

FIFTH BIENNIAL REPORT
OF THE
BOARD
OF
CAPITOL COMMISSIONERS,
TO THE
GOVERNOR OF IOWA.

OCTOBER 31st, 1879.

{PRINTED BY ORDER OF THE GENERAL ASSEMBLY.}

DES MOINES:
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1879.

BOARD OF COMMISSIONERS.

GOV. JNO. H. GEAR.....President *ex-officio*.
JOHN G. FOOTE.....Burlington.
PETER A. DEYIowa City.
R. S. FINKBINE.....Iowa City.
CYRUS FOREMAN.....Osage.
ED WRIGHT, Secretary.....Des Moines.

BELL & HACKNEY.....Architects, Des Moines.
R. S. FINKBINE.....Superintendent of Construction.
JOHN G. FOOTE.....Superintendent of Finance.
ED WRIGHT.....Assistant Superintendent of Construction.
L. R. GREENE.....Heating and Ventilating Engineer.

REPORT OF THE BOARD.

To His Excellency, JOHN H. GEAR, Governor of the State of Iowa:

THE commissioners appointed by the act of the Fourteenth General Assembly, entitled "An act to amend the act to provide a State Capitol, approved April 13, 1870, and making appropriation therefor," and charged with the execution of the provisions of law, in respect to the erection of the New Capitol, respectfully submit the following report:—That

At the date of the report, November 30, 1877, the wing south of the main dome had been built the entire height, and placed under roof, with the exception of the corner pavilions. The balance of the exterior walls had been built to the level of the window-sills of the gallery story, the columns and piers supporting the dome had been set through the office and hall stories, the arches turned over them, and the dome walls carried up to the level of the senate ceiling.

During the past two years, the walls of the entire building have been completed, the domes of the four pavilions have been constructed, and the whole building put under roof, except the main dome, which is completed to the top of the stylobate walls. The exposed portion of this has been covered with copper, the skylights have been contracted to be put in during December, and nothing now about the building is subject to injury from the weather, except the opening of the central dome. As the legislature, in 1878, authorized by a direct act the construction of this main dome, and the smaller domes have been built in connection with the other work as it progressed, under the provisions of the same law, it seems important that the main dome should be built as speedily as possible. There are several reasons for this: To protect the interior of the building under the dome from

injury, it will be necessary to cover it. This involves an expenditure that should be avoided. Besides, the dome is to be built of stone to the base of the tholus. This must be brought to the grounds by railroad, as the stone are generally so large that it is impracticable to handle them in any other way. The railroad should be dispensed with as soon as possible. It is a source of annoyance and inconvenience to the property-holders on the east side of the river. The right of way for this road was originally procured in two ways: one was by an annual rental with the payment of taxes on the lots; the other was by the payment of a gross sum for the occupancy of the property by the railroad track for ten years. The leases of the lands rented annually, with the taxes paid, amount to nearly five hundred dollars per year. Many of the original settlements of right of way, made for ten years, will expire within the next two years, and, if the road must be maintained for a longer period, will necessarily have to be renewed, probably at a very considerable cost. The average cost of the maintenance of the railroad has been about one thousand dollars per year, which probably will be about the same whether the amount of material brought up is small or large. The railroad company wants its iron and is unwilling that it should remain much longer without earning anything. There is no other material about the building that will require rail transportation beyond the next two years.

We would call your attention to the following extract from the report of the architects, submitted November 30, 1877:

"We also desire to call your special attention to the importance of finishing, with the rest of the work, the grand dome and the turrets of the pavilions. It is difficult to realize the extra expense that will necessarily be incurred if these important features of the building are left to be completed after the interior of the main building is completed. Besides the inconvenience to the different offices of State, the marble tiling would either have to be removed or would be destroyed, as would also all of the plastering and finish upon the interior of the parts being completed. The same scaffolding at the present time used in the construction of the work can be employed to complete the same, while in the future they would all have to be provided and constructed anew. The temporary roof which would have to be built, if these features are omitted, would be saved to the State, and the money employed in their construction put into the permanent structure. There are many other reasons why these features should be constructed in company with the other parts of the work which might be mentioned, and which are easily foreseen. We believe it our duty, as the architects of your new capitol building, to call your attention to these things, as we believe them to be for the best interests of the State

of Iowa, that the whole work contemplated should be completed in its regular order. In our experience upon other buildings of this class, we have found this to be all important."

For the reasons above assigned, the Commissioners would respectfully urge an appropriation sufficient to complete the exterior of the dome.

On the west or main front of the building, in the pediment, has been introduced statuary carved from the stone of which the building is constructed, emblematical of liberty, justice, and law, the safeguards, as well as agriculture and commerce, the main supports, of the State. The brick arches in the ceilings and the division walls back of the gallery, next the dome, have been put in.

The Commissioners have construed literally section two, of chapter one hundred and thirty-eight, of the Laws of the Seventeenth General Assembly: "That the Commissioners are hereby authorized to change the plans of the building as adopted August third, one thousand eight hundred and seventy-two, and are directed to construct one large dome in the center of the building, and four smaller domes on the pavilions, but the center dome shall not be constructed until an appropriation shall be made therefor by the General Assembly." Whether it was the intention of the legislature or not, the Commissioners have regarded the last clause of this section as imperative, and have made no contracts for material of either stone, brick, or iron that would go into this portion of the building. If this dome is to be built, or any provision for building made in the next two years, special legislative authority must be given during this session. The corner domes having been built, the central dome becomes necessary to the symmetry of the building. This was fully discussed in our last report. It is suggested that it might be judicious to repeal this clause and leave to the judgment of the Commissioners the application of funds placed at their disposal. The building has reached a point where the construction must be carried on systematically and on some general plan. We know of no method of securing this so advantageously to the State as to leave the appropriations untrammelled. The Commissioners, who for eight years have devoted time, thought, and study to the subject, should be better qualified than any one else to conduct the finish of the building and decide upon the order in which each of the parts should be finished.

In accordance with the provisions of section one, chapter one hundred and thirty-eight, of the laws of the Seventeenth General Assem-

bly, on the 5th of April, 1878, an ordinance was prepared and submitted to the city council of Des Moines, granting to the Commissioners the right to construct a sewer from the capitol building through Locust street to the river, said sewer to be exclusively the property of the State. The council declined to pass the ordinance, or anything that would enable the Commissioners to carry out this plan, for the alleged reason that the city was arranging a general plan of sewerage, that the city plan could be made available for the use of the capitol, and that they were unwilling to complicate it by an independent grant of authority to build outside of the general plan. In view of the situation, and the necessity of proper sewerage, the Board would suggest that some general law be passed authorizing the Commissioners in charge of the erection of State buildings to construct sewers in the streets and alleys of any city or town in which they are located. At the same meeting and under the provisions of the same section, the Board purchased lot number three, block number four, of Lyon's addition, on which to locate the steam heating works. The amount paid for this lot was \$1,408.50.

The Commissioners decided to build the tholos of the turrets with ribs of iron arched between with brick, the whole exterior surface covered with copper, this being the only metal anywhere in the building that is exposed to the weather. The copper work for the covering of the turrets was let October 23, 1878, to A. Knisely & Co., Chicago, for 34½ cents per pound.

A committee was appointed at the same meeting, consisting of Messrs. Finkbine, Dey, and the Secretary, "to investigate the entire "subject of steam-heating and plumbing," and was directed to visit such public buildings as were thought necessary for that purpose. Mr. Bell, one of the architects, was directed to accompany the committee for the purpose of studying the details of dome construction and interior finish. This committee visited the State House at Lansing, Michigan; examined the system by which a portion of the city of Detroit is heated by steam; spent several days at Albany looking over the new capitol of New York, and the plans and machinery for heating and ventilating the same; went to Hartford and examined the method in use at the new state house of Connecticut; also to Boston and examined the arrangements for heating the Memorial Hall of Harvard University. The committee also visited New York and Philadelphia; went to Washington and examined the system in use at the Capitol and government buildings. On their return the committee recom-

mended the employment of Mr. Levi R. Greene, of Boston, to prepare the plans and specifications for heating and ventilating the capitol; Mr. Greene being the engineer of some of the best heated and ventilated buildings that came under their observation. The report was adopted, a contract was made with Mr. Greene, and plans, specifications, and estimates have been made in accordance therewith. The care, accuracy, and nicety with which his work has been executed, deserves special commendation. His plans, so far as the Board can judge, promise to be everything that is necessary for success.

On the fifth day of February, 1879, Maturin L. Fisher, a member of this Board from 1872, died at his residence in Clayton county. As he had been a prominent man in the state for more than thirty years, some notice of him may not be out of place here. In 1854, Mr. Fisher was president of the Senate. Afterward he was state superintendent of public instruction, and from the early history of each was a member of the boards of the insane asylums at Mount Pleasant and Independence. He served during the construction of each building. This led him to devote to architecture and kindred subjects much study, so that when he came upon the capitol board he brought to the subject a knowledge derived from books that covered the whole field, and that was at the same time minutely accurate in detail. This knowledge, in the condition the building then was, made his services invaluable. He entered into the construction and plans of the building with an intense interest. The following protest in the report of 1874, written by him, against the employment of iron in the capitals of the columns and cornices, shows something of his enthusiasm for architecture:

"The board then determined, in order to reduce the cost of the building within the limits prescribed by law, to change the plans and specifications, as follows: to change the cut-stone cornice to galvanized iron; the cut-stone capitals to cast iron; the grand staircase from marble to iron; to put hard wood floors in the halls and corridors instead of marble; to leave out the committee rooms over the library, and in the upper story of the east wing; to change the glass from French plate to French cylinder, double thick or English crystal. By making these changes, which is considered preferable to reducing the size of the building, the cost of the building is brought within the limit fixed by law. But it should be distinctly understood, that these changes are not made in accordance with the taste of the Commissioners; they are made from necessity, not from choice.' 'The conceptions of the great architects of ancient times, embodied in the orders of architecture and displayed in the capital of the column, and in the architrave, the frieze, and the cornice of the entablature, were designed to be executed in stone; a cornice of galvanized iron or a capital of

cast iron is an imitation and a counterfeit. The rooms over the library and in the upper story of the east wing can be constructed at a more convenient season, hereafter; marble can be substituted at some future time, for iron in the grand staircase, and in the halls and corridors for wooden floors; and an inferior kind of glass can be exchanged for that of a superior quality; but the iron cornice and the iron capitals can never be replaced by stone, but must remain, disfigured by rust, to mar forever the beauty of the building, and to exhibit to future ages the depraved taste of the present generation."

Happily, Mr. Fisher lived long enough to see the capitals of the columns and the cornices constructed of stone.

Mr. Cyrus Foreman, of Osage, was appointed by the Governor to fill the vacancy occasioned by the death of Mr. Fisher, and took his seat March 27th, 1879.

The members of the committee that visited Lansing were very much pleased with the library room of the Michigan capitol, and at their suggestion the Board directed the architects to arrange, if practicable, some plan for taking out the committee rooms above the library, and increasing the height of ceiling of that room from 29 to 45 feet. The plan has been furnished, and it is thought to be a great improvement on the room as originally designed; and the committee think that when the room is completed it will present a much finer appearance than any library they saw at Washington or elsewhere. The importance of the early completion of the library has been repeatedly urged upon the Commissioners by members of the bench and bar of the State; the necessity of protecting a large number of books that in case of fire could not be replaced at any price, has had their thoughtful care and attention; but the appropriation of 1878 was only large enough to inclose the building, nothing more. To finish this or any of the rooms of a building of this magnitude fit for occupancy will require the building of the heating works, and that the rooms be subjected to a constant drying heat, until the dampness or moisture is completely evaporated from the walls. We have been requested to urge upon the General Assembly the importance of an appropriation sufficient to complete this room as soon as the walls are in condition to put up the finish.

The plans of the dome have been changed several times at the suggestion of the Board; each time the object has been to reduce the height and weight of the structure. The conviction of the Board is that the changes have made the dome more in the proportion of those structures that have for centuries demanded the admiration of artists, architects, and the world generally, as models of beauty and elegance.

It is possible that in the anxiety to attain great height many of the modern architects have lost sight of the idea of the dome and trenched upon the steeple.

The Commissioners desire to state that they regard the immediate building of the heating works as a necessity, and that no interior finish can be made until the building is fitted by heat to receive it.

The building is in such condition, now, that a very large force can be advantageously employed without the different kinds of work interfering with or delaying each other. The cost of supervision will be a large percentage less if an appropriation is made sufficient to employ all the force that can be worked to advantage.

The Commissioners would call your attention to the following enumerated papers, which are herewith transmitted:

The report of the superintendent of construction of the work on the capitol building for the years 1878 and 1879.

The report of the architects.

The report of the steam heating and ventilating engineer.

The report of the superintendent of finance for the years 1878 and 1879.

Respectfully,

JOHN G. FOOTE,
CYRUS FOREMAN,
PETER A. DEY,
ROBERT S. FINKBINE.

NUMBER ONE

CONSOLIDATED REPORT OF THE SUPERINTENDENT OF
CONSTRUCTION FOR THE YEARS 1878 AND 1879.

To the Capitol Commissioners:

GENTLEMEN—I herewith submit my report of the materials purchased and delivered on contracts, and of work done on the new Capitol building, during the years 1878 and 1879, condensed from my annual reports to your Board.

Within the above named time, the exterior walls of the building have been completed; the roof, gutters, and conductors put in place; the foundation walls of the main dome have been carried to a point above the ridge-line of the roof where the main dome proper commences; the stylobate walls have been built; and the four turrets on the pavilions, together with the domes and lanterns, have been constructed; the windows have been placed in the turrets and domes; and, as there is no finish on the interior of this work, it is completed except as it will require pipes for ventilation. There has been an amount of brick work done on the interior in putting in place the brick arches for portions of the floor and ceiling.

I purchased, during the year 1878, sand for the season's work at 2½ cents per bushel; cement for \$1.44 per barrel; lime at 31 cents per bushel; coal at 8 cents per bushel. I purchased at various times, as directed, and of sundry parties, the particulars being set forth in my several reports at the Board meetings during the year, 597,154 brick, ranging in price from \$6 to \$8.75 per thousand. Mr. Geneser completed his contract, delivering during the year 420,571 brick at \$10.45 per thousand. Mr. J. K. Taylor filled his contract of 90,010 brick at \$8.75 per thousand. I purchased the iron beams at 3.24 cents per pound, and the cast plates at 2½ cents per pound. I purchased the sheet lead needed for flashing of Robinson & Atherton, at \$6.62 per hundred. I purchased 100 barrels of Portland cement at \$3.50 per barrel. The contractors for the slate lacked a few squares, which I supplied from other parties.

Messrs. Haugh, of Indianapolis, filled their contract for the roof-trusses during the year. The contractor for the copper work, Mr.

Hass, completed his work during the year, so far as the work was ready for him. The stone contractors furnished during the year all the stone required of them. I purchased the sand needed for the season's work of 1879, of sundry parties, at 2 cents per bushel; the lime at 28½ cents per bushel; the coal at 8 cents per bushel; and the cement at \$1.19 per barrel. I purchased the iron beams for south turrets at 4 cents per pound delivered, the iron beams for the stylobate walls at 3 cents per pound, and the cast iron wall plates at 2 cents per pound. The limestone for flagging and bondstone was purchased at 30 cents per cubic foot on cars. The rough plate-glass, for turrets and bull's-eyes in small domes, was bought of F. A. Drew, of St. Louis, for \$325.25, on cars in St. Louis. The sheet lead for counter flashing was purchased at 6½ cents per pound. I purchased of sundry parties during the year, 1,725,603 brick, at prices ranging from \$5 to \$8.75 per M.; the details have been shown in my reports made at the several board meetings. Messrs. Haugh have finished their contract for iron work, with the turret-work on pavilions. Mr. F. Hass, the contractor for the copper work of gutters and conductors, has completed his contract. The contract for the copper work of the four small domes was let to A. Knisely & Co., of Chicago. This work has been completed, but not to the satisfaction of the superintendent, and has not been paid for in full.

In accordance with the following resolution, adopted by the Seventeenth General Assembly:

"Be it resolved by the House of Representatives, the Senate concurring, That the capitol commissioners are hereby authorized to turn over to the warden of the Additional Penitentiary such derrieks and tools as can be spared without inconvenience, in the construction of the new capitol, to be used in the construction of the buildings and walls of the Additional Penitentiary";

I shipped four car-loads of tools and machinery to Hon. A. E. Martin, warden of the Additional Penitentiary at Anamosa, a detailed statement of which, together with the cost of such when purchased by the State, is appended.

Very respectfully submitted,

R. S. FINKBINE, *Superintendent.*

CONSOLIDATED REPORT OF MATERIALS RECEIVED, WORK DONE, ETC.

MATERIALS RECEIVED.

Dimension Stone—			
Sandstone—		ft.	in.
Carroll county stone.....	51,094	5	
Ste. Genevieve stone.....	19,209	9	
Total sandstone.....	70,304	2	
Limestone—		ft.	in.
Illinois Stone Co.....	570	8	
Wm. Davidson & Bros.....	307	8	
Total limestone.....	878	4	
Brick—			
W. T. Smith.....	48,705		
F. Geneser.....	544,908		
S. A. Robertson.....	525,762		
J. K. Taylor.....	90,010		
W. G. Bagg.....	358,772		
Miller and Taylor.....	100,066		
S. B. Brott.....	700,254		
Wm. R. Close.....	135,044		
J. J. Fredregill.....	128,174		
C. Youngerman.....	105,444		
J. N. Close.....	130,443		
Jas. McCaughn.....	53,303		
Wm. Fredregill.....	172,323		
Morris & Daugherty.....	217,620		
N. B. Cooley.....	142,510		
Total.....	2,893,338		
Wrought iron work, pounds—			
E. Haugh.....	590,613		
Rothert Bros.....	33,444		
J. D. Seegerger.....	648		
Brooks, Wilson & Co.....	1,624		
Bolton Bros.....	3,562		
Union Foundry Works.....	22,334		
N. S. McDonnell.....	2,347		
Total pounds.....	654,572		
Cast iron, pounds—			
Samuel Green.....	17,093		
E. Haugh.....	15,915		
Total pounds.....	33,008		
Pine, lumber, and timber, feet—			
H. F. Getchell & Co.....	4,997		
Gilcrest Bros.....	22,254		
Chicago Lumber Co.....	65,930		
Total.....	93,181		

Cement, barrels—			
S. A. Robertson.....	1,563	73-100	
Des Moines Coal Co.....	701	26-100	
Total barrels.....	2,264	99-100	
Portland cement, barrels—			
Johnson and Wilson.....	100		
S. B. Tuttle.....	18		
Total barrels.....	118		
Copper work, pounds—			
F. Hass.....	39,700 ¹ / ₂		
A. Knisely & Co.....	63,591 ¹ / ₂		
Total pounds.....	103,292		
Lime, bushels—			
Des Moines Coal Co.....	4,712 ¹ / ₈		
S. A. Robertson.....	2,510 ⁷ / ₈		
Total bushels.....	7,223		
Terra cotta—			
Chicago Terra Cotta Co.: Balusters.....	314		
Chimney tops.....	9		
Total pieces.....	323		
Porous terra cotta, square feet—			
Iowa Terra Cotta Co., of Eldora.....	28,854		
Roofing slate, squares—			
Huron Bay Slate Co.....	317	20-100	
A. Knisely & Co.....	5	82-100	
C. G. Hipwell.....	13	11-100	
Total squares.....	336	13-100	
Coal, pounds—			
Des Moines Coal Co.: Blossberg (smith shop).....	17,950		
Lehigh (office).....	15,580		
Engine coal (bushels).....	12,091 ¹ / ₈		
Sand, bushels—			
S. Riggs.....	3,452		
W. Breton.....	3,071		
O. Tungate.....	631		
W. W. Barcus.....	547		
J. B. Shannon.....	713		
E. L. Shaw.....	1,815		
J. L. Boyer.....	1,938		
W. Bartholomew.....	2,273		
J. W. Hobbs.....	1,016		
W. Hind.....	2,856		
James Crystal.....	5,950		
J. Geneser.....	2,615		
G. W. Logan.....	5,969		
P. Sullivan.....	19,736		

C. Huser.....	10,604
S. B. Brott.....	1,878
N. B. Cooley.....	5,188
J. S. Burnett.....	7,421
J. Hartman.....	4,272
F. Bragg.....	812
Hammer Bros.....	4,038

Total bushels..... 85,895

Water, gallons—	
Des Moines Water Company.....	791,493

Iron, bar and rod, pounds—	
Sundry parties.....	6,697½
Steel.....	24

Nails, pounds.	
Sundry parties.....	5,647

Sheet lead, pounds—	
Robinson & Atherton.....	2,147
Fred Hass.....	2,939
A. Knisely & Co.....	621

Total pounds..... 5,707

Paints, pounds—	
Red lead.....	2,100
White lead.....	996
White zinc.....	400
Yellow ochre.....	468
Patent dryer.....	56
Ivory black.....	10
Prussian blue.....	2
Oxalic acid.....	2
Putty.....	112

Total pounds..... 4,146

Oil, gallons—	
Linseed oil.....	209
Asphaltum.....	7
Japan varnish.....	10
Turpentine.....	2½
Alcohol.....	1
Machine oil.....	51

Total gallons..... 280½

Rope—	
Steel wire hoisting rope, feet.....	300
Manilla rope, pounds.....	830

Rubber hose, feet—	
¾ inch rubber hose.....	250
1 inch rubber hose.....	200

Total feet..... 450

Sheet zinc, pounds.....	270½
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Sewer pipe, feet—	
S. A. Robertson.	
8 inch sewer pipe.....	312
9 inch sewer pipe.....	70
10 inch sewer pipe.....	100
12 inch sewer pipe.....	8
8 inch curves, sewer pipe.....	6
9 inch curves, sewer pipe.....	2
10 inch junctions.....	2
Total lineal feet.....	500

Glass, feet—	
F. A. Drew & Co.	
¼ inch rough plate glass.....	1,481

Tallow, pounds.....	335½
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WORK DONE AND MATERIAL USED.

Dimension stone set—		
In 3d story walls.....	feet.	in.
In columns.....	21,024	6
In cornice.....	8,925	0
In chimneys.....	31,729	3
In statuary.....	188	4
In stylobate wall.....	747	3
In bond stone.....	4,968	3
In interior colonnade.....	1,907	5
In pavilion turrets.....	580	11
In pavilion crown mold.....	14,463	2
In pavilion windows.....	661	3
In pavilion windows.....	340	0
Total cubic feet.....	85,535	4

Wrought iron work, set, pounds—	
In roof.....	494,843
In beams, girders, and columns.....	114,708
In tie rods.....	4,251
In anchors.....	2,172
In turret walls and domes.....	112,312
In stylobate walls.....	22,334
Total pounds.....	750,620

Cast iron work, set, pounds—	
Wall plates for roof trusses.....	11,867
Beam wall-plates, main walls.....	8,682
Pavilion wall-plates.....	9,168
Stylobate wall-plates.....	4,801
Total pounds.....	34,518

Total pounds wrought and cast iron..... 785,138

Roofing, squares—	
Terra cotta sheathing.....	306 62-100
Slating.....	296 54-100

Copper work, pounds—		
Gutters, conductors, roofing, and flashing	39,700 $\frac{1}{2}$	
Turret domes and gutters	63,591 $\frac{1}{2}$	
Total pounds	103,292	
Brick work—		
Second story	59,824	
Third story	1,622,304	
Backing of turrets	317,345	
Domes of turrets	68,880	
Stylolate wall	63,787	
Dome wall	667,525	
Floor and ceiling arches	298,784	
Total, brick kiln count	3,098,449	
Terra cotta, set—		
Balusters	314	
Chimney tops	9	
Sewerage laid, feet	506	
Sheet lead, pounds—		
For counter flashing	8,449	
Stone cut, cubic feet	77,868	
Lime used, bushels	7,223	
Water, gallons	791,493	
Coal—		
In smith shop, pounds	17,950	
In office, pounds	15,580	
For engines, bushels	12,091 $\frac{5}{8}$	
For engines, slack, bushels	53	
Cement—		
Utica cement, pounds	729,421	
Portland cement, barrels	133	
Pine lumber, feet—		
For scaffolding	33,523	
For covering walls	3,546	
For furring and centering	23,370	
For straight edges and drafting floor	1,455	
For tools and machines	530	
For turrets	2,302	
For attic doors and frames	11,933	
For inclosing building	376	
For miscellaneous purposes	13,483	
	2,663	
Total feet	93,181	
Cost of railroad—		
Rents on right of way	\$820.00	
Taxes paid on right of way	381.85	
Ties	158.15	
Spikes for bridge	4.45	
Labor on track	184.57	
Total	\$1,549.02	
Cost of tools and machinery	\$1,742.15	

STATEMENT OF THE AMOUNT OF MATERIAL RECEIVED FOR THE BUILDING, FROM THE COMMENCEMENT.

Promiscuous and rough stone—	yds.	ft.	in.
Stone for concrete	1,620	0	0
Rubble stone for partition walls	975	17	5
Total	2,595	17	5
Dimension stone for foundations—	yds.	ft.	in.
On hand from 1871	1,618	22	6
Purchased in 1872	2,660	14	7
Purchased in 1873	344	1	7
Total dimension stone for foundation	4,622	11	8
Granite purchased—	ft.	in.	
In 1871, 1872, 1873, 1874, 1875, 1876, 1877	10,556	0	
Limestone purchased for superstructure—	ft.	in.	
Iowa City stone	43,328	3	
Anamosa stone	1,654	2	
Lemont stone	16,589	11	
Total limestone	61,572	4	
Sandstone purchased—	ft.	in.	
Carroll county stone	134,210	10	
Ste. Genevieve stone	120,213	8	
Total dimension sandstone	254,424	6	
Total dimension stone	326,552	10	
Brick kiln count	11,659,864		
Sand, bushels	286,003		
Hydraulic cement, barrels	24,662	4-10	
Water, gallons	3,082,708		
Lime, bushels	14,109	62-100	
Cast iron, pounds	103,503		
Wrought iron, pounds	1,983,707		
Cast steel, pounds	1,830		
Drain tile, feet	1,800	3-12	
Pitch, pounds	40,600		
Lubricating oil, gallons	401		
Tallow, pounds	1,464 $\frac{1}{2}$		
Coal, bushels	39,567 $\frac{3}{8}$		
Sheet zinc, pounds	2,012		
Copper, pounds	11,288		
Slate, squares	507,83		
Porous terra cotta, feet	44,926		
Terra cotta, balusters, pieces	444		
Pine lumber and timber, feet	682,321		
Hard wood lumber, feet	441,973		
Nails, pounds	15,911		
Plaster Paris, barrels	2		
Sheet lead, pounds	8,449		
Paint, pounds	4,716		
Oil, Japan and Asphaltum, gallons	389		
Glass, rough plate, feet	1,481		
Cost of tools and machinery	\$	26,281.14	
Cost of railroad to capitol grounds, including right of way and repairs		15,770.83	

STATEMENT OF WORK DONE FROM THE COMMENCEMENT.

Excavation	yds.	ft.	
Rubble masonry	17,902	23	
	948	7	
Stone laid—	yds.	ft.	in.
In concrete	1,620	0	0
In rubble masonry	975	17	5
Total	2,595	17	5
Dimension foundation stone	yds.	ft.	in.
	4,649	11	8
Granite—	ft.	in.	
Coping, base course, sills, and columns	10,436	1	
Baker monument	96	8	
On hand	23	3	
Total	10,556	0	
Limestone—	ft.	in.	
Basement story	43,328	3	
Interior columns, pilasters, and bond stone	18,244	1	
Total	61,572	4	
Sandstone—	ft.	in.	
In superstructure	239,707	11	
In turrets	13,892	6	
Total laid	253,600	5	
On hand	824	1	
Total sandstone	254,424	6	
Total dimension stone	326,552	10	
Brick work, kiln count	11,615,240		
Wrought iron, set, pounds	1,983,707		
Cast iron, set, pounds	103,403		
Roofing, squares	507	83-100	
Copper guttering down spouts, deck roofs, and on domes lbs		111,288	
Sheet lead, flashing, pounds		8,449	

STATEMENT OF TOOLS SHIPPED TO A. E. MARTIN, WARDEN
ANAMOSA PENITENTIARY.

On November 20, 1878.

One hoisting engine, cost the state	\$ 1,197.24
One steam derrick, cost the state	258.32
One hand-power derrick, cost the state	470.00
One ladder derrick, cost the state	55.51
256 feet steel wire rope, cost the state	87.08
1,050 pounds galvanized iron rope, cost the state	189.00
415 pounds manilla rope, cost the state	58.10
10 wire rope sockets, cost the state	25.00
22 clevises, cost the state	27.50
2 iron skeleton blocks, cost the state	70.00

On July 29, 1879.

Mast and boom for buggy derrick, cost the state	112.50
Iron and iron work for buggy derrick, cost the state	422.72
Labor, building derrick, cost the state	68.25
835 feet steel wire rope, cost the state	191.75
320 pounds manilla rope, cost the state	41.60
1,020 pounds galvanized iron wire rope, cost the state	226.80
4 blocks, cost the state	25.20
520 pounds clevis irons, chains, etc., cost the state	62.40
2 pair stone trucks, cost the state	180.80
1 pair stone trucks, cost the state	32.40
4 truck wheels, cost the state	14.00
1 hand power, cost the state	30.50
28 wire rope sockets, cost the state	63.00
Boom and mast for boom derrick, cost the state	57.63
Iron and castings for boom derrick, cost the state	113.80
Iron and iron work for boom derrick, cost the state	68.31
Wood work for boom derrick, cost the state	19.50

The whole costing the state when purchased \$ 4,169.51

STATEMENT

Showing the number of days of men and teams employed on the Capitol building, and the prices paid per day, for the years 1874-5-6-7-8 and 1879; also the number of days for 1872-3, and the number of days at Iowa City quarry. Not including stone-cutters working by the foot, and men employed by contractors.

	Days, 1874.	Days, 1875.	Days, 1876.	Days, 1877.	Days, 1878.	Days, 1879.
\$ 6.00	.....	153.50	308.50	272.50	114.00	.....
5.40	.....	.....	.....	.....	169.00	149.00
5.90	550.00	519.75	627.00	748.40	225.50	.....
4.50	.....	191.00	131.00	.....	520.50	546.75
4.00	230.00	533.60	555.75	620.95	135.60	.....
3.75	1,408.80	2,120.40	220.45	48.20	.....	.....
3.60	.....	.....	.....	.....	186.00	234.00
3.50	188.65	235.03	2,074.35	407.55	47.20	47.50
3.30	.....	.....	.....	.....	7.80	13.90
3.25	236.00	468.40	456.75	642.50	312.10	129.75
3.15	.....	.....	.....	.....	154.00	163.50
3.00	274.40	505.75	421.90	929.90	245.35	41.85
2.90	.....	.....	.....	.....	629.10	184.65
2.75	562.10	139.75	153.25	1,311.60	363.85	199.80
2.70	.....	.....	.....	.....	2.85	.....
2.60	.....	.....	.....	.....	.....	.....
2.50	1,052.90	1,928.65	2,652.60	967.80	371.35	234.05
2.40	.....	.....	.....	.....	.90	.....
2.25	.....	588.65	1,548.45	2,583.45	2,001.85	1,602.35
2.00	839.85	3,722.10	1,169.70	1,225.15	2,653.30	2,368.20
1.90	.....	13.25	.....	.....	.....	.....
1.75	3,642.15	3,245.85	5,499.95	934.20	945.95	661.05
1.65	2,378.95	9,889.20	2,620.35	74.55	.....	.....
1.60	.....	.....	335.50	7.90	.....	.....
1.50	1,800.75	501.60	8,971.35	11,933.30	3,770.05	1,116.68
1.40	.....	.....	.....	125.00	125.00	.....
1.35	.....	15.50	.....	72.50	.....	.....
1.30	.....	15.25	.....	.....	.....	.....
1.25	.....	636.25	1,567.70	8,749.25	6,525.70	.....
1.20	.....	8.00	.....	121.00	.....	.....
1.15	.....	.....	.....	415.25	129.75	.....
1.10	.....	.....	.....	306.50	59.60	.....
1.00	.....	.....	399.00	270.95	131.35	311.50
.75	697.65	813.77	715.75	480.50	493.25	387.40
.65	.....	.....	9.50	.....	.....	.....
.50	.....	.....	.....	.....	2.00	.....
	14,431.20	25,570.25	29,546.10	25,224.60	23,189.85	15,100.73

RECAPITULATION.

Total days of men and teams employed in 1872, after May 18.....	9,759.35
Total days of men and teams employed in 1873.....	13,084.37
Total days of men and teams employed in 1874.....	14,431.20
Total days of men and teams employed in 1875.....	25,570.25
Total days of men and teams employed in 1876.....	29,546.10
Total days of men and teams employed in 1877.....	25,224.60
Total days of men and teams employed in 1878.....	23,189.85
Total days of men and teams employed in 1879.....	15,100.73

Total days of men and teams employed by the day on the building.....	155,906.45
Total days of men and teams employed at Iowa City quarry in 1873-4-5.....	23,225.75
Total days of men and teams employed from May 18, 1872, to Sept. 30, 1879.....	179,132.20

NUMBER TWO.

REPORT OF THE ARCHITECTS.

ARCHITECTS' OFFICE,
DES MOINES, IOWA, November 13, 1879.

To the Honorable Board of Capitol Commissioners:

GENTLEMEN—Upon the 28th of November, 1877, your architects presented to the board their first general report of the work upon the building, as they found it when first appointed architects, and at the close of the year 1877. At the closing of this year's work we do not deem it necessary to embrace in this report the general details of what has been done, as this is already familiar to you all.

We desire to state that the consultations upon all the different branches of the work which we have had with your Honorable Board, from time to time, have universally assisted us to prepare drawings which will, when executed, be as far from criticism as can readily be attained.

The opportunities which we have had, of seeing, in practical execution, the ideas of other architects and commissioners, have enabled us to make comparisons between our own work and all there is so far done in this country, and we believe that if the work is carried on to completion under the same system and management, with the free counselings of your board, the building throughout will be eminently satisfactory to the people of Iowa. The questions which we feel to be of vital importance, at this time, are, the construction of the main central dome, and what shall form the inside finish, and what be the parts of the building completed first.

Regarding the completion of the main central dome, our views were fully set forth in our report of 1877; and we now desire in this report to further impress upon the board, if possible, the importance of completing this important feature while it can be done to the best advantage, as we believe that any further delays in the construction of the dome will result in the loss of many thousands of dollars to the State.

We therefore recommend that, as soon as the necessary appropriations are made, the entire material entering into the construction of the dome be procured, and the work completed as rapidly as possible, consistent with good work. The building will then be entirely in-

closed, when the work of finishing the interior can be performed to advantage.

So far as your architects are able to judge at present, the large State library should be the next part of the building completed, in order to receive and safely protect the books forming the present State Library. After this, as the means may be available, the work of finishing the interior should commence with the upper stories of the building, and continue a story at a time, downward, until the whole is completed.

In preparing the plans for the interior finish, which, literally, embraces all parts of the work not exposed to the elements, we have been greatly assisted by the action of the board in employing an engineer of heating and ventilation. By your action in this respect, the State will not only get a better class of work from those who contract to perform it, but will be in possession of a set of plans, which will show, at all times, the location and sizes of all the pipes, valves, and other work of the steam-heating apparatus, for the use of the engineer who has charge of the same. These plans have been prepared with the greatest care, and represent the work so faithfully, that it is not difficult to see and appreciate their value, both in the erection of the work and its management in the future. It has generally been found, in the construction of buildings of the size of your new capitol, that too often there is nothing, after the buildings are completed, to guide those who have them in charge, in taking the proper care of the same; and even those who are specialists in the different branches of the work would be at a loss to know where to look for pipes and other work, without plans of this kind. We think the services of Mr. Greene to be invaluable in the construction of these plans, and we fully believe that if architects generally who have charge of public buildings would warp their professional pride enough to recommend the employment of specialists in the separate parts of their construction to assist in the preparation of their plans, the public buildings of the country would not present so many ghastly bills of expense for alterations and repairs to the different legislative bodies.

It is more than reasonable to suppose that a man who makes a special life study of steam heating or plumbing, or any of the separate branches of building, will know much more of its details and practical workings than one who is concerned continually about them all; and the State of Iowa will have profited in this respect by the mistakes of the finest and most costly buildings in the country.

Regarding the work of constructing the plans for the main central dome, your architects have been controlled entirely by a desire to gain true proportion and symmetry for the entire building, and not to make the mistake which so many have already made of constructing a steeple or tower and calling it a dome. The opportunities which we have obtained, by the consent of the board, of visiting and studying the different buildings of the Eastern States, have given us an education that led us to revise, from time to time, the preliminary drawings of the original design as made by Mr. Piquenard, the designer of the building. By this experience, and the suggestions offered by your board, we have prepared the full working drawings for the dome, which, when executed, will be in much better proportion and symmetry of design than the original, and can be executed at very much less expense.

We feel it but due to the memory of Mr. Piquenard to say that, at the time his design was made, it was a fair interpretation of the wishes and tastes of the people, and all those who were in any degree capable of criticising it were satisfied that it was one of the best designs for a dome of modern times, and many of its features were practically introduced in the construction of the dome upon the new capitol building of Illinois. We have become convinced that the design, as originally made, would have been entirely too high and predominating to have entered into symmetry with the entire building. This unfortunate effect is not only to be seen in the new capitol of Illinois, but in many other public buildings of equal importance in the different States.

The estimate of cost for constructing the main dome and turrets, in our report of 1877, was

For the four turrets.....	\$ 69,800.64
For the main dome.....	391,389.60

which was the price for these parts of the building, erected in stone. If constructed of iron, the cost would have been:

For the four turrets.....	\$ 60,232.80
For the main dome.....	354,863.82

At the time of writing this report, we are glad to be able to state that the turrets, upon the four pavilions have been constructed of stone, at a cost not exceeding our estimate given at that time; and of main central dome we have to report that, by the revision of the plans previously mentioned, we feel fully warranted in making the statement that our estimate of cost as now designed will show a very great saving from our estimate of 1877.

This saving of cost will result from the reduced height of the base of the dome, and also the dome proper, and when the estimate is fully compiled it will be furnished, with the plans, for your consideration.

It is the purpose of your architects to continue the perfection of the plans for the entire building, which, when they shall have been considered and duly approved by your board, will be duplicated for the contractors and workmen upon the building. This will enable the board to retain on file in their possession, a full copy of the plans of the building in all the different branches, enabling those who make and arrange the furniture, counters, shelving, and other interior work, to unite the same with the finish of the rooms. As soon as practicable, we further purpose the preparation of estimates of cost for the entire inside furnishing, in order that the cost of the whole structure may be fully ascertained.

Very respectfully submitted,
BELL & HACKNEY, *Architects.*

NUMBER THREE.

REPORT OF THE STEAM-HEATING AND VENTILATING ENGINEER.

DES MOINES, IOWA, Nov. 17th, 1879.

To the Honorable Board of Capitol Commissioners, Des Moines, Iowa.

GENTLEMEN—In fulfillment of the contract made with you to propose a plan and furnish drawings, specifications, estimate, and schedule of material for the construction of a warming and ventilating apparatus for the new capitol building, I have the honor herewith to submit such a plan as seems best adapted to the requirements drawings therefor in general plan and full detail, estimate of cost, specification for the work, and schedule of the material and labor, all of which I trust may be deemed sufficient for the case and full in their conception.

I have studied the building with much care, and endeavored to produce an apparatus complete and satisfactory in its results; keeping in view always the least possible cost of construction; but also that which is the true economy, the method that shall be operated at the least possible expense.

The adoption, in my view, of the Low Pressure system of heating, returning the water to the boilers by gravity, is essential to economy of operation; at the same time it is the only possible system for this building which will be free from the objectionable snapping and noise so frequent in steam apparatus. I have therefore designed the apparatus for such pressure and mode of returning the water of condensation, with pipes arranged in size and manner to give such result, which, if put in and completed as planned in every particular, will certainly be a success. The pressure required, and that which is incorporated as part of the specification, is that of from *one to five* pounds per square inch; and with such temperature of steam the building will be warmed to 70 degrees when the external thermometer is 15 degrees below zero. The method of distribution of the steam supply for both heating and ventilating and the returns therefor are shown upon the plans of the cellar and attic—the “indirect” radiation being supplied from pipes in the cellar, also a small portion of the “direct” radiation on first floor and basement. The principal part of the “direct” radiation is supplied from the attic, or by an “overhead supply” involving one or more main supply pipes up, and but single lines of pipe down for each

tier of radiators. This plan is used both because of its peculiar adaptation to the building, and the economy of its construction. The requirements of the building for proper heating and ventilation involve boilers having not less than 5,000 square feet of heating surface, or the equivalent of six boilers 60 inches in diameter and 17 feet 3 inches long, having 54 flues 4 inches in diameter and 16 feet long. I should recommend the employment of seven such sized boilers, in order to have one as reserve, in case of repair, and have designed such setting and arrangement of the same as is known to give the greatest economy in fuel. They have also been arranged in their connection with each other so that any one or any number can be used at pleasure at the same time, and only so much of the boiler power need be employed as the temperature, or the extent of the occupancy of the building, may require.

The plans submitted show the space required for the proper impingement of the furnaces, etc., size of chimney, and all details. The fuel to be used will doubtless be the soft bituminous coal of this section, and as recent improvements have made it possible to prevent the “smoke nuisance” usually attendant on such operations, I would recommend the employment of what is known as the “Walker Patent Furnace,” the use of which I am convinced, by actual test, prevents nearly all the smoke, and at the same time makes a considerable economy in fuel.

The location for the Boiler House I find to be across Sycamore street, 220 feet distant to the front or nearest side of the lot. In order to connect with the building, it will be necessary to construct a Tunnel or Duct, of sufficient size for the several lines of pipes for steam and return water, with room to take proper care of them; and I should recommend that this duct be made large enough to be used for the main supply of fresh air for the building, for several reasons:

1st. The control of such supply, if at that point, is made much easier, and very much more likely to be attended to.

2d. The heat, otherwise lost, by radiation from the pipes in the duct, is imparted to the air and utilized in the building.

3d. If this supply be obtained through a Tower from 30 to 40 feet high, it will contain much less dust and other impurities than is obtained by the usual cellar windows; and lastly, it will make possible the accomplishment of a very desirable result in warming the air to a point above 22 degrees before entering the cellar, saving any possible damage by freezing to the walls, foundations or pipes, but also what is far more important, preparing the air to receive in a simple manner an amount of moisture due its temperature, which is an element usually overlooked, or left out altogether.

The amount of moisture in air of 20 degrees Fahrenheit is $1 \frac{1}{8}$ grains per cubic foot, whilst the air of the common summer temperature of 70 degrees Fahrenheit contains, if taken from outside of the building, $7 \frac{1}{8}$ grains per cubic foot, or a little more than five times as much. The attempt, therefore, to produce an artificial condition of summer temperature in a building from a winter condition of atmosphere, that only adds temperature, is a serious mistake.

The air, having great capacity for the moisture, seeks for it with avidity, and generally does so at the expense of the body or occupants

of the room. It is due to the fact of an atmosphere saturated with moisture in a hot-house or green-house, that plants thrive, and that the air is so pleasant and easy to breathe, but it is also due to that fact that the cooling surface of the glass is obscured by moisture. It therefore becomes impracticable in buildings of this character to make the "dew point" higher than the temperature of the glass surface; but as much moisture as can be added up to that point, should be supplied, and then the artificial condition of summer temperature approaches nearly to the reality. To accomplish this, I have designed to place in an enlargement of the duct sufficient radiating surface to raise the temperature of the entering air about 40 degrees when the external thermometer is at zero, or below. Immediately at the entrance to the building the air is to pass between a series of blankets or sheets of a fibrous material, suspended from the ceiling of the corridor and entering a shallow pan of water. Capillary attraction will keep these blankets constantly charged with the moisture which the air thus prepared demands, and which it absorbs as it passes between them; but as it has been only partially warmed, and to the probable temperature of the glass surface, there will be no deposit of dew.

Many attempts have been made in public buildings to moisten the air, or rather permit it to absorb a portion of water due its temperature when in the room, but none with marked success, except in the English House of Parliament. There, wet blankets are used for extended surface to pass the air over, but as the air in contact with them is at 70 degrees or above, the blankets are only wetted at intervals, and then by a hose and sprinkler held by an attendant, as a continuous wetting would raise the "dew point" so high that it would deposit on the walls and glass. The method in vogue in this country has been to place a large pan of water in the air duct—often in the cold air duct—and sometimes to permit small streams of water to fall through the air in the passage through the same, but none of these have ever been a success, and after short use have been abandoned. I am convinced that the method proposed will avoid the difficulties of imparting the greatest amount of moisture practicable, and need no attention whatever, other than an occasional change of blankets.

(In this connection the subject of double glass, or glazed double sash is one of much importance, for by its use and consequent lessening of the capacity to cool and condense the atmosphere, the practicable approach to nature in the "dew point" can be nearly arrived at, to say nothing of the saving in fuel. I submit this subject to your consideration.)

The air thus prepared is then brought in contact with sufficient radiating surface placed at the bottom of the flue leading to its respective room, and warmed to a temperature slightly above 70 degrees and allowed to ascend the flue. The surface thus placed at the bottom of the flue is only sufficient for warming to that degree a volume of air equal to that contained in the room once every thirty minutes, but it is estimated that this volume will be a supply of 40 cubic feet per minute, at a velocity of five feet per second, for the maximum number of persons likely ever to occupy the room, and such a velocity is not a perceptible draft to any person, except at the immediate entrance. Two feet from the register its diffusion will prevent any

possible discovery of draft. This mode and surface however, is simply intended to warm the volume of entering air. To warm it sufficiently to compensate for the loss, by radiation of the glass and outer wall surface, would be to render the air too warm for contact and involves an expense in fuel to be avoided. For the compensation of such cooling surface, I have designed to use "direct" radiation, placed, in general, under the windows, but having a small amount of fresh air admitted under the window sill and brought in contact with the radiator at the bottom. The object of this air entrance is rather to facilitate the warming of the glass and wall surface by the radiator, than for ventilation, as the radiator is placed under a marble window-seat and in the recess, in order to be practically out of the room.

The flues provided in the construction of the building permit of an ample supply of fresh air in all parts except in the basement. In order that these rooms may be made available as offices, if desirable, at some future time, an adequate supply of air should be provided. I should recommend that it be taken from the cellar and into contact with the radiator placed in the recess of the window, by a proper sized opening made as per plans submitted.

The warming of the corridors is to be effected by a radiator placed along the walls as shown upon plans, but a temperature of 65 degrees will, in my judgment, be sufficient. The ventilation of the corridors will be at the upper part of the dome, and no doubt will be very efficient, as it acts like a large chimney. Extreme care must be taken that the escape of air at that point is not too great, as it involves loss of heat, which may be otherwise expressed as loss of coal.

The vitiated air from the different rooms is to be removed through flues provided for each room, vault, or closet in the building, with the exception of two or three minor closets. A few of the rooms under House of Representatives and Senate Chamber floors are designed to ventilate downward to the cellar, and thence to vertical vent shafts in the Dome walls, but I should recommend that some slight changes be made, chiefly in two or three closets, which will permit of flues being built, that will ventilate upward, and avoid the necessity for foul air ducts in the cellar, where even the duct construction is not entirely safe from a possible contamination of pure air. There is no absolute safety but entire absence of such a flue.

The general ventilation is accomplished by flues from each room, leading to the attic, and then conducted by main trunks to four shafts in the central Dome walls, and one in each Pavilion Dome, the former having exit through "Emerson Ejectors" outside of the base of the dome, the latter through the dome turrets. There are also two vent shafts in the east projection, also surmounted by "Emerson Ejectors." These vent shafts are each to be given a powerful exhaust by means of steam pipes placed on the inner surface of the flue near the top, extending down a distance of 25 to 30 feet. These pipes are to be six inches apart vertically, and the heat radiated from them will rarify the air to such a degree that its ascending velocity will be much increased, and the consequent rush of air from the rooms below to fill the space, will ensure a thorough ventilation. The ventilation of the three principal rooms in the building, has been a matter of special attention,

In the Hall of Representatives and Senate Chamber the entering air is designed to be at each end, from under the Speaker's rostrum and from registers on the opposite side, with the addition of the window sill air entrance. A possible supply of 40 cubic feet per minute, at a velocity of 5 feet per second has been provided for 336 persons in the House of Representative and 240 persons in the Senate Chamber. The vitiated air is designed to be removed from these rooms through the floor, at the recess of the steps or platforms of the members' seats,— and through the recess of the Gallery seats, thence it is taken to flues behind the columns in the room, and upward to a main trunk. This method will produce an even downward movement of the whole volume of air in the room, keeping the floor as warm as the space above, and besides rendering the galleries a habitable place, prevent the sound wave of a member's voice reaching the ceiling before it does the listener's ear.

A similar supply of air is designed for the Library when containing 237 persons, and the ventilation is accomplished on the opposite side of the room from the air entrance.

In explanation of the quantity of air supply determined upon for this building: 40 cubic feet per minute is the average supply deemed requisite by the best authorities in sanitary matters, their opinions as to the quantities varying from 20 to 60 cubic feet per minute. The average supply is, however, about 40 feet for buildings of this character. The air supply for the English House of Commons is from 30 to 60 cubic feet per minute for each person. (See Reports of the British Scientific Association: Vol. vii, page 131.) Even in our dwelling houses, where the cubic space per individual is excessive, and where the leakage at the windows and elsewhere is more so, if that leakage did not give us from 5 to 10 cubic feet of air per minute, the home would be unbearable.

Dampers have been designed for the regulation of each main bent shaft, so that, if the apparatus is operated intelligently, there will be no excess of ventilation, but the amount of change of air just sufficient for the number of persons occupying the building. When it is remembered that the volume of air and its temperature is a direct exponent of the number of pounds of coal consumed, the persons responsible for the regulation of the entering and leaving volume of air are also responsible for the expense in full.

Buildings can be heated cheaply, in the matter of fuel, no doubt, if no ventilation is used, or a very inadequate ventilation provided, if they have an apparatus constructed upon a reasonably skillful plan; but such cheapness, expressed in dollars and cents, as against a coal bill that would provide a proper amount of pure air to breathe, is the same spirit and act which impels the miser to deny himself necessary food to keep his physical want supplied.

In justice to myself I desire to say, and impress emphatically upon your minds that, however skillfully the scheme may be planned, or the drawing made therefor, or the specifications detail, if the completion of the work does not fall into hands that are fully competent in skill, and so honorable that their honesty cannot be swerved by desire to make a large profit, the successful operation of this important work is

impossible. And I desire to put upon record here the fact that however skillfully it may be planned and honestly executed, capable of performing all it was intended, if it be not intelligently cared for, attended to, and operated, it will, to a very great extent, be a failure; and it has never been my privilege to know of more wisdom condensed, than is contained in the closing words of the report of the Honorable Committee of your Board, appointed to investigate some of the prominent public buildings of this country. This report I have been permitted to read, and the following words should be printed in large type and framed: "The committee desires to say that their experience and "observation has led them to believe that however intelligently heating "and ventilation may be planned and executed, that no system for "either has yet been devised that is entirely automatic. They each "and all require intelligent management and careful supervision to be "entirely successful." I cannot close my report in words more to the purpose.

Yours very respectfully,

LEVI R. GREENE,
Heating and Ventilating Engineer.

NUMBER FOUR.

REPORT OF THE SUPERINTENDENT OF FINANCE.

To the Board of Capitol Commissioners:

I herewith present my report, and exhibits of expenditures, in detail, for the year 1878, of \$200,000 on the new capitol building, and \$1,408.50 for lot for boiler house, and for the year 1879 of \$125,000, and for the aggregate amount, from the commencement of the work to October 31st, 1879, of \$1,576,408.50, being the full amount thus far appropriated for the new capitol building, and the lot for boiler house. Also, of the receipts for sales of refuse material and old machinery, for the year 1878 of \$551.46—exhibit C, and for the year 1879 of \$175.98—exhibit F.

The cash account in the general books stands as a disbursement, which is caused by the material sold having been paid for and charged in account; the amount of the sales is credited to said accounts, and is now represented by said cash account, and will continue so, until permanently disbursed.

The convenience and benefit of having some money on hand, for the purchase of special material and machinery, requiring prompt cash payment, still exists. Therefore the money received from the sales of refuse material and old machinery, is still continued to be held as a reserve fund.

The Seventeenth General Assembly made a special appropriation of \$10,000 for the purchase of a lot for a boiler house, for heating the new capitol building, and for the construction of a sewer from the new capitol building to the Des Moines river. The lot has been purchased at a cost of \$1,408.50. The sewer has not been built, and the balance of the appropriation of \$8,591.50 remains unexpended.

The pay-rolls for October, November, and December are payable January 1st, 1889, at which time the annual appropriation of \$125,000, is due.

The accompanying exhibits are in the following order:

A. Classified statement of the aggregate expenditures, from the commencement of the work to November 30th, 1877.

B. General statement of expenditures, in detail, from December 1st, 1877, to November 30th, 1878.

C. General statement of cash received in the year 1878, and to what class credited.

D. Classified statement of expenditures from December 1st, 1877, to November 30th, 1878.

E. General statement of expenditures in detail, from December 1st, 1878, to October 31st, 1879.

F. General statement of cash received in the year 1879, and to what class credited.

G. Classified statement of expenditures from December 1st, 1878, to October 31st, 1879.

H. Condensed classified statement of the aggregate expenditures from the commencement of the work to October 31st, 1879.

I. Condensed statement of expenditures, appropriations, sales, and receipts.

All of which is respectfully submitted,

JOHN G. FOOTE, *Superintendent of Finance.*

EXHIBIT "A."

Classified statement of the aggregate expenditures from the commencement of the work to November 30, 1877.

ON WHAT ACCOUNT.	AMOUNT.
Plans.....	\$ 4,101.65
Excavation and drainage.....	15,610.99
Stone—limestone and granite.....	119,189.04
Cistern.....	1,512.12
Sand.....	5,058.70
Repairs in first foundation.....	52,353.76
Stone masonry on foundation.....	14,711.21
Brick masonry on foundation.....	7,789.80
Concrete—labor on.....	5,802.24
Printing and advertising.....	2,308.50
General labor.....	1,698.14
Patterns and models.....	1,083.64
Water.....	3,252.84
Rubble masonry on foundation.....	4,765.97
Iowa City stone.....	66,858.10
Brick masonry on basement story.....	17,100.37
Stone setting on basement story.....	6,149.37
Cash received from sales of refuse material.....	995.85
Stone cutting—limestone and granite.....	114,156.39
Railroad.....	14,221.81
Lumber and timber.....	31,837.50
Wrought iron work.....	73,199.53
Carpenter work.....	9,913.19
Cement.....	36,538.46
Board of Commissioners.....	14,277.58
Fuel.....	4,254.72
Nails and hardware.....	806.98
Water pipe and meter.....	791.95
Brick.....	92,059.71
Iron and steel.....	441.46
Cast iron work.....	2,053.69
Lime.....	2,912.00
Carroll county stone.....	79,574.08
Ste. Genevieve stone.....	113,767.79
Sandstone cutting.....	134,456.47
Rubbing stone.....	15,998.21
Accidents.....	173.50
Extra handling stone.....	2,004.26
Brick masonry on superstructure.....	48,498.02
Stone setting on superstructure.....	27,777.33
Paints and oils.....	267.45
Roofing and gutting.....	8,073.33
Terra cotta work.....	583.89
Salaries.....	64,224.42
Expenses.....	2,074.61
Machinery and tools.....	24,538.99
Total.....	\$ 1,250,000.00

EXHIBIT "B."

General statement of Expenditures in detail, from December 1st, 1877, to November 30th, 1878.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1878.				
Jan.	21833	Board of Commissioners	Per diem and expenses.....	\$ 198 96
	21834	K. & D. M. R. R. Co.	Freight on stone.....	315 00
	21835	Carroll Co. S. S. Co.	Stone.....	2,530 16
	21836	Carroll Co. S. S. Co.	Stone.....	3,566 91
	21837	Emanuel Haugh.....	Retained per cent on iron work.....	1,414 82
	21838	W. T. Smith.....	Brick.....	436 17
	21839	Francis Guesner.....	Brick.....	173 68
	21860	C. R. I. & P. R. R. Co.	Repairs on capitol R. R.....	4 57
	21861	Des Moines Water Co.	Water.....	19 10
	21862	R. S. Finkbine.....	Salary as Overseer.....	275 00
	21863	Bell & Hackney.....	Salary as Architects.....	260 00
	21864	Eli Wright.....	Salary as Secretary, and expenses.....	200 95
	21865	Iowa Terra Cotta Co.	Porous terra cotta.....	526 76
	21866	Huron Bay Slate Co.	Roofing slate.....	183 76
	21867	C. R. I. & P. R. R. Co.	Freight bills, November, December.....	1,118 11
	21868	K. & D. M. R. R. Co.	Freight on stone.....	15 00
	21869	Comparet & Stark.....	Stove and fixtures.....	42 78
	21870	Bol on Brothers.....	Tools, nails, hardware.....	22 38
	21871	J. H. Ward.....	Paints and oils.....	24 68
	21872	Teachout & Clark.....	Ice for offices and shops.....	12 76
	21873	J. K. & W. H. Gilcrest.....	Lumber.....	62 01
	21874	C. & L. Harbach.....	Moulding.....	1 82
	21875	Des Moines Coal Co.	Cement, lime and fuel.....	432 62
	21876	Samuel Green.....	Cast iron work.....	7 93
	21877	John G. Foose.....	Per diem and expenses, Supt. of Finance.....	33 30
	21878	Carroll Co. S. S. Co.	Stone.....	1,569 89
	21879	Fred Hass.....	Copper.....	7,231 62
	21880	John G. Foose, S. F.	Pay roll.....	14,884 51
	21881	John Worthing.....	Aux Sable stone.....	300 91
	21882	K. & D. M. R. R. Co.	Freight on stone.....	150 00
Feb.	21883	John G. Foose.....	Per diem and expenses, Supt. of Finance.....	80 20
	21884	Chicago T. Cotta Works.....	Balusters.....	507 59
	21885	Iowa State Register.....	Letter head.....	8 25
	21886	Carroll Co. S. S. Co.	Stone on contract.....	599 76
	21887	Francis Guesner.....	Brick on contract.....	851 67
	21888	S. A. Robertson.....	Brick.....	48 13
	21889	J. E. Taylor.....	Brick.....	787 59
	21890	Ed Wright.....	Salary as Secretary, and expenses.....	200 65
	21891	Bell & Hackney.....	Salary as Architects.....	250 00
	21892	R. S. Finkbine.....	Salary as overseer of construction.....	300 00
	21893	Pat Sullivan.....	Sand.....	91 23
	21894	James Crystal.....	Sand.....	68 06
	21895	G. W. Logan.....	Sand.....	71 21
	21896	James Hartman.....	Sand.....	96 13
	21897	William Breton.....	Sand.....	50 17
	21898	J. S. Burnett.....	Sand.....	86 68
	21899	N. B. Cookley.....	Sand.....	116 73
	21900	E. L. Shaw.....	Sand.....	16 96
	21901	S. B. Brett.....	Sand.....	15 95
	21902	W. H. Hynl.....	Sand.....	23 06
	21903	J. W. Hoibe.....	Sand.....	17 19
	21904	J. L. Boyer.....	Sand.....	8 80
	21905	W. Bartholomew.....	Sand.....	29 23
	21906	S. Riess.....	Sand.....	22 46
	21907	Christ Huser.....	Sand.....	46 77
	21908	Iowa Terra Cotta Co.	Porous terra cotta.....	193 46
	21909	W. R. Stinson.....	Carrying mail and express.....	9 49
	21910	C. R. I. & P. R. R. Co.	Freights.....	118 70

EXHIBIT B—CONTINUED.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1878.				
Feb.	5 1911	John G. Foote, S. F.	Pay roll	2,342 87
	6 1912	Des Moines Coal Co.	Fuel	35 15
	6 1913	Treasurer Polk Co.	Taxes on right of way	149 01
	6 1914	Board of Commissioners.	Per diem and expenses	223 20
	15 1915	Des Moines City Treasr.	Taxes on lots used for right of way	81 01
	15 1916	S. Briggs	Sand	55 24
	15 1917	Wm. Breton	Sand	18 92
	15 1918	O. Tungate	Sand	14 19
	15 1919	W. W. Barcus	Sand	12 31
	15 1920	J. B. Shannon	Sand	16 04
	15 1921	E. L. Shaw	Sand	24 48
	15 1922	J. L. Boyer	Sand	14 56
	15 1923	W. Bartholomew	Sand	21 83
	15 1924	J. W. Hobbs	Sand	5 67
	15 1925	W. Hyud	Sand	41 17
	16 1926	James Crystal	Sand	65 81
	22 1927	W. G. Bagg	Brick	211 53
	23 1928	Board of Commissioners.	Per diem and expenses	214 50
	23 1929	John Genseer	Sand	58 84
	23 1930	G. W. Logan	Sand	37 50
	23 1931	Pat Sullivan	Sand	119 54
	23 1932	Christ. Huser	Sand	64 85
	23 1933	B. Brott	Sand	10 38
	23 1934	S. B. Brott	Sand	15 34
	24 1935	Bell & Hackney	Salary as Architects	250 00
	25 1936	Ed Wright	Salary as Secretary	203 01
March	1 1937	K. & W. H. Gilcrest	Freights on Carroll Co. Stone	40 10
	6 1938	R. S. Finkbine	Salary as Overseer	192 05
	6 1939	Des Moines Coal Co	Fuel	12 95
	6 1940	S. A. Robertson	Brick	315 01
	6 1941	Francis Genseer	Brick	454 27
	6 1942	John G. Foote	Per diem and expenses, Supt. of Finance	40 00
	6 1943	Fred Haas	Corp. or work	3,268 18
	6 1944	C. R. I. & P. R. R. Co.	Switching Carroll Co. Stone	21 08
	6 1945	Carroll Co. S. S. Co.	Stone	101 74
	7 1946	John G. Foote, S. F.	Pay roll	469 22
	8 1947	C. R. I. & P. R. R. Co.	Freight on wrought iron	711 67
	8 1948	Emanuel Haugh	Roof trusses and ceiling beams	13,186 99
	13 1949	R. S. Finkbine	Expenses to Indianapolis	53 90
	20 1950	W. S. Darr	Right of right of way	50 00
	23 1951	K. & D. M. R. R. Co.	Freight on Carroll Co. stone	435 00
	23 1952	R. S. Finkbine	Salary as Overseer	192 05
	23 1953	Ed Wright	Salary as Secretary, and office expenses	207 55
	23 1954	K. & W. H. Gilcrest	Lumber	18 00
	23 1955	C. & L. Harbach	Mouldings	300 90
	23 1956	Bell & Hackney	Salary as Architects	250 00
	23 1957	Des Moines Coal Co	Engine coal	10 65
	23 1958	Samuel Green	Cast iron walk-plats	99 03
	23 1959	S. A. Robertson	Brick	156 10
	23 1960	John G. Foote	Per diem and expenses, Supt. of Finance	42 95
	23 1961	John G. Foote, S. F.	Pay roll	670 06
	23 1962	Iowa State Register	Advertising proposals	7 40
	23 1963	Carroll Co. S. S. Co.	Stone	2,778 69
	23 1964	C. R. I. & P. R. R. Co.	Switching Carroll Co. stone	189 00
	23 1965	Emanuel Haugh	Freight on Carroll Co. stone	105 09
	23 1966	Board of Commissioners.	Per diem and expenses	1,490 99
	17 1968	Keokuk & W. M. R. R. Co.	Freight bills	153 45
	20 1969	T. B. Curtis, attorney	Retard of right of way	195 00
	7 1970	Bell & Hackney	Salary as Architects	240 00
	7 1971	Keokuk & W. M. R. R. Co.	Freight bills	250 00
	7 1972	Carroll Co. S. S. Co.	Stone on contract	591 44
	7 1973	Emanuel Haugh	Roof trusses	3,702 00
	7 1974	Keokuk & D. M. R. R. Co.	Freight on contract	4,023 84
	7 1975	C. R. I. & P. R. R. Co.	Freight bills	443 16
	7 1976	Bolton Brothers	Tools, nails, hardware	583 56
	7 1977	Ed Wright	Salary as Secretary, and expenses	108 49
	7 1978	R. S. Finkbine	Salary as Overseer	192 05
	7 1979	C. J. Hamner	Freight and drayage	270 00
	7 1980	Des Moines Water Co.	Water furnishes	4 40

EXHIBIT [B]—CONTINUED.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1878.				
May	7 1981	John F. Peterson	Photographs	\$ 15 00
	7 1982	Des Moines Coal Co	Coal and lime	182 80
	7 1983	John G. Foote	Per diem and expenses, Supt. of Finance	38 10
	7 1984	R. C. Webb & Co.	Pails and broom	7 70
	7 1985	J. K. & W. H. Gilcrest	Lumber	85 89
	7 1986	Francis Genseer	Brick on contract	369 10
	7 1987	Oberius & McDonald	Tallow	18 45
	7 1988	J. D. Seeberger	Rope	75 88
	7 1989	Mills & Co.	Paints and oils	39 00
	7 1990	H. Ward	Tracing cloth and paper	15 50
	7 1991	National File Co	Re-cutting files	10 03
	7 1992	Keokuk & W. M. R. R. Co.	Freight bills	344 44
	7 1993	John G. Foote, S. F.	Pay roll	6,389 84
	7 1994	Site, Genseer & G. Co.	Stone on contract	2,719 00
	10 1995	S. A. Robertson	Cement	194 54
	10 1996	Iowa Terra Cotta Co.	Porous terra cotta	398 07
	16 1997	Gilbert, Hubbard & Co.	Cotton waste	5 00
	11 1998	Emanuel Haugh	Iron and rivets	345 22
	11 1999	McDonnell & Meara	Repairing boilers	240 00
	23 2000	Iron Bay Sil & Iron Co.	Roofing slate	719 68
	5 2001	K. & D. M. R. R. Co.	Freights on stone	1,218 96
	5 2002	Bolton Brothers	Iron, nails and hardware	67 94
	5 2003	Johnson & Atheron	Engine repairs	58 26
	5 2004	K. & W. H. Gilcrest	Lumber	72 74
	5 2005	H. Ward	Paints and oil	72 13
	5 2006	Samuel Green	Cast iron work	192 05
	5 2007	Emanuel Haugh	P-d-ting iron	101 67
	5 2008	J. D. Seeberger	Iron	7 72
	5 2009	Des Moines Water Co.	Water	25 55
	5 2010	Des Moines P. O.	1000 stamped envelopes	33 20
	5 2011	Hill & Tenley	Engine repairs	12 35
	5 2012	Hell & Hackney	Salary as Architects	250 00
	5 2013	Ed Wright	Salary as Secretary, and expenses	204 23
	5 2014	R. S. Finkbine	Salary as Overseer	300 60
	5 2015	C. R. I. & P. R. R. Co.	Freights and switching	841 82
	5 2016	Des Moines Coal Co.	Coal and lime	204 23
	5 2017	C. R. I. & P. R. R. Co.	Repairs on capitol track	5 50
	5 2018	S. A. Robertson	Salary as Overseer	215 04
	5 2019	John G. Foote	Per diem and expenses, Supt. of Finance	58 10
	5 2020	Carroll Co. S. S. Co.	Stone	5,309 57
	5 2021	Site, Genseer & G. Co.	Stone	2,845 00
	5 2022	Rother Brothers	Refract iron beams and bar iron	638 41
	5 2023	John G. Foote, S. F.	Pay roll	8,638 43
	5 2024	Iowa Terra Cotta Co.	Porous terra cotta	247 34
	13 2025	K. & D. M. R. R. Co.	Freight on stone	270 00
	15 2026	W. G. Bagg	Brick	302 49
	20 2027	Carroll Co. S. S. Co.	Partial payment of per centage	1,000 00
	21 2028	Board of Commissioners	Per diem and expenses	125 50
	22 2029	K. & D. M. R. R. Co.	Freight on stone	120 00
	22 2030	Chicago Terra Cotta Co.	Balusters	1,444 40
	3 2031	K. & D. M. R. R. Co.	Freight on stone	570 19
	3 2032	Site, Genseer & G. Co.	Stone	2,239 04
	3 2033	Carroll Co. S. S. Co.	Stone	4,372 74
	3 2034	C. R. I. & P. R. R. Co.	Freights for June	997 48
	3 2035	R. S. Finkbine	Per diem and expenses	280 00
	3 2036	Ed Wright	Salary as Secretary, and expenses	202 85
	3 2037	H. F. Getchell & Sons	Lumber	69 93
	3 2038	Des Moines Coal Co.	Lumber and coal	250 00
	3 2039	H. Ward & Co.	Paints and oils	14 56
	3 2040	Iowa State Register	Advertising	6 00
	3 2041	J. K. & W. H. Gilcrest	Lumber	140 16
	3 2042	J. D. Seeberger	Refracting dies	4 00
	3 2043	Bolton Brothers	Nails, hardware and iron	65 95
	3 2044	Hell & Hackney	Salary as Architects	250 00
	3 2045	H. Ward	Per diem estimate for roof trusses	2,276 71
	3 2046	John G. Foote	Per diem and expenses, Supt. Finance	56 10
	5 2047	John G. Foote, S. F.	Pay roll	7,805 83
	5 2048	Ed Wright	Lot for heating works	1,438 80
	5 2049	Des Moines Water Co.	Water	25 47
	5 2050	C. R. I. & P. R. R. Co.	Repairs on capitol track	103 60

EXHIBIT [B]—CONTINUED.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1878.				
July	5 2051	N. W. Smith	Funeral expenses of A. Nichols	\$ 88 60
	12 2052	Board of Commissioners	Per diem and expenses	62 60
August	6 2053	Bell & Hackney	Salary as Architects	250 00
	6 2054	Ed Wright	Salary as Secretary, and expenses	201 45
	6 2055	Brooks, Wilson & Stein	Iron, steel and work on tools	167 30
	6 2056	Bolton Brothers	Iron, nails and hardware	40 36
	6 2057	R. S. Finkbine	Salary as Superintendent	275 00
	6 2058	American Wire Nail Co.	Roofing nails	45 90
	6 2059	Gilbert, Hubbard & Co.	Wire rope	69 50
	6 2060	Carter, Hussey & Co.	Blanks, letter book and printing	12 65
	6 2061	Chicago Lumber Co.	Lumber	72 08
	6 2062	Francis Geneser	Brick	1,215 47
	6 2063	Huron Bay Slate Co.	Roofing slate	136 44
	6 2064	Iowa Terra Cotta Co.	Porous terra cotta	233 63
	6 2065	C., R. I. & P. R. R. Co.	Repairs on railroad	32 17
	6 2066	C., R. I. & P. R. R. Co.	Freight bills for July	244 45
	6 2067	K. & D. M. R. R. Co.	Freight bills for July	728 12
	6 2068	S. A. Robertson	Cement	568 10
	6 2069	Des Moines Coal Co.	Lime and coal	289 55
	7 2070	Des Moines Water Co.	Water	26 25
	7 2071	Carroll Co. S. S. Co.	Stone	1,871 62
	7 2072	John G. Foote	Per diem and expenses, Supt. of Finance	57 10
	7 2073	W. G. Bragg	Brick	444 67
	7 2074	Taylor & Miller	Brick	399 74
	8 2075	John G. Foote, S. of F.	Pay roll	9,505 94
	8 2076	K. & D. M. R. R. Co.	Freight bills	236 69
	8 2077	Ste. Genev. S. S. & G. Co.	Stone	2,662 63
	9 2078	Samuel Green	Cast iron work	4 95
	9 2079	Robin on & Atherton	Sheet lead	137 55
	9 2080	Iowa Terra Cotta Co.	Porous roof tiling	448 88
Sept.	3 2081	K. & D. M. R. R. Co.	Freights	242 18
	4 2082	Miller & Taylor	Brick	350 75
	4 2083	Oberne & McDonald	Tallow	28 40
	4 2084	Johnson & Wilson	Portland cement	250 00
	4 2085	Dr. J. F. Kennedy	Medical attendance on Van Dyke	2 50
	4 2086	Des Moines Water Co.	Water in August	31 07
	4 2087	Bolton Brothers	Hardware, iron and nails	49 46
	4 2088	Francis Geneser	Brick, final estimate	1,919 93
	4 2089	S. B. Brott	Brick	751 90
	4 2090	Bell & Hackney	Salary as Architects	250 00
	4 2091	R. S. Finkbine	Salary as Superintendent	300 00
	4 2092	Ed Wright	Salary as Secretary, and expenses	206 75
	4 2093	H. F. Gechell & Sons	Lumber	34 97
	4 2094	Chicago Lumber Co.	Lumber	143 24
	4 2095	John G. Foote	Per diem of expenses as Supt. of Finance	58 60
	4 2096	W. G. Bagg	Brick	253 44
	4 2097	William Close	Brick	97 02
	4 2098	Carroll Co. S. S. Co.	Stone	1,974 43
	4 2099	Iowa Terra Cotta Co.	Porous roofing tile	892 87
	4 2100	C., R. I. & P. R. R. Co.	Freights	482 25
	5 2101	John G. Foote, S. of F.	Pay roll	8,148 74
	5 2102	S. A. Robertson	Cement	235 15
	5 2103	Des Moines Coal Co.	Lime and fuel	296 55
	5 2104	John Worthy	Stone, final settlement	144 94
	19 2105	Board of Commissioners	Per diem of expenses	184 45
	19 2106	Ste. Genev. S. S. & G. Co.	Partial payment of per centage	151 10
	30 2107	Iowa Terra Cotta Co.	Porous terra cotta	957 61
	30 2108	C., R. I. & P. R. R. Co.	Repairs on railroad bridge	38 80
	30 2109	K. & D. M. R. R. Co.	Freights	277 37
October	8 2110	Carroll Co. S. S. Co.	Stone	2,730 86
	8 2111	Bell & Hackney	Salary as Architects	250 00
	8 2112	W. G. Bagg	Brick	235 64
	8 2113	Wm. R. Close	Brick	212 66
	8 2114	Teachout & Clark	Ice	9 70
	8 2115	C. H. Ward & Co.	Paints, oil and brushes	27 53
	8 2116	Des Moines Water Co.	Water	28 65
	8 2117	Dubuque Times	Advertising	12 00
	8 2118	Hawk-Eye Printing Co.	Advertising	10 00
	8 2119	J. D. Seeberger	Rope and iron	20 81
	8 2120	Des Moines Coal Co.	Coal and lime	368 96

EXHIBIT [B]—CONTINUED.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1878.				
October	8 2121	Bolton Brothers	Tools, nails and hardware	\$ 55 88
	8 2122	Fred Hass	Hose and coupling	40 00
	8 2123	T. B. Curtis, attorney	Rent on R. R. right of way	240 00
	8 2124	Ste. Genev. S. S. & G. Co.	Stone	1,074 93
	8 2125	R. S. Finkbine	Salary as Superintendent	285 00
	8 2126	Ed Wright	Salary as Secretary, and expenses	211 00
	9 2127	John G. Foote	Per diem and expenses, Supt. of Finance	57 85
	9 2128	John G. Foote, S. of F.	Pay roll	9,159 73
	9 2129	J. H. Williamson	Sand stone cutting	39 65
	10 2130	S. A. Robertson	Cement	566 75
	10 2131	C., R. I. & P. R. R. Co.	Freights and repairs of track	292 36
	29 2132	Iowa Terra Cotta Co.	Roofing tile	701 22
	29 2133	American Wire Nail Co.	Wire roofing nails	32 80
	29 2134	Board of Commissioners	Per diem and expenses	159 60
	29 2135	Hyland & Hammer	Freight and drayage	29 40
Nov.	5 2136	C., R. I. & P. R. R. Co.	Freight for October	194 83
	5 2137	Bolton Brothers	Nails, hardware and iron	40 24
	5 2138	Hyland & Hammer	Drayage	2 50
	5 2139	Des Moines Water Co.	Water	23 70
	5 2140	A. Knisely & Co.	Roofing slate	37 96
	5 2141	C. G. Hipwell	Roofing slate and slating	401 30
	5 2142	Chicago Lumber Co.	Lumber	57 46
	5 2143	John G. Foote	Per diem and expenses, Supt. of Finance	48 85
	5 2144	Bell & Hackney	Salary as Architects	250 00
	5 2145	R. S. Finkbine	Salary as Superintendent	280 00
	5 2146	Ed Wright	Salary as Secretary and Assistant Supt.	205 15
	6 2147	William R. Close	Brick	371 06
	6 2148	Des Moines Coal Co.	Lime and fuel	169 10
	7 2149	Carter, Hussey & Curl	Letter book	3 00
	7 2150	State Leader Co.	Advertising	9 59
	7 2151	Iowa State Register	Advertising	14 00
	8 2152	Street & Tuttle	Portland cement	9 50
	8 2153	S. A. Robertson	Cement	212 17
Dec.	3 2154	Chicago Terra Cotta Co.	Chimney tops	90 00
	3 2155	Des Moines Coal Co.	Fuel and lime	214 75
	3 2156	R. S. Finkbine	Salary as Superintendent of Construction	300 00
	3 2157	John G. Foote	Per diem and expenses as Supt. of Finance	50 30
	3 2158	Bell & Hackney	Salary as Architects	250 00
	3 2159	Ed Wright	Salary as Secretary, and expenses	205 50
	3 2160	Huron Bay Sl. & Iron Co.	Roofing slate	916 90
	3 2161	C., R. I. & P. R. R. Co.	Freight on copper	1 98
	5 2162	S. A. Robertson	Sewer pipe	133 98
	5 2163	Brooks, Wilson & Stein	Engine repairs and iron work	32 00
	5 2164	J. K. & W. H. Gilcrest	Lumber	6 48
	5 2165	Bolton Brothers	Iron, nails, zinc, and stove-pipe	13 41
	5 2166	Chicago Lumber Co.	Lumber	99 29
		Total		\$201,408 50

EXHIBIT "C."

General statement of cash received in the year 1878, and to what class credited.

ARTICLES SOLD.	TO WHAT CLASS CREDITED.	AMOUNT.
Old manila and wire rope	Tools and machinery	\$ 23.50
Old wheelbarrow	Tools and machinery	1.00
Old steel points	Tools and machinery	7.70
Use of machinery	Tools and machinery	2.00
Cement	Cement	5.95
Old cement barrels	Cement	4.25
Cuttings sold for kindlings	Lumber	10.20
Brick for R. R. Comm'r's office	Brick	4.55
Bats	Brick	5.65
Dimension spawls and stone	Carroll county stone	112.90
Stone damaged by R. R. Co.	Carroll county stone	71.45
Spawls	Carroll county stone	85.55
Stone damaged by R. R. Co.	Ste. Genevieve stone	13.74
Stone spoiled and ch'g'd to cutter	Ste. Genevieve stone	20.77
Spawls sold	Ste. Genevieve stone	15.75
Granite	Stone, limestone and granite	4.65
Rejected limestone and cuttings	Stone, limestone and granite	18.40
Tree tops	Expenses	23.05
Damage by R. R. Co.	Sandstone cutting	2.00
Stone spoiled and ch'g'd to cutter	Sandstone cutting	82.62
Tool sharpening, and handing stone for Brunton	Sandstone cutting	5.23
Tool sharpening for D. Blaine	Sandstone cutting	46.80
Sand	Sandstone cutting	3.28
Boxes sold	Sand	137.93
Freights refunded	Terra cotta	.25
	Roofing and guttering	1.25
		1.68
Amount previously reported		\$ 551.46
		995.82
Total		\$ 1,547.31

EXHIBIT "D."

Classified statement of Expenditures from December 1, 1877, to November 30, 1878.

ON WHAT ACCOUNT.	AMOUNT.
Plans	\$ 1.82
Excavation and drainage	133.08
Sand	1,377.59
Concrete, labor on	44.87
Printing and advertising	77.15
General labor	863.69
Patterns and models	222.70
Water	194.96
Cash received from sale of refuse material	551.46
Stone cutting—limestone and granite	15.05
Railroad	983.89
Lumber and timber	851.71
Wrought-iron work	29,311.72
Carpenter work	1,651.94
Cement	2,493.47
Board Commissioners	1,332.25
Fuel	387.23
Nails and hardware	102.10
Brick	10,437.07
Iron and steel	71.37
Cast-iron work	533.22
Lime	1,503.35
Carroll county stone	36,164.15
Ste. Genevieve stone	14,751.63
Sandstone cutting	39,355.33
Rubbing stone	3,733.12
Accidents	106.93
Extra handling stone	194.45
Brick masonry on superstructure	10,446.64
Stone setting on superstructure	6,469.39
Paints and oils	216.16
Roofing and gutting	19,013.25
Terra-cotta work	2,167.59
Salaries	11,311.15
Expenses	219.08
Machinery and tools	1,351.57
Lot for boiler-house for heating works (special appropriation)	1,408.50
	\$201,431.55
Deduct for amount received for limestone and charged to cash	23.05
Total	\$201,408.50

EXHIBIT "E."

General statement of Expenditures in detail, from December 1, 1878, to October 31, 1879.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1879.				
January	2167	J. F. Fredregill	Brick	\$ 325 72
	2168	John G. Foote, S. of F.	Pay roll for October	4,239 89
	2169	W. R. Close	Brick	7 84
	2170	Carroll Co. S. S. Co.	Sandstone	2,135 56
	2171	W. G. Bagz	Brick	1,249 08
	2172	John G. Foote, S. of F.	Pay roll for November	4,653 37
	2173	S. A. Robertson	Cement and brick	4,183 13
	2174	Francis Gensser	Brick	852 65
	2175	onrad Youngerman	Brick	895 67
	2176	Carroll Co. S. S. Co.	Sandstone	2,184 98
	2177	W. R. Close	Brick	87 90
	2178	Jas. N. Close	Brick	987 22
	2179	Chicago Lumber Co.	Lumber	436 26
	2180	McDonnell & Meara	Wrought iron work	3 92
	2181	Samuel Green	Cast iron work	2 28
	2182	Des Moines Water Co.	Water	20 88
	2183	C. H. Ward & Co.	Tools	3 75
	2184	H. F. Getchell & Sons	Lumber	20 63
	2185	Robinson & Atherton	Sheet lead	8 51
	2186	Ste. Genev. S. S. & G. Co.	Sandstone	2,240 48
	2187	Carroll Co. S. S. Co.	Sandstone	52 56
	2188	Fred. Hass	Copper and copper work	5,885 03
	2189	Carter, Hussey & Curl	Blanks and blank books	14 80
	2190	C. R. I. & P. R. R. Co.	Freights and switching	434 25
	2191	R. S. Finkbine	Salary as Superintendent	300 00
	2192	Bell & Hackney	Salary as Architects	250 00
	2193	Ed Wright	Salary as Secretary, and expenses	1,015 95
	2194	C. R. I. & P. R. R. Co.	Freights October, November and December	248 90
	2195	Northwestern B. Works.	Engine repairs	5 95
	2196	S. C. Cottin	Carriage on west pediment	509 00
	2197	Christ Huser	Sand	26 12
	2198	J. S. Burnett	Sand	34 84
	2199	F. Braegz	Sand	16 24
	2200	Pat. Sullivan	Brick	31 82
	2201	W. R. Close	Brick	79 27
	2202	James M. McLaughan	Per diem and expenses Supt. of Finance	387 11
	2203	John G. Foote	Coal	45 55
	2204	Des Moines Coal Co.	Pay roll December	19 30
	2205	John G. Foote, S. of F.	Expenses on clock	3,891 16
	2206	N. W. Smith	Per diem and expenses	6 00
Feb.	2207	Board of Commissioners	Pay roll	90 30
	2208	John G. Foote, S. of F.	Per diem and expenses Supt. of Finance	1,967 20
	2209	John G. Foote	Per diem and expenses Supt. of Finance	34 20
	2210	R. S. Finkbine	Salary as Superintendent	268 00
	2211	Bell & Hackney	Salary as Architects	250 00
	2212	Ed Wright	Salary as Secretary, and expenses	250 00
	2213	J. S. Burnett	Sand	214 88
	2214	Pat. Sullivan	Sand	36 62
	2215	Christ Huser	Sand	76 69
	2216	Hammer Bros	Lumber	53 09
	2217	J. K. & W. H. Gilcrest	Lumber	83 69
	2218	Des Moines Coal Co.	Fuel	80 41
	2219	J. D. Seeburger	Yale lock	42 35
	2220	Treasurer Folk Co.	Taxes on right-of-way for railroad	2 00
	2221	Bell & Hackney	Salary as Architects	151 80
	2222	W. R. Close	Brick	250 00
	2223	Hammer Bros	Sand	36 95
	2224	Parks & Co	Tallow	10 56

EXHIBIT [E]—CONTINUED.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1879.				
March	18	2225 Christ. Huser	Sand	\$ 20 18
	18	2226 Ed Wright	Salary as Secretary	200 00
	18	2227 R. S. Finkbine	Salary as Superintendent	300 00
	18	2228 Bolton Brothers	Tools, nails and hardware	26 90
	18	2229 John G. Foote	Per diem and expenses as Supt. of Finance	43 85
	18	2230 C. R. I. & P. R. R. Co.	Freight on Carroll Co. Stone	90 00
	18	2231 R. S. Finkbine	Expenses as Committee on Heating	169 50
	18	2232 Peter A. Dwy	Expenses as Committee on Heating	159 30
	18	2233 John G. Foote, S. F.	Pay roll for February	120 20
	27	Pat. Sullivan	Sand	106 94
	28	2235 Iowa School Furniture Co.	Work on window frames	47 85
	28	2236 J. K. & W. H. Gilcrest	Lumber	24 28
	28	2237 Chicago Lumber Co.	Lumber	92 69
	28	2238 Bell & Hackney	Salary as Architects	250 00
	28	2239 M. E. Bell	Traveling expenses East	173 00
	28	2240 R. S. Finkbine	Salary as Superintendent	300 00
	28	2241 Ed Wright	Salary as Secretary, and expenses East	361 30
	28	2242 C. R. I. & P. R. R. Co.	Freight on stone	150 00
	28	2243 C. R. I. & P. R. R. Co.	Switching stone	84 00
	28	2244 Ste. Genev. S. S. & G. Co.	Payment on returned per cent.	143 57
	28	2245 Carroll Co. S. S. Co.	Stone on contract	1,679 05
	29	2246 John G. Foote, S. F.	Pay roll	343 30
	29	2247 Bd of Commissioners	Per diem and expenses	181 46
April	1	2248 A. Knisely & Co.	Copper and copper work	2,479 23
	1	2249 Des Moines Coal Co.	Cement and fuel	146 32
	1	2250 Rother Brothers	Wrought iron beams	380 68
	1	2251 C. H. Ward	Paints and oils	16 85
	1	2252 Des Moines Coal Co.	Blanks and blank books	19 20
	1	2253 Iowa State Register	Advertising	7 00
	1	2254 C. R. I. & P. R. R. Co.	Freight bills	1,736 94
	1	2255 Hyland & Hamner	Freight and drayage	12 65
	1	2256 Bolton Brothers	Nails, hardware and iron	63 35
	1	2257 Frederick Hass	Sheet lead	192 78
	1	2258 Des Moines Water Co.	Water	9 47
	1	2259 Chicago Lumber Co.	Lumber	42 43
	1	2260 Wm. S. Dart	Rest of right of way	50 00
	1	2261 Bell & Hackney	Salary as Architects	250 00
	1	2262 R. S. Finkbine	Salary as Superintendent	273 00
	1	2263 Ed Wright	Salary as Secretary, and expenses	212 00
	1	2264 John G. Foote	Per diem and expenses, Supt. Finance	41 85
	1	2265 A. Knisely & Co.	Copper and copper work	4,142 75
	1	2266 Carroll Co. S. S. Co.	Stone	2,665 98
	1	2267 Ste. Genev. S. S. & G. Co.	Stone	3,163 33
	1	2268 John G. Foote, S. F.	Pay roll	3,562 60
	14	2269 S. A. Robertson	Lime	153 22
	14	2270 Mills & Tuttle	Tracing cloth	19 00
	14	2271 Ste. Genev. S. S. & G. Co.	Payment of retained per cent.	142 43
	17	2272 Board of Commissioners	Per diem and expenses	191 35
June	3	2273 Des Moines Water Co.	Water	210 09
	3	2274 Ed Wright	Salary as Secretary and expenses	250 00
	3	2275 R. S. Finkbine	Salary as Superintendent	250 00
	3	2276 Bell & Hackney	Salary as Architects	250 00
	3	2277 E. Hon. Brothers	Iron, tools and nails	19 00
	3	2278 Illinois Stone Co.	Flagging for tunnels	229 80
	3	2279 C. H. Ward	Paints and oils	4 45
	3	2280 Street & Tuttle	Portland cement	35 00
	3	2281 Des Moines Coal Co.	Cement and fuel	324 80
	3	2282 Samuel Greene	Wall plates and separators	146 40
	3	2283 John G. Foote	Per diem and expenses, Supt. Finance	50 75
	3	2284 C. R. I. & P. R. R. Co.	Freight bills	80 73
	3	2285 J. K. & W. H. Gilcrest	Lumber	3 88
	3	2286 S. A. Robertson	Lime	61 68
	3	2287 Carroll Co. S. S. Co.	Stone	138 55
	3	2288 John G. Foote, S. F.	Pay roll	5,990 12
	10	2289 Wm. Fredregill	Brick	154 15
	10	2290 Bell & Hackney	Salary as Architects	250 00
	10	2291 R. S. Finkbine	Salary as Superintendent	300 00
	10	2292 Fred. Hass	Copper work	1,207 42
	10	2293 J. Fredregill	Brick	523 99
	10	2294 C. R. I. & P. R. R. Co.	Freight bills and repairs	432 78

EXHIBIT E—CONTINUED.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1879.				
July	1 2295	J. D. Seeberger.	Rope and tackle block	\$ 27 18
	1 2296	Robinson & Atherton	Engine repairs	22 29
	1 2297	S. H. Tuttle	Portland cement	28 50
	1 2298	Des Moines P. O.	Stamped envelopes	16 30
	1 2299	Rollins & Langan	Tarred paper	22 00
	1 2300	Redhead & Wellslager	Frame for perspective	10 00
	1 2301	Garrett & Bell	Photographs	15 00
	1 2302	Des Moines Water Co.	Water	17 17
	2 2303	Ed Wright	Salary as Secretary, and expenses	203 75
	2 2304	Carroll Co. S. S. Co.	Stone	879 41
	2 2305	Ste. Genevieve S. S. G. Co.	Stone	304 24
	2 2306	Emanuel Haugh	Wrought iron work	2,067 75
	2 2307	John G. Foote	Per diem and expenses as Supt. of Finance	50 75
	2 2308	Bolton Brothers	Iron, nails and tools	70 49
	2 2309	John G. Foote, S. of F.	Pay roll	5,728 80
	2 2310	Hyland & Hammer	Drayage	1 25
	3 2311	S. A. Robertson	Lime	94 12
	3 2312	E. Haugh	Iron work	2,087 09
	3 2313	C., R. I. & P. R. R. Co.	Freight on iron	131 98
	3 2314	Des Moines Coal Co.	Fuel and cement	216 35
August	5 2315	R. S. Finkbine	Salary as Superintendent	300 00
	5 2316	Bell & Hackney	Salary as Architects	250 00
	5 2317	Ed Wright	Salary as Secretary, and expenses	209 45
	5 2318	John G. Foote	Per diem and expenses, Supt. of Finance	45 55
	5 2319	Morris & Daugherty	Brick	1,412 68
	5 2320	Wm. Fredregill	Brick	389 94
	5 2321	N. B. Cooley	Brick	628 81
	5 2322	Des Moines Water Co.	Water	20 12
	5 2323	J. D. Seeberger	Tools	13 70
	5 2324	R. S. Miller	Pitch	1 63
	5 2325	Samuel Green	Cast iron work	43 00
	5 2326	A. Kuisley & Co.	Copper work on turrets	4,362 48
	5 2327	A. Kuisley & Co.	Copper work on turrets	219 43
	5 2328	C. H. Ward	Paints and oils	6 15
	5 2329	Iowa School Furniture Co.	Carpenter work	17 46
	5 2330	Bolton Brothers	Tools, iron and hardware	59 30
	5 2331	Des Moines Coal Co.	Cement and fuel	126 20
	5 2332	Mitchel, Bartlett & Crane	Paints and oils	193 77
	5 2333	N. S. McDonnell	Wrought iron work	148 52
	5 2334	Fred Hass	Roofing and guttering	133 70
	5 2335	C., R. I. & P. R. R. Co.	Freight charges	94 32
	5 2336	S. A. Robertson	Lime	119 87
	5 2337	S. Cottin	Carving statuary	1,040 00
	5 2338	Geo. C. Baker & Co.	Tools and charcoal	21 94
	6 2339	Ste. Genevieve S. S. & G. Co.	Stone, retained per cent.	396 77
	6 2340	Carroll Co. S. S. Co.	Stone, retained per cent.	85 66
	6 2341	Emanuel Haugh	Wrought iron work, retained per cent.	393 32
	6 2342	John G. Foote, S. of F.	Pay roll	4,928 46
	7 2343	Hyland & Hammer	Drayage	2 85
Sep.	2 2344	Wm. Fredregill	Brick	498 31
	2 2345	Bolton Brothers	Iron, nails and hardware	20 53
	2 2346	N. B. Cooley	Brick	246 39
	2 2347	Des Moines Coal Co.	Cement and fuel	257 15
	2 2348	J. D. Seeberger	Oakum	5 50
	2 2349	S. B. Tuttle	Portland cement	14 35
	2 2350	Avers & Co.	Lamps for stairway	4 15
	2 2351	C. H. Ward & Co.	Oils and acid	26 35
	2 2352	Wm. Davidson & Bro.	Bouldstone	92 30
	2 2353	Iowa State Register	Printing and advertising	9 50
	2 2354	Rollins & Langan	Tarred paper	22 31
	2 2355	Brooks, Wilson & Stein	Repairing engine	10 20
	2 2356	Union Foundry Works	Wrought iron beams	591 93
	2 2357	C., R. I. & P. R. R. Co.	Freight bills	227 26
	2 2358	Bell & Hackney	Salary as Architects	250 00
	2 2359	R. S. Finkbine	Salary as Superintendent	300 00
	2 2360	Ed Wright	Salary as Secretary, and expenses	205 93
	2 2361	Chicago Lumber Co.	Lumber and timber	372 51
	2 2362	A. Kuisley & Co.	Copper work on turrets	5,141 55
	2 2363	John G. Foote	Per diem and expenses, Supt. of Finance	45 00
	2 2364	S. A. Robertson	Lime	129 24

EXHIBIT E—CONTINUED.

Date of voucher.	No. of voucher.	IN WHOSE FAVOR.	ON WHAT ACCOUNT.	AMOUNT.
1879.				
Sept.	3 2365	Des Moines Water Co.	Water	\$ 18 43
	3 2366	John G. Foote, S. of F.	Pay roll	3,456 23
	31 2367	Bell & Hackney	Salary as Architects	250 00
	31 2368	John G. Foote	Per diem and expenses, Supt. of Finance	48 99
	31 2369	Board of Commissioners	Per diem and expenses	169 26
	31 2370	R. S. Finkbine	Salary as Superintendent	280 00
	31 2371	Hyland & Hammer	Drayage	24 73
	31 2372	F. B. Curtiss, attorney	Rental of R. R. right of way	240 00
	31 2373	C., R. I. & P. R. R. Co.	Freight bills	109 34
	31 2374	Des Moines Coal Co.	Cement and fuel	250 60
	31 2375	S. A. Robertson	Lime	164 72
	31 2376	C. H. Ward & Co.	Muriatic acid	4 97
	31 2377	C. H. Ward	Brushes, paints, and oils	10 75
	31 2378	Redhead & Wellslager	Manilla paper	12 97
	31 2379	J. D. Seeberger	Solder, lead, and tin	237 17
	31 2380	Comparet & Stark	Pig lead	5 55
	31 2381	Des Moines Water Co.	Water	13 55
	31 2382	Ed Wright	Salary and expenditures	211 13
October	1 2383	John G. Foote, S. of F.	Pay roll	2,805 66
	1 2384	A. Kuisley & Co.	Partial payment on copper work	2,100 00
	1 2385	F. A. Drew & Co.	Glass	277 58
Nov.	5 2386	Levi R. Greene	Making plans for steam heating	1,000 00
	5 2387	R. S. Finkbine	Salary as Superintendent	300 00
	5 2388	John G. Foote	Per diem and expenses, Supt. of Finance	17 85
		Total		\$125000 00

EXHIBIT "F."

General statement of cash received in the the year 1879, and to what class credited.

ARTICLES SOLD.	TO WHAT CLASS CREDITED.	AMOUNT.
Old cement barrels	Cement	\$ 2.60
Lime used for R. R. Comr's office.	Lime	6.45
Refuse stone.....	Carroll county stone...\$30.24)	77.64
Spawls	Carroll county stone... 47.40)	
Spawls	Ste. Genevieve stone	14.00
Damage paid by R. R. Co.	Sandstone cutting	\$3.50)
Damage paid stone cutters	Sandstone cutting	1.50)
Bats sold	Brick	8.15
Old rope.....	Machinery and tools...\$10.00)	13.00
Old wheelbarrows	Machinery and tools... 1.00)	
For use of tools.....	Machinery and tools... 2.00)	10.00
Rock creek stone	Repairs of first foundation	
Limestone spawls	Stone	4.50
Old ties sold	Railroad	1.00
Tree tops sold.....	Expenses .....	.75
Lumber sold.....	Lumber	\$19.28)
Cuttings for kindlings	Lumber	12.00)
Scrap copper sold	Copper work—turrets	1.61
		175.98
Amount previously reported.....		1,547.31
		\$ 1,723.29

EXHIBIT "G."

Classified statement of Expenditures from December 1, 1878, to October 31, 1879.

ON WHAT ACCOUNT.	AMOUNT.
Plans	\$ 173.00
Excavations and drainage.....	170.82
Stone—limestone and granite	594.33
Sand.....	493.12
Concrete—labor on.....	15.75
Printing and advertising.....	31.30
General labor	649.97
Laterns and models.....	103.60
Water	121.71
Cash	175.98
Stone cutting—limestone and granite	424.31
Wrought iron work.....	7,347.34
Cement	1,586.81
Board of Commissioners.....	633.52
Nails and hardware.....	66.95
Brick	12,675.17
Iron and steel.....	76.98
Cast iron work.....	282.94
Lime	715.40
Carroll county stone.....	12,230.00
Ste. Genevieve stone.....	6,978.71
Sandstone cutting	17,176.02
Rubbing stone	2,376.92
Extra handling stone	49.50
Brick masonry on superstructure	11,222.37
Stone setting on superstructure.....	3,767.33
Paints and oils.....	214.40
Roofing and guttering.....	8,099.35
Salaries	10,017.55
Expenses	108.57
Machinery and tools	390.58
Turrets—copper work	19,133.43
Heating and ventilating.....	1,492.60
Painting.....	211.75
Carpenter work.....	2,569.43
Lumber and timber.....	1,273.15
Railroad.....	565.13
Fuel	349.70
Cleaning and painting	118.12
Glass.....	326.39
	\$125,010.00
Deduct for amount received for Rock creek stone and chgarged to cash	10.00
Total.....	\$125,000.00

EXHIBIT "H."

Classified statement of the aggregate expenditures from the commencement of the work to October 31, 1879.

ON WHAT ACCOUNT.	AMOUNT.
Plans.....	\$ 4,276.47
Excavation and drainage.....	15,915.79
Stone—limestone and granite.....	119,700.32
Cistern.....	1,512.12
Sand.....	6,929.41
Repairs on first foundation.....	52,343.76
Stone masonry on foundation.....	14,711.21
Brick masonry on foundation.....	7,789.80
Concrete—labor on.....	5,922.86
Printing and advertising.....	2,476.95
General labor.....	3,212.10
Patterns and models.....	1,579.14
Water.....	2,400.31
Rubble masonry on foundation.....	4,765.97
Iowa City stone.....	66,858.10
Brick masonry on basement story.....	7,100.37
Stone setting on basement story.....	6,149.37
Cash received from sales of refuse material.....	17,723.29
Stone cutting—limestone and granite.....	114,595.75
Wrought iron work.....	109,858.59
Cement.....	40,618.74
Board of Commissioners.....	10,243.35
Nails and hardware.....	1,036.03
Water pipe and meter.....	791.95
Brick.....	115,171.95
Iron and steel.....	589.81
Cast iron work.....	2,869.85
Lime.....	5,130.84
Carroll county stone.....	127,968.23
Ste. Genevieve stone.....	135,498.13
Sandstone cutting.....	190,987.82
Rubbing stone.....	22,108.25
Accidents.....	280.43
Extra handling stone.....	2,248.21
Brick masonry on superstructure.....	70,167.03
Stone cutting on superstructure.....	38,014.05
Paints and oils.....	698.01
Roofing and guttering.....	36,085.93
Terra cotta work.....	2,751.48
Salaries.....	85,553.12
Expenses.....	2,402.26
Machinery and tools.....	26,351.14
Lot for heating works (special appropriation).....	1,408.50
Turrets—copper work.....	19,133.43
Heating and ventilating.....	1,492.60
Painting.....	211.75
Carpenter work.....	14,134.56
Lumber and timber.....	33,962.36
Railroad.....	15,770.83
Fuel.....	5,471.67
Cleaning and painting.....	118.12
Glass.....	326.39
Total.....	\$ 1,576,408.50

EXHIBIT "I."

RECAPITULATION.

Condensed statement of Expenditures, Appropriations, Sales and Receipts.

Exhibit "A." Classified statement of aggregate expenditures to Nov. 30, 1877.....	\$ 1,250,000.00
Exhibit "B." General statement of expenditures from Dec. 1, 1877, to Nov. 30, 1878.....	\$ 201,408.50
Less voucher No. 2,048, lot for boiler house.....	1,408.50
Exhibit "E." General statement of expenditures from Dec. 1, 1878, to October 31, 1879.....	200,000.00
	125,000.00
	1,575,000.00
Add voucher No. 2,048, lot for boiler house.....	1,408.50
Total expenditures.....	\$ 1,576,408.50

APPROPRIATIONS.

Chapter 110, Laws of the Thirteenth General Assembly.....	\$ 150,000.00
Chapter 35, Laws of the Fourteenth General Assembly, being \$100,000 for 1872, and \$125,000 for each of the years 1873, 1874, 1875, 1876, 1877, 1878, and 1879.....	975,000.00
Chapter 68, Local laws of the Fifteenth General Assembly.....	125,000.00
Chapter 151, Laws of the Sixteenth General Assembly.....	250,000.00
Chapter 138, Laws of the Seventeenth General Assembly.....	75,000.00
	\$ 1,575,000.00
Chapter 138, Laws of the Seventeenth General Assembly, for lot and sewer.....	10,000.00
	\$ 1,585,000.00
Less appropriations of sewer fund, unexpended.....	8,591.50
Appropriation unexpended, sewer fund.....	\$ 8,591.50

CASH RECEIVED FROM FORFEITS, SALES OF REFUSE MATERIAL, AND OLD
MACHINERY.

1873. Forfeit on contract and freights, 2d biennial report..	\$	814.00
1874. Forfeit on contract and sales, 3d biennial report.....		394.34
1875. Sales of refuse material, 3d biennial report.....		339.34
1876. Sales of refuse material, 4th biennial report.....		290.97
1877. Sales of refuse material, 4th biennial report.....		365.54
1878. Sales of refuse material, present report.....		551.46
1879. Sales of refuse material, present report.....		175.98
		<hr/>
	\$	2,931.63
Disbursed, 1873, by vouchers 766 to 744.....	\$	814.00
Disbursed, 1874, by vouchers 811, 812, 953, 1016, 1017.....	394.34	1,208.34
		<hr/>
Cash on hand.....	\$	1,723.29