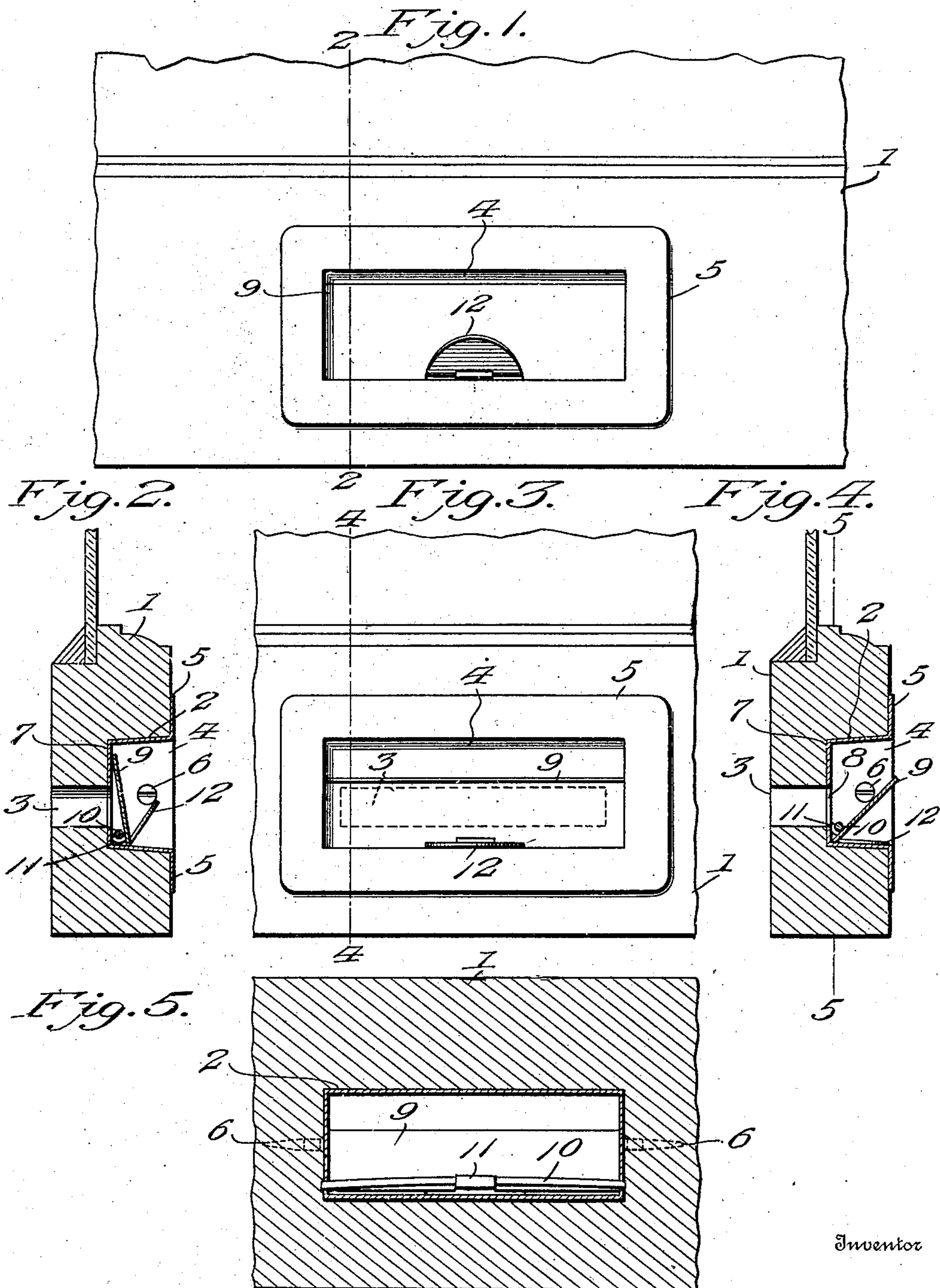


No. 840,321.

PATENTED JAN. 1, 1907.

F. L. HARGREAVES.
VENTILATOR.

APPLICATION FILED APR. 10, 1906.



UNITED STATES PATENT OFFICE.

FRANK L. HARGREAVES, OF NORTH ADAMS, MASSACHUSETTS.

VENTILATOR.

No. 840,321.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed April 10, 1906. Serial No. 310,974.

To all whom it may concern:

Be it known that I, FRANK L. HARGREAVES, a citizen of the United States, residing at North Adams, in the county of Berkshire and State of Massachusetts, have invented new and useful Improvements in Ventilators, of which the following is a specification.

My invention relates to ventilators; and its primary object is to provide a novel and highly-useful device of this character wherein is employed a plate which when moved into one position closes the ventilator, and which when moved into another position opens it, and directs or deflects the air into the room in a manner calculated to accomplish the best possible results.

A further object of the invention is to provide a single means for retaining the plate in its closed or opened and deflecting position, and to provide a means for supporting the plate in its opened and deflecting position, and by means of which the plate may be moved into this position.

A still further object of the invention is to provide a ventilator which is simple and durable and which may be manufactured and sold at a comparatively low cost.

With the above and other objects in view the invention consists of the construction, combination, and arrangement of parts hereinafter fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is an elevation illustrating my improved ventilator in applied position. Fig. 2 is a sectional view on the line 2 2 of Fig. 1. Fig. 3 is a view similar to Fig. 1 illustrating the plate in opened and deflecting position. Fig. 4 is a sectional view on the line 4 4 of Fig. 3, and Fig. 5 is a sectional view on the line 5 5 of Fig. 4.

Referring to the drawings by reference-numerals, 1 designates the bottom rail of a window-sash. The rail is provided with a recess or seat 2, which opens out through the inner face of the rail, and with an opening 3, which is smaller transversely than the recess or seat 2, and which extends from the rear wall of the recess or seat and opens out through the outer face of the rail.

A casing 4 is mounted in the recess or seat 2 and is provided with marginal flanges 5 which engage the inner face of the rail about the recess or seat 2. The casing may be se-

cured in applied position by means of screws 6 let through the end walls thereof and engaging the rail 1. The rear wall 7 of the casing is provided with an opening 8, which extends longitudinally therethrough and which communicates with the opening 3. A plate 9 is secured within the casing 4 to permit it to be swung to close the opening 8, as illustrated in Fig. 1 of the drawings, or swung clear of the opening 8, as illustrated in Fig. 4 of the drawings. The plate 9 is held at an upward inclination when in opened position to direct or deflect the air upward into the room to accomplish the best possible results. The plate 9 is pivotally secured within the casing 4 by means of a spring member or pintle 10, which has its opposite ends let into the end walls of the casing 4 and which engages a lug or barrel 11, formed by stamping up the plate 9 at a point midway of its length and adjacent its lower horizontal edge. The lug or barrel is disposed at such angular relation to the inner face of the plate 9 that when the plate is swung into closed position said lug or barrel is disposed beneath the spring member or pintle 11 to permit the latter to retain the plate closed against accidental opening, and so that when the plate 9 is swung into its opened position the spring member bears downward upon the plate at a point adjacent its lower horizontal edge to retain the same in its opened position against accidental closing. It is thus apparent that the member 10 pivotally secures the plate 9 in position and retains the same in its opened or closed position against accidental closing or opening.

The plate 9 is provided with a combined support and finger-piece 12, which is formed integrally with and arranged at a point adjacent the lower horizontal edge of the plate. The combined support and finger-piece is adapted to engage the lower side wall of the casing 4 when the plate 9 is swung into opened position to support the plate at an upward inclination to direct or deflect the air upwardly into the room and is adapted to be engaged to swing the plate into opened position.

When it is desired to ventilate a room, the plate 9 is swung into opened position, and it will when in such position direct or deflect the air upwardly into the room, so as to accomplish the best possible results, and when

it is desired to raise the window the same may be done by placing the fingers into the casing 4 and exerting upward pressure.

It should be apparent from the above description, taken in connection with the accompanying drawings, that the provision of a ventilator with a combined closing and deflecting plate adapts the device to accomplish the best possible results, that the spring member or pintle accomplishes a twofold purpose, in that it pivotally secures the combined closing and deflecting plate in applied position and retains it in its opened or closed position, and that the support or piece also accomplishes a twofold purpose, in that it supports the combined closing and deflecting plate in angular opened position, and in that it is adapted to be used for moving the closing and deflecting plate into opened position. It also should be apparent that the ventilator may be used for a sash-lift and that the same is simple and durable and cheap of manufacture.

Having fully described and illustrated my invention, what I claim is—

1. A ventilator comprising a casing, a plate provided with a lug and mounted within the casing, a spring member secured within the casing and adapted to engage the lug to pivotally mount the plate and to retain it in opened or closed position.

2. A ventilator comprising a casing, a plate

mounted within the casing, said plate being provided with a lug and with a finger-piece, and a spring member secured within the casing and adapted to engage the lug to pivotally mount the plate and to retain it in its opened or closed position.

3. A ventilator comprising a casing, and a plate pivotally mounted within the casing, said plate being provided with a finger-piece adapted to support the plate in an upwardly-inclined position.

4. In a ventilator, the combination with the rail of a window-sash, said rail being provided with an opening, of a casing provided with an opening communicating with the opening in the rail, a plate provided with a lug and a combined support and finger-piece, and a spring member secured within the casing and adapted to engage the lug to retain the plate in its opened or closed position.

5. A ventilator comprising a casing, a plate provided with a lug, and means adapted to engage the lug to pivotally mount the plate and to retain it in its opened or closed position.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK L. HARGREAVES.

Witnesses:

WM. W. SMITH,
JAMES W. NICOL.