G. HAYES.

VENTILATING-LOUVRES.

No. 170,852. Patented Dec. 7, 1875.

Fig: 1

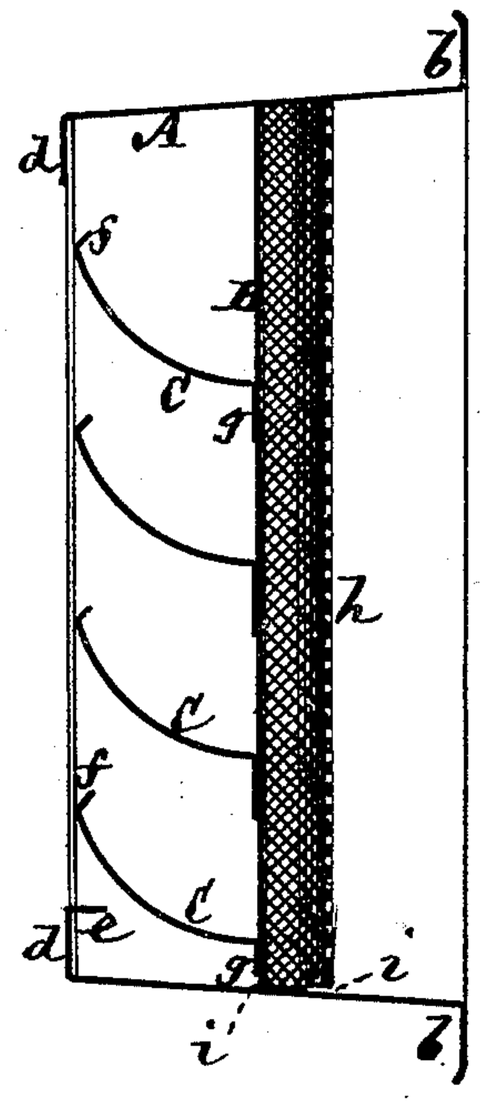

Fig: 2

Witnesses:
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GEORGE HAYES, OF NEW YORK, N. Y.

IMPROVEMENT IN VENTILATING-LOUVERS.

Specification forming part of Letters Patent No. **170,852**, dated December 7, 1875; application filed June 23, 1875.

To all whom it may concern:

Be it known that I, GEORGE HAYES, of the city, county, and State of New York, have invented certain new and useful Improvements in Ventilating-Louvers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms part of this specification.

This invention relates to ventilating-louvers for turrets, church-towers, clear stories, dormers, and other places or portions of buildings in which permanent ventilation is required, including sky-lights over public urinals, water-closets, and railroad-depots.

The invention consists in a combination of a perforate metal plate or reticulated covering, extending over and forming the outer exposed or ventilating-surface of the louver, and a series of gutters, arranged one above the other, on the interior thereof. The invention also consists in certain novel constructions and combinations of details pertaining to a louver, as above referred to, including its case or frame, whereby increased efficiency and strength are obtained. Said improved louver effectually resists a driving snow or rain storm, and, besides requiring no attention after being fixed, is much cheaper than a movable louver.

Figure 1 represents a vertical transverse section of a louver constructed in accordance with my invention; and Fig. 2 a horizontal section thereof.

A is the main case or frame, constructed of metal, with an outer bent flange, *b*, to form a flashing or cover of the joint at the place of the louver's insertion or support. B is a perforated metal plate, or other reticulated covering, set within the case A, and extending over and forming the outer exposed or ventilating surface of the louver. This covering may be made either of perforated zinc or wire-gauze.

The sides of the case A are each constructed with a flange, *c*, formed by doubling the metal, and which serve as supports to which the lower portions of gutters C are attached, said gutters being arranged in a series, one above the other, at back or on the inside of the reticulated covering B, and being supported at the ends of their upper edges by an inner flange, *d*, on the sides of the frame or case. The doubled metal flange *c* also serves for the support and attachment of the reticulated covering B, and materially assists in strengthening the frame or case, and may be extended or repeated over the top or upper side of the frame or case. The flange *d* also serves to stiffen the latter, and may be extended around the inner edges of the several sides of the frame, and the bottom one of these flanges *d* is bent over and inwardly, as at *e*, to protect the lower openings from the bottom gutter C. The gutters C are formed with upper and lower flanges *f g*, which not only serve to stiffen them, but the lower flange *g* answers for the attachment of the reticulated covering B to the gutters.

The perforated zinc or gauze of which the reticulated covering B is composed may be constructed with corrugations *h*, which not only serve to stiffen it, but constitute free passages from gutter to gutter for the melted snow or water passing from the outside through the covering, the water ultimately passing off by outlets *i* in the flange *g* of the lower gutter and bottom of the reticulated covering B. The escape of water from gutter to gutter may, however, be otherwise provided for.

I claim—

1. The combination, in a ventilating-louver, of a reticulated covering and gutters at the back or across the interior surface of said covering, substantially as specified.

2. The perforated plate or reticulated covering B, formed with corrugations *h*, in combination with the gutters C and the frame or case A, essentially as described.

3. The case or frame A, constructed with double metal flanges *c* on its sides, and intermediate of the width of the latter, substantially as specified.

4. The combination of the outer flange *b* with the inner flanges *d* of the louver frame or case A, essentially as described.

5. The gutters C, constructed with flanges *f g*, substantially as described, and for the purposes herein set forth.

GEORGE HAYES.

Witnesses:

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