A. ANDERSON.

VENTILATOR.

APPLICATION FILED APR. 17, 1915.

1,198,400.

Patented Sept. 19, 1916.

Fig. 1

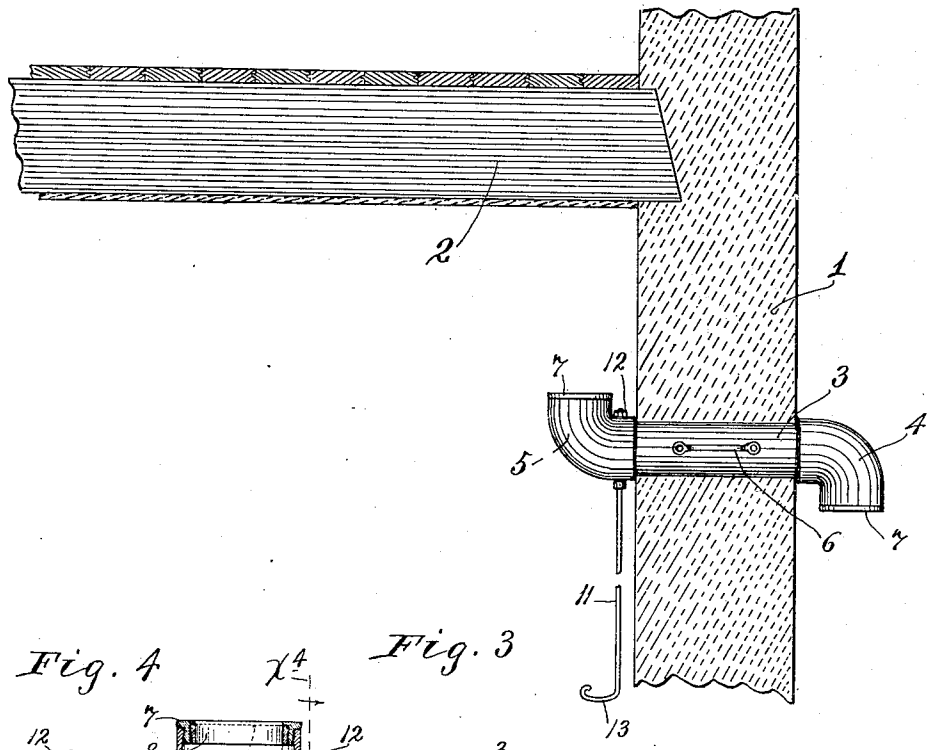


Fig. 4

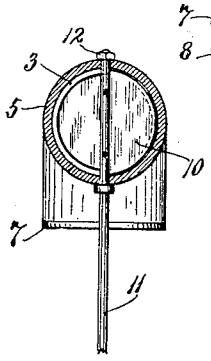


Fig. 3

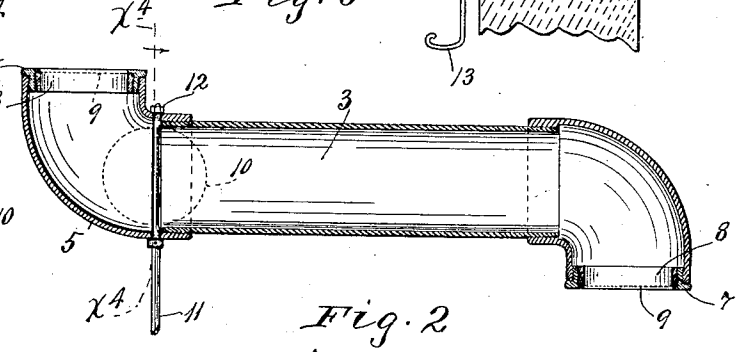


Fig. 2

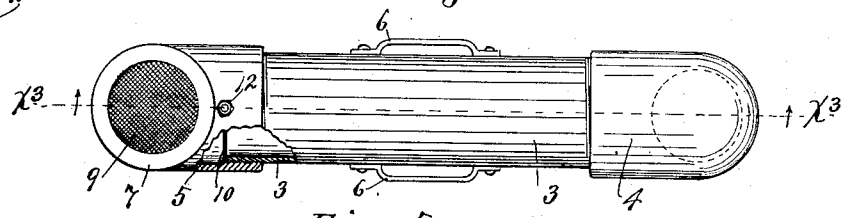
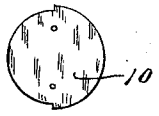


Fig. 5



Witnesses.
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UNITED STATES PATENT OFFICE.

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VENTILATOR.

1,198,400. Specification of Letters Patent. Patented Sept. 19, 1916.

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To all whom it may concern:

Be it known that I, AXEL ANDERSON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Ventilators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an extremely simple and highly efficient ventilator or fresh air supply device especially adapted for use in connection with school rooms, auditoriums, and the like, but adapted, nevertheless, for much more general use, including the ventilation of rooms of private residences.

The invention is illustrated in the accompanying drawings wherein like characters indicate like parts throughout the several views.

Referring to the drawings: Figure 1 is a vertical section taken through the wall and ceiling or second floor of a building in which the ventilator is installed; Fig. 2 is a plan view of the improved ventilator; Fig. 3 is a vertical section taken on the line x^3 x^3 on Fig. 2; Fig. 4 is a transverse section taken on the line x^4—x^4 on Fig. 3; and Fig. 5 is a detail showing the damper of a ventilator in elevation.

The numeral 1 indicates the wall and the numeral 2 the ceiling or second floor of a building in which the ventilator is installed. The ventilator comprises a tubular body 3 and outer and inner elbows 4 and 5, respectively. The tube 3 passes through the wall 1 and has threaded ends onto which the elbows are screwed. The outer elbow is turned downward and the inner elbow is turned upward. The inner elbow is located, preferably from twelve to eighteen inches from the ceiling, depending somewhat on the height of the room. The tube 3 is shown as provided with anchoring cleats or lugs 6 that are especially desirable when the tube is inserted into a concrete wall in the process of construction. The elbows 4 and 5 are screwed up against the outer and inner surfaces respectively, of the wall, so that the ventilator is thereby firmly clamped in position.

The ends of the elbows 4 and 5 are preferably both covered with fine wire gauze to prevent insects from entering the room through the ventilator, and to such ends, the ends of the said elbows are internally threaded, and externally threaded rings 7 are screwed into the same. Supplemental rings 8 are screwed in the rings 7 and wire gauze disks 9 are clamped between the said parts 7 and 8. These rings and disks may be readily removed when the ventilator is to be cleared of dust which may have accumulated therein, in course of time.

The inner end of the tube 3 is adapted to be entirely closed or opened to any desired extent, by means of a damper or valve made in the form of a disk 10 which has an increased diameter throughout about 180 degrees, and is riveted, or otherwise secured to the upper portion of an operating rod 11. This operating rod 11, at its upper end, is passed through vertically alined perforations in the elbow 5 and is passed immediately adjacent to and diametrically of the inner end of the said tube 3. At its upper end, the rod 11 is shown as provided with a nut 12 which detachably holds the same in working position. The smaller half diameter of the disk 10 is slightly less than the interior diameter of the tube 3, and the said valve is so located that the smaller half portion may be turned into the said tube, thereby permitting the damper or valve 10 to be set in a plane that is coincident with the axis of the said tube. This position shown by dotted lines in Fig. 3, gives the maximum or full opening for the supply of fresh cold air into the room. When the valve or damper 10 is turned transversely of the axis of the tube 3, as indicated by full lines in Figs. 2, 3 and 4, its larger half diameter will strike against the inner end of the tube 3 and thus stop the said valve in a position in which it entirely closes the passage through the tube 3. The operating rod 11 will be extended downward and terminated in a hand piece 13 which will be located within reach of the person standing on the floor of the room. The outer elbow 4 is turned downward, so that it will shed rain and will be much less likely to catch dust than if turned upward.

With this device located near the top of the room or ceiling, fresh air will be introduced into and directly commingled with the hottest part of the air contained in the room. The cold air will thus be quickly

heated, thereby avoiding all possible cold drafts due to the introduction of the cold air into the room.

What I claim is:

A conduit section adapted to be used with a second conduit section, and of such internal diameter as to fit over the end of said second section, a substantially circular damper pivoted in said section at the point to which said second section is adapted to extend, one half of said damper being of the diameter of the inside of the section and the other half being of a diameter of the inside of said second section whereby when said second section is inserted in said section the damper may be swung open in one direction but will be held against movement in the other direction by the end of said second section acting as a stop.

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

AXEL ANDERSON.

Witnesses:
HARRY D. KILGORE,
F. D. MERCHANT.