

No. 815,818.

PATENTED MAR. 20, 1906

F. L. HARGREAVES.  
WINDOW SASH VENTILATOR.  
APPLICATION FILED OCT. 22, 1904.

Fig. 1.

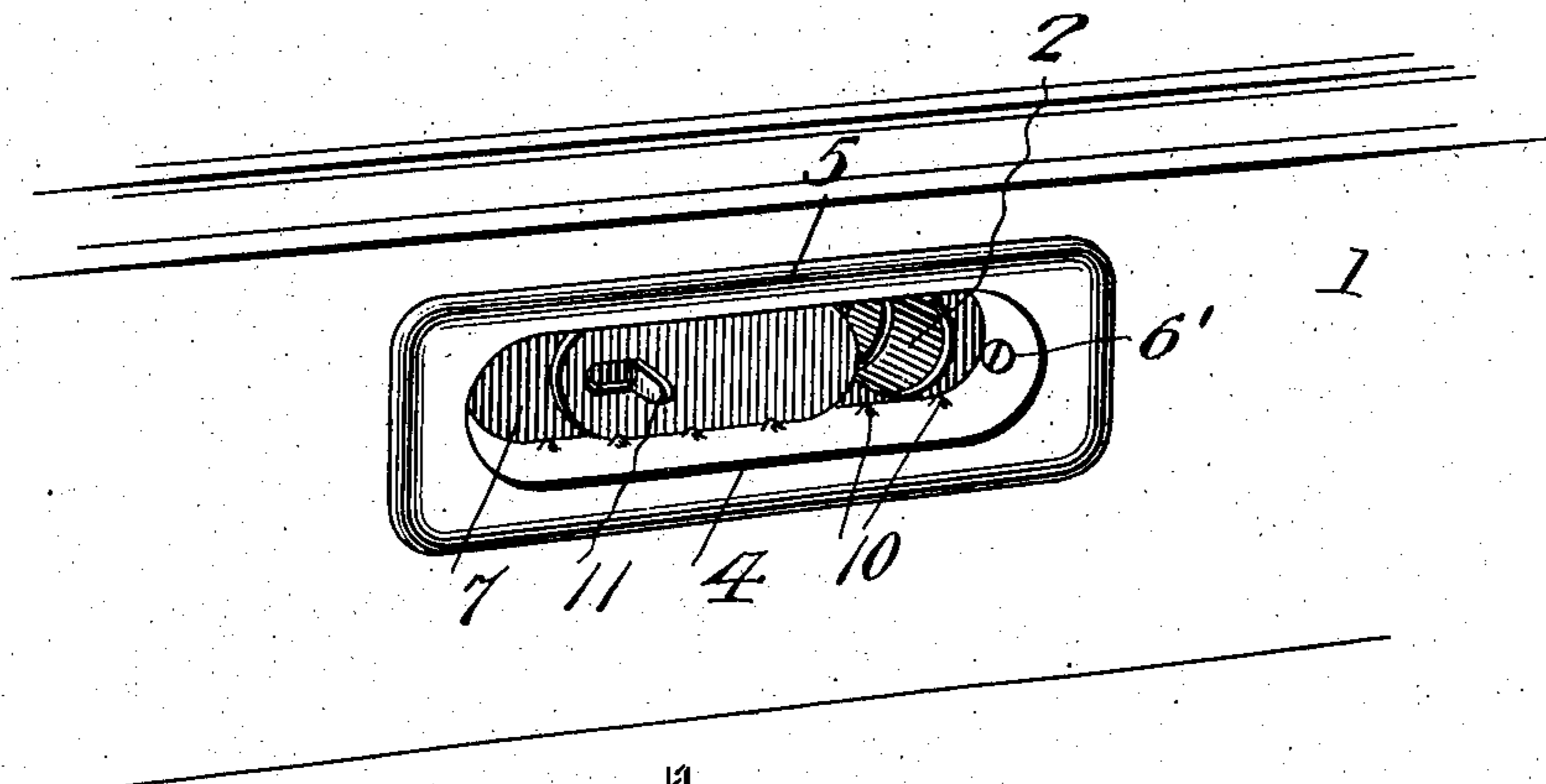


Fig. 2.

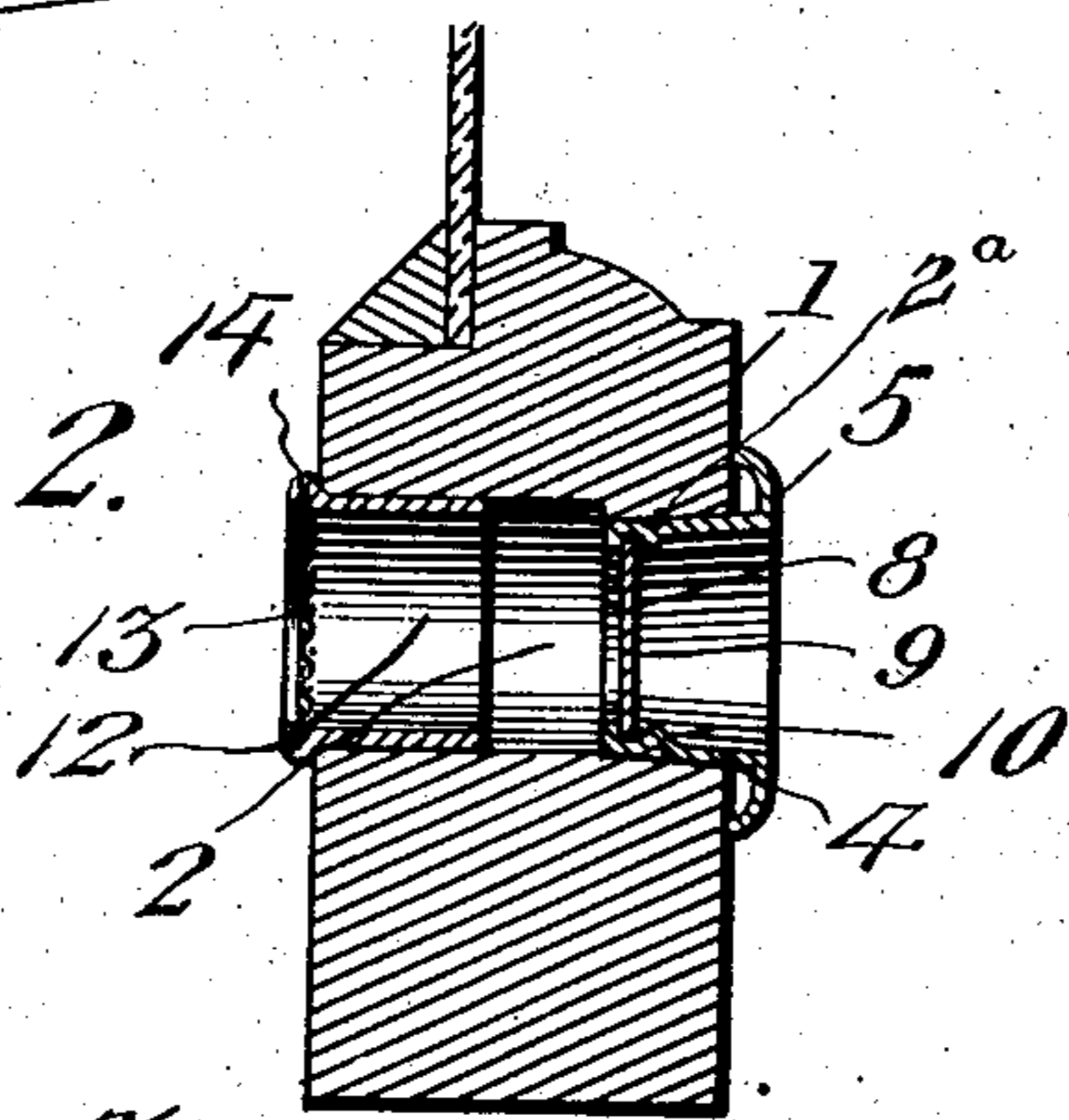


Fig. 3.

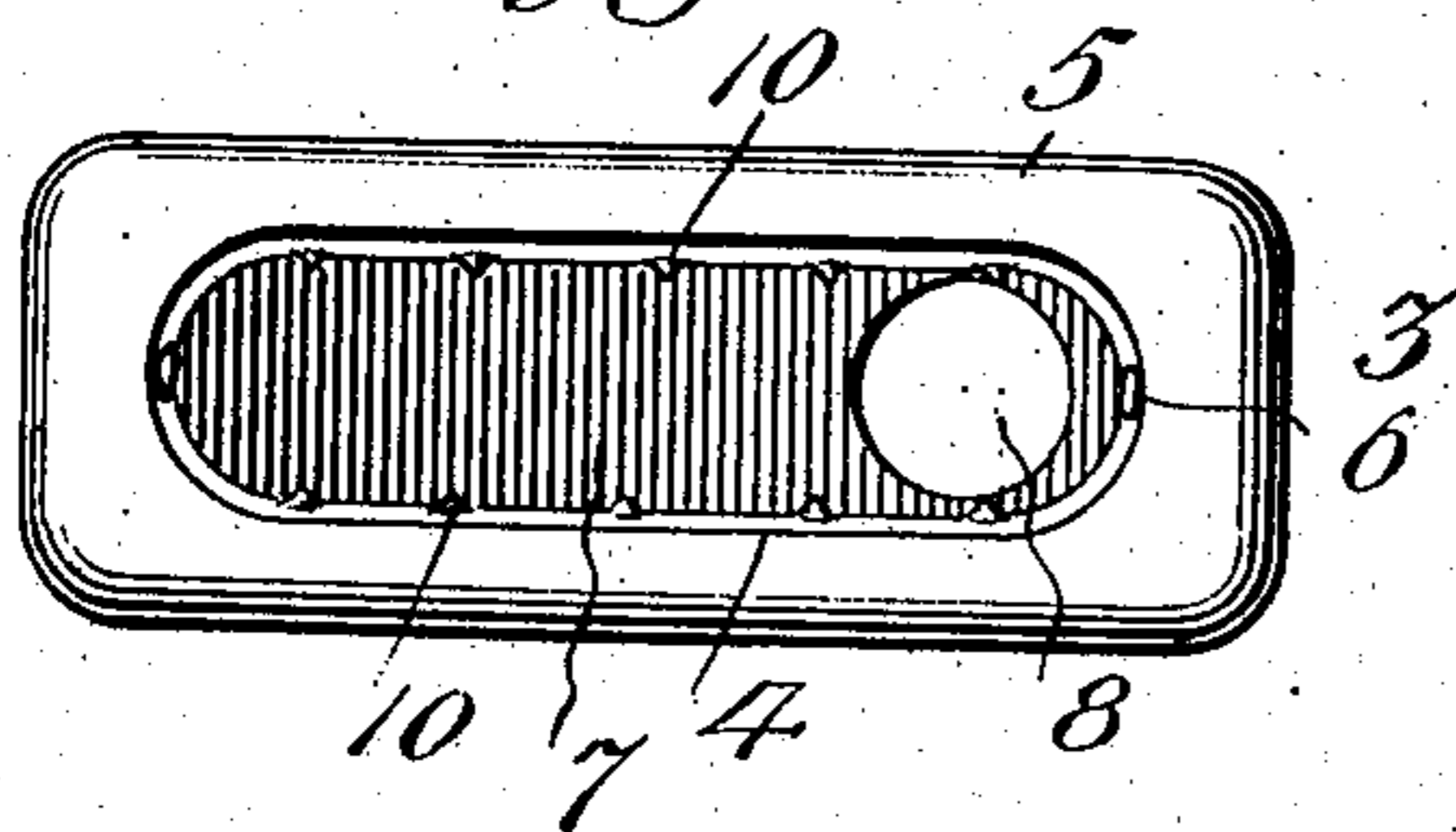
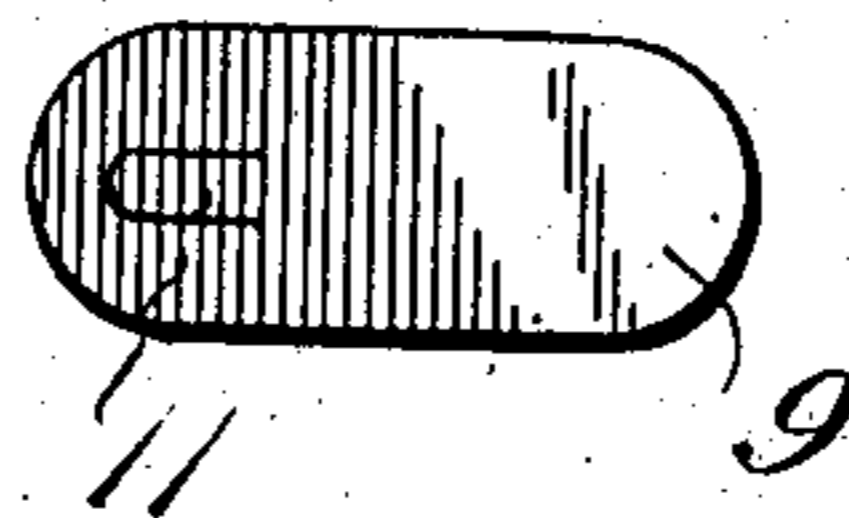


Fig. 4.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## WINDOW-SASH VENTILATOR.

No. 815,818.

Specification of Letters Patent. . . . . Patented March 20, 1906.

Application filed October 22, 1904. Serial No. 229,662.

*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 Window-Sash Ventilators; of which the following is a specification.

My invention relates to window-sash lifts and ventilators; and its primary object is to provide a combined ventilator and sash-lift which is a decided improvement upon the existing art and which is simple of construction, cheap to manufacture, durable, and efficient.

A further object of the invention is to provide a combined ventilator and sash-lift which is composed of few parts so arranged and associated as not to be liable to become broken or inoperative.

With the above and other objects in view the invention consists in the arrangement and combination of parts hereinafter fully described, claimed, and illustrated in the accompanying drawings, which disclose the preferred forms of my invention, and in which—

Figure 1 is a perspective view of a fragmentary portion of the bottom rail of the lower window-sash, showing the application of my improved combined ventilator and sash-lift. Fig. 2 is a central transverse section thereof. Fig. 3 is a detail plan view of the combined ventilator and sash-lift, the closure being removed; and Fig. 4 is a detail plan view of the closure.

Referring to the drawings by reference-numerals, like reference-numerals indicating like parts in the several figures, 1 designates the bottom rail of a lower window-sash, which is provided with an opening 2, extending transversely of the rail. A recess 2<sup>a</sup> is formed in the inner face of the bottom rail and communicates adjacent one of its ends with said opening. 3 designates the sash-lift, consisting of an oblong casing 4, which is inserted in said recess and which has projecting from its outer edges a flange 5, adapted to engage the inner face of the bottom rail, the said casing 4 being further provided at its ends with openings 6, through which screws 6' or other fastening means pass to engage the bottom rail to securely retain the sash-lift in applied position. When it is de-

sired to raise or lower the sash, the fingers of the operator are inserted into the casing and upward or downward pressure exerted, the casing thus acting as a sash-lift. The back wall 7 of the casing 4 is provided at one of its ends with an opening 8, which registers with the opening 2, whereby air may enter the room. This opening is controlled by means of an elongated closure-plate 9, which is slidably mounted in ways formed at the top and bottom of the sash-lift by the back wall 7 and a plurality of inwardly-directed spurs or projections 10, the latter being provided by punching the upper and lower walls of the casing adjacent to said back wall. The closure is designed to be operated by means of a handle 11, struck up from the closure 9 and bent at right angles thereto and arranged wholly within the casing. This manner of constructing the closure and handle permits of the closure and handle being struck up from a single blank of metal, thereby greatly reducing the cost of manufacture and simplifying the construction of the closure and its operating means. It will also be observed that the described construction of the casing results in the formation of a chamber to receive the sliding closure 9 and for the reception of the fingers of the operator in raising and lowering the window, the top and bottom walls of said casing, which are comparatively wide, providing upper and lower bearing portions for engagement by the fingers, whereby upward or downward pressure may be conveniently exerted to force the sash to open or closed position. By this means all of the operative parts of the device are inclosed and protected from injury, thus obviating the necessity of employing projecting finger pieces or portions which are liable to be broken or otherwise injured.

In order to prevent any foreign substances from entering the room through the openings 2 and 8, I mount within the outer end of the opening 2 a tube 12, having extending thereacross a screen 13. The outer extremity of the tube 12 is bent outwardly and inwardly to provide an annular shoulder and an annular recess 14. The recess is adapted to receive the edges of the screen 13, after which the extremities of the tube are depressed to clamp the screen in applied position. The shoulder engages the outer face of the rail 1 to limit the inward movement of the tube 12

within the opening 2, and said tube may be securely held in applied position by any suitable means or in any suitable manner.

Having thus described the invention, what  
5 is claimed as new is—

In a window-sash and ventilator, the combination with the bottom rail of a sash, said rail having a transverse opening and a longitudinal recess in its inner face communicating adjacent one of its ends with said opening, of an oblong casing occupying said recess, acting as a sash-lift and having a back wall formed adjacent one of its ends with an opening registering with the opening in the

rail, and being formed adjacent to the said 15 wall with longitudinal series of inpunched projections, and a closure-plate between said wall and projections to control the opening in said wall, said plate having a finger-piece projecting inwardly therefrom and arranged 20 wholly within the casing.

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

FRANK L. HARGREAVES.

Witnesses:

J. F. OLIVER,  
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