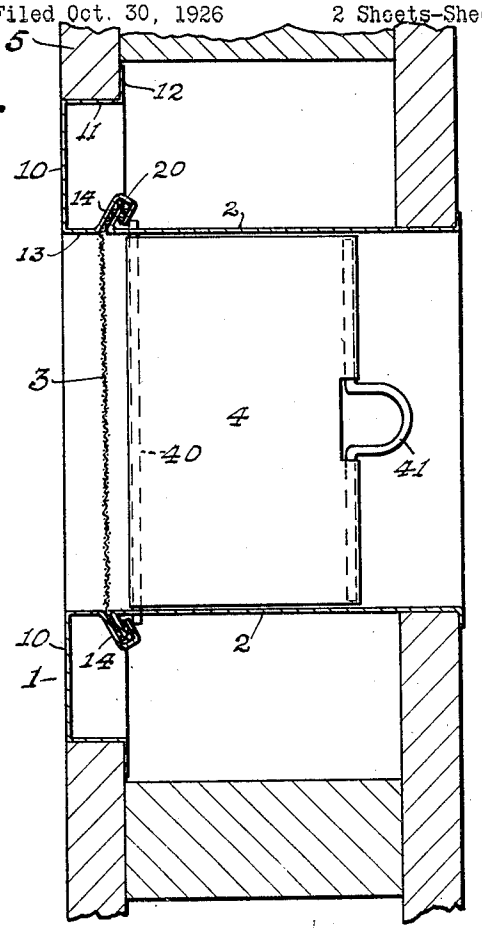
June 12, 1928. 1,673,379

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VENTILATOR

Filed Oct. 30, 1926 2 Sheets-Sheet 1

Fig - 1



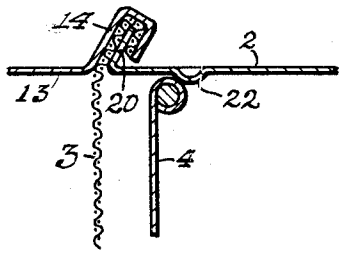


Fig - 3

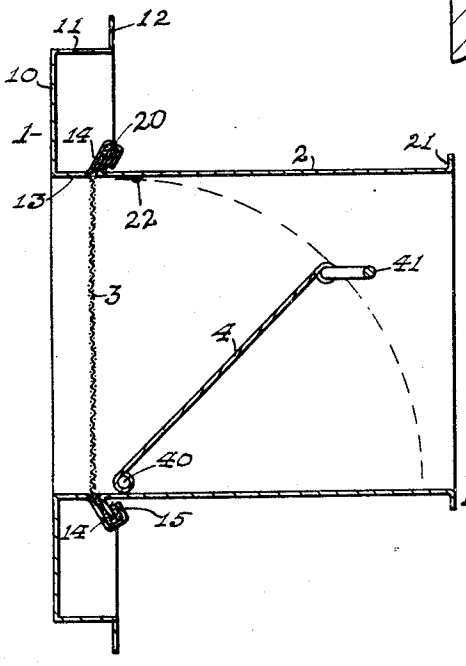


Fig - 2

Inventor

Matthew Dean Swift

By H.L. & C.L. Reynolds.

Attorneys

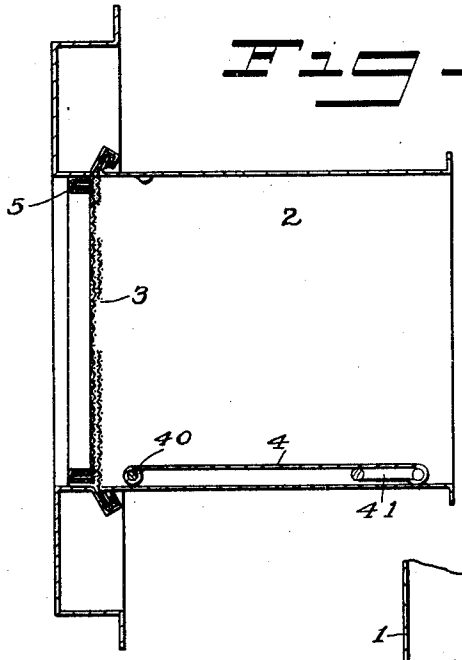
June 12, 1928. 1,673,379

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Fig-4



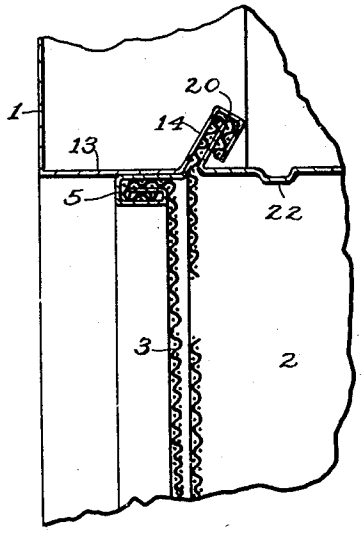


Fig-5

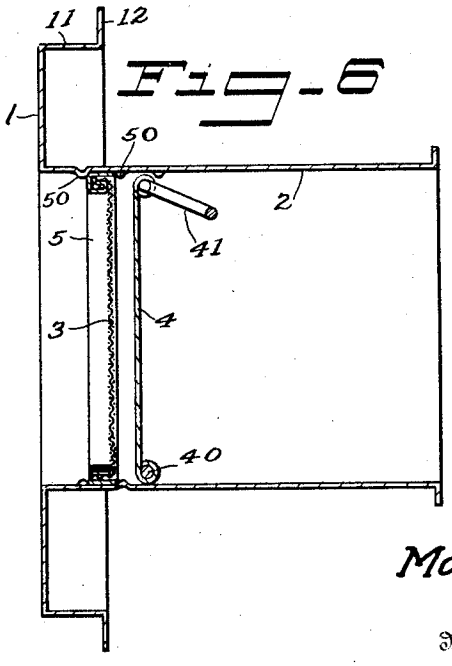


Fig-6

Inventor

Matthew Dean Swift

By H.L. & C.L. Reynolds.

Attorneys

Patented June 12, 1928. 1,673,379

UNITED STATES PATENT OFFICE.

MATTHEW DEAN SWIFT, OF SEATTLE, WASHINGTON.

VENTILATOR.

Application filed October 30, 1926. Serial No. 145,161.

My invention relates to devices used in forming ventilating conduits through the walls of buildings and similar structures, of which an important use is in connection with cooling cupboards in houses.

The object of my invention is to provide such devices, each as a complete assembled unit, ready for insertion in an opening provided in a wall, and of a superior type of construction which secures durability and minimizes the labor cost of putting them in place.

In the accompanying drawings, I have illustrated a device of this sort, made in accordance with my invention. The construction shown is that which I now prefer to use. It is not, however, the only construction known to me which is in accordance with my invention.

Figure 1 is a horizontal sectional view of one of my devices, shown in place in a wall.

Figure 2 is a vertical sectional view of the device, ready for insertion in a wall.

Figure 3 is a detail illustrating the manner of securing the screen and the two body sections, as well as the manner of securing the closing gate in closed position.

Figure 4 illustrates the manner of placing a new screen in case the original screen becomes broken.

Figure 5 is a detail illustrating the same upon a larger scale.

Figure 6 shows a construction in which the screen is originally made as an independent insertible member.

The chief field contemplated for the use of my device is in connection with the cooling closets or cupboards which are built into houses. I will, therefore, describe it as so used, without, however, implying that it may not be otherwise used. It is adapted to be used wherever analogous ventilating flues are desired.

In the construction of my device, only four parts are employed, namely, the front frame 1, the flue body 2, the screen 3, and the closing door or gate 4. I prefer that all these parts be made of metal, galvanized iron being preferred for everything except the screen, which latter should be of copper so that it would not rust out.

The front, or exterior, frame 1 may be stamped from a metal plate or be of a built-up construction, and is of a rectangular outline. The face section 10 is designed to be flush with the exterior surface of the house when in place. The plate is flanged inward, as at 11, and the peripheral flange 12 lies parallel with the face 10. The depth of the rim face 11 is designed to be enough to accommodate the boards 5, forming the exterior sheeting of the house.

The flue opening is cut from the plate of which the face or frame member is formed. Flanges 13 are bent inwards and outline the flue. These are further bent outwardly, or away from the axis of the flue.

The flue body 2 is of rectangular box-like shape, with two opposite ends freely open. At one end, it has outwardly extending flanges 20 and may have its inner end flanged, as shown at 21, or finished in any desired manner.

In assembling the device, the screen 3, which is large enough to extend slightly without the outer edges of the flanges 20, has its edges bent over those flanges. It is then placed against the flanges 14 of the frame 1 and these are bent over the flanges 20, clamping the screen securely in place.

At times, especially should the weather become very cold, it may be desirable to choke down or prevent circulation of air through these flues. I have therefore provided a gate or damper 4, hinged by one edge, as 40, closely adjacent to one wall of the flue, and of a size to close the flue when placed squarely across the same. This gate may be provided with a ring 41, which ring may be part of a wire secured in the rolled swinging edge of the gate, as is clearly illustrated in Figure 1. To hold the gate when raised, a depressed rib or knoll 22 may be formed in the upper wall of the flue body 2, as is clearly shown in Figure 3.

In Figure 4 is shown a method which may be employed to supply a new screen in case the original screen becomes broken. A frame, 5, illustrated as made by rolling a strip of sheet metal, is secured about a section of screen of suitable size. This is inserted from either the outer or inner end, as may be most convenient. The seam which secured the original screen will be found sufficient to insure holding the frame in proper position.

In Figure 6 is shown a construction in which an insertible screen is the original construction. The casing is provided with projections 50 located to hold the screen frame in proper position. The screen frame will spring enough to pass by these when removing or replacing it.

It is, of course, evident that many details of construction may be changed from those illustrated and described, without departing from the principles set forth. I do not, therefore, desire to be limited to the exact construction illustrated.

The device will be completely assembled at the factory. To put it in place, it is only necessary to cut a square hole in the wall of a size to fit. The marginal flanges 12 are set back from the face enough to accommodate the thickness of the sheeting 5, or whatever facing is given the walls. It is intended that the face 10 shall be flush with the outer face of the house. The screen 3 is intended to be recessed back a short distance to give it a measure of protection. The pivot for gate 4 may be a wire 40 held in a rolled lower edge of the gate and entering holes in the side walls of the flue body 2.

What I claim as my invention is:

1. A ventilating flue for building walls, comprising a metal flue member, a frame member surrounding the flue opening, said frame member having inwardly turned flanges forming an extension of the flue, and a screen extending across the flue, said parts being secured together by crimping together the meeting edges of the frame and flue member.

2. A ventilating flue for building walls, comprising a metal flue body, adapted to extend through the building wall, a metal frame adapted to surround the flue opening and having flanges extending inward and matching with the flue body, said frame flanges and the flue body being crimped together with the head outside of the flue body, and a screen extending across the flue and having its edges secured within said heads.

3. A ventilating flue for building walls, comprising a metal flue member, a frame member surrounding the flue opening, said frame member having inwardly turned flanges forming an extension of the flue, and a screen extending across the flue, said parts being secured together by crimping together the meeting edges of frame and flue member, and a gate within said flue pivoted by one edge to a side of said flue, and a friction stop within said flue adapted to engage the gate when closed.

Signed at Seattle, Washington, this 25th day of October, 1926.

MATTHEW DEAN SWIFT.