Jan. 3, 1928. 1,654,855

N. BASTIEN

VENTILATOR

Filed Aug. 26, 1926

Fig. 1.

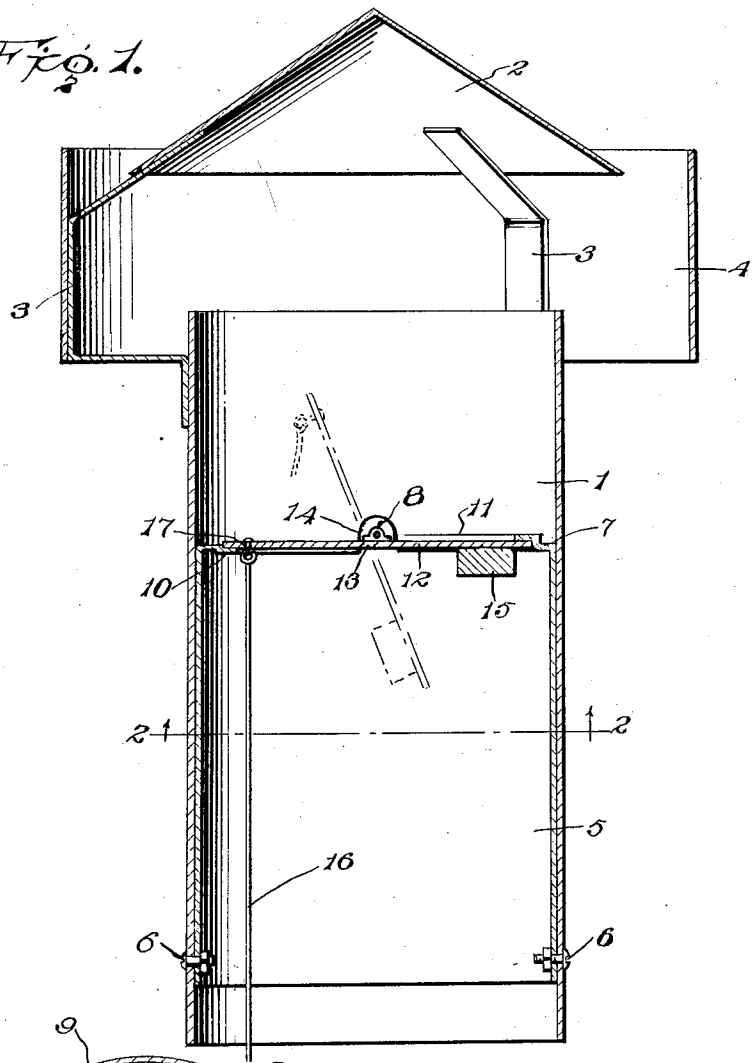
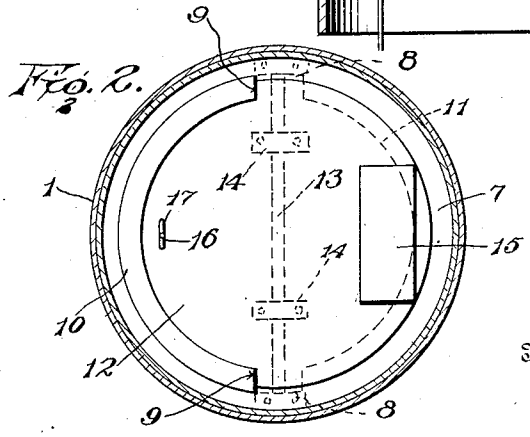


Fig. 2.



Inventor
N. Bastien

By Lacey & Lacey, Attorneys

Patented Jan. 3, 1928. 1,654,855

UNITED STATES PATENT OFFICE.

NAPOLEON BASTIEN, OF LOWELL, MASSACHUSETTS.

VENTILATOR.

Application filed August 26, 1926. Serial No. 131,739.

This invention relates to ventilators and more particularly to a damper or shutter to control the passage of air through the ventilator.

One object of the invention is to provide a shutter which, when closed, will completely lock the ventilator and prevent air and rain from passing downwardly through the same.

Another object of the invention is to provide the shutter or damper with a mounting which may be securely fastened in the ventilator but easily removed therefrom if necessary.

Another object of the invention is to cause the shutter to normally remain open but permit it to be easily shut and secured in the closed position.

The invention is illustrated in the accompanying drawing, wherein,—

Figure 1 is a vertical sectional view through the improved ventilator.

Figure 2 is a transverse sectional view taken through the ventilator along the line 2—2 of Figure 1.

The ventilator to which the improved shutter or damper has been shown applied includes the usual tubular body or conduit 1 which may be of any size desired, and is open at its ends. A hood 2 is supported above the upper end of the conduit 1 by a suitable number of brackets 3, which in addition to supporting the hood 2, also support an annular wind baffle 4 serving to prevent wind from blowing into the upper end of the ventilator between the hood and open upper end of the conduit. Under present conditions it is customary to provide a shutter or damper in a ventilator but they do not fit snugly when closed, and a space is left about the damper between its peripheral edges and the walls of the tubular body of the ventilator through which wind and rain may pass. The space referred to also permits warm air to pass upwardly through the ventilator from a room and makes it difficult to heat the room in cold weather.

In order to overcome the objections noted above I have provided a closure for the ventilator which includes a sleeve 5 adapted to fit snugly into the conduit 1. This sleeve is of less depth than the conduit and is removably secured by a suitable number of bolts or other removable fasteners 6. The upper end portion of the sleeve is folded inwardly to provide a circumferentially extending flange 7 and tongues are cut radially from the flange and bent upwardly to provide bearing ears 8 disposed in opposed relation to each other diametrically of the sleeve. At opposite sides of the recesses 9 formed by the tongues or ears 8 the free side portions of the flange are bent to form offset lips 10 and 11 disposed respectively below and above the plane of the flange, as clearly shown in Figure 1.

The closure disk 12 carries a pivot rod 13 which extends diametrically across it and is secured by clamping brackets 14 with its end portions projecting from the disk. The projected end portions of the rod 13 fit into openings formed in the bearing ears 8 and pivotally mount the disk with diametrically opposed marginal portions of the disk fitted into the recesses 9. By an inspection of Figure 1, it will be seen that when the disk is mounted and in a closed position it rests upon the upper face of the lip 10 for approximately one-half its circumference and for the remainder of its circumference engages the under face of the lip 11. Therefore an overlapping engagement is provided between the disk and the two lips and an air and rain tight closure for the ventilator will be provided. A weight 15 is secured against the under face of the disk to normally retain it in an open position, as indicated by dotted lines in Figure 1, and an actuating line 16 is connected with an eye 17 so that by drawing upon the line the disk may be swung to a closed position, and held shut by tying the line to a nail or other suitable keeper in a room from which the ventilator leads. It will, of course, be obvious that the line extends downwardly through the ventilator and must be of sufficient length to be readily reached by a person in the room. If it is required to repair the closure for the ventilator it is merely necessary to remove the bolts 6 and the sleeve together with the disk may be lowered into the room or building from which the ventilator leads and the necessary repairs made. The sleeve will then be passed upwardly through the ventilator to the proper position and the securing bolts replaced.

Having thus described the invention, I claim:

1. A conduit, an annularly extending flange in said conduit having tongues cut therefrom and bent to provide diametrically opposed recesses dividing the flange into

circumferentially extending portions constituting abutments and having their ends spaced from each other, said abutment portions being offset from the body of the flange in opposite directions, a closure disk fitted into said recesses and pivotally connected with said tongues for swinging into and out of a closed position, the closure having close contacting engagement with the abutment portions of the flanges when closed, a weight yieldably holding said closure open, and an actuating element connected with said closure and extending longitudinally through said conduit to permit closing of the closure against the action of said weight.

2. A conduit, a sleeve fitting snugly in said conduit, and removably secured therein and having its upper end portion bent inwardly to form an annular flange carried by said sleeve diametrically opposed portions of said flange being cut to provide tongues bent upwardly to form diametrically opposed recesses, a closure disk pivoted to said tongues and fitting into said recesses, the closure disk when closed overlapping opposed faces of the flange at opposite sides of the recesses to completely block the conduit and the portions of the flange engaged by the closure being offset in opposite directions, and means to adjust the position of said closure disk.

In testimony whereof I affixed my signature.

NAPOLEON BASTIEN. [L. S.]