring Garden, .	_	*	-		22,264	29	,,		
Additions estimated,	_		-	-	2,600				
•					24,864				
Less collections,		-	•		864	1			
Nett receipts,	_					_	24,000	oo	
Kensington, -	_				6,008	50			r i
Additions,	-	-		-	800		ł		
					6,808				
Less allowance,			•	_	912				· .
Nett receipts,	_				····		ł	OF	
zion iccerpts,	-	-	*	•	-	-	5,896	44)	å£1 ano
9							<del></del>		<b>401,1/3</b>

		•										*	14										\$ :	V (Ö				110
	showing	\$10 00	675	5 50	2 00	20 00	15 00	12 00	30 00	8 00	7 00	35 00	4 00	25 00	15 00	8 00	30 00	2 00	2 00	00 0	2 00	23 50	28 25	23 50	7.60	7.80	100 00	5.00
	ear,								10 00			500		5 00	2 50		00 (						•		1775			
	he y	-	<del></del>		•	· • · · · · · · · · · · · · · · · · · ·			=								110						,	····				
	during	house	ф	qo	shop	•										å	r do	Attachment do	Brass Foundry	factory	oth do	Turpentine do	Wall Paper do	Mineral Water do	op .	do Factory		house Ree
	its issued harged.	1 School house	1 do	1 30	1 Barber	1 Stable	1 do	1 do	3 do	1 do	1 do	7 do	1 do	5 Stores	6 Shops	1 Tanyard	3 Vinegar do	Attachi	1 Brass F	1 Coach factory	10il Cloth do	1 Turper	I Wall F	1 Minera	1 Paint	9	1 Gas works	1 Engine board
•	for Perm he rates ci		5 00	45 00	15 00	3 00 2	00 9	30 00	100 00	52 25	37 00	12 00	30 00	10 00	22 50	12 00	2 00	7 00	25 00	22 50	20 00	00 6	15 00	24 00		2000		98.8
J. 1.	5, and 1, and til	1\$12 00		10				10 00					10 00	2 00										12 00		90 OI		88 • •
TABLE NO. 1.	n Liberties for 184 for which it is used	6 Hatters factory	1 do do	9 Churches and meeting	3 Washpaves	1 do	1 Currier shop	op Go	1 Brewery	1 do	1 do	1 do	3 do	2 do	1 Distillery	1 do	1 do	Rectifying liquor	1 Sugar house	1 do do	I do do	1 do do	1 Steam engine	2 do do	<b>3</b>	2 de de		
	of Norther he purposes	00,\$13730 00m	52 00	1710 00	44 00	1017 00	430 00	7 50	10 00	34 25	30 00	53 00	22 50	200 00	19 25	33 50	30 00	14 00	25	8	2 00	33 25	72	22 50	8 %	30 00	8	12.60
	rict t,		00 1	20	00 2	3 00	00 0	7 50	2 00		ś	Mio.		00 0		6 75	00 9			2 20			5 00				15 00	
	Water Rents of the District of Northern Liberties for 1845, and for Permits issued during the year, showing the purposes for which it is used, and the rates charged.	2746 Dwellings at, \$5	do cisteras 4	684 Small houses 2	do with cisterns 2	339 Baths 3	43 Dwellings and bars 10	do 7	do	Tavern and stable	do do		बैठ वेठ		op op	ор		op op	op op	ries	op	Morocco dresser	3 do do  25	op op 1	***		9 9	do do 1
	Wat	2746	61	684	63 63	339	43	p-mq	Ç\$	<del></del> 1	; <b>1</b>	<del>   </del>		10	parent.	<b>়</b>	ड <b>र</b>		_	č.		. ***	**				į	

2 Morrocco dresser	00 01	\$20 00 30 00	1 Steam engine 2 Skin dressers	1000	\$3 000	1 Small shops 5 Horses and 1 carriage	92.78	
Soap factory do do		15 00 25 00 20 00			20 00 7 50 6 75		461 25	
	18 25 15 00 12 00		1 do do 1 Commissioners Hall 1 School house		\$ 00 8 50 15 00		17961 75	
**************************************		\$1796175			\$730 00		\$19153 00	
			NORTHERN LIBERTIES.	BERTI	ES.			
		Number o	Number of Permits Issued and Registered during 1845.	Registe	red durin	g 1845.		1
212 Dwellings	at \$5 00	\$106	1 Steam eng		00 06\$	Currier shop	\$7.50	5
200 Smell boness		0 4 00	1 do co		15 00	I Fount do	32.00	
6 do cisterns				\$12 00	24 00	1 do do	96	*
100	3 00		1 do do		10 50	Flower garden	2 % 2 %	
4 Dars 1 Wool washing			9 9	2 00	10 00	3 Stables	96	:
op op 3	5 00		7 -		300		188	. ,
I Morocco dresser	·········	10 00		2 50	7.50		21350	
1 do do	<u> дучия-т</u>	7 50	····		7 50	:	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	·
illery ifein		9 6 6	CN	3 00	3 00 6 00		······································	
		\$1784.00			\$21350		03 6902\$	

à

													16	•										980			
	the	844 00	36 00	33 34	20 00	8 00	5 00	100 00	95 00	5 00	25 00	00 8	00 8	200	6 67	10.51	5 00	00	06 2	12 00	2 50		437 02	513 67	20		
	ving	ž	, 	ಣ	Ċ.\$			10	Ġ.		CA	!				_			•	=	i		4	10	17418 20		
	Showing the				\$5 00		• • • •			•								<del></del>		00 9	•				<del></del>		
	ar.			<del></del>	1934	· ,										<del></del> ,					<u></u> -			<del></del> ,			
	he ye				•••			notive			fuge	•							nse		_						
	ng t	ard	0	_	er yare	op (	do	locor	q,	əsno	of Re	wrigh	r V	onse	shop	court		closet	ter ho	do	qo						
	duri ed.	Fan yard	qo	do	Lumber yard	Marble	do	Filling locomotive	do	Toll house	House of Refuge	Wheelwright	Foundry	Soup house	Smith shop	Small court	Hose	Water closet	Slaughter house	qo	ф					13. 7 1 . 1 1 . 1 1 . 1	
	sued	11		_	4	p-4	_		<b></b>	,t		_	-		7	-	<del></del>	<del>-</del>	<i></i>	েং	pme					- A	
	its is utes c	$\$125\ 00$	75 00	57 50	20 00	1700	16 67	30 00	5 00	20 00	5 00	2000	5 00	5 00	20 00	12 50	10 00	5 00	12 00	2 00	7 50	5 00	15 00	00 0	2 50	3 00	2 00
	Perm the ro	- S													•			_						_	٠.		
લં	of Spring Garden, for 1845, and Permits issued du purposes for which it was used, and the rates charged.							\$15 00				5 00						- <b>-</b>	3 00				3 00	5 00			
NO	15, a sed,							<del>69</del>			··-·-			<del></del>						···			<del></del>		<u>-</u>		
TABLE NO. 2.	r 184												e,														
TAI	n, fo											89	pou s		house	do	qo	AVE			<b>07</b> 7					pop	en house
	arder	Factory	ဝှင်	qo	မှ	ф	do	do ,	do	Dyery	qo	Churches	Meeting house	Bank	School house	ф	ф	Washpave	go	qo	Bakeries	Store	do	Offices	<del>o</del> p	Barber shop	
,	g G for	1 F	<del></del>	,—4	<b></b>	_	<del></del>	C4	<u> </u>	1	<u>~</u>	4 C	7	<u>—</u>	<u> </u>		p4	_	4	_	<u>ස</u>	<u> </u>		0	<b>,</b> 1	<b>2</b> (	<u> </u>
	Sprin ooses	00 0	24 00	995 00	1695 00	110 00	36 67	26 67	20 00	1834	17 50	89 97	10 00	8 00	40 00	3 00	41 00	29 17	20 20	18 00	12 00	900	0006	16 00	00 9		6.07
	of pury	00 \$14170 00	CVL 1	9	39 T	-	e.a	જ	es.	<del>,</del>	_	Ç\$			4	1	4	C.S	લ	_	-	_			co.		
	trict		<b>4</b> 00	2 50		10 00						13 34			5 00					•				00 8	<del></del>		
	Dis	399	cisterns		1							_			_ <b>-</b>		······		••••••	··· •· ··			<del></del>				
	f the	11		*	:	id bar	stable	ဝှု	op.	do	<b>d</b> o	do					•										
	nts oj	3 <b>63</b> 8	pus	Jou <b>s</b> ea		ng sgr	and i	_		<b>.</b>	_	_					engine	đo	ge G	do do	ခု	do	g,	S	Ď		
	r Res	Wellin	go Go	398 Small houses	Baths	Dwellings and bars	Tavern and stable	op.	မှ ,	g,	qo	do	Stable	op.	op	ф	Steam engine	မှ	စ္	ဝှ	ခု	g.	op.	op.	Distillery	Supplied in the second	3
	Water Rents of the District of Spring Garden, for 1845, and Permits issued during the year. purposes for which it was used, and the rates charged.	2834 Dwellings	9	30.88	565 B			<b></b> ,		<del>-</del>	<del></del>	C¥	<u></u>		œ	_	72	<del></del>	_	<del></del>	<del></del>	<del></del>	<del>,</del> 1	<u>्र</u>		<b>=</b>	-

TABLE NO. 3.	
M. Kata	*
	742
2177	***
y.i	S
.^ 8 - 1	7
	F-
	Ś
	8
)	900
era Kana	
K. T.	•
.17	1
	ðn
v *	in.
	æ
Salt in	1/8
Ų.	her
·.	ë.
i se e	~
	ng
	and for Permits issued during the year, showing the purposes for which it was
	7 1
TABLE NO. 3.	398
്	00 00
Z	80
r_1	3
	5
	N.
ੂ 🗲	for
	, Z,
٠.	ä
	5,
	<b>3</b> 8
	ř
	3
7.	ton
	Su
	ensington fo
	of Kensi
·.	<del>ر</del> -
	he District of
	Ţ.
i'	18
	Ã
	ie.
	٠.; ب
	9
	2
	72
	Rei
	r Ren
**	ater Ren
ere te	Water Rents of Il

used and the rates charged.	•	•	useda	sed and the rates charged.	charge	d.	J. J			
587 Dwellings		3.3	1 Steam Engine	ğine		100 06\$	1 Foundery		\$10 00	
888 Small houses	(A)	G.K	1 do	do do	•	55 00	2 Smith shops	\$5 00	10 00	
	<u>ب</u>		1 do	<b>-</b>		20 00	1 Morocco dresser		10 00	
21 Dwellings and bars	10 00	જ	op &	do	45 00	00 06	I Drug store		<b>2</b> 00	
Bank		00 0	1  do	do		24 00	2 Barber shops	3 00	009	
1 Commissioners hall		5 00	1 40	do		21 00	3 Ship yards	2 00	15 00	
			1 do	op op		18 00	3 Soaking paper		5 00	
			- 53 - Go		17 50	35 00	Hose		3 00	
7 Dyeries	0 20 8	pared.	- cv	- op	15 00	30 00	1 Water closet		1 00	
9 do		00 45 00	30	- O-		12 00	1 Stable		7 50	
7 do	0 01	00 70 00	2 2 2		11 00	22 00	S do	2 00	1500	
1 do		2 00	, ec			18 00			3 00	
1 Factory		45 00	Romer	2		20.00				
2 Oil do	4	00 14 00				10 00			90 20	18
			Tacas dans	<u>.</u>					495 00	}
			,					· ·	3776 00	
· · · · · · · · · · · · · · · · · · ·	<del></del>	0000000								
<del></del>	-144	100 0778%	<b>-</b> -	·		\$495 00	<del>-</del>		\$436150	
		Number 1	Number of Permits Issued and Revistered during 1845.	I pun pons.	Peoriste	red durin	g 1845.			
					0					
157 Dwellings		<u> </u>		resser		\$7.50	Steam engine		912 00 1	
35 Small houses				ď.		300	1 do do		500	<u> </u>
O Daths	က <u>(</u>	00 15 00		ng, ecc.	3	5 00	Drink & in case of hre		90 cr	
5 Dwellings and bars	9		1 Steam en	au.	4	120 00	2 For do in factory	30 03	300	**************************************
I Lyery and bleaching		2000	<b>8</b> .	9	3 22	170 00	***			
4 Dye Houses	7 71		9 .  -	97						
1 Storet furthers		56.50	95	94		00 00 82 50			1109.00	
								ı		
	CONCRETE STATE OF THE PARTY OF		ALLERTY CONTRACTOR OF THE PARTY	The state of the s						Ñ

#### TABLE NO. 4.

Pipes laid and Fire Plugs erected in the District of Northern Liberties previous to 1845, and also during the year.

Laid previous to the year 1845,	87,556	1
Do. during the year,		٠.
A 6 in. pipe in Fourth betw. Coates & Brown, 360	٠.	٠.
"4"" "Charlotta "George & Canal, 450		
"4"" "Mechanic" do. do. 450		
"4 " " Elizabeth " Poplar & Franklin, 1208	84	
"4" "Smith's al. "Green & Coates, 312	ž.	· · · · · · · · · · · · · · · · · · ·
"4" "Culvert "Fourth & Charlotta 210	2,990	81
·		

Fire Plugs erected previous to 1845, 155 during 1845, -161

90,546 91

84

14

15

75

7

### TABLE NO. 5.

Pipe laid and Fire Plugs erected in the District of Spring Garden previous to 1845, and also during the year. Feet.

Laid previous to the year 1845, 115,560 113 Do. during the year 1845, a 6 inch pipe in the following Streets:

Brown

"

Feet,

from Eleventh to Broad Street, 2300 Schl. 7th Call'hill " Pearl, -- 508 11 44 " Rail Road, 5th do. 883 1 " Hamilton" Morris 6th 3 703 Callowhill " "Fairmount, do. 211

Schl. 8th "Ridge Road, 1636 Poplar " Parish, Ninth Poplar 770

A 4 inch pipe in the following Streets: Clinton from Poplar to Parish, **744 10**₹

Centre " Brown do. 651 Palm" do. do. 630 Division " Eleventh "Twelfth, 685

Orange 66 41/2 Washington Northward 364 66 Pearl Schl. 3d to Schl. 5th, 1,438 4 66

Carlton Schl. 7th "Schl. 8th, -12,272 103 6 744Feet,

127,833 94 Near 244 miles. Number of Fire Plugs erected in the District, -180

#### TABLE NO. 6.

Pipe laid and Fire Plugs erected in the District of Kensington previous to 1845, and also during the year.

Previ	ous to t	he :	year 1845	5,		•	-	Feet. 30,222
Durin	g the y	ear	:					
A 10	n. pipe	on I	Frankford	R.	S. side of Franklin to West St.	1,387	6	
A 10	in. pipe	on	Master fi	rom	Second to Germantown Road	693	0	
A 10	"	"	Second	"	Jefferson to Oxford Street,	399	5	• :
A 6	4.0	"	Phoenix	66	Shackamaxon to Front,	420	0	,
A 6	**	"	Vienna	"	Queen to Franklin Avenue,	715	3	
A 6	44	"	Master	"	Fourth to Fifth	501	$9\frac{3}{4}$	
A 6	"	66	Phoenix	"	Second to Hancock,	328	3	*
A 6	64	"	Hancock	**	Phoenix to Franklin Avenue,	493	$2\frac{3}{4}$	, 4
A 4	**	"	Franklin	A	from Third to Fourth, N. sid	e, 420	11 -	-5,359 4

Feet, - - - - - - - 35,581 41

Near 63 miles.

Fire Plugs erected previous to 1845, - - - - - 56

Total

63

#### TABLE NO. 7.

## Consumption of Water in the Three Districts during the year 1845.

. ***	_	•							<b>-</b>	
Av	erage	рег	day	during	January,		-	-	1,427,769	gallons.
<b>*</b> * *	66	* 66	"	"	February,	-	-	-	1,422,217	66
	66	66	"	66	March,	-	-	-	1,836,106	66
	66	"	"	"	April, -	_	-	-	2,183,322	66
	66	66	٠.	66	May, -	-	_	-	2,216,634	66
	"	"	"	66	June, -	-	_	-	2,629,135	
	"	66	"	<b>66</b>	July, -	-	_	-	2,988,839	
	<b>66</b>	"	"	66	August,	-	-	_	2,472,186	66
	"	66	"	46	September,	_	m×	_	2,072,176	66
,	66	"	"	66	October,	_		_	1,937,483	66
,	66	66	"	66	November,	-	-	_	1,711,080	
	44	66	"	66	December,	-	_	_	1,529,148	66 x
į a i					,					
									24,426,095	

Being a daily average for the year of 2,035,508 gallons. Equal to 210 gallons to each water tenant.

The supply of water was distributed as follows:

la Alia Diskeisk of Gustana Gaudan

	10	tne	District	OI	Spring Garden,	-	-	<b>4</b> 003	tenants.
_	"	"	"	66	Northern Liberties,	-	-	3942	66
	"	"	66	"	Kensington, -	-	-	1008	46
								9603	
								<del></del>	

Showing the service of each Engine during the month.

Jan'y,	Engine	No.	1,281	) hou	rs.							July,	Engine	1.	612	)	nutes	H.H.
***	4.6	No.	2, 250	531	or 8	3 b	lours	34	min.	each	engine.	કે <b>હ</b> ૈં	"		500	1112	17	56
Feb'y.	. 46		1, 256	<b>S</b>							<b>G</b>	Aug.	46		504	<b>,</b>	~7	
- 46	**		2, 222	478	"	8	46	32	**	46	66	} "**	"	2.		920	14	50
March	. "		1,4651	<b>`</b>								Sept.		ĩ.	4291	,		
- 46	66		2, 221	687	"	11	46	1		46	46	{ ***	"	2.	3161	746	12	26
April,	64		1, 321	3								Oct.	66	1.	319	3		
	**		2, 465	786	66 1	13	44	6	**	€€	44	{ ""	"	2		721	11	21
May	**		1, 370	3								Nov.	**		387	,		
·` 66	££ 1		2, 455	825	"	13	"	18	44	33	44	} 66	44	2,		616.	10	16
June	46		1,4381	₹ "	-							Dec.	66	ĩ,				***
. "	66	No.	2, 5071	946	"1	5	ŧť	46	**	£6	££	} "	€.	2,		569	9	10

Note.—It has been ascertained by actual measurement in the reservoirs, that each engine, working 13 revolutions per minute, elevates one million gallons in la hours; and the quantity of water consumed is based upon this measurement. The gallon used is the "imperial," of 282 cubic inches.

	ď,	Ü	×	i.
Y			Ò	T.
ä	Ä.	į,		1
		٥	. '	١.
	٠		'n	ď
ì.		ķ	ċ	ď
		٠.	í	3
		Ŋ	à	
	Я.		ì	١į
ď.	ø	S		1
ĸ.	绵		3	
V.	9	3		
	ø	V.	ij	ø
	췅	ä	3	i.
8			ě,	١.
		G.	λ	S.
K	2	3	į,	
÷.	2		ŗ,	ä
			å.	S.
	Š.		Ġ	q
10	æ	"	ò	
	7	٠		v
	А		١	١.
		k	ï	
		k	:	٠.
۲.	Œ.	Ø.	Ŧ	c,
ď	4	۲	ķ	
ř,	ø	ŕ	,	
Ó	Ö		٠,	ċ
	Ä	٥		
Ö	۷		۰	
ř	7	÷	٩	
Ą	ü	ė	۲	
i	ü	2	ï	
Ź	×	ď	į,	《· 1987年》 1987年 1988年 1
k	k		ş	
	۰	ŝ	۲	,
33	Ċ.		ċ	
F	×	ij.	Ì	÷
E	ž	ij	3	٠.
	×	V,	١	
£	ä	×	ĭ	0
P	Š.	¥	Š	÷
Ε	: 1	ű	3	١.
ĸ			ĸ,	Ġ.
9	й	ŕ	ŧ	á
		١	İ	÷
£	2.	Į,	i	0
t	ď	7	1	
	7	٥		Α,
48	ø	*	:	1
		ŧ.		٥.
ě	×	٠		
	ø.		•	٠.
	÷	١	٠	٠.
ø	X,	١		. '
	7			٠.,
	¥.	ŀ		٠,
۱		ě.	٠.	
3	÷	ò.	. '	
Ö		ď		١.
	ĸ.	×		::
٠	ø.	V		٠.
8	Į.	Á	÷	4
ķ.			ė.	
8	8	7	ì	
Ó	€		÷	
÷.			٠.	
	×	8	٠	
Ų.		٥		:
	ò		١,	٠.
	X	d		Ŧ.
ķ	٧	ij	٠.	
٥.	٠	٩	•	ĸ,
÷		Ç	Ċ	
	4	ŧ.		
Š.	ď	ľ	i	1
		Ô		
		i.	٠.	::
V.			ŀ	٠.
	1	O	١.	١.
ä			ŀ	۲.
Ø	ø		ò	e (°
K	d	1		×
Ŏ,		١	3	٠.
	٠.	ŕ	۲	7
١	0	1	٠,	
i,	Ò		ť	٠.
S	Ú	Ċ	,	ď
ŧ	×	ď	7	÷

2958/Dwellings at	(\$5 00°	[4790 00]	at(\$5 00:14790 00:11 Soap factory	-	The second second	\$20 00,2	\$20 00/12, Distillery	-	\$5 00	\$10 0011	\$5 00 \$10 00 11,Bonnet factory	+	\$3.00
cister	8 4	20 00 20 00 20 00	op do		18 25	36.50	Sugar house	ase	****	25 00 1	1 attachment in yard		500
884 Small houses	8 8	2210 00 2	do do		15 00	30 00 1	-8	op	-	22,30	3 horses & carriage		00 9
28 do cisterns	2 00	8 8 8	do do		12 00	<u> </u>	ę	ę		2000	Tan yard		800
376 Baths	38	1128 00 5	Churches&mee	ing	2 00	45 00 1	g.	တဲ့		900		F.I	289
45 Dwellings & bars 10 00	10 00	450 00 3	3 Washpaves		5 00	15 00 2	Skin dressers	ssers	10 00	20 00 1			500
1 do do		7 50 2		<u>.</u>	3 00	6 00 2	Wool dressers	essers	10 00	20 00			5 00
2 Bars	5 00	10 00	op		•	2 00 2		do	7 50	1500 1	Turpentine factory	·	23 50
1 Tavern and stable		34 25	7 Hat factory		12 00	84 00	qo	qo		675 1	Wall paper do		28 25
1 do do		30 00	op op 1			200	op	ф	5 00	15001	Mineral water do		23 50
1 do do		23 00 1	Steam engine	<b>•</b>		90 00	Stable			2000	Fountain		35 00
1 do do		22 23	do do			18 00 1	q			1500 1	do	•	300
10 do do	ල දැ	200 00	op op	•	15 00	30 00	qo	,		12 00 1	Engine house	<del></del>	500
1 do do		19 25 4	do do	•	12 00	48 00 3	qo	•	10 00	30 00 1	Machine shop	<del></del>	200
2 do do	16 75	33 50	op op			11 00 1	စု			8 00	Flower garden		10 00
2 do do	15 00	30 00	op op			10 50 1	ф			7 00 1	Gas works		100 00
1 do do		1400 2	op op		10 00	20 00 1	q <sub>o</sub>	<u></u>		6 00	Coal office		200
1 do de		12 00 1	op op			9 00 7	qo	····	8	35 00 3	Vinegar yard	10 00	30 00
34 Bakeries	2 2 2	85 00 1	op op	•••		8 00 1	ę	·		4 00 1	Stone yard		250
1 do		2 2 2 00 2	do do		00 9	12 00 1	đo			300	Sm'll shop up stairs		175
1 Morocco dresser		33 25	op op je		5 00	25 00 1	Commis. hall	hall		8 20	Paint factory		10 00
3 Morocco dresser	25 00	75 00 2	do do	··········	3 00	6 00 1	School house	esno		15 00 2	do do	7 28	15 00
1 do do		22 50 1	Brewery		~ <b>~~</b>	100 00 1	g-	တို		10 00	Factory		7.50
1 do do		22 00 I	do		•	52 25 1	ę	දි		675			
9		40 00	do			37 00 1	ģ	ę		28			342.8
4 de	15 00	8000	do do		, -, -,	12 00 3	Currier's	shops	10 00	8000		· · · · · · · · · · · · · · · · · · ·	454 50
		12 50	<b>.</b>		8	30 00 1	-9	, ę		38			84275
<b>.</b>		12002	<b>ep</b>		009	10001		9		600			19583 25
\$	8 91	3000	Reculying In	Jour I		780	Stares		90 9	2500			
1Dye house		3000	ę	4		0 00 0	4	I shope	3	05.83	all		
op op 1		On on	Chemiery										diameter and the second
Assess desired			8										
						學者與各							

900	<b>9</b> 28888 38888	******************	388 2°°		88888 88848	888	315 31 1006 34 20940 53	
			00 98	1 00	8		· · · · · · · · · · · · · · · · · · ·	
Spring Garden, per Dupincate of January 1st, 1846.	1 Piano factory 1 Soup house 1 Barber shop 1 Office 1 Smith shop	1 Hatters plunk 1 Green house 1 House of Refuge 1 Foundry 1 Wheelwright	1 Staugnter house 2 do do 1 do do 1 Small court	Hose Casing tobacco Water closets Tan Yard	Brick Yard Vinegar do			
Dupicate of	\$300 000 72 50 20 00 5 00 125 00	78 90 97 50 17 80 90 16 90		80 00 6 64 80 00 80 00	2000 2000 2000 2000 2000 2000	8888 8888	55 e e 42 86 86 86 86 86 86	8
n, per		\$ ************************************	3 9	2 8	· · · · · · · · · · · · · · · · · · ·	es es	න ද දිපිනි පි	
Water retus of the Distract of Spring Jurian		family fa	2 do 1 do 1 Distillery 1 Refectory		1 Meeting 1 School house 1 do do 1 do do	·	2 Offices 2 Shops 1 Washpave	<del> </del>
2010	\$16615 00 24 00 1272 50 2019 00 150 00	36 67 26 67 20 00 17 50	8 <b>45</b> 5	1188 888 888 888 888 888 888 888 888 88	29 17 20 50 18 00 18 00	2% 50 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	<b>188</b> 0 1880 1880 1880 1880 1880 1880 1880	8
ceres y	\$\$ 400 2 2 00 10 00 10 00		# 0 0 # 0 0 # 0 0		· · · · · · · · · · · · · · · · · · ·		3	SS 02
I CECT A	3323 Dwellings 6 do with cisterns 509 Small houses 673 Baths 15 Owellings and bars	1 Tavern and stable 1 do do 1 do do 1 do do	20 do do Stables do	шй_	<b>666</b> 666		2 do do 1 do do 1 Filling locomotives 1 do do	2 Founts

and Bars  and Ba	d Bars 10 00 260 00 1 For soaking paper 10 00 260 00 1 Washing, &c. 10 00 260 00 1 Washing, &c. 10 00 260 00 1 Hose 500 20 00 1 Stable 500 20 00 1 do 10 00 1 lo 10 lo 10 00 1 l	d Bars 10 00 72 00 1 1
3 00 72 00 1 For soaking & 50 0 1 Washing, & 50 0 1 Hose 5 00 1 Stable 5 00 1 Stable 5 00 1 Stable 10 00 Stable 10 St	3 00 72 00 1 For soaking paper 10 00 260 00 1 Washing, &c. 50 0 1 Hose 5 00 1 Stable 5 00 1 Stable 6 00 1 Stable 15 00 1 Stam engine 10 110 00 2 do	3 00 72 00 1 For soaking paper 10 00 260 00 1 Washing, &c
2 50 00 1 Washing, & 5 00 1 Hose 5 00 1 Hose 5 00 1 Hose 5 00 1 Stable 5 00 1 Stable 6 00 00 1 Stable 10 10 00 1 Steam engin 10 00 S	10 00 260 00 1 Washing, &c. 5 00 1 Hose 5 00 1 Stable 5 00 3 do 15 00 1 Stable 15 60 00 1 Stan engine 10 110 00 2 do 10 45 00 1 do 10 00 1 do 20 00 2 do 10 00 1 do 3 6 00 1 do	10 00 260 00 1 Washing, &c.  5 00 1 Hose 5 00 1 Stable 5 00 1 Stable 5 00 1 do 10 110 00 1 Steam engine 10 110 00 1 Steam engine 5 0 00 1 do 6 6 50 1 do 7 14 00 1 do 7 14 00 1 do 7 10 00 1 do 7 5 10 00 3 do 7 5 10 00 3 do 7 5 10 00 3 do 7 6 6 00 1 do 7 7 60 1 do
ses 2 50 20 00 11 ses 20 00 00 00 00 00 00 00 00 00 00 00 00	rs hall 5 00 1 Hose 5 00 1 Stable 5 00 2 20 00 1 Stable 2 2 5 0 20 00 1 do 15 00 1 Stam engine 10 110 00 2 do 10 14 00 1 do 10 00 2 do 10 00 2 do 10 00 1 do	ioners hall bouse 5 00 1 Hose 5 00 1 Stable 5 00 1 Stable 5 00 1 Stable 5 00 1 Stable 5 00 1 do
ioners hall bouse bounded by the control of the con	rs hall  2 50 20 00 1 Stable  2 50 20 00 1 do  15 60 00 1 Steam engine  10 110 00 2 do  5 00 1 do  5 00 1 do  7 1400 1 do  7 20 00 2 do  10 00 1 do  20 00 1 do  10 00 1 do	house hall bouse both both both both both both both both
house  ses  do  do  do  do  nd bleaching  ctory  do  bops  se  do  do  do  do  do  do  do  do  do  d	2 50	house         5 00         3 do         40         5         5         5         5         6         7         14         00         1         40         45         45           actory do         40         7         14         00         1         40         46         45         45         46
ses do do do and bleaching ctory do do bops se do	250   20 00   1   do   1   do   1   do   1   do   1   Steam engine   15   60 00   1   Steam engine   10 00   2   do   1   do	ses 20 20 0 1 do
acs 20 140 00 1 Steam do	leaching 20 140 00 1 Steam engine 60 00 1 00 2 do do do for formal forma	ses         20         140 00         1         Steam engine         85           do         10         110 00         2         do         60
do     15     60 00     1       do     10     10 00     2       do     500     1       ctory     66 50     1       do     7     14 00     1       do     7     14 00     1       se     10 00     1       hops     3     6 00     1       do     5     10 00     2       do     7 50     1       re     7 50     1	leaching 15 60 00 1 do do 50 00 1 do 7 14 00 1 do do 7 14 00 1 do do 10 00 1 do 10 00 1 do do 10 00 1 do 10 0	do         do         do         85           do         10         110 00         2         do         85           do         50 00         1         do         85         85           ctory         66 50         1         do         85         85           do         7         14 00         1         do         45         85           do         7         14 00         1         do         45         85         85           se         10 00         2         do         1         do         45         45           se         10 00         1         do         10         0         1         do         45         45           do         10 00         2         do         1         do         45         17           do         10 00         3         do         1         17         15         15           do         1         1         0         0         1         15         15         15
do d	leaching 10 110 00 2 do 5 00 1 do 66 50 1 do 60 7 14 00 1 do 7 14 00 1 do 60 1 do 7 3 6 00 1 do 60 1 d	do         do         2         do         85           do         10
do     500       nd bleaching     500       ctory     66 50       do     7       do     1       do     7       se     10 00       hops     3       do     1       do     1       do     1       do     7 50       re     5 00	leaching  7 5000 1 do do 66 50 1 do do 7 14 00 1 do do 10 00 1 do 10 0	do         do         do         do           ctory         66 50         1         do         do           ctory         45 00         1         do         do           do         7         14 00         1         do         do           do         20 00         2         do         45           se         10 00         1         do         do           hops         3         6 00         1         do           dresser         5         10 00         3         do           do         3         do         46
ctory ctory do do bops do	leaching  7	ctory do ctory do
ctory do do hops do do do a se do	7	ctory do ctory do do do do se hops  ops  ops  do
ctory do do do  7	66 50 1 do 45 00 1 do 20 00 2 do 3 6 00 1 do	ctory do do do  7
do d	7 14 00 1 do 20 00 2 do 10 00 1 do 3 6 00 1 do	do         45 00         1         do         45 00         47 00         40 00
do 7 14 00 1 1 20 00 2 2 20 00 2 2 10 00 1 1 10 00 1 1 10 00 2 2 10 00 2 2 2 2	7 14 00 · 1 do 20 00 2 do 10 00 1 do 6 00 1 do	do     7     14 00     1     do     45       se     10 00     1     do     45       hops     3     6 00     1     do       ops     10 00     3     do       do     7 50     1     do
se 10 00 1 1 0 0 00 1 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0	20 00 2 do 10 00 1 do 6 00 1 do	se hops 3 6 00 1 do 45 do 45 do 9
se hops 3 6 00 1 1 00 0 1 1 00 0 1 1 0 0 0 1 0 0 0 1 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 1 0 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0	3 6 00 1 do	se hops 3 6 00 1 do
hops 3 6 00 1 1 10 00 1	3 6 00 1	hops 3 6 00 1 do 17 fol 1 do 18 do 19 do 1
ops dresser 7 50 10 00 3 dresser 7 50 1	1	ops
ops 5 10 00 2 2 dresser 7 50 1 10 00 3 4 60 6 60 6 60 6 60 6 60 6 60 6 6	-	ops         10 00         2         do         17           dresser         10 00         3         do         15           do         7 50         1         do         16
10 00 3 10 00 3 10 00 3 10 00 3 10 00 10 10 10 10 10 10 10 10 10 10 10	00 OT 1 00 OT 1	388er 10 00 3 do 15 15 0 0 1 15 15 15 15 15 15 15 15 15 15 15 15 1
7 50	0000	7 50 1 do
2000		
- 100 c	00 1	
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		
	2000	

Attest,

J. H. FISLER, Register.