J. F. STARR, Jr.
Louvre-Ventilator.

No. 202,765. Patented April 23, 1878.

FIG. 1.

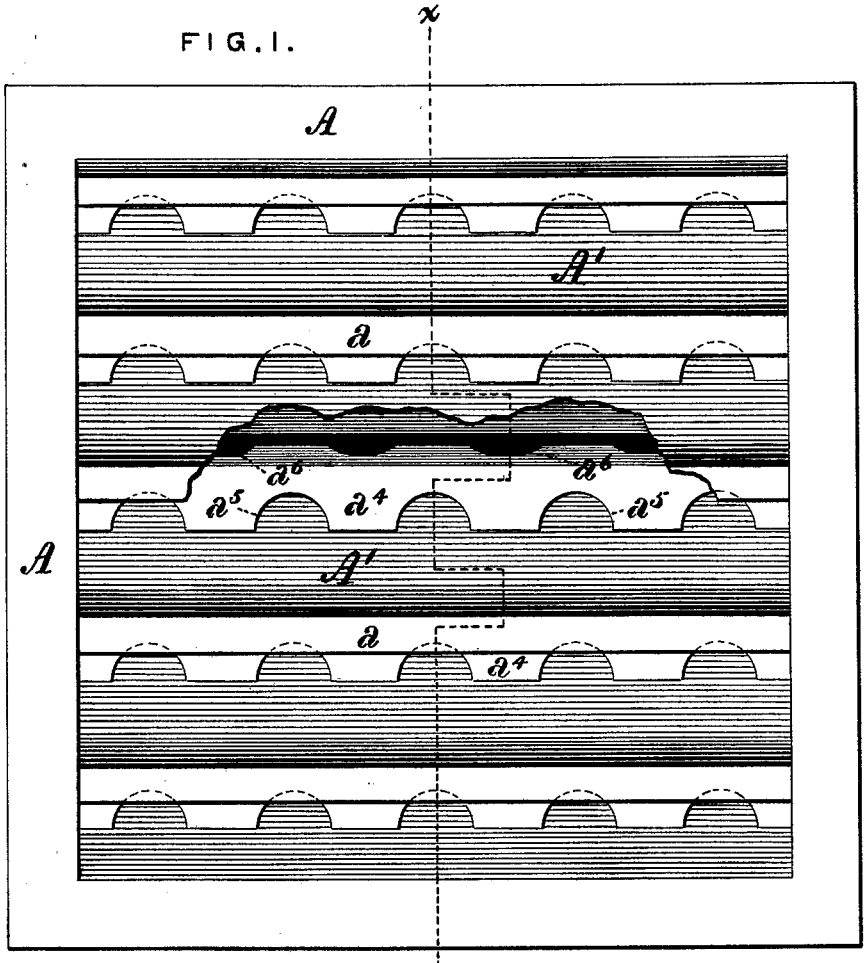


FIG. 2.

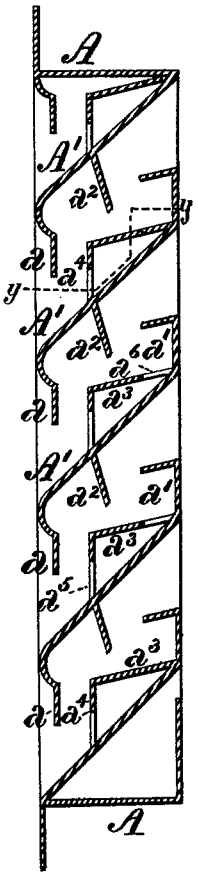
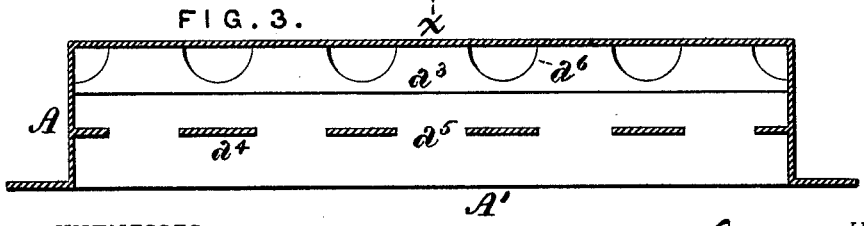


FIG. 3.



WITNESSES:

Geo. A. Vaillant.

Jas E. Leadley.

INVENTOR

John F. Starr, Jr.

by J. Thomson Bell,

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN F. STARR, JR., OF CAMDEN, NEW JERSEY.

IMPROVEMENT IN LOUVER-VENTILATORS.

Specification forming part of Letters Patent No. **202,765**, dated April 23, 1878; application filed March 11, 1878.

To all whom it may concern:

Be it known that I, JOHN F. STARR, JR., of the city and county of Camden, in the State of New Jersey, have invented certain new and useful Improvements in Louver-Ventilators, of which the following is a specification:

The object of my invention is to provide a ventilator of the louver or slatted class for use upon buildings, railway-cars, &c., which, while providing ample facilities for the passage of fresh air, will effectually prevent the entrance of rain, snow, cinders, or other foreign matters; to which end my improvements consist in the combination of a supporting case or frame, a series of inclined slats or partitions extending across the same, and deflecting-plates interposed between the partitions, so as to intercept foreign matters while admitting of the passage of air between the partitions, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a front view of a ventilator embodying my improvements, a portion of one of the partitions being broken away to show the construction more clearly; Fig. 2, a transverse section of the same at the line *x x* of Fig. 1; and Fig. 3, a longitudinal section through the same at the line *y y* of Fig. 2.

To carry out my improvements, I provide a case or frame, A, which may be of any desired form and dimensions, and which, like the remainder of the apparatus, is preferably made of light sheet metal. A series of slats or partitions, A′, extends completely across the case A, the partitions being upwardly-inclined from front to rear of the same, and set at the proper distance apart to admit of the passage of an upward current of air between them. Each of the partitions A′ except the lowermost is provided with a flange or deflecting-plate, *a*, extending downwardly from its front edge for the major portion of the distance between it and the adjacent partition, and an angular deflecting-plate, a^1, is formed on or secured to the upper edge of each of said partitions except the uppermost. The deflecting-plates a^1 rise vertically from the tops of the partitions, and are then inclined outwardly and downwardly, the perpendicular distance between the outer edge of each plate a^1 and the partition to which it is connected being slightly greater than the perpendicular distance between said partition and the lower edge of the downward flange *a* of the partition next above it.

A downwardly and slightly rearwardly inclined deflecting-plate, a^2, is secured upon the lower side of each partition A′ except the lowest, projecting below the upper edge of the plate a^1 of the next lowest partition, and leaving a clear open space between itself and said plate, and an outward and downwardly inclining plate, a^3, is secured to each of the partitions A′, starting at or about its upper edge, and extending outwardly beyond the lower edge of the plate a^2 of the partition next above it, open space being left for the entire length of the partitions between the plates a^2 and a^3.

In order to prevent the formation of a dead-air space below the plates a^3, their outer edges may be connected by vertical plates a^4 with their respective partitions, and circulation of air beneath them is provided by forming a series of openings, a^5, in the plates a^4, and a similar series of openings, a^6, in the plates a^3, the openings a^5 and a^6 being alternated in position respectively, so that the solid portion of one of the plates is opposite to the open portion of the other.

It will be observed that in the construction of the ventilator free passage of an upward current of air is provided between every two adjacent partitions, while, by the interposition of the intermediate deflecting-plates, water, sparks, or other matters which may strike the outside are prevented from being carried through by or with the draft of air.

I claim as my invention, and desire to secure by Letters Patent—

The combination, in a ventilator, of a supporting-frame, a series of inclined slats or partitions extending across the same, and deflecting-plates upon the upper and lower sides of the partitions respectively, said plates being out of contact with each other at their edges, so as to admit of the passage of air between the partitions while intercepting foreign matters, substantially as set forth.

JOHN F. STARR, JR.

Witnesses:

J. SNOWDEN BELL,

JAS. E. LEADLEY.