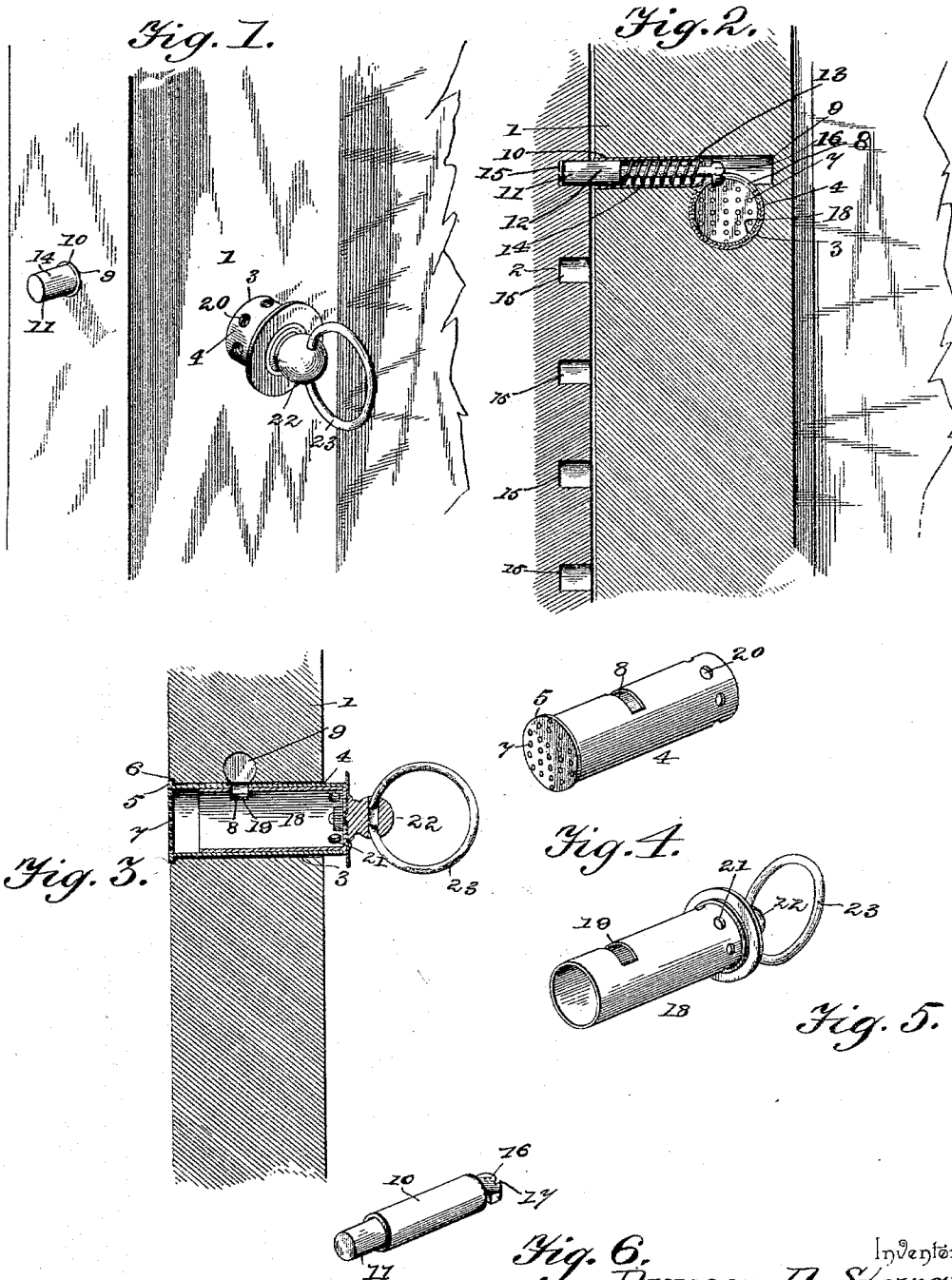


(No Model.)

D. D. STEWART.
COMBINED SASH LOCK AND VENTILATOR.

No. 546,256.

Patented Sept. 10, 1895.



Witnesses

E. H. Monroe

J. B. Deane

By His Attorneys.

Fig. 6. *Inventor*
Duncan D. Stewart

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

DUNCAN D. STEWART, OF MANISTIQUE, MICHIGAN.

COMBINED SASH-LOCK AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 546,256, dated September 10, 1895.

Application filed December 15, 1894. Renewed August 9, 1895. Serial No. 558,793. (No model.)

To all whom it may concern:

Be it known that I, DUNCAN D. STEWART, a citizen of the United States, residing at Manistique, in the county of Schoolcraft and State of Michigan, have invented a new and useful Combined Sash-Lock and Ventilator, of which the following is a specification.

The invention relates to an improved device whereby the window-sashes may be locked and prevented from movement when so locked, and whereby a passage will be provided for the air to pass through the sash in the ventilation of the room; and it has for its object the production of such a device in a way which will be inexpensive and yet effective.

A further object is to make the appliance durable and strong, so that it will not become out of order.

To these ends the invention consists in certain novel features of construction, combination, and arrangement of parts, as will be more fully described hereinafter and finally embodied in the claims.

In the drawings, Figure 1 represents a perspective view of my invention, showing it applied to a window-sash; Fig. 2, a vertical section of the same, taken through the window-sash; Fig. 3, a similar section taken at right angles to the line of Fig. 2; Fig. 4, a detail perspective of the stationary or outer tube; Fig. 5, a similar view of the inner or movable tube; Fig. 6, a similar view of the regulating-bolt.

The reference-numeral 1 indicates the window-sash, at the side thereof, and 2 the adjacent portion of the window-frame. Formed in the window-sash and extending horizontally therethrough is the passage 3, in which the inner or stationary tube 4 is securely yet movably arranged. The tube 4 is formed of metal and has its outer end formed with a flange 5 thereon, which is arranged to lie in a rabbet-groove 6 in the outer side of the sash 1, while the adjacent end of the tube is closed and provided with perforations 7, through which the air may pass on its way in or out of the room, as will be more fully described hereinafter.

Formed in one side of the tube 4, and about midway its length, is the transverse slot 8, which extends for about one-third the circumference of the tube, and which is arranged to

communicate with the passage 9, formed in the sash 1 and extending from the side adjacent to the frame 2 to the upper side of the main passage 3, with which it intersects, as shown. Located within the passage 9, and filling a part of the space within the length thereof, is the metallic casing 10, within which the bolt 11 is arranged. The bolt 11 is formed with an enlarged portion 12 and with a reduced part 13, the latter being surrounded by an expansive spring 14, which gives the bolt a tendency outward, thus throwing a great portion of the enlarged part 12 out of the passage 9. This extended part of the bolt 11 is adapted to act as the sash-lock, and to this end it is received in one of the openings 15 formed in the window-frame 2. These openings 15 may be of any suitable number and are located at various points, so that the sash 1 may be adjusted along their extent. The inner end of the reduced portion 13 is projected through an opening in the casing 10, and formed with a head 16 thereon, having at its inner side a notch 17 therein, the purpose of which will hereinafter appear.

18 indicates the inner and movable tube, which is fitted snugly within the tube 4 and provided at a point near its lower end with a slot 19, matching with the slot 8 and of approximately the same size. This slot is adapted to receive the head 16 of the bolt 11. The tube 18 is capable of rotary movement in the tube 4, and this movement is to be limited by the head 16, which is received in the slot 19 and which engages the ends of the slot 19 and prevents the tube 18 from moving farther. The purpose of the notch 17 is to receive one end of the slot 19 and bind therewith, thus preventing the tube 18 from moving. It will be observed that the bolt 11, when engaged by the tube 18 in the act of moving from left to right, will move therewith until the spring 14 becomes completely compressed and the shoulder of the bolt prevents further movement. By this means the bolt 11 is withdrawn from the opening 15 in which it may be seated and the window-sash released, so that it may be raised or lowered, while by turning the tube 18 in the opposite direction the bolt 11 will be allowed to return, and when completely returned the movements of the tube will be suppressed.

Formed in the inner end of the tube 4, which end projects beyond the sash 1, are the circular orifices 20, and these are adapted to register with the corresponding orifices 21 of the tube 18, whereby the air is given a passage through the perforations of the outer end of the tube 4 and thence through these registered orifices. Thus by turning tube 18 the passage to the outer atmosphere may be cut off or turned on as desired. Simultaneously with this operation the bolt 11 may be withdrawn, as before explained, though the two operations are not necessarily concurrent, since a much shorter movement of the tube 18 will close the ventilator-orifices than will operate bolt 11, all of which will be seen from a comparison of the size of slots 19 and 8 and that of the openings 20 and 21.

The inner end of the tube 18 is formed integral with a head 22, which has attached thereto an operating-ring 23, the purpose of which is to provide means for turning the tube 18 and for raising or lowering the sash. It will be observed that the bolt 11 has a two-fold function. By its means the sash 1 is locked in place and the tube 18 prevented from being withdrawn from the tube 4, since the head 16 enters the slot 19 of said tube and prevents the longitudinal movement thereof. Various changes in the form, proportion, and arrangement of the parts of my invention may be resorted to without departing from the substance thereof. Therefore I desire it understood that I am not limited to the precise construction herein shown, but am entitled to all such variations as come within the above definition.

Having described the invention, I claim—

1. In a combined sash lock and ventilator, the combination of a stationary air-conducting tube secured in the window-sash and extending through the same, a locking-bolt extending into the window-frame and into the

said tube and capable of being withdrawn from the frame, and a second tube revolubly arranged within the first and connected to the locking-bolt, said second tube being capable of closing or opening the air passage of the stationary tube, substantially as described.

2. A combined sash-lock and ventilator consisting of a stationary tube extending through the window-sash and having one end projected beyond the same and formed with perforations in the sides directly adjacent to the said end, a casing arranged in a passage in the sash, a spring-actuated bolt therein and projecting into the window-frame and into the stationary tube at its respective ends, and a second tube revolubly seated in the stationary tube and having a slot receiving the inner end of the bolt, said slot being arranged to have its ends bind with and move the bolt, the second tube having formed therein perforations registering with those of the first tube and capable of being moved out of alignment therewith, substantially as described.

3. In a combined sash-lock and ventilator, the combination of a stationary air-conducting tube secured within the sash, a spring-actuated bolt in the sash and having one end projected into the window-frame and the remaining end into the interior of the stationary tube, and a second tube revolubly arranged within the first tube and having a slot therein receiving the inner end of the bolt, the said second tube being capable of closing the air orifices of the stationary tube, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DUNCAN D. STEWART.

Witnesses:

HARRY ASHFORD,
JAMES V. STEWART.