

HOUSE....No. 117.

Commonwealth of Massachusetts.

31289
HOUSE OF REPRESENTATIVES, April 2, 1866



The Committee on Public Buildings, to whom was referred the order, directing inquiry into the expediency of providing for the Ventilation of the Representatives' Hall, have considered the same and

REPORT:

The following suggestions in relation to this subject, with the accompanying plans, have been furnished to the committee, at their request, by a member of the House from Boston :—

“It can hardly be necessary, nor would it be possible at the present time, to consider at any length, the general principles of a subject which has been so often and amply discussed elsewhere. The necessity of ventilating buildings and apartments, which are occupied by large numbers of persons, is now almost universally acknowledged; and the attention of many of the members of the House has doubtless been already attracted towards this subject, at least so far as to enable them to act intelligently upon the Resolves which are to be reported.

It cannot have escaped the observation of gentlemen, that the atmosphere of the Representatives' Hall is very frequently

Dr. Hays

offensive, and, at all times, more or less oppressive. The disagreeable odor, however, is the least part of the evil,—indeed, it should be taken as a friendly warning, which, like that of the rattlesnake, when coiled for his fatal spring, should put us on our guard and thus enable us to avoid the threatened danger. That this danger is by no means imaginary, the facts which are constantly being brought to notice, and our own experience, will amply testify. In the words of a distinguished writer on this subject, ‘Is there a member who has not experienced the noxious effect of the present vitiated atmosphere, on mind and body? Instead of being enabled to devote his best energies to the calm deliberation and discussion of the public weal, his mental powers are exhausted and his bodily feelings wearied; impatience and irritation succeed; and important measures are hurried over, or left to be settled by those whose *‘condition’* equally fits them for the arena of the amphitheatre or of the forum.’

Mr. Inman, the writer just quoted, attributes the premature death of some of the brightest ornaments of the American bar to the want of ventilation of the court rooms; and this may reasonably happen; for when the brain is stimulated to its utmost power of action and endurance, and while, at the same time, its increasing demands for the vital fluid are met by a supply constantly diminishing as the debate lengthens, it is no wonder that nature finally gives way in so unequal a contest, and the fire of life is extinguished.

The great amount of sickness and mortality which have visited the members of Congress, being nearly double that of an equal number of persons, under otherwise similar conditions, may be also very properly attributed, in a great measure, to the bad ventilation of the capitol.

It is well known that a considerable number of the members of this Legislature, at each session, are compelled to ask for leave of absence on account of sickness, accompanied by such symptoms as may be fairly charged to the influence of an exposure to an impure and confined air. In fact, there can hardly be a member who escapes entirely these evils; or who, if he is enabled to get through the whole session without com-

plaint, will not, sooner or later, suffer from it in his health or strength.

Again, in a country where consumption destroys annually more victims than any other disease, should not all predisposing causes be scrupulously avoided? Now the best authorities agree in attributing to deficient ventilation, more than to all other exciting causes, the development of scrofula and consumption. It is also well ascertained, that not only are these generally preceded by a *continued residence* in air which is not sufficiently freshened, but that often an exposure of *a few hours daily*, when the rest of the time is passed in the open air is sufficient, especially in those predisposed, to produce them. And though these seeds of disease, when once planted, may lie so long dormant that the time and manner of their sowing may be forgotten, yet they will certainly at last spring up to bear the ill fruits of suffering, or an untimely death.

It is only necessary to say, that the present arrangements for ventilation are insufficient, because the *supply* of fresh air to the house is entirely inadequate, and should be increased, on ordinary occasions, to at least ten times the amount now furnished. The discharging pipes now relied upon are also too small in capacity, and are so arranged as to neutralize each other in a considerable degree, the action of one or two of them being sometimes reversed to supply the demand of others which are more strongly influenced by the wind.

The *proposed* method of ventilation is shown in the drawings. It is intended to increase very materially the amount of fresh air, (which of course must be first warmed,) and to deliver it in such a way, and at such a temperature, that it will, at all times, afford 'a pure and wholesome atmosphere, pervading the house, and, as it were, flowing through it, but with so gentle a current as to be imperceptible to members, and the inlets and outlets capable of adjustment to the number present, and the state of the temperature, &c., &c.'

The discharging shaft is to open at the ceiling, the present central ornament being retained, and the rosettes, &c., at the outer part of the circle being restored. This shaft is to be at least 32 inches in diameter, and will constitute the well-room

of a new flight of stairs. It is thence to be carried through the whole height of the dome, and to have its outlet at some convenient part of the cupola. The section in this part of the shaft to be *removable* when the hall is not occupied.

The jambs of the open fire-places should be enclosed, and fresh air introduced through them from the Doric Hall below, for the double purpose of securing the steady draft of the fires and of improving the air in that portion of the hall.

To insure the steady action of the discharging ventiduct, a large argand or gas-burner must be placed in the shaft as shown in the section."

The committee have carefully examined these plans, and obtained estimates upon the same, and are satisfied that they can be carried into effect by the appropriation named in the accompanying Resolves.

All which is respectfully submitted.

HENRY RUSSELL, *Chairman.*

PROPOSED PLAN
for the VENTILATION of the
REPRESENTATIVES HALL
STATE HOUSE
Submitted, March 30th 1849.

Reference to diagram N^o 1.

N^o 1. Plan of the floor of the Hall.

a. a. a. Arrows showing the mode of admitting the air from the furnaces.

b. b. Arrows showing the manner of admitting fresh air around the open Fire places.

Whole area of admission about 20 Square feet.

Reference to diagram N^o 2.

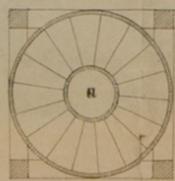
a. a. a. Arrows showing the exit of fresh air in a horizontal direction through the risers of the semicircular platform and the steps of the side aisles.

b. b. b. Arrows showing the foul air currents.

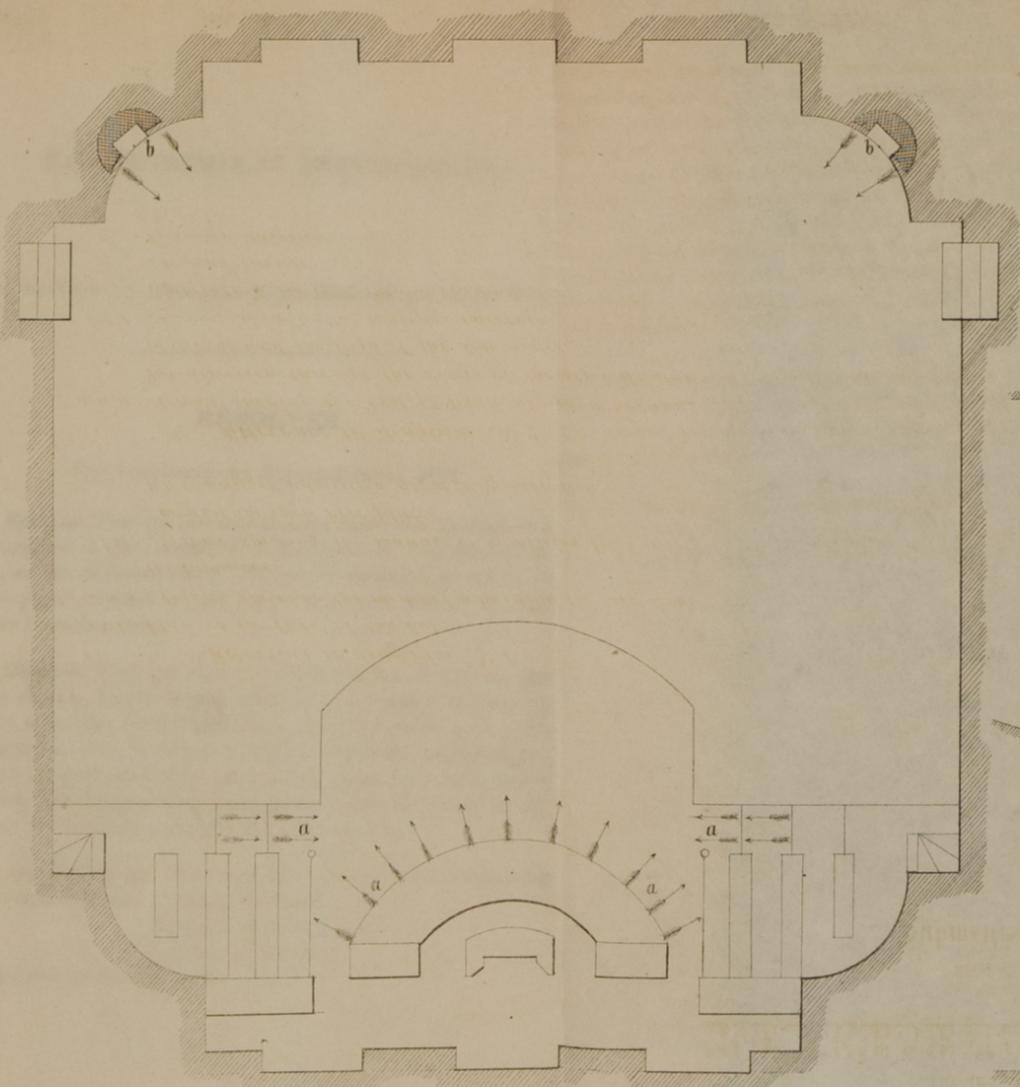
c. Ventilating shaft, 32 inches in diameter.

d. Argand burner

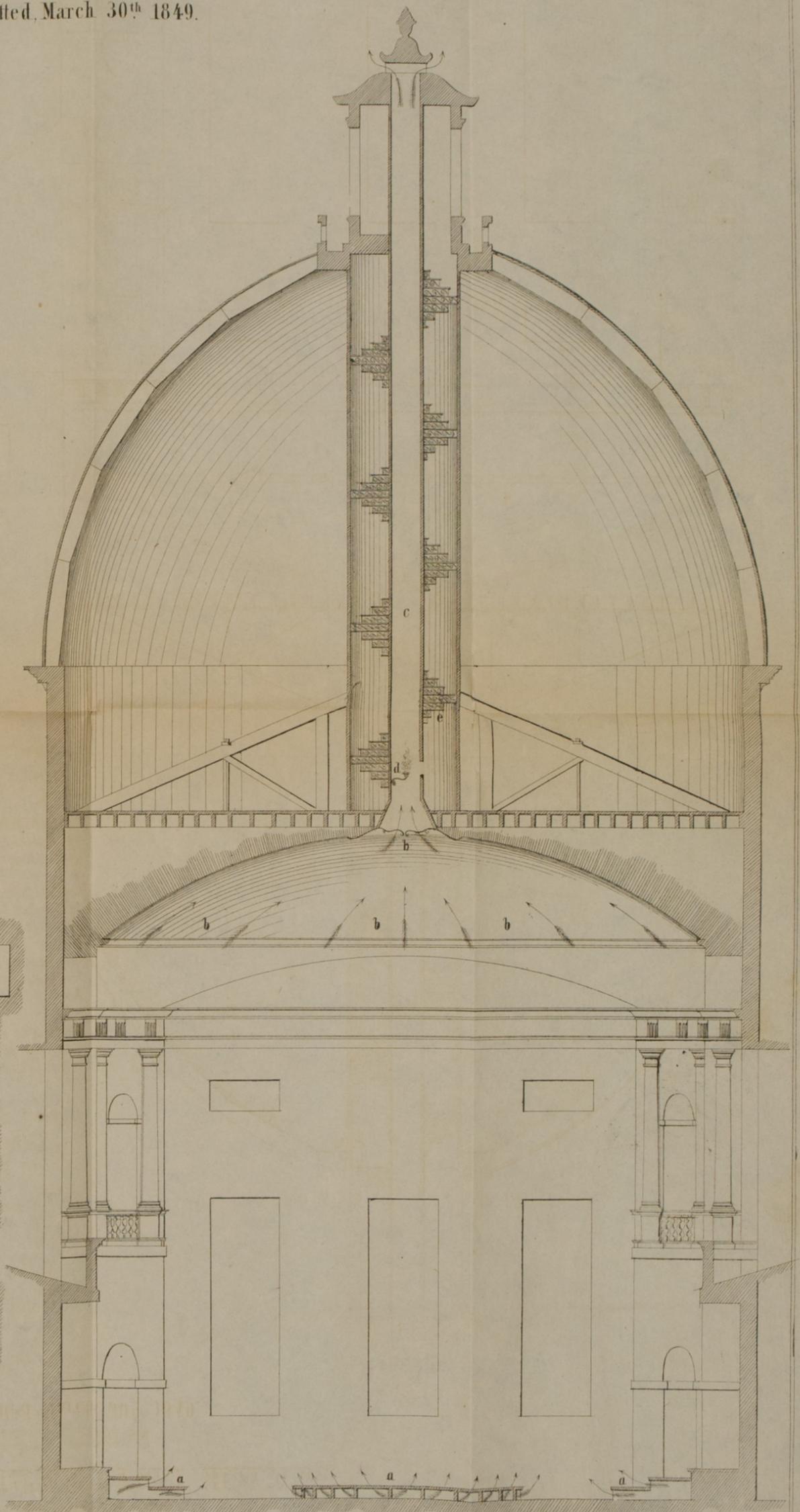
e. Circular Staircase



Section of Staircase,
a Ventilating Shaft.



N^o 1.



N^o 2.

Commonwealth of Massachusetts.

In the Year One Thousand Eight Hundred and Forty-Nine.

RESOLVES

For Ventilating the Representatives' Hall.

Resolved, That the sergeant-at-arms, under the direction of a committee of three members of the House of Representatives, cause the Representatives' Hall to be ventilated, according to the plans proposed in their report, or in such manner as they may deem expedient.

Resolved, That the sum of twelve hundred dollars be, and the same is, hereby appropriated, for the purpose of carrying into effect the foregoing Resolve, which sum, or such parts thereof as may be necessary, shall be expended in accordance with the provisions of an act, entitled, "An Act relating to the State House," passed on the eighteenth day of March, in the year one thousand eight hundred and forty-one.

Approved by the Governor, April, 1849; and the following gentlemen, Messrs. CLARK, of Boston,
RUSSELL, of Salem, and
JACKSON, of Roxbury,
appointed on the committee.

Committee of Investigation

In the Year One Thousand Eight Hundred and Four

RESOLVES

For Fortifying the Representatives' Hall

Resolved That the request to issue under the direction of a committee of three members of the House of Representatives to cause the Representatives' Hall to be ventilated according to the plan proposed in their report or in such manner as they may deem expedient

Resolved That the sum of twelve hundred dollars be paid the same is hereby appropriated for the purpose of carrying into effect the foregoing Resolves which sum or such part thereof as may be necessary shall be expended in accordance with the provisions of an act entitled "An Act relating to the State House" passed on the eighteenth day of March in the year one thousand eight hundred and forty one

Approved by Mr. Governor, April 1850, and the following gentlemen Messrs. West of Boston, Houghton of Salem and Jackson of Roxbury appointed on the committee

