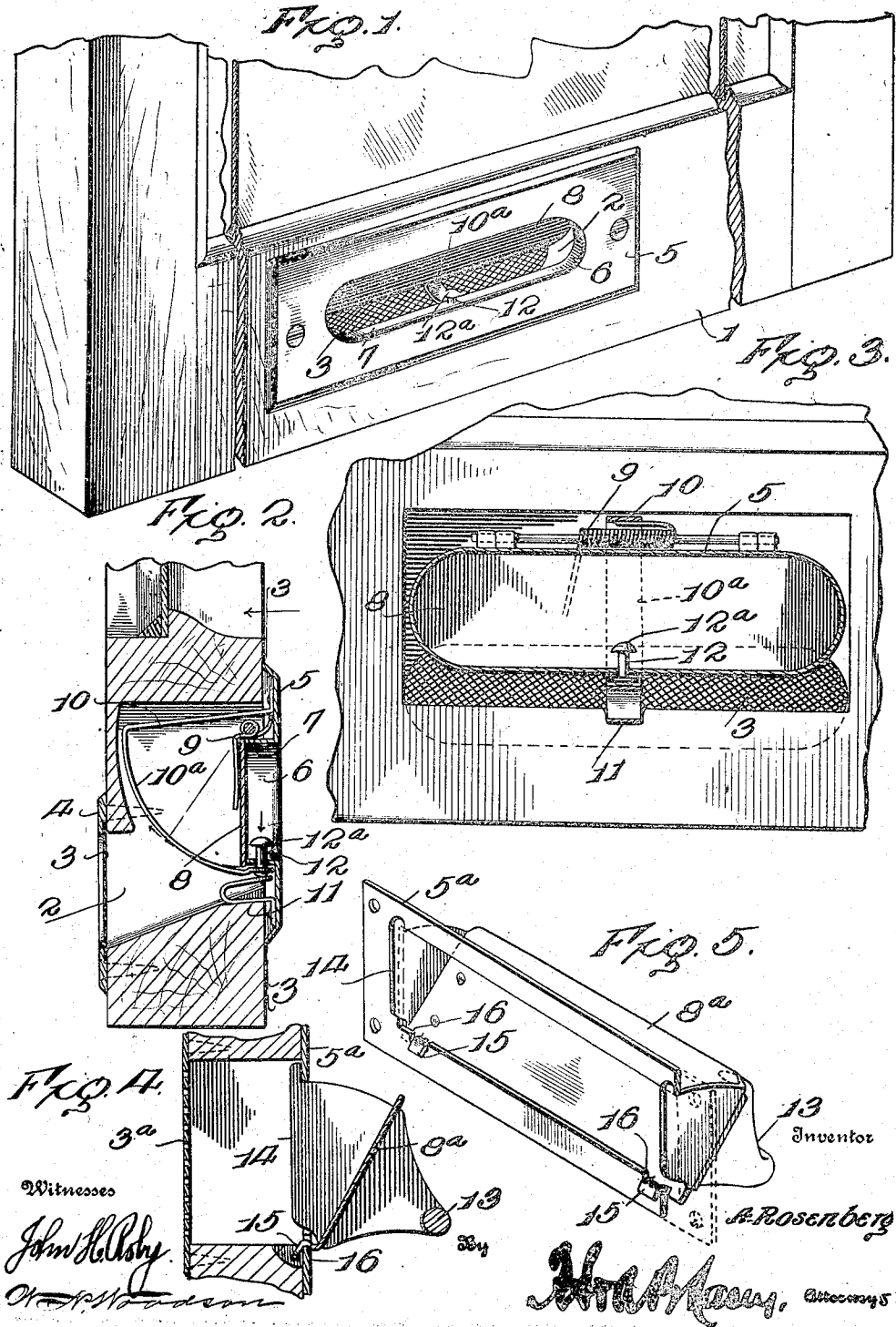


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 BASH LIFTER AND VENTILATOR.
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UNITED STATES PATENT OFFICE.

ADOLPH ROSENBERG, OF BUFFALO, NEW YORK.

SASH-LIFTER AND VENTILATOR.

No. 930,618.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ADOLPH ROSENBERG, citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Sash-Lifters and Ventilators, of which the following is a specification.

The present invention relates to a combined sash lift and window ventilator, and the object of the invention is the provision of an attachment of this character which can be readily applied to an ordinary window sash, and which will form a convenient handle for raising and lowering the sash, and will also permit ventilation to be had from the exterior of the building.

With this and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of a window sash provided with a ventilator embodying the invention; Fig. 2 is a vertical sectional view through the lower rail of the sash; Fig. 3 is a longitudinal vertical sectional view on the line 3—3 of Fig. 2; Fig. 4 is a transverse sectional view through the lower rail of a sash provided with a modified form of the invention; and Fig. 5 is a perspective view of the plate which is secured to the inner face of the rail in the modified form of the invention and carries the swinging closure, portions being broken away.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing, the numeral 1 designates the lower rail of a sash, the said rail being mortised at 2 to provide an opening which extends entirely through the same. The outer end of this opening is closed by a strip of foraminous material, such as the wire netting 3, which is shown as carried by a plate 4, and which serves to exclude any large particles of dirt from the building. Applied to the inner face of the rail 1, is a plate 5 which is formed with an elongated opening 6 fitting over the mortised portion 2 of the rail and

designed to receive the fingers when raising or lowering the sash. Extending around this opening 6, is an inwardly projecting flange 7 which provides a large bearing surface for the fingers when manipulating the sash, and serves to eliminate any sharp edges which might serve to cut or injure the fingers.

Hinged to the upper portion of the flange 7 at the inner edge thereof, is a swinging closure 8 which may be either swung downwardly so as to close the opening 6 in the plate 5, or swung upwardly so as to leave the said opening unobstructed. For the purpose of normally holding the swinging closure 8 in a closed position, a spring 9 is utilized, the said spring being shown in the present instance as located at the hinged edge of the closure.

Projecting within the mortised portion 2 of the rail from the plate 5 and above the opening 6, is a spring arm 10, the end of which is extended downwardly and curved on the arc of a circle, as indicated at 10^a, so as to engage the edge of the closure 8 and hold the same in an open position against the action of the spring 9. The free end of the arc-shaped spring strip 10^a is normally forced upwardly by a U-shaped spring 11 secured to the plate 5 under the opening 6. However, when this U-shaped spring is compressed, the arc-shaped spring 10^a is sprung away from the edge of the closure 8 so as to release the closure and permit the same to be moved into a closed position through the medium of the spring 9. Passing loosely through the flange 7 at the bottom of the opening 6, is a plunger 12, the lower end of which bears against the U-shaped spring 11 so as to compress the same when pushed downwardly, while the upper end is formed with a head 12^a.

In the operation of the device, the swinging closure 8 is forced inwardly by manual means when it is desired to obtain ventilation from the outside of the building, the arc-shaped spring strip 10^a serving to frictionally engage the edge of the closure to hold it in an open position. On the other hand, when it is desired to shut off ventilation from the outside of the building, it is merely necessary to press downwardly upon the head 12^a and cause the plunger 12 to compress the U-shaped spring 11, the arc-shaped spring 10^a being thereby sprung out of engagement with the closure 8 so as to permit of the same

swinging downwardly in a closed position. Attention may be directed to the fact that the opening in the outer face of the rail of the sash is located below the opening in the inner face, so that when the closure 8 is swung inwardly, the air follows a diagonally upward path through the rail from the exterior of the building.

A modification of the invention is shown in Fig. 4, in which a foraminous plate 3^a is employed on the outside of the rail, instead of the wire netting 3, and in which the plate 5^a which is secured to the inner face of the rail, is not formed with a flange 7. The swinging closure 8^a in this modified form of the invention, is hinged at its lower edge to the plate 5^a at the bottom of the opening therein, and is mounted to swing outwardly. Riveted or otherwise securely fastened to the swinging closure 8^a, is a handle 13 which is designed to be grasped when moving the sash either up or down within the window frame. The two ends of the swinging closure 8^a are provided with the inwardly extending segmental flanges 14, the upper edges of which frictionally engage the top of the opening in the plate 5^a and serve to hold the swinging closure in an adjusted position. In the specific manner of connecting this swinging closure to the plate, shown on the drawing, it will be observed that the lower edge of the swinging closure is formed with the downwardly projecting and inwardly offset tongues 15 engaging notches 16 at the bottom of the opening in the plate. When no ventilation is desired, the swinging closure is swung upwardly so as to close the opening in the plate 5^a, while when fresh air is desired, the closure is swung outwardly to leave the opening in the plate 5^a partially unobstructed. Attention may be directed to the fact that in this modified form of the invention, the openings in the front and back of the rail 1 of the sash, are located directly opposite to each other, the air being deflected upwardly as it enters the room by means of the swinging closure, and a direct draft being thereby prevented.

Having thus described the invention, what I claim is:

1. The combination of a sash formed with a rail having an opening extending there-through, a plate applied to the rail and formed with an opening corresponding to the opening therein and designed to receive the fingers when moving the sash, a flange projecting inwardly from the plate and surrounding the opening so as to provide a large bearing surface for the fingers when

manipulating the sash, a swinging closure hinged to the flange, a spring normally holding the swinging closure against the flange so as to close the opening, and means for holding the swinging closure in an open position.

2. The combination of a sash formed with a rail having an opening extending through the same, a plate secured to the rail and formed with an opening corresponding to the opening therein, a swinging closure mounted upon the plate and normally closing the opening therein, and an arc-shaped strip adapted to engage the swinging edge of the closure to hold the closure in an open position.

3. The combination of a sash formed with a rail having an opening extending through the same, a plate secured to the rail and formed with an opening corresponding to the opening therein, a swinging closure carried by the plate and normally closing the opening therein, an arc-shaped strip adapted to engage the edge of the swinging closure to hold it in an open position, and a spring normally holding the arc-shaped strip in an operative position.

4. The combination of a sash formed with a rail having an opening therein, a plate secured to the rail and formed with an opening corresponding to the said opening therein, a swinging closure carried by the plate and normally closing the opening therein, an arc-shaped strip adapted to engage the swinging edge of the closure to retain the closure in an open position, a plunger and means co-acting with the plunger to move the arc-shaped strip into an inoperative position to release the swinging closure.

5. The combination of a sash formed with a rail having an opening therein, a plate secured to the rail and formed with an opening corresponding to the said opening therein, a swinging closure carried by the plate and adapted to normally close the opening in the plate, an arc-shaped strip adapted to engage the swinging edge of the closure to retain the closure in an open position, a spring normally holding the arc-shaped strip in an operative position, and a plunger for compressing the said spring to release the arc-shaped strip from engagement with the swinging closure.

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

ADOLPH ROSENBERG. [L. s.]

Witnesses:

CHARLES E. MARTZLOFF,
J. B. PARKE.