

SESS. II.—1891.
NEW ZEALAND.

VENTILATION OF CHAMBER OF HOUSE OF REPRESENTATIVES

(REPORTS BY MESSRS. CHATFIELD AND JACOBSEN, ARCHITECTS, AS TO).

Laid on the Table of the House of Representatives by Leave.

MR. W. C. CHATFIELD, Architect, to the HON. the MINISTER for PUBLIC WORKS.

SIR,—

Wellington, 4th August, 1891.

We have the honour to report, according to your instructions, upon the nature of the ventilation provided in the Chamber of the House of Representatives, together with suggestions as to alterations we would recommend be effected.

We have made very careful personal examination, finding the design and construction of what is purported to exhaust the vitiated air cannot do other than act in full force as an invert. In other words, a more complete system to insure down-draught could not well be devised where up-currents alone should exist.

We find the position of main inlets, two in number, conveying outside air through the heating chamber, extremely unsatisfactory. The one to north and other to south prevailing winds being regulated, we understand, by tightly closing the weather-inlet, and trusting to that most sheltered to perform the functions of adequate supply.

We consider that means should be provided to the southern inlet to regulate its power as found necessary at any stage. That the inlet to the north be increased to double its size and placed under similar control.

We were unable to ascertain that the inlet of air to the space under the platforms is fairly distributed, or whether collectively discharged in a limited area; accounting for an ununiform supply and excess in one locality with a want in another. We would suggest that at some convenient time parts of these platforms be opened up to allow the inlets to be so arranged with view to uniform distribution of air.

We further consider necessary that the whole of the ventilating apparatus on the roof of the Chamber be entirely removed, and substituted by two 4ft. diameter strong galvanised-iron cowls, of which a detail can be furnished, and a gas-ring provided in each; that the sashes of lantern, seventy-two in number, which have no pretensions to fit the frames originally intended for them, be made air-tight, and the sheets of glass now forming ceiling of panels be allowed to remain in their position for the present.

The gallery used by the public we find to have been recently supplied with a Boyle ventilator, but such ventilator, for some reason, is now closed on the outside with carpet. The back of this gallery, which presents the only outside wall for purposes of direct ventilation-inlet, possesses no inlet of any description. We would recommend that not less than four Lawrence-Thompson louvre-ventilators, with bonnets complete, be inserted in this wall in correctly ascertained position, and the Boyle ventilator uncovered. The Speaker's Gallery also requires a cowl-ventilator of 24in. diameter, fixed from the ceiling, and inlets made and conveyed through the walls, supplied with similar louvre-ventilators to that recommended for the public gallery.

We could not help being impressed by the total absence of any ventilation whatever in most rooms and passages immediately surrounding this Chamber, air from which cannot other than readily find its way into the larger space, thus adding a proportion of heat and vitiated atmosphere that should not be permitted to enter, and for which separate provision should be made.

We would finally venture to suggest that on completion of alterations herein recommended imperative instruction be given to an intelligent custodian, who may be responsible for the personal supervision and control of the ventilation of this Chamber, to exercise proper judgment to meet the

constantly-varying outside temperature and direction and force of winds, without which no system of ventilation can be satisfactory.

We have, &c.,

WM. C. CHATFIELD, Architect.

P. FRANCIS JACOBSEN, Architect.

P.S.—Understanding that the desired alterations are immediately required, we venture to assert that, if instructed, the principal fault of ventilation could be rectified by us in four days from time of instruction.—WM. C. C., P. F. J.

Mr. W. C. CHATFIELD, Architect, to the Hon. the MINISTER for PUBLIC WORKS.

SIR,—

Wellington, 7th August, 1891.

We have the honour, in compliance with your instructions, to report, for your information, progress of the works mentioned in our memorandum of the 4th instant.

Ventilation in the lantern skylight of the Chamber has been entirely altered, and will be completed by Saturday or Monday next at latest. The provisions for increasing ingress are well in hand.

The further instruction *re* ventilation of rooms and passages surrounding the Chamber referred to in our memorandum is also being worked upon as rapidly as possible.

We find, on examination of the rooms and passages, that the defects of ventilation were even worse than we anticipated.

We have issued instructions in *re* the following—viz., rooms 51, 52, 53, 54, 55, ladies', *Hansard* reporters', Cabinet, and certain Committee rooms, Clerks to House, extra clerks, messengers', and passages in general.

We have, &c.,

WM. C. CHATFIELD, Architect.

P. FRANK JACOBSEN, Architect.

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