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PLANS,  
DESCRIPTIONS AND ESTIMATES  
OF THE  
BOSTON HOSPITAL FOR THE INSANE,  
AT  
WINTHROP.

1867.



BOSTON:  
ALFRED MUDGE & SON, CITY PRINTERS, 34 SCHOOL STREET.  
1867.







NATHL. J. BRADLEE ARCHT.

BOSTON HOSPITAL FOR THE INSANE

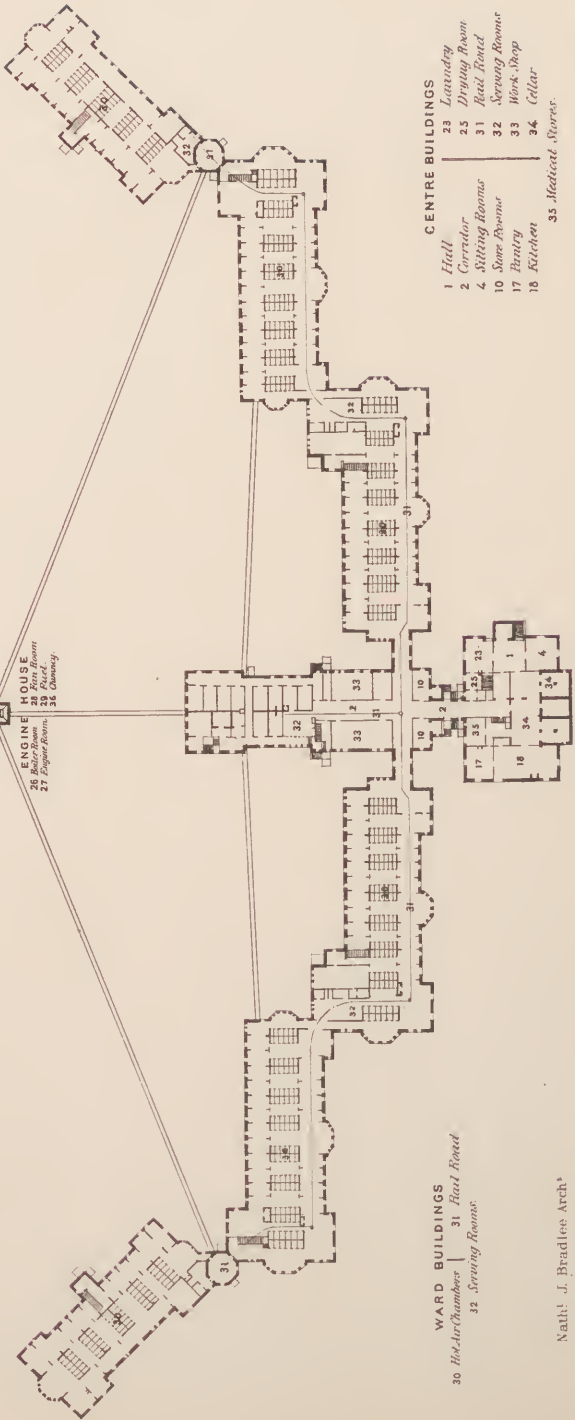
A. Meissel Lith.



B A S E M E N T



**ENGINE HOUSE**  
 25 Boiler Room  
 26 Water Room  
 27 Engine Room  
 28 Steam Room  
 29 Fuel  
 30 Chimney



**WARD BUILDINGS**  
 30 *Hot Chamber*  
 31 *Hot Road*  
 32 *Servicing Rooms*

**CENTRE BUILDINGS**  
 1 *Hall*  
 2 *Corridor*  
 4 *Sitting Rooms*  
 10 *Stone Porch*  
 17 *Barney*  
 18 *Kitchen*  
 23 *Laundry*  
 25 *Drying Room*  
 31 *Hot Road*  
 32 *Servicing Rooms*  
 33 *Work Shop*  
 34 *Cellar*  
 35 *Maternity Store*

**BOARD OF DIRECTORS FOR 1867**  
 Moses Kimball  
 J. Putnam, Bradlee  
 Josias Fitch  
 Amos A. Dimech  
 Henry A. Drake  
 Sylvanus A. Denio  
 William Curston  
 Charles C. Jones  
 Lewis Eric  
 Saml. W. Hoddes  
 J. Putnam Bradlee, PRESIDENT.  
 William Willcutt, CLERK.  
 SUPERVISOR OF HOSPITAL  
 Clement A. Walker, M.D.

Nathl. J. Bradlee Arch<sup>t</sup>

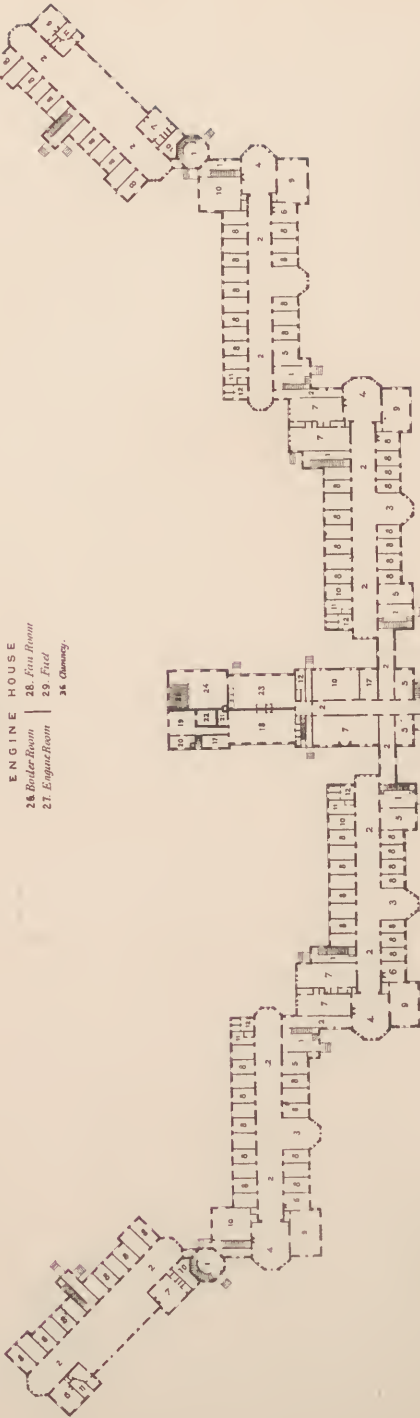
A. Meert, lith.



# FIRST STORY



- ENGINE HOUSE**  
 26. Boiler Room | 28. Fin Room  
 27. Engine Room | 29. Fuel  
 30. Chimney



## WARD BUILDINGS

- 1 Hall
- 2 Corridor
- 3 Day Window
- 4 Sitting Room
- 5 Reception Room
- 6 Attendants Room
- 7 Dining Room
- 8 Patients Room
- 9 Dispensary
- 10 Store Room
- 11 Bath Room
- 12 Water Closets

Nathl J. Bradlee, Archt.

## CENTRE BUILDINGS

- 1 Hall
- 2 Corridor
- 5 Reception Room
- 7 Dining Room
- 10 Store Room
- 12 Water-Closet
- 13 Stairs Room
- 14 Att. Stairs Room
- 15 Apothecary's
- 16 Library
- 17 Partry
- 18 Kitchen
- 19 Bakery
- 20 Bread Closet
- 21 Tin Closet
- 22 Oven
- 23 Laundry
- 24 Lining Room
- 25 Drying Room

## BOARD OF DIRECTORS FOR 1867

- Moses Kimball
- J. Putnam Bradlee
- Jonas Fitch
- Amos A. Dummels
- George W. Burdick
- Henry A. Drake
- Sylvanus A. Denno
- William Curston
- Chas. S. Burgess
- George W. H. Wood
- Saml. W. Hodges
- J. Putnam Bradlee, PRESIDENT

WILLIAM WILLET, CLERK  
 SUPERINTENDENT OF HOSPITAL  
 CURTIS A. VOLKERT, MD.



*City Document. — No. 94.*

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CITY OF BOSTON.

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PLANS,  
DESCRIPTIONS AND ESTIMATES  
OF THE  
BOSTON HOSPITAL FOR THE INSANE,  
AT  
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CITY OF BOSTON.

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OFFICE OF THE BOARD OF DIRECTORS }  
FOR PUBLIC INSTITUTIONS, }  
CITY HALL, BOSTON, October 4, 1867.

*To the Honorable the City Council of Boston :*

I have the honor to submit for your approval the Plans, Descriptions and Estimates of the Boston Hospital for the Insane, at Winthrop, Mass.

They have been very carefully prepared, and unanimously adopted by the Board.

Very Respectfully,

J. P. BRADLEE,  
*President of the Board of Directors,  
for Public Institutions.*

BOSTON LUNATIC HOSPITAL, }  
BOSTON, MASS., Sept. 28, 1867. }

*To the Board of Directors for Public Institutions.*

GENTLEMEN: Three months ago, the Committee on the proposed new "Hospital for the Insane" referred the "Plans" to the Architect (N. J. Bradlee, Esq.,) and myself, with the request that we would give them a thorough revision. That has been done, and the result is before you.

While not doubting that Experts, of larger experience, may discover defects and suggest improvements, we are at a loss to see how, without great expense, the plans can easily be materially improved.

Such a Hospital structure, containing no provision that can well be dispensed with, and requiring not a dollar for mere ornamentation, will be no discredit to the humanity, intelligence and good taste of Boston.

These plans have my hearty and unqualified approval.

Very respectfully,

CLEMENT A. WALKER,  
*Superintendent.*

NO. 18 PEMBERTON SQUARE,  
BOSTON, Sept. 20, 1867. }

*To the Board of Directors of Public Institutions of the City of  
Boston :*

GENTLEMEN: I herewith submit my Plans for the proposed Hospital at Winthrop, in which are incorporated all the improvements of the modern Hospitals, besides many new ones which have been suggested by Dr. Walker, and the several superintendents who have examined the same. I also submit a full description of the proposed building, together with the estimates, which were made with the greatest care; and I believe that they can be relied upon in every particular. These are based upon the present market prices, and all the items are given in detail. As will be seen, the total cost amounts to four hundred and ninety-eight thousand five hundred and three dollars, which includes twenty-two thousand six hundred dollars, added to cover any contingencies or extras.

Respectfully submitted,

NATHANIEL J. BRADLEE.

## DESCRIPTION.

## LOCATION.

The land purchased for the new Hospital is situated in the town of Winthrop, about five miles from the City Hall. It consists of one hundred and twenty acres of upland, and sixty of marsh, and is one of the most delightful locations that could have been selected for the purpose. The site for the proposed building will be at an elevation of eighty feet above tide marsh level, overlooking Massachusetts Bay, the City of Boston, and surrounding country, with the land gradually sloping in every direction, insuring good drainage.

## CONSTRUCTION OF THE BUILDING.

The exterior walls will be of brick, with granite trimmings, surmounted by a brick cornice and French roof.

The grouping of the several wings, falling back as they do from the centre and from each other, with their several projections and bays, will give a very pleasing effect to the whole.

## BASEMENT.

This story, which will be from four to six feet above the level of the ground, will contain five hundred and four hot air chambers, each being two feet by five feet, for the pipes to heat the building. The basement of the rear centre building will contain store rooms and vegetable cellars.

## PRINCIPAL STORY.

The general plan of the building consists of a centre building, three stories high, 60 feet by 92 feet; a building in the rear of the centre, two stories high, 49 feet by 156 feet, and two wings

of three sections each, two being three stories high. The first section on each side is 56 feet by 154 feet; the second section, 56 feet by 145 feet 9 inches; the third section, two stories high, 57 feet by 121 feet 9 inches; one being at each side of, and at an angle of 45 degrees to the second section. This gives eight distinct wards for each sex, the *minimum* required (by unanimous vote of the Association of Medical Superintendents of American Institutions for the Insane) in a Hospital for *two hundred* patients; this designed for *three hundred*.

The principal story of the centre building contains superintendent's room, 20 feet square; private room, 17 feet by 20 feet; assistant superintendent's room, 17 feet by 20 feet; apothecary's room, 12 feet by 17 feet; library, 12 feet by 17 feet; dining room, 20 feet by 40 feet; pantry, 17 feet by 20 feet; and six large closets.

The rear centre building will contain, — reception rooms, 12 feet by 18 feet; attendants' dining room, 18 feet by 40 feet; store room, 18 feet by 26 feet; kitchen, 20 feet by 42 feet; laundry, 20 feet by 40 feet; ironing room, 22 feet square; pantry, 6 feet by 15 feet; bakery, 14 feet square; bread closet, 7 feet by 23 feet; tin closet, 6 feet by 15 feet; oven, 10 feet by 12 feet; drying room, 10 feet by 18 feet.

The first section on each side of the centre will contain 15 single rooms, 8 feet 6 inches by 14 feet; sitting room, 22 feet by 30 feet; bay window, 18 feet by 20 feet; reception room, 13 feet by 21 feet; attendants' room, 13 feet by 21 feet; bath room, 9 feet by 14 feet; store room, 9 feet by 14 feet; dormitory, 17 feet by 27 feet; dining room, 16 feet by 34 feet.

The second section on each side will contain 16 single rooms; general store room, 20 by 23 feet; the other rooms are the same as described for first section.

The third section will contain 12 single rooms, 8 feet 6 inches by 14 feet; open corridor, 28 feet by 62 feet; dining room, 17 by 20 feet; store room, 10 feet by 17 feet; attendants' room, 14 feet by 17 feet; bath room, 10 feet by 17 feet.

## SECOND STORY.

The second and third stories of the first and second sections are divided the same as the first story of said buildings, and the second story of the third section is also like the first story of the same. The attics of the first and second sections will furnish pleasant and desirable infirmaries. The attics of the third section will afford ample and convenient room for the isolation of small-pox and other contagious diseases.

The second and third stories of the centre building are arranged to accommodate the Superintendent and his family, with his assistants.

The second story of the rear centre building contains a chapel, 45 feet by 75 feet; domestics' room, 14 feet by 20 feet; billiard room, 18 feet by 45 feet; store room, 12 feet by 20 feet; The main centre building and the first section on each side, also rear centre buildings, are connected by corridors 10 feet wide.

## THE ENGINE HOUSE.

Is located 103 feet distant from the rear centre building, and is 47 feet by 74 feet, containing a boiler room, 13 feet by 57 feet; engine room, 14 feet by 24 feet; fan-blower room, 32 feet by 14 feet; fuel rooms, 14 feet by 23 feet, and 14 feet by 34 feet; connected with this house is the large chimney, 15 feet square at base, by 180 feet in height.

## CONSTRUCTION.

The outside cellar walls are to be two feet thick of stone, laid in cement mortar; the walls above are of brick, 20 inches thick, laid hollow; the outer walls being 12 inches, an air space of 4 inches, and the inner wall, 4 inches thick. The inte-



rior walls on the side corridors, will be also 20 inches thick, so as to leave room for the ventilating and heating flues to pass through them. To render the building as nearly fire-proof as possible, without going to the expense of brick arches and iron beams or girders, all the plastering will be done directly upon the brick walls without furring; the floors will be plastered between the floor boards, and the base or plinth around the rooms and corridors will be of face brick, painted; all the inside partitions will be also of brick.

To give some idea of the size of the building, it may be stated that it will require 1,775 perches of stone for the foundations; 7,750,250 bricks will be used in the walls; 62,829 yards of plastering; 3,224 feet of gutters, with 2,022 feet of conductors; 18,250 feet of gas pipe; 1,289,488 feet of lumber; 1,238 windows; 59,424 lights of glass, and 989 doors; 504 being required for the pipe chambers in the basement.

#### HEATING AND VENTILATION.

The building will be arranged so as to hereafter decide upon the best method of heating, whether by hot water, high or low pressure steam, all of which systems have their strenuous advocates. The ventilation of all the water-closets will be effected by the downward draft to the heated chimney; the ventilation of the wards will be likewise arranged for the downward draft; there will also be provided, in the boiler house, a fan blower, upon the Dr. Nichols plan, to be used as occasion may require.

The high chimney will be so constructed as to form a large ventilating flue, entirely around the boiler flue, to assure a steady draft. The underground air flues will be 8 feet in diameter, diminishing in size as they approach the third section, with small branches to each of the several hot air chambers in the basement story.

## ESTIMATES ON THE PROPOSED PLAN.

## MAIN CENTRE BUILDING.

|   |           |
|---|-----------|
| Excavations.....                        | \$300 00  |
| Rough stone work.. . . . .              | 1,600 00  |
| Hammered stone. . . . .                 | 13,125 00 |
| Brick work.....                         | 10,090 00 |
| Concrete.....                           | 375 00    |
| Plastering.....                         | 3,495 00  |
| Slating and tinning.....                | 1,055 00  |
| Stairs.....                             | 1,200 00  |
| Base boards.....                        | 500 00    |
| Sheathing.....                          | 1,200 00  |
| Painting and glazing.....               | 3,800 00  |
| Bells and tubes.....                    | 250 00    |
| Ventilation.....                        | 250 00    |
| Steam heating.....                      | 1,800 00  |
| Gutters and conductors . . . . .        | 904 00    |
| Cooking apparatus.. . . . .             | 500 00    |
| Mantels and grates . . . . .            | 1,575 00  |
| Iron work... . . . .                    | 419 00    |
| Timber and floor boards... . . . .      | 5,025 00  |
| Window frames and sashes.....           | 2,013 00  |
| Doors and frames.....                   | 1,630 00  |
| Fitting up closets.. . . . .            | 790 00    |
| Casing pipes, lintels and patterns..... | 300 00    |
| Plumbing.....                           | 2,000 00  |
| Gas pipes. . . . .                      | 585 00    |
| Contingencies and extras.....           | 5,000 00  |

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\$59,781 00

|                                 |             |
|---------------------------------|-------------|
| Total mason work.....           | \$35,488 00 |
| “ Carpenter work.....           | 19,293 00   |
| “ Contingencies and extras..... | 5,000 00    |

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\$59,781 00

REAR CENTRE BUILDING, WITH CORRIDORS.

|                                    |           |
|------------------------------------|-----------|
| Excavation.....                    | \$414 00  |
| Rough stone work.....              | 2,000 00  |
| Hammered stone.....                | 3,766 00  |
| Brick work.....                    | 16,290 00 |
| Plastering.....                    | 2,961 00  |
| Slating and tinning.....           | 1,318 00  |
| Window frames and sashes.....      | 1,578 00  |
| Base boards.....                   | 250 00    |
| Fitting up.....                    | 950 00    |
| Plumbing.....                      | 1,000 00  |
| Gas pipes and tubes.....           | 610 00    |
| Ventilation.....                   | 200 00    |
| Copper gutters and conductors..... | 838 00    |
| Cooking apparatus.....             | 1,500 00  |
| Mantels and grates.....            | 150 00    |
| Iron work.....                     | 350 00    |
| Timber and floor boards.....       | 4,620 00  |
| Doors and frames.....              | 1,565 00  |
| Stairs.....                        | 900 00    |
| Heating.....                       | 800 00    |
| Painting and glazing.....          | 3,500 00  |
| Steam heating.....                 | 800 00    |
| Contingencies and extras.....      | 3,000 00  |

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\$49,360 00

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|                              |             |
|------------------------------|-------------|
| Total mason work.....        | \$30,587 00 |
| “ Carpenter work.....        | 15,773 00   |
| “ Contingencies and extras.. | 3,000 00    |

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\$49,360 00

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## FIRST SECTION MALE DEPARTMENT.

|                               |             |
|-------------------------------|-------------|
| Excavation.....               | \$426 00    |
| Rough stone.....              | 1,736 00    |
| Hammered stone.....           | 3,761 00    |
| Brick work.....               | 25,260 00   |
| Plastering... ..              | 4,500 00    |
| Slating and tinning.....      | 1,781 00    |
| Stairs.....                   | 800 00      |
| Casing pipes, lintels.....    | 200 00      |
| Sheathing... ..               | 160 00      |
| Painting and glazing.....     | 2,400 00    |
| Steam heating.....            | 2,500 00    |
| Gutters and conductors.....   | 1,286 00    |
| Mantels and grates.....       | 630 00      |
| Iron work.....                | 4,644 00    |
| Timber and floor boards.....  | 8,892 00    |
| Window frames and sashes..... | 3,520 00    |
| Doors and frames.....         | 2,272 00    |
| Fitting up closets.....       | 600 00      |
| Plumbing.....                 | 1,200 00    |
| Gas pipes.....                | 1,000 00    |
| Ventilation.....              | 500 00      |
| Contingencies and extras..... | 2,500 00    |
|                               | <hr/>       |
|                               | \$70,508 00 |
|                               | <hr/> <hr/> |

|                              |             |
|------------------------------|-------------|
| Total Mason work.....        | \$47,024 00 |
| “ Carpenters’ work.....      | 20,984 00   |
| “ Contingencies and extras.. | 2,500 00    |
|                              | <hr/>       |
|                              | \$70,508 00 |
|                              | <hr/> <hr/> |

## FIRST SECTION FEMALE DEPARTMENT.

This section being a duplicate of the Male Department will be of the same cost, namely, seventy thousand five hundred and eight dollars.

## SECOND SECTION MALE DEPARTMENT.

|   |             |
|---|-------------|
| Excavation.....                         | \$450 00    |
| Rough stone.....                        | 1,752 00    |
| Hammered stone.....                     | 4,020 00    |
| Brick work.....                         | 25,900 00   |
| Plastering.....                         | 4,754 00    |
| Gutters and conductors.....             | 1,292 00    |
| Mantels and grates.....                 | 945 00      |
| Iron work.....                          | 4,168 00    |
| Slating and tinning.....                | 1,795 00    |
| Steam heating.....                      | 2,500 00    |
| Ventilation.....                        | 500 00      |
| Timber and floor boards.....            | 9,690 00    |
| Window frames and sashes.....           | 3,799 00    |
| Doors and door frames.....              | 2,248 00    |
| Stairs.....                             | 1,200 00    |
| Fitting up closets.....                 | 600 00      |
| Casing pipes, lintels and patterns..... | 200 00      |
| Sheathing.....                          | 100 00      |
| Plumbing.....                           | 1,200 00    |
| Painting and glazing.....               | 2,800 00    |
| Gas pipes and tubes.....                | 1,000 00    |
| Contingencies and extras.....           | 2,500 00    |
|   | <hr/>       |
|   | \$73,413 00 |
|   | <hr/> <hr/> |

|                                 |             |
|---------------------------------|-------------|
| Total Mason work.....           | \$48,076 00 |
| “ Carpenters’ work.....         | 22,837 00   |
| “ Contingencies and extras..... | 2,500 00    |
|                                 | <hr/>       |
|                                 | \$73,413 00 |
|                                 | <hr/> <hr/> |

## SECOND SECTION FEMALE DEPARTMENT.

This section being a duplicate of the Male Department will be of the same cost, namely, seventy-three thousand four hundred and thirteen dollars.

## THIRD SECTION MALE DEPARTMENT.

|                               |             |
|-------------------------------|-------------|
| Excavation.....               | \$230 00    |
| Rough stone work.....         | 1,216 00    |
| Hammered stone.....           | 2,330 00    |
| Brick work.....               | 13,000 00   |
| Plastering.....               | 1,565 00    |
| Slating and tinning.....      | 773 00      |
| Gutters and conductors.....   | 854 00      |
| Mantles and grates.....       | 270 00      |
| Iron work.....                | 3,054 00    |
| Steam heating.....            | 1,500 00    |
| Ventilation.....              | 300 00      |
| Timber and floor boards.....  | 3,907 00    |
| Window frames and sashes..... | 1,663 00    |
| Door frames and doors.....    | 1,036 00    |
| Stairs.....                   | 200 00      |
| Fitting up closets.....       | 500 00      |
| Casing pipes.....             | 150 00      |
| Sheathing.....                | 500 00      |
| Plumbing.....                 | 1,000 00    |
| Painting and glazing.....     | 1,550 00    |
| Gas pipes and tubes.....      | 290 00      |
| Contingencies and extras..... | 1,500 00    |
|                               | <hr/>       |
|                               | \$37,388 00 |
|                               | <hr/> <hr/> |

|                              |             |
|------------------------------|-------------|
| Total Mason work.....        | \$25,092 00 |
| “ Carpenters’ work.....      | 10,796 00   |
| “ Contingencies and extras.. | 1,500 00    |
|                              | <hr/>       |
|                              | \$37,388 00 |
|                              | <hr/> <hr/> |

## THIRD SECTION FEMALE DEPARTMENT.

This section, being a duplicate of the male department, will be of the same cost, namely, thirty-seven thousand three hundred and eighty-eight dollars.

## ENGINE BOILER AND GAS HOUSE.

|                               |          |
|-------------------------------|----------|
| Excavation.....               | \$144 00 |
| Rough stone work.....         | 1,192 00 |
| Hammered stone.....           | 566 00   |
| Brick work.....               | 2,210 00 |
| Slating and tinning.....      | 420 00   |
| Gutters and conductors.....   | 374 00   |
| Iron work.....                | 100 00   |
| Ventilation.....              | 100 00   |
| Timber and floor boards.....  | 420 00   |
| Window frames and sashes..... | 208 00   |
| Doors and frames.....         | 130 00   |
| Fitting up.....               | 100 00   |
| Painting and glazing.....     | 250 00   |
| Gas pipes.....                | 30 00    |
| Contingencies and extras..... | 500 00   |

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\$6,744 00

|                                |            |
|--------------------------------|------------|
| Total Mason work.....          | \$5,106 00 |
| “ Carpenter work.....          | 1,138 00   |
| “ Contingencies and extras.... | 500 00     |
|                                | <hr/>      |
|                                | \$6,744 00 |
|                                | <hr/>      |

## MISCELLANEOUS.

|                                 |            |
|---------------------------------|------------|
| Two Steam Boilers.....          | \$3,200 00 |
| Two 50 horse-power Engines..... | 10,000 00  |
| Fan Blower.....                 | 1,000 00   |
| Gas Apparatus.....              | 2 500 00   |
| High Chimney (above roofs)....  | 3,300 00   |

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\$20,000 00

## RECAPITULATION OF ESTIMATES.

|                                    |              |
|------------------------------------|--------------|
| Main centre building complete..... | \$59,781 00  |
| Rear.. .....                       | 49,360 00    |
| First section Male Department..... | 70,508 00    |
| “ “ Female “ .....                 | 70,508 00    |
| Second “ Male “ .....              | 73,413 00    |
| “ “ Female “ .....                 | 73,413 00    |
| Third “ Male “ .....               | 37,388 00    |
| “ “ Female “ .....                 | 37,388 00    |
| Engine and Boiler House.....       | 6,744 00     |
| Miscellaneous items.....           | 20,000 00    |
|                                    | <hr/>        |
|                                    | \$498,503 00 |
|                                    | <hr/> <hr/>  |

## ABSTRACT OF THE DETAILS OF THE WITHIN ESTIMATE.

|  |              |
|--|--------------|
| Brick and rough stone work.....          | \$169,210 00 |
| Hammered stone.....                      | 30,979 00    |
| Iron work.....                           | 24,601 00    |
| Slating and tinning.....                 | 11,491 00    |
| Copper gutters and conductors.....       | 8,980 00     |
| Drains and cesspools.....                | 4,170 00     |
| Carpenters' work.....                    | 108,508 00   |
| Plastering.....                          | 28,094 00    |
| Plumbing and gas pipes.....              | 15,105 00    |
| Bells, speaking tubes and elevators..... | 2,350 00     |
| Painting and glazing.....                | 20,650 00    |
| Marble mantels and grates.....           | 5,415 00     |
| Heating and cooking apparatus.....       | 36,350 00    |
| Steam engine and shafting.....           | 10,000 00    |
| Contingencies and extras.....            | 22,600 00    |
|  | <hr/>        |
|  | \$498,503 00 |
|  | <hr/> <hr/>  |

Respectfully submitted.

NATHANIEL J. BRADLEE,

*Architect.*





