J. A. GLASS.

VENTILATOR.

APPLICATION FILED FEB. 28, 1919.

1,308,236.

Patented July 1, 1919.

2 SHEETS—SHEET 1.

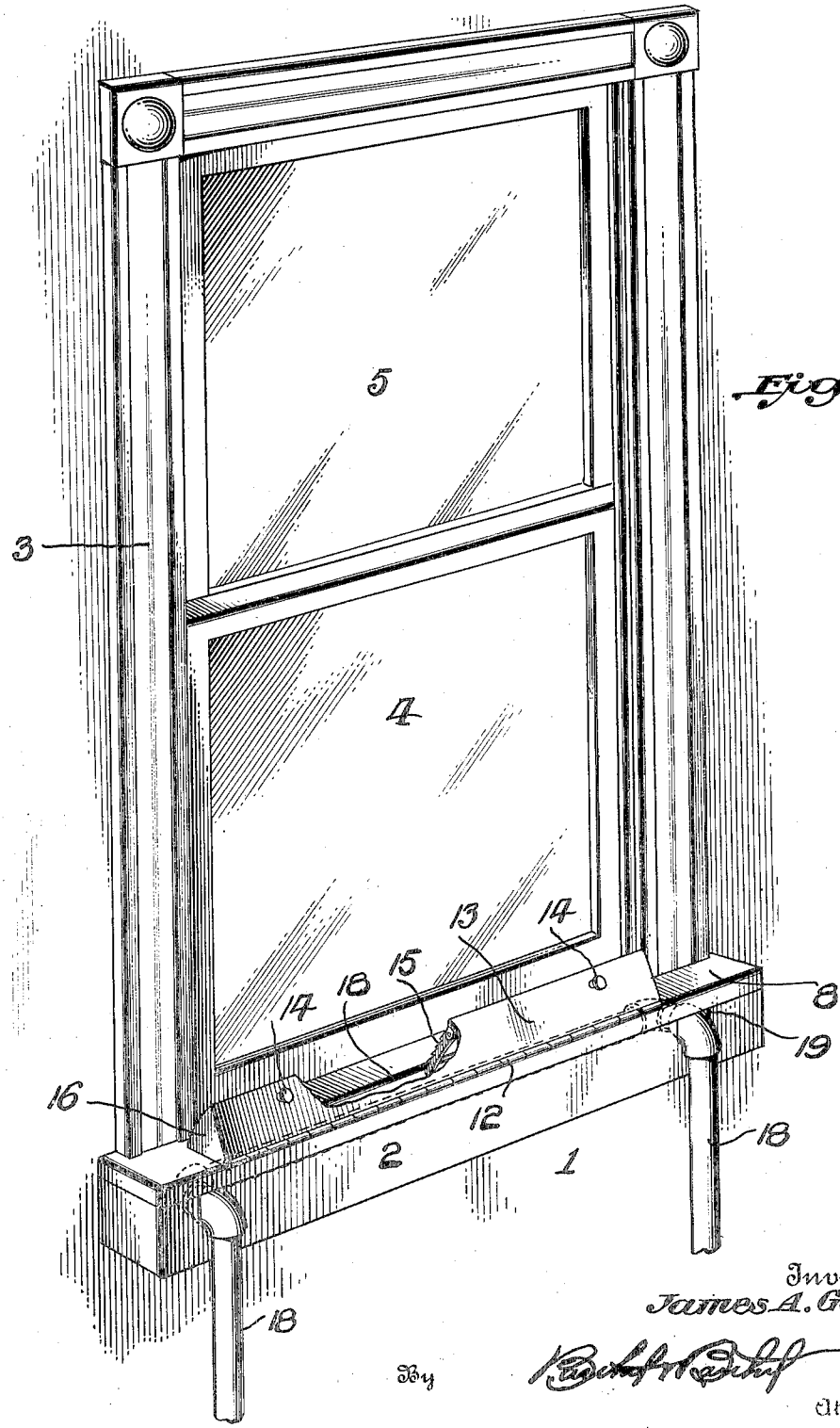


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

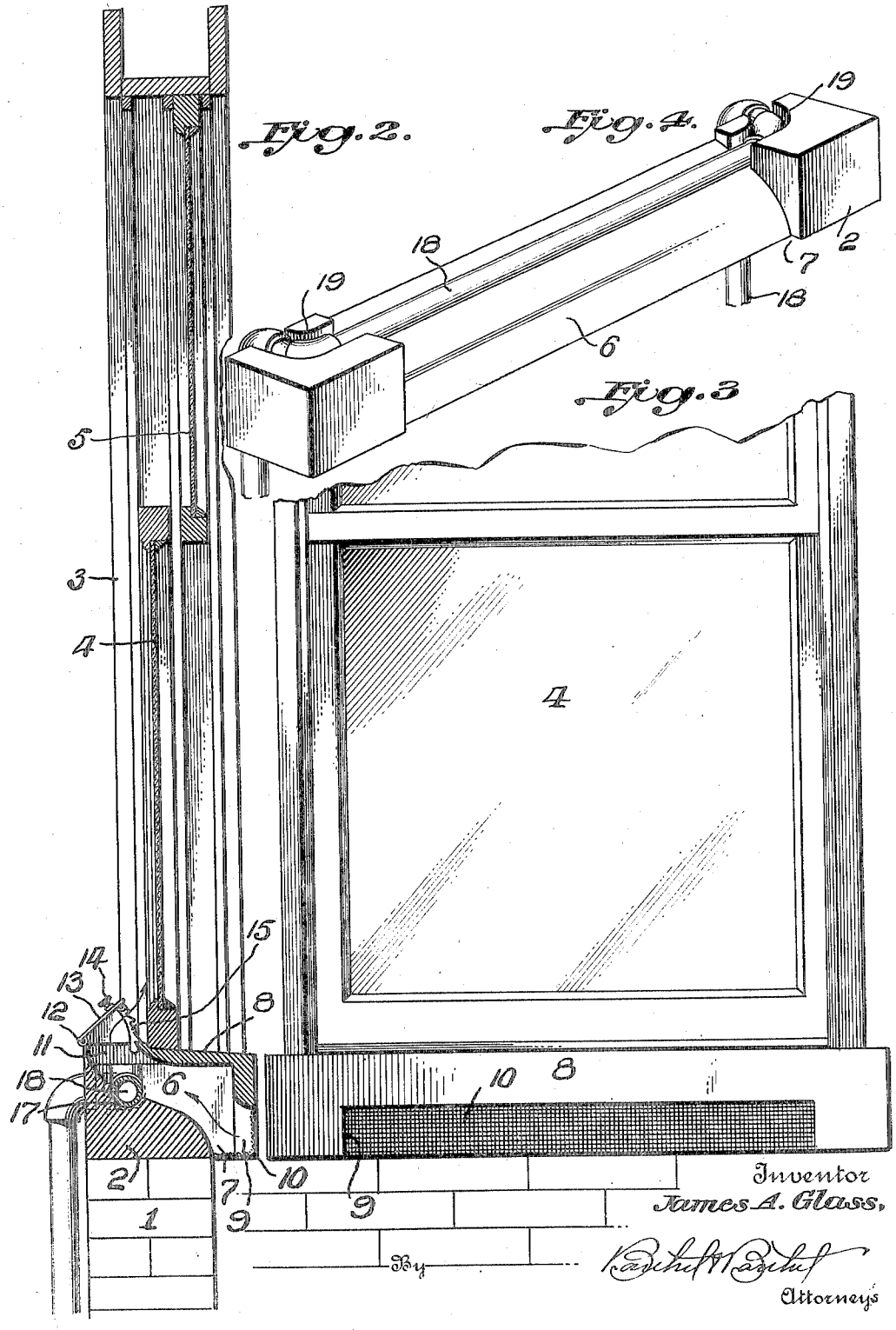


Fig. 4.

Fig. 3

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UNITED STATES PATENT OFFICE.

JAMES A. GLASS, OF WALKERVILLE, ONTARIO, CANADA.

VENTILATOR.

1,308,236. Specification of Letters Patent. Patented July 1, 1919.

Application filed February 28, 1919. Serial No. 279,691.

To all whom it may concern:

Be it known that I, JAMES A. GLASS, a subject of the King of Great Britain, residing at Walkerville, in the county of Essex, Province of Ontario, Canada, have invented certain new and useful Improvements in Ventilators, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a ventilating device and in many particulars may be considered an improvement in connection with that type of ventilator disclosed in my Patent No. 981,635 granted Jan. 17, 1911, showing a ventilating device for the interior of a building, car or other structure by admitting fresh air and expelling foul air.

The primary object of this invention is to provide a novel sill construction for a window frame which will admit fresh air to a compartment having a window or other structure provided with the sill, and in admitting fresh air, the elements, flies, and other insects are excluded and this is accomplished without impairing the usefulness of the sill as a supporting member and without materially changing the general appearance of the sill relative to the exterior finish of a building, car or other structure.

Another object of this invention is to furnish a window sill with a ventilating opening for admitting fresh air to the inner side of the window frame, and the sill is constructed so that a heating or cooling agent may be utilized for changing the temperature of the air admitted by the sill. In this manner the occupant of a compartment may obtain fresh air at a desired temperature, and provision is made for preventing a draft and for directing the incoming air toward the inner side of the window frame, which is a desideratum, particularly in cold weather, to prevent what is commonly known as "frosting" of a window pane.

The above and other objects are attained by a mechanical construction from which beneficial results may be derived and this mechanical construction will be hereinafter described and then claimed.

Reference will now be had to the drawings, wherein—

Figure 1 is a perspective view of the inner side of a window frame provided with a ventilator in accordance with my invention;

Fig. 2 is a vertical sectional view of the same;

Fig. 3 is an elevation of the outer side of a portion of a window frame, and

Fig. 4 is a perspective view of a window sill.

In the drawing, the reference numeral 1 denotes a portion of a compartment wall provided with a sill 2 supporting a window frame 3 having a conventional form of lower sash 4 and an upper sash 5, these sashes being adjustable in the usual manner.

The sill 2, for the greater part of its length, has its upper and outer walls cut away to provide an air inlet passage 6 and the outer end of this passage is also open at the bottom side of the sill 2, as indicated at 7 while the inner end of the passage 6 is open at the inner upper edge of said sill.

Mounted on the sill is a cap or closure member 8, angular in cross section and engaging the upper and outer walls of said sill. This cap or closure member may be detachable relative to the sill 2 so that easy access may be had to the passage 6 or in some instances the cap or closure member may be integral with the sill 2 and consequently constructed of the same material as said sill. The lower outer edge of the closure member 8 is cut away, as at 9 for the full length of the passage 6 and the closure member and the sill 2 support a screen 10 at the lower end of the passage 6 to exclude the elements and insects, without materially retarding the passage of air into the passage 6 and the compartment served by the window frame.

The inner edge of the closure member 8 is provided with an oblong opening 11 corresponding in length to the passage 6 and constituting the outlet for fresh air into the compartment. Hinged or otherwise movably connected to the inner edge of the closure member 8, as at 12, is a shutter or damper member 13 having suitable knobs or hand pieces 14 so that it may be readily opened and closed relative to the closure member and for holding the damper member in an adjusted position, the inner wall of said damper member has a segment shaped tooth rack or adjustable support 15 adapted to engage the member 8 and hold the damper member in a raised adjusted position, especially at an angle, as shown in Fig. 2, so that the damper member will serve functionally as a deflector and deflect the incoming air toward the inner side or pane of glass of the lower sash 4. The damper members 13 has its ends provided with walls 16

that enter the opening 11 when the damper member is closed and in consequence of this construction the admission of fresh air to the compartment can be completely shut off, and when the damper member is open the fresh air is directed toward the window frame and prevented from producing a draft at the ends of the damper member.

The sill 2, contiguous to its inner wall, has a longitudinal groove 17 in the bottom compound curved wall of the passage 6 and this groove accommodates a conductor or conduit 18 for a heating agent, as steam, hot water, hot air or electricity adapted to heat the air in the passage 6, or as a conductor or conduit for a cooling agent so that the air admitted to the compartment may be cooled, particularly in excessive warm weather. The groove 17 is throughout the length of the passage 6 and terminates in curved recesses 19 at the ends of the sill, said recesses being open at the inner wall of the sill in order that the conductor or conduit 18 may have its ends extend through the recesses 19 and into the compartment by the window frame. The conduit has been illustrated so that a heating or cooling agent may be circulated through the sill, and with the heating or cooling agent manually controlled it is possible to regulate the temperature of the air which is admitted to the compartment by the sill of the window.

It is thought that the utility of my ventilating device, from the standpoint of health and proper ventilation, will be understood without further description, and while in the drawings there is illustrated a preferred embodiment of my invention, it is to be understood that the structural elements are susceptible to such changes, in size, shape and manner of assemblage, as fall within the scope of the appended claims.

What I claim is:—

1. A ventilating device comprising a sill having a passage at the upper and outer walls of said sill, a closure member on said sill and coöperating therewith in providing a passage through said sill that has its ends open at the inner and outer sides of said sill, a screen carried by said sill and said closure member at the outer end of the sill passage, an adjustable damper at the inner end of the sill passage and supported by said closure member for closing said sill passage, and a conduit throughout the length of said sill passage for conducting a heating agent to heat air passing through said sill passage.

2. In a ventilating device, a wall having a passage, an adjustable damper member at the inner end of the passage, a screen in the passage and means partially embedded in a wall of said passage to circulate a heating medium therethrough.

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

JAMES A. GLASS.

Witnesses:

KARL H. BUTLER,

LEWIS E. FLANDERS.