### CONTRACT, SPECIFICATION,

AND

# SCHEDULE OF PRICES

FOR

## HEATING AND VENTILATING

THE

# PARLIAMENTARY AND DEPARTMENTAL BUILDINGS,

Ottowa City, C.W.



OUEBEC:

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1861.

### CONTRACT

FOR

### HEATING AND VENTILATING

THE

# PARLIAMENTARY & DEPARTMENTAL BUILDINGS,

OTTAWA CITY, C. W.

This Inventure made the Twelfth day of January, in the year Eighteen hundred and sixty-one, between CHARLES GARTH, of the City of Montreal, in the Province of Canada, hereinafter throughout designated as "The Contractor," of the first part, and HER MAJESTY QUEEN VICTORIA, represented herein by the Honorable The Commissioner of Public Works, of the Province of Canada, hereinafter throughout designated as "The Commissioner," of the second part.

TTHEREAS the Government of Canada in pursuance of an Act of Parliament of the said Province, and of certain resolutions to that effect of the Legislature of the said Province, have now in the course of erection at the City of Ottawa, in the said Province certain buildings for the use, occupation and accommodation of the Legislature of Canada, and of the Officers and servants thereof, and which Buildings are hereinafter throughout designated as "the Parliamentary Buildings," and certain other buildings for the use and accommodation of the several Public Departments of Her Majesty's Civil and Militia Service of Canada, and of the Officers and Servants thereof, and which last mentioned buildings are hereinafter throughout designated as, "the Departmental Buildings." AND WHEREAS the Contractor hath agreed to and with Her Majesty the Queen, for the heating and ventilation of the Parliamentary Buildings and of the Departmental Buildings, and to supply all proper and requisite material therefor, upon the terms and subject to the conditions, stipulations and agreements hereinafter contained. Now this Indenture witnesseth that in consideration of the sum of Sixty-one Thousand Two Hundred and Eighty-five Dollars, of lawful money of Canada, to be paid to the Contractor, his Executors, Administrators and Assigns, by Her Majesty, Her Heirs and Successors, in manner hereinafter mentioned, He, the Contractor, doth hereby for himself his Heirs, Executors, Administrators and Assigns. covenant, promise and agree to and with Her Majesty the Queen, Her Heirs and Successors, in the manner following, that is to say:

- 1. He the Contractor shall well, truly and faithfully build, erect, construct, complete, fit up and finish in the best and most workmanlike manner in every respect, and of the best materials of their several kinds, and to the satisfaction of the Commissioner, and without any noise in the working thereof when in actual operation, the necessary Furnaces, Flues, Boilers, Tubes, Valves, Cocks and all and every other the machinery, apparatus and effects necessary and requisite in, about, and for the purpose of Heating and Ventilating the Parliamentary Buildings and the Departmental Buildings, (other than and excepting the Brick work and Masonry thereof, and the Bricks, Masons materials for the same, and all such materials and labor necessary for setting the Boilers and Furnaces,) according to the plans and specifications thereof respectively, and which plans and specifications are signed by the Contractor, and by the Commissioner, and the plans whereof so signed are deposited of record in the Department of Public Works, and the specifications whereof so signed are hereto annexed, marked A, and which said paper A, is to be construed and read as part hereof, and is embodied in and forming part of this Contract.
- 2. The Contractor shall and will preparatory to, or in course of erection of the work embraced in this Contract, find and supply at his own cost and charges, all Furnaces, Boilers, Tubes, Valves, Cocks, Gauges and all metal therefor, and also all necessary and proper scaffoldings and materials, tools, implements and plant of whatsoever, kind or description, (other than the Brick work and Masonry, and materials and labor for

the same as aforesaid,) for the erection, construction, and completion of the said apparatus, and of the Heating and Ventilation of the buildings respectively and of every part thereof, and shall also find samples or specimens of the same respectively as the Architects or Officer in charge may require, and further, that all materials of the said work are to be unexceptionable in quality, and shall before being used be inspected and approved by the Commissioners or the Architects or Officer in charge of the Buildings respectively, and that any materials disapproved of and rejected by the said Architects or the Officer in charge shall not be used in the works, and if not removed by the Contractor, when directed by the Architects or Officer in charge as aforesaid, then the same shall be removed by the Architects or Officer in charge as aforesaid, to such place as they may deem proper, at the cost and charge and risk of the Contractor, but any such inspection and any approval of materials shall not in any wise subject or make liable Her Majesty to pay the Contractor for the said materials so approved, or any portion thereof, or prevent the rejection afterwards of any portion thereof, which may prove or turn out at any time before the final completion of this Contract to be unsound or unfit or improper to be or to have been used in the work, nor shall such inspection be considered as a waiver of objection to the work or any part thereof, on the account of unsoundness or imperfection of the material used. And that all Boilers, Valves and Gauges and other materials and appliances shall be provided by the Contractor to the satisfaction and approval of such one of the members of the "Board of Steamboat Inspection," as shall be agreed upon between the Contractor and the Commissioner.

8. The Contractor shall and will perform and execute the said work under the Superintendence of the Architects or Officer in charge, and to the satisfaction of the Commissioner, and the Contractor shall commence and proceed with the same in such order and with such rate of progress from time to time as the Commissioner, or the Architects or Officer in charge may direct. And the same respectively shall be fully, thoroughly and entirely completed in their several particulars, and to the satisfaction in all respects of the Commissioner, and

of the Architects or Officer in charge thereof, on or before the first day of April, which will be in the year of our Lord, One thousand Eight hundred and Sixty-two, time being of the essence of the Contract, and further, that in failure of completion as aforesaid at the period hereinbefore especially limited for the completion thereof, the Contractor shall forfeit all right, claim or demand to the money or per centage hereinafter agreed to be retained by the Commissioner, and any and every part thereof, as also to any monies whatever which may be at the time of failure of the completion as aforesaid due or owing to the Contractor, and that the Contractor shall also pay or cause to be paid to Her Majesty as liquidated damages and not by way of fine or penalty, the sum of Two hundred dollars for each and every week, and the fractional part of such sum for every part of a week for which the work within this Contract or any portion thereof may remain incomplete, or for which the certificate of the Architects in charge of the completion of the said work or any part thereof may be withheld, and the Commissioner may deduct and retain in his hands such sums as may become due as liquidated damages, from any sum of money then due or payable, or to fall or become due or payable thereafter to the Contractor. And further, that notwithstanding the Superintendence of the Architects or Officer in charge, and the necessity for the approval of the Commissioner or Architects or Officer in charge of the materials. workmanship and work, and any approval or disapproval, the same shall not at any time relieve or discharge the Contractor from his liability to perform this Contract according to the terms thereof, and in all respects in the most proper and efficient manner.

4. Every hall, lobby, corridor, passage, staircase and place other than a room throughout the Parliamentary Buildings and the Departmental Buildings respectively, is to be heated, and kept, if so required at the temperature of Seventy-five degrees Fahrenheit, and the Chambers of the Legislative Council and of the Legislative Assembly in the Parliamentary Buildings, and the Library, and all rooms, offices, water closets, lavatories and apartments of any nature whatever in the Parliamentary Buildings and the Departmental Buildings respectively, are to

be heated and kept (if so required) at the temperature of Sixtyfive degrees Fahrenheit, and proper stop-cocks and registers shall be placed so as to regulate every department and section of the said Buildings respectively.

- 5. And whereas the Boiler, Furnaces, Flues, Chimneys and air ducts are to be erected by the Government, therefore the Contractor is and shall be responsible for the convenience of the arrangements in the erection of the same respectively. for the said Heating and Ventilation of the Buildings respectively, and for the security and efficiency of the work to be performed as aforesaid for the purpose of receving the machinery and apparatus of the Contractor herein, and all damage which may at any time, and from time to time during the existence of this Contract be done, or which may arise or happen, and from whatever cause to any portion of the works included in the Contracts respectively for the erection and construction of the Buildings respectively, shall be rectified at the cost of the Contractor, (party hereto of the first part.) and according to the original plans and designs thereof as embraced in the said Contracts respectively, and under the Superintendence of the Architects or Officers in charge of the Buildings respectively, and to the satisfaction of the Commissioner.
- 6. That whenever, and so often as it may be necessary for the Contractor to coöperate with the Contractors for the erection and building of the Buildings respectively, or any or either of them, the Contractor shall diligently and under the directions of the Architects or Officer in charge perform all such works as shall be requisite and proper on the part of the Contractor herein for such coöperation, and for securing and placing in proper position the machinery and apparatus necessary in and hereby contracted to be constructed and erected for the Heating and Ventilation of the aforesaid Buildings respectively in a proper and secure mode, and to prevent the possibility of any accident by fire therefrom, without any extra charge therefor, and shall be bound in all things to conform to the direction of the Commissioner or the Architects or Officer in charge touching such coöperation and work.
- 7. The care of the works included under this Contract together with whatever machinery or apparatus appertains or

belongs thereto shall be entirely at the charge and risk of the Contractor, who shall be liable and responsible for any and all loss, damage, detriment and injury that may arise or be sustained both on this Contract and the Building Contracts respectively in so far as they may be effected by the execution or delay or neglect in the execution of the works of this Contract during the progress of the works and until the same shall be completed and certified as such by the Architects or Officer in charge and be received and taken by the Commissioner as complete; and the Contractor shall also repair, replace and amend any work, materials and apparatus whether under this Contract or the Building Contracts, (as to the latter on the contingency of non-execution or delay aforesaid by the Contractor herein,) and that all per centage, drawbacks, reserves, deductions, or other funds retained by the Commissioner on behalf of Her Majesty, shall in the event of any such loss, damage, detriment or injury be applied by the Commissioner so far as may be necessary for the reconstruction, amendment, restoration and repairs of the work, materials, machinery or apparatus, provided that the Contractor shall not be liable, under this clause, in respect of any loss, damage, or detriment or injury which may arise to the works, machinery or apparatus comprised in, or contemplated by this Contract, from the acts or neglect of the Contractors under the Building Contracts.

8. On failure of the Contractor to complete the work herein contracted for, at the period of time hereinbefore mentioned, the Contractor shall be liable for, and shall pay or cause to be paid to Her Majesty, all per centage, salaries, and wages which shall be or become due to the Architects or Officer in charge or subordinate person or persons superintending the work on behalf of the Commissioner, from the period so hereinbefore named for the completion of the works, up to, and until the said works shall actually be completed and received, and the Commissioner may deduct and retain in his hands out of the per centage hereinafter mentioned or out of any monies which may otherwise at any time become or fall due to the Contractor, all such sum and sums of money as shall have been so incurred, defrayed or expended by the Commissioner for such purpose, or the Commissioner may recover the same from the

Contractor, in an action in the name of Her Majesty as monies paid for, and on account of the Contractor.

9. If it shall at any time appear to the Commissioner that the establishment, or the rate of progress at in and upon the said work embraced in this Contract, or of any part thereof, or of any work or matter incident to the same or in any way connected therewith, are not (having due reference to the sufficiently advanced state of the Buildings themselves to enable the Contractor to proceed with the apparatus,) satisfactory or such as to ensure the completion of the same within the time hereinbefore mentioned, or on failure or breach by the Contractor of any matter or thing herein contained on the part of the Contractor to be done or performed, or if the Contractor shall at any time or times, neglect or refuse to carry on this Contract or any part of it, or to supply requisite and proper scaffoldings, tools, implements or plant and materials, or is unable to carry on the same, then and in any of such cases, the Commissioner may forthwith after having given three days notice to the Contractor of his intention so to do, and without any process or suit at law or other legal proceeding of any kind whatever or without its being necessary to place the Contractor en demeure, either absolutely take the work or any part thereof out of the hands of the Contractor, and relet the same without the necessity of previous advertisement, or employ additional workmen and provide materials, tools, implements and all other things requisite for the completion and performance of the Contract at the expense of the Contractor; and the Contractor shall in either case be liable for all damages and extra costs and expenditure which may be incurred by reason thereof, and if such damages, extra costs and expenditure exceed in the whole the sum of Sixty-one thousand two hundred and eighty-five dollars, then Her Majesty may recover of and from the Contractor the balance or excess over and beyond the last mentioned sum, provided the Contractor herein shall have the right to carry on the work of the Contract at all times and periods, so that the same does not interfere with or impede the Contractors or their Officers, Workmen or Servants under the Building Contract.

- 10. If any overseer, mechanic or workman employed on or about the work or any portion, be incompetent to perform the work or duties required of him, or give just cause of complaint, the Contractor shall immediately upon the application of the Architects or Officer in charge, dismiss such person or persons forthwith from the works, and he shall not again be employed thereon without the written consent of the Architects or Officer in charge, and should the Contractor continue to employ such overseer, mechanic or workman, the Contractor shall pay to Her Majesty, Her Heirs and successors, the sum of Twenty dollars, as liquidated damages and not of fine or penalty, for each and every day during which such overseer, mechanic or workman shall be employed on the works after such application for his dismissal as aforesaid, and the Commissioner shall have the same power of retaining such sums as may become due to Her Majesty under this clause, or of enforcing payment thereof, as are given and expressed in the eighth clause of this Contract.
- 11. That the Contractor shall not in any way, directly or indirectly, sell, dispose of or relet, assign, transfer or sublet to any person or persons whomsoever, either entirely or partially and jointly with himself or in any other manner or way howsoever, this Contract or any part thereof, or any portion of the work embraced herein or to be performed hereunder, or which without being distinctly and specially mentioned herein may yet be rendered necessary for the full and proper completion of the Contract.

11a. In all cases of defective description or delineation in either the drawings hereinbefore referred to or the specification hereunto annexed, the explanation and interpretation given by the Commissioner shall be received and shall be final, binding and conclusive upon the Contractor, and wherever neither the drawings, plans or specifications contain any notice of minor parts, the intention to include which is nevertheless clearly to be inferred, and which minor and detail parts are common, usual and proper in workmanship of this character, and which are obviously necessary to the due completion or stability of the work, all such works are to be found, provided and fixed by the Contractor and at his expense and cost, and

are to be considered to be included in his Contract, it being the intention of this Contract that all such work of every kind as may be necessary for completely finishing the work proposed in the best and most workmanlike manner, and for the rectification of any failure from whatever cause arising and the well maintaining, sustaining and supporting the whole of the works as well as any and whatever change, alteration and addition that may be made thereon, so that the whole may remain sound and firm, and that all such minor parts and details are implied in the plans, drawings and specifications, and in this Contract although the same are not therein and herein specifically expressed.

12. That if any change, alteration or addition, either in the position or details of the works embraced in this Contract or in anv of the materials therefor shall be required by the Commissioner, the Contractor will make such change, alteration or addition, and if such change, alteration or addition shall entail extra expense on the Contractor, either in labor or materials, the same shall be allowed to the Contractor; or should it be a saving to the Contractor in either labor or materials, the same shall be deducted from the amount of this Contract, and in either case the amount is to be determined by the estimate made by the Commissioner, his Architects or Officer in charge, but no such change or alteration, whatever may be the extent or quality thereof or at whatever time the same may be required to be made pending this Contract, shall in any wise have the effect of suspending, superseding, annulling or rescinding this Contract, which shall continue to subsist, notwithstanding any such change, alteration or addition, and every such change, alteration or addition shall be performed and made by the Contractor under and subject to the conditions, stipulations and covenants herein expressed, as if such change, alteration or addition had been expressed, and specified in the terms of this Contract; and should the Contractor be required by the Commissioner to do any work or furnish any materials for which there is not any price specified in this Contract, the same shall be paid for at the estimated value thereof of the Commissioner, but no change, alteration or addition as aforesaid whatever, and no extra work whatever shall be done

without the written authority of the Commissioner given prior to the execution of the work, nor will any allowance or payment whatever be made for the same in case it should be done without authority. Provided that any such change shall not effect the proper working of the apparatus, and if in the opinion of the Contractor such change will tend to effect the proper working of the apparatus, the Contractor shall give immediate notice thereof to the Commissioner.

- 13. That any notice or other paper connected with this Contract which may be required or desirable on the part of Her Majesty, may be served on the Contractor either at his usual domicile or at his usual place of business at the City of Ottawa, by being left at the post office, and any notice or other paper so addressed and left at such post office, shall to all intents and purposes be considered legally served.
- 14. If any difference of opinion between the Contractor and the Architects or Officer in charge arise as to the construction to be put upon any part of the specifications or plans the same shall be determined by the Commissioner alone, and such determination shall be final and conclusive and binding upon the Contractor.
- 15. The Contractor is and shall be responsible to Her Majesty for the due and efficient and (when in actual operation,) the noiseless working of the machinery and apparatus herein mentioned, and for its capability in the Heating and Ventilation of the Buildings respectively, for the period of ten years from the completion of this Contract. Provided that, during such period of ten years the Contractor shall have full liberty of access at all times to the Buildings respectively, to test and observe the efficiency of the machinery and apparatus, and he is and shall also be responsible to Her Majesty for all sum and sums of money as may be paid or expended by the Commissioner, or on behalf of Her Majesty in the repairs, (reasonable wear and tear being allowed,) reconstruction, or amendment of the machinery or apparatus aforesaid, or otherwise arising from the insufficiency or inefficiency of the same for the purposes aforesaid. Provided that the Contractor shall have the nomination, approval and control (subject to the concurrent

approval of the Commissioner,) of all Engineers and Servants employed in the regulation, management and direction of the said machinery and apparatus, and the Heating and Ventilation of the Buildings respectively.

16. In the event of any difference or dispute between the Contractor and Architects or Officer in charge, in respect to the performance by the Contractor of the duties required by this Contract or connected therewith, the same shall be referred to the Chief Engineer of the Department of Public Works for his final arbitration and award, subject however to the approval thereof of the Commissioner.

And the Contractor and Her Majesty the Queen, do, and each of them doth hereby further mutually covenant, promise and agree the one with the other of them, the Contractor for himself, his heirs, executors, administrators and assignees, and Her Majesty for Herself, Her Heirs, and successors, in manner following, that is to say:

1. Payment of any sums of money which may be made to the Contractor by Her Majesty under this Contract, will be so made according to the provisions of the Consolidated Statutes of Canada, Chapter Twenty-eight, section Eighteen, and within ten days after an estimate of the Architects or Officer in charge shall have been received by the Commissioner, specifying the amount work done during the month then ending, but nevertheless the Commissioner, on behalf of Her Majesty may withhold and retain from the Contractor Thirty per cent, out of the estimates, until the perfect completion of the work and the acceptance of the same by the Commissioner, which Thirty per cent, so withheld and retained the Commissioner may continue to withhold until the whole of the works shall have been tested for Thirty months from the date of the actual completion of the Contract and until the lapse of such period; and if at the expiration of the said Thirty months, it shall be found that the whole of the work and machinery and apparatus is perfect, sound and substantial, and that the system of Heating and Ventilation throughout the Buildings respectively is in successful operation, the Architects or Officer in charge shall give his final certificate Provided that the Commissioner may at any time, and from time to time advance and pay to the Contractor any portion of the per centage hereinbefore mentioned prior to the expiration of the period of Thirty months aforesaid.

- 2. That the Commissioner on behalf of Her Majesty, may make payments or advances on materials, implements or tools of any description procured for the works or used or intended to be used about the same, in such cases and upon such terms and conditions as to the Commissioner may seem proper, and that whenever any advance or payment shall be made to the Contractor upon any tools, implements or materials of any description, the same or such as upon which such advance or payment shall be made, shall thence forward be vested in and held as collateral security by Her Majesty, Her Heirs, and successors, for the due fulfilment by the Contractor of this Contract, it being however well understood, that all such tools, implements or materials of any kind are to remain at the risk of the Contractor who shall be responsible for the same unless and until the same are, upon the completion of the Contract finally accepted as part of the work by the Commissioner; but the Contractor shall not exercise any act of ownership or control whatever over any tools, implements or materials upon which any advance or payment has been so made without the permission in writing of the Commissioner.
- 3. That in case the amount heretofore voted by the Parliament of Canada for the construction and erection of the Buildings respectively be at any time expended previously to the completion of the work embraced in this Contract the Contractor may or may not, at his option, on receipt of a notice in writing from the Commissioner of such expenditure having occurred, stop the work; but in such case the Contractor shall not be entitled to any further payment for work done or materials supplied after the service of such notice, unless and until the necessary funds shall be voted by Parliament, nor shall the Contractor have any claim for compensation or damages for the suspension of work accruing on such notice as aforesaid or suspension of payment.
- 4. The Buildings respectively are to have and be provided by the Commissioner with double external doors and with double external windows throughout the same.

5. In this Contract the words "Her Majesty," shall mean Her Majesty Queen Victoria, Her Heirs and successors.

The words "The Commissioner," shall mean the Commissof Public Works of the Province of Canada for the time being.

The words "The Contractor," shall mean Charles Garth, his heirs, executors, administrators and assignees.

The words "The Buildings," shall mean the Buildings and erections as designed by the Architects thereof, and under the designation of "The Parliamentary Buildings," Contracted for by one Thomas McGreevy with Her Majesty the Queen, in a certain deed of covenant bearing date the Seventh day of December, in the year One thousand eight hundred and fiftynine, and the plans, specifications and documents thereunto annexed, and also the Buildings and erections as designed by the Architects thereof and under the designation of "The Departmental Buildings," Contracted for by Messieurs Jones, Haycock and Company with Her Majesty the Queen in a certain deed of covenant bearing date the Seventh day of December, in the year One thousand eight hundred and fifty-nine, and the plans, specifications and documents thereunto annexed; and the words "The Parliamentary Buildings," and "The Departmental Buildings," shall mean the Buildings respectively in the deeds of covenant firstly and secondly above mentioned, and the words "Building Contracts," shall mean the said deeds of covenant respectively above mentioned.

The words "Architects" or "Architects in charge," shall in so far as regards "The Parliamentary Buildings," mean Messieurs Fuller and Jones, of the City of Ottawa, Architects, or such other person or persons as may be appointed by the Commissioner to act as the Architects in the room and stead of the said Messieurs Fuller and Jones, and shall in so far as regards "The Departmental Buildings," mean Messieurs Stent and Laver of the City of Ottawa, Architects, or such other person or persons as may be appointed by the Commissioner to act as the Architects in the room and stead of the said Messieurs Stent and Laver.

The words "Officer in charge," shall mean the Clerk of works or such other Officer or person as may be by note in writing to the Contractor, mentioned as the Officer in charge.

The construction of the words given in this clause shall not control any more extended construction which may be given to any of such words throughout this Contract.

IN WITTNESS WHEREOF the said The Contractor hath hereunto set his hand and affixed his seal, and the Honorable John Rose, Commissioner of Public Works of the Province of Canada, for the time being, acting herein on behalf of Her Majesty, hath set his hand and seal the day and year first above written.

(Signed,) CHARLES GARTH.

" JOHN ROSE, Commissioner,
Public Works

" T. TRUDEAU, Secretary.

Signed, Sealed and Delivered, by Charles Garth and The Honorable John Rose,

In the presence of

(Signed,) H. BERNARD, Chief Clerk,
Department Attorney General, U.C.

### SPECIFICATION.

### Schedule A.

Referred to in the annexed Deed, and embodied in and forming part thereof.

(Signed,) JOHN ROSE, Commissioner.

" CHARLES GARTH.

" T. TRUDEAU, Secretary.

Witness,

(Signed,) H. BERNARD.

### DEPARTMENTAL BUILDINGS,

ottawa, c.w.

RIGHT and LEFT MAND BLOCKS.

WARMING AND VENGLASING.

### BOILER HOUSES.

Provide and fix Four Cornish Boilers 20 feet long, 5 feet diameter with inside Furnaces and Flues 3 feet diameter. The outside or shell of Boilers to be  $\frac{5}{16}$ ths thick, the furnace and flue to be  $\frac{8}{6}$  thick; the Iron to be Thornecrofts BB best refined plates, the ends of the Boilers to be  $\frac{8}{6}$  thick of the best Low Moor Iron, One Steam drum on each Boiler 2 feet diameter and  $2\frac{1}{3}$  feet high.

Each Boiler will be provided with one lever safety valve, one Lock up safety valve, one Glass Tuble water Guage, three Guage Cocks, one Ashcrofts or other approved Steam Guage,

one Syphon Mercury Guage, one Brass blow off Cock for cleaning out Boilers, one 4 inch Steam Valve, one return Water Check Valve, one feed water Check Valve with the necessary cast iron steam and waste steam pipes, also, blow off pipes for cleaning out Boilers, wrought iron feed pipes from Steam Engines to Boilers, and everything that the Law regulating Steam Boilers on board of Steamers requires.

The two Steam Engines will be of the best description of the Horizontal kind, complete in every respect, which Engines will work Two Hydraulic Force and Lift pumps of the best possible description, capable of throwing not less than 250 gallons of water per minute into the tanks in the towers from the Boiler Houses. Two wrought iron condensed water Tanks, to hold 700 gallons, 7 feet long, 4 feet wide and 4 feet deep, or if circular of an equal capacity with 2 inch wrought iron feed pipes from pumps of Steam Engines and supply pipes to Steam Boilers.

Two inch wrought iron rising mains from the Steam Engine pumps to the entrance of the Buildings nearest the Boiler Houses, to join the lead pipe as provided for in the Plumbers Specification.

#### Basements.

Provide 12 inch diameter, galvanized iron pipes fixed to convey the warmed air from the Vaults to the flues on the opposite sides of the corridors. In vaults, as shewn on plans, will be fitted up main Steam pipes of iron, varying from 4 to 2 inch; these pipes are carried just under the level of the level of the Basement floors; over these, in the same Vaults, will be placed a sufficient number of Steam Coils made of wrought iron, Steam pipes averaging 1 inch diameter capable of generating the required quantity of heat to warm all the rooms and corridors in the Buildings.

All the rooms in the Basements (marked on the original plans to be occupied,) will have Steam pipes carried all round the inside of the external walls in the Base or Skirtings.

### Ground Floors.

Provide and fix 100 Registers for Rooms. Provide and fix 15 Registers for Passages. Provide and fix 24 Ventilators for Passages.

### First Floors.

Provide and fix 105 Registers for Rooms. Provide and fix 13 Registers for Passages. Provide and fix 26 Ventilators for Passages.

### Attics.

Provide and fix four Steam Coils in Ventilating Shafts, with the necessary supply pipes from the Boilers (for drawing off the vitiated air.)

Provide and fix all other materials and labor that may be necessary for completely finishing the before mentioned work, with the exception of all Bricklayers, Joiners, Masons and Excavators works, and all materials and labor required for setting the Boilers, building Boiler Houses, Warm air Vaults, cold air and Ventilating Ducts and Flues, Chimnies, Smoke Flues, Extracting Shafts, Drains and recess in walls for Steam pipes, Warm air pipes, &c., all the foregoing subject to general conditions as arranged in Contract.

N.B.—The Ventilators for the Rooms are not included in this Specification, being provided for in the Architects Specification.

(For details, see plans Nos. 1 to 16.)

Examined and approved.

(Signed,) STENT & LAVER,

Architects.

November 6th, 1860.

(Signed,) CHARLES GARTH, Steam Fitter.

JOHN ROSE, Commissioner.

" T. TRUDEAU, Secretary.

Witness,

H. BERNARD.

### **SPECIFCATION**

# For Departmental Architects or Contractors.

All warm air and Ventilating Flues to be built perfectly smooth inside and whitened and free from Elbows and Sharp Angles of any kind, and to be of not less than the following dimensions, viz:

### Warm Air Flues. Ground Floors, Rooms ..... 9 $\times 14$ Ground Floors, Corridors ...... 9 $\times$ 18 First Floors, Rooms ..... 6 $\times$ 18 First Floors, Corridors ...... 6 × 18 Register Openings for ditto. Ground Floors, Rooms ..... 9½ × 14½ Ground Floors, Corridors .........121 × 191 First Floors, Rooms ...... $8\frac{1}{2} \times 18\frac{1}{2}$ First Floors, Corridors ...... $8\frac{1}{3} \times 18\frac{1}{3}$ Ventilating Flues. Ground and First Floors, Rooms.... 5 $\times 14$ Ground and First Floors, Corridors.... 5 $\times$ 18 Water Closets, Main Flues. ..... 9 Or Three Flues..... 9 Ventilator Openings. Ground and First Floor, Rooms..... $6\frac{1}{2} \times 14\frac{1}{3}$ Ground and First Floor, Corridors.... $6\frac{1}{2} \times 18\frac{1}{3}$

All cold air Ducts, Warm air Vaults and Extracting Shafts to be built smooth inside. The Warm air Vaults and Extracting Shafts to be whitened inside.

# SCHEDULE

### Of Prices for Warming and Ventilation of Departmental Buildings, Ottawa.

	\$	cts.
Cornish Steam Boilers, 20 feet long, 5 feet diameter, with 3 feet		
Flues	1200	00
Flues each Horizontal Steam Engines, with Pumps complete do	1000	00
4 inch Cast Iron Steam Pipesper foot.	1	00
2 inch Wrought Iron do do	0	50
6 inch Cast Iron do do	$\frac{0}{2}$	00
4 inch Globe Valves each	30	00
4 inch Check Valves	30	00
Feed Check Valves do	20	00
Alarm or Glass Water Gauges do	40	00
Brass Guage Cocks	4	00
Blow off Cocks for Boilers do	16	00
Ashcrofts Steam Gauges do	40	00
Syphon Mercury Gauges do	10	00
4 inch stop Steam Valves do	30	00
Lever safety Valves	20	00
Lock up do dodo	30	00
Wrought Iron condensed water Tanks at 10 cents per lb. two	216	00
2 inch Brass Globe Valveseach.	10	00
2 inch Stop Cocks do	10	00
Tinned Galvanized Iron warm air pipe per feet.	1	00
1 inch wrought Steam Tuble do	0	20
2 inch Check Valveseach.	10	00
1 inch do dodo	4.	00
1 inch Globe dododo	4	00
Tees, Knees, Branches &c., assorted do	0	75
12 × 19 Registers do	7	00
$14 \times 9$ do	5	00
18 × 8 do	5	00
10 X 0 40	3	00
Foreman Fitter	2	00
Dicami Ficcis	1	00
Labourers do	1	00
		<u> </u>

The foregoing scale of Rates to be allowed in valuing for progress Estimates as well as for alterations, additions or works dispensed with, and also for Extras. To be measured and calculated solely by the Architects or the Clerk of the Works.

### Examined and approved.

(Signed,) STENT & LAVER,
Architects.

November 6th, 1860.

(Signed,) CHARLES GARTH, Steam Fitter.

" JOHN ROSE, Commissioner.

" T. TRUDEAU, Secretary.

Wittness,

H. BERNARD.

### SPECIFICATION.

# PARLIAMENTARY BUILDINGS,

ottawa. c.w.

### WARMING AND VENTUATING

### BOILER HOUSE.

Provide and fix six Cornish Boilers 20 feet long, 5 feet diameter, with inside Furnaces and Flues 3 feet diameter. The outside or shell of Boilers to be 5 th thick, the Furnace and Flue to be \$\frac{3}{8}\$ths in: thick. The Iron to be Thornecrofts B B best refined Plates, the ends of Boilers to be  $\frac{3}{8}$  thick of the best Low Moor Iron, One Steam Drum on each Boiler 2 feet diameter and 2½ feet high, each Boiler will be provided with one lever safety Valve, one Lock up safety Valve, one Glass Tube Water Guage, three Guage Cocks, one Ashcrofts or other improved Steam Gauge, one Syphon Mercury Guage, one Brass blow off Cock for cleaning out Boilers, one 4 inch Steam Valve. one returned Water Check Valve, one Feed Water Check Valve. with the necessary Cast Iron Steam and waste Steam Pipes, also, blow off pipes for cleaning out Boilers, wrought iron feed pipes from Steam Engine to Boilers, and everything that the law regulating Steam Boilers on board of Steam Boats requires.

The Steam Engine will be of the best description of the Horizontal kind complete in every respect, which Engine will work Two Hydraulic Force and Lift pumps of the best possible description, capable of throwing not less than 250 gallons of water per minute, to the Tanks in the towers from the Boiler House.

One wrought iron condensed water Tank to hold 2000 gallons, say 14 feet long and 6 feet wide and 4 feet deep, or if circular of equal capacity with 2 inch wrought iron feed pipe from pump of Steam Engine and supply pipe to the Steam Boilers, 2 inch wrought iron rising mains from the Steam Engine pump to be furnished and laid under the Basement Floor to join to the  $1\frac{1}{2}$  inch lead pipe that descends from the Cisterns to the Basement, as provided for in the Plumbers Specification.

#### Rasement.

Provide and fix 12 inch diameter galvanized and tinned iron pipes fixed to convey the warmed air from the Vaults to the Flues on the opposite side of the corridor. In the Vaults under the Legislative Assembly, Legislative Council, Library, Picture Room or (Gallery,) Smoking Rooms, and all the Rooms of the main Building, will be fitted up main Steam pipes of iron, varying from 4 to 2 inches, these pipes are carried just under the level of the Basement Floor, over these in the same Vaults there will be placed a sufficient number of Horizontal Steam Coils made of wrought iron Steam pipe of an average diameter capable of generating the required quantity of heat to warm all the Rooms in the centre part of the Building.

All the Basement Rooms (marked in the original plan to be occupied,) will have Steam pipes carried all round the inside of the external walls on the Base or Skirting. The Coils will be arranged in sections, or nests, so that one portion of the Building can be warmed without the other.

BASEMENT.

70 Ventilators.

### Ground Floor.

Library

Five large circular Registers on the Floor of the Library connected to the Vault underneath containing the Steam Coils, to convey up the warm air, Sixteen Ventilators on the Walls near the Floor of Room to draw off the vitiated air.

Ten Registers for warm air connected to Vault under Rooms round Library containing the Steam Coils; Eight Ventilators on the Library. Walls near the Floor of the Rooms, Eight small Ventilators for Water Closets.

Four Registers for warm air connected to Vault, Twelve Smeeking Ventilators near the Floor and Ceilings. Rooms.

Five large Registers for warm air connected to Vault. Four large Ventilators near the Floor and Ceiling.

Six Registers. Twelve Ventilators.

Two Registers for warm air connected to Vault. Four Ventilators near the Floor and Ceiling.

Two Registers for warm air connected to Vault. Four Ventilators near the Floor and Ceiling.

Six Registers for warm air. Eight Ventilators near the Floor and Ceiling. Picture Gallery. Governor General and Chaplain's Room.

Corridor be-

tween Picture

Gallery and Library. Corridor round the Picture Gallery.

Two Reading Rooms and Two Secretary Do.

Two Steam Coils recessed in walls with Cast Iron Screens Two Speaker's Entrances. in front.

Four Ventilators.

Two Steam Coils recessed in walls with Cast Iron Screens Two Speaker's Offices. in front.

Four Ventilators.

Two Steam Coils and Screens.

Four Ventilators near Floor and Ceiling.

Two Ventilators for Water Closets.

Two Steam Coils and Screens.

Two Registers for warm air. Two Registers for warm air.

Four Ventilators near Floor and Ceiling.

Two Registers for warm air.

Urinals.

Two Dressing Rooms and Water Closets.

Two Reporters entrance stairs.

Two Lavatories.

Two Water Twelve small Registers for Ventilation of Closets and Closets and Urinal Rooms.

Four large Ventilators for Rooms.

Two Ward-

Four Registers for warm air.

Robes.

Four Ventilators near Floor and Ceiling.

Two Messengers Rooms.

Two Registers for warm air.

Four Ventilators near Floor and Ceiling.

Legislative Assembly and Council.

Ornamental Cast Iron perforated Risers for front of Members and Speaker's Platforms for the warm air from vault

below.

Perforated Iron grating round the front of Gallery and along the back near the outside walls for Ventilation. (See Plans.)

Corridors

Twelve Registers for warm air.

round Assembly and Coun-

Twenty Ventilators near Floor and Ceiling.

cil Rooms.

Four Registers for warm air.

Members Lobby.

Four large Ventilators near Floor and Ceiling.

Public Hall.

Two large square Registers under the windows on each side

of Principal Door. Four Ventilators.

Two Public

Three Registers for warm air.

Stair Cases.

Four Ventilators.

Two Telegraph Offices. Two Registers for warm air.

Four Ventilaters.

Two Post Offices.

Four Registers for warm air.

Eight Ventilators.

Two Members

Two Steam Coils.

Entrances.

Four Ventilators. Four Ventilators.

Two Chief Clerks of House.

Two Registers for warm air.

### Left Wing.

One Dressing Room.

One Steam Coil and Screen.

Two Ventilators.

One Assistant Clerk.

One Steam Coil and Screen.

Two Ventilators.

#### SPECIFICATION.

One Steam Coil and Screen.
Two Ventilators.

One Steam Coil. Two Registers.

Two Steam Coils and Screens. Four Ventilators.

One Steam Coil and Screen.

Two Ventilators.

Three Steam Coils and Screens.

Four Ventilators.

One Coil and Screen. Six Ventilators.

One Coil and Screen.
Two Ventilators.

One Coil and Screen.

Two Ventilators.

One Coil and Screen. Two Ventilators.

One Coil and Screen.
Two Ventilators.

One Coil and Screen.
Two Ventilators.

One Coil.

Two Ventilators.

One Coil and Screen.
Two Ventilators.

Seven Coils and Screens. Six Large Ventilators. One Messenger.

One Members Entrance.

Two Committee Rooms.

Corner Committee Room.

Sergeant at Arms Apartments.

Lavatory and Water Closets.

Routine and Records.

Journals.

Junior Clerk.

Extra Writers.

Chief Office

Stationery.

Messengers.

Corridor round Open Court.

### Right Wing.

One Steam Coil and Screen. Two Ventilators. Dressing Room. Assistant Clerk. One Steam Coil and Screen.

Two Ventilators.

Junior Clerk.

One Steam Coil and Screen.

Two Ventilators.

Messengers.

One Steam Coil and Screen.

Two Ventilators.

Members Entrance. One Steam Coil in Vault.

Two Registers.

English Jour-

One Steam Coil and Screen.

Two Ventilators.

French Jour-

One Steam Coil and Screen.

Two Ventilators.

Corner Com-

One Steam Coil and Screen.

Two Ventilators.

Usher Black Rod Apartments

Three Steam Coils and Screens.

Four Ventilators.

Lavatory and Water Closets.

One Steam Coil and Screen.

Six Ventilators.

French Translators and small Room. Two Steam Coils and Screens. Two Ventilators each Room.

Deputy Assistant Clerk.

One Steam Coil and Screen.

Two Ventilators.

Assistant Clerk, and Messenger.  $\mathbf{Two}$  Steam Coils and Screens.

Four Ventilators.

Stationery.

One Steam Coil and Screen.

Two Ventilators.

Council Conference Room. Two Steam Coils and Screens.

Two Ventilators.

Corridor round Open Court.

Seven Steam Coils and Screens.

Six Large Ventilators.

### FIRST FLOOR.

### Right Wing.

One Steam Coil and Screen. Two Ventilators.

Two Steam Coils and Screens. Two Ventilators.

One Steam Coil and Screen. Two Ventilators.

One Steam Coil and Screen. Two Ventilators.

Two Steam Coils and Screens. Four Ventilators.

One Steam Coil and Screen. Two Ventilators.

One Steam Coil and Screen. Six Ventilators.

Three Steam Coils and Screens. Six Ventilators.

One Steam Coil and Screen. Two Ventilators.

Four Steam Coils and Screens. Eight Ventilators.

One Steam Coil and Screen. Two Ventilators.

One Steam Coil and Screen.
Two Ventilators.

Seven Steam Coils and Screens. Six Large Ventilators. Messengers.

Conference Committee Room.

Law Clerk.

English Translator.

Two Committee Rooms.

Corner Committee Room.

Lavatory and Water Closets.

Usher Black Rod Apartments.

Corner Com-

Four Committee Rooms.

Corner Committee Room.

End Committee Room.

Corridors round Open Court.

### Left Wing.

English Trans- One Steam Coil and Screen.

lator. Two Ventilators.

Law Clerk. One Steam Coil and Screen.

Two Ventilators.

Three French Three Steam Coils and Screens.

Translators. Six Ventilators.

Small Com- One Steam Coil and Screen.

mittee Room. Two Ventilators.

Corner Com. One Steam Coil and Screen.

mittee Room. Two Ventilators.

Sergeant at Three Steam Coils and Screens.

Arms Apartments. Six Ventilators.

Lavatory and One Steam Coil and Screen.

Water Closets. Six Ventilators.

Corner Com- One Steam Coil and Screen.

mittee Room. Two Ventilators.

French Committee Chief One Steam Coil and Screen.

Clerk. Two Ventilators.

French Committee Assis-One Steam Coil and Screen.

tant Clerk. Two Ventilators.

Three Com- Three Steam Coils and Screens.

mittee Rooms. Six Ventilators.

Messenger. One Steam Coil and Screen.

Two Ventilators.

General Com- Two Steam Coils and Screens.

mittee Room. Four Ventilators.

Corridor Seven Steam Coils and Screens.

round Open
Court. Six Large Ventilators.

Two Reporters Two Steam Coils and Screens.

Rooms. Four Ventilators.

Two Lavatories and Water

Two Steam Coils and Screens.

Closets. Four Ventilators.

Seven Rooms Seven Steam Coils and Screens.

in Towers. Fourteen Ventilators.

### CENTRE COMPARTMENT.

### Ground Floor.

One Register for warm air. Private Bill Committee Two Ventilators. Room. Two Registers for warm air. Railway Com-Four Ventilators. mittee Room. One Register for warm air. Chief Clerk of Two Ventilators. Committee. One Register for warm air. Retiring Room. Two Ventilators.

First Floor. One Register for warm air. Contingent Committee Two Ventilators. Room. Four Commit-Four Registers for warm air. tee Rooms. Eight Ventilators. One Register for warm air. English Translator. Two Ventilators. Corridor Cen-Four warm air Registers. tre Compart-Four Large Ventilators. ment.

### ATTIC.

Four large Steam Coils with Iron Caseings, Supply Pipes and Valves, from Boilers, to be placed in the Ventilating Towers.

Two Steam Coils complete in Shafts round the Smoking Rooms' Chimneys. Two Steam Coils complete in Shafts round the right and left wing Chimneys.

Provide and fix all other materials and labour that may be necessary for completely finishing the before mentioned work, with the exception of all Bricklayers, Masons, and Joiners work, and labour and materials for setting the Boilers, Building Boiler Houses, warm air Vaults, cold air and Ventilating ducts and Flues, Chimneys, Smoke Flues, Extracting Shafts, drains and recesses in walls for Steam Pipes, warm air Pipes, &c. All the foregoing subject to general conditions as arranged in Contract. The Iron Screens to be made according to the Architects design.

#### Examined.

(Signed,) FULLER & JONES,
Architects.

November 6th, 1860.

(Signed,) CHARLES GARTH, Steam Fitter, &c.

" JOHN ROSE, Commissioner.

" T. TRUDEAU, Secretary.

Witness,

H. BERNARD.

### SCHEDULE

# Of Prices for Warming and Ventilation of Parliament Building, Ottawa, C.W.

	CONTRACTOR OF THE PARTY OF	
	\$	cts.
Cornish Steam Boilers 20 feet long, 5 feet diameter, with 3 feet		
Flueeach.	1200	00
Horizontal Steam Engine, with pumps complete do	1000	00
Lever safety Valves do	20	00
Lock up safety do do	30	00
4 inch Cast Iron Steam Pipesper foot	1	00
6 inch do do	2	00
4 inch Globe Valveseach	30	00
4 inch Check do do	30	. 00
Feed do do	20	00
Alarm and Glass Water Guages do	40	00
Wrought Iron condensed water tank, at 10 cents per lb. do	394	00
2 inch Globe Valves, (Brass) do	10	00
2 inch wrought Iron Pipeper foot	0	50
Syphon Mercury Guageseach	10	00
4 inch Stop Valves	30	00
2 inch Stop Cocks	10	00
Tinned Galvanized Iron Warm Air Pipeper foot.	1	00
Blow off Cocks each	16	00
Gnage Cocks do	4	00
1 inch wrought Iron Steam Pipe per 100t.	0	20
2 inch Check Valveseach.	10	00
linch do do do	4	00
1 inch Globa do do	4	00
Tees Knees Branches assorted do	0	75
Foreman Fitterper uay.	3	00
Steam Fitter	2	00
Labourers do	1	00
Achamaft's Steam Guarge	40	00
Descripted Iron grating for Risers of Members and		
Smoolron'd Diattorms	0	20
14 × 22 inch Registerseach	10	00
.,	1	l

	\$	cts.
36 inch round Registers       each         14 × 9 do       do         14 inch round       do	20 5 5	00 00 00
12 × 19 inch       do        do          84 inch long Perforated Screens under Windows of Public Hall        do          8 × 12 inch Registers        do	20 4	00
$14 \times 6$ do do do Perforated Iron Grating for Gallery per foot.	0	00 25

The foregoing Scale of Rates to be allowed in valuing for Progress Estimates, as well as for alterations, additions, or works dispensed with, and also, for Extras. To be measured and calculated solely by the Architects or the Clerk of Works.

### Examined and approved.

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November 6th, 1860.

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