

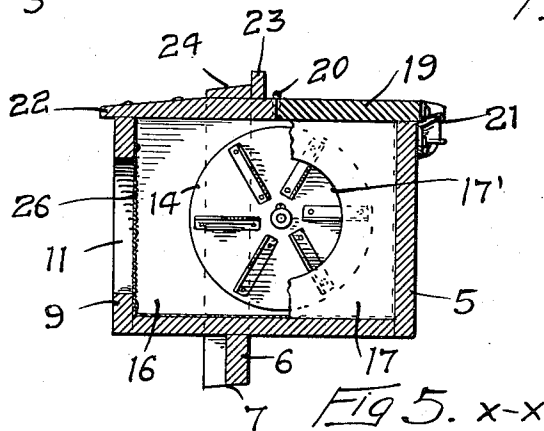
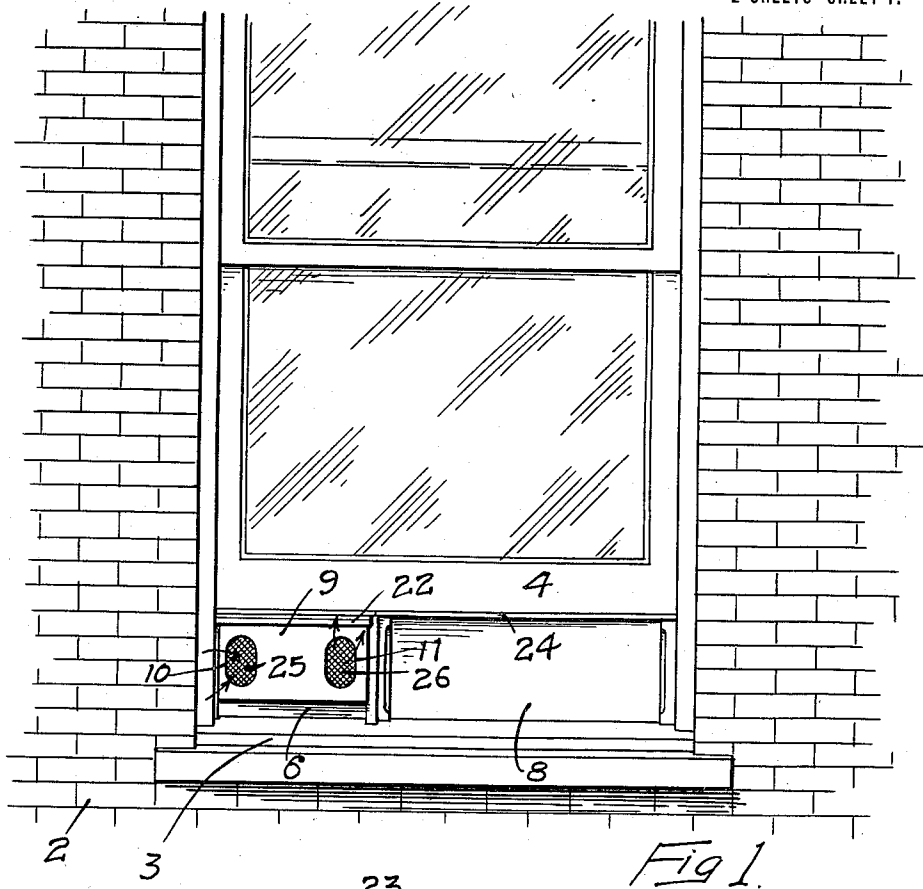
L. S. HACKNEY.
VENTILATING DEVICE.

APPLICATION FILED JUNE 8, 1911. RENEWED FEB. 15, 1915.

1,153,067.

Patented Sept. 7, 1915.

2 SHEETS—SHEET 1.



WITNESSES
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E. A. Paul

INVENTOR
LESLIE S. HACKNEY
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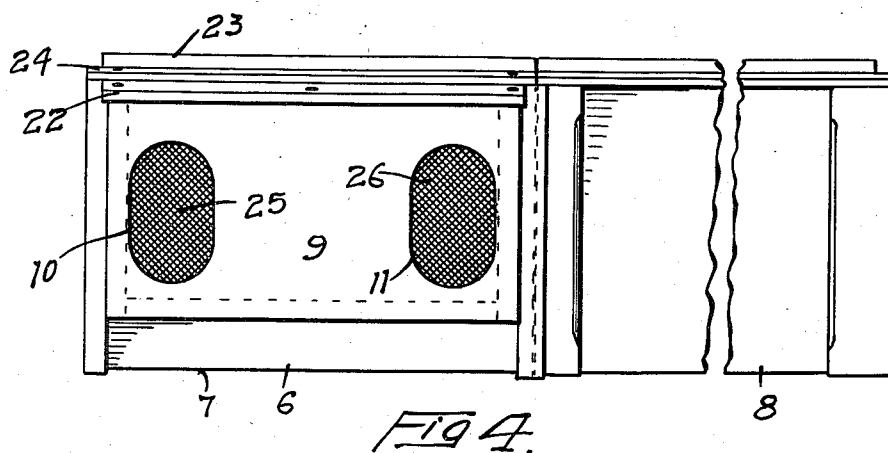
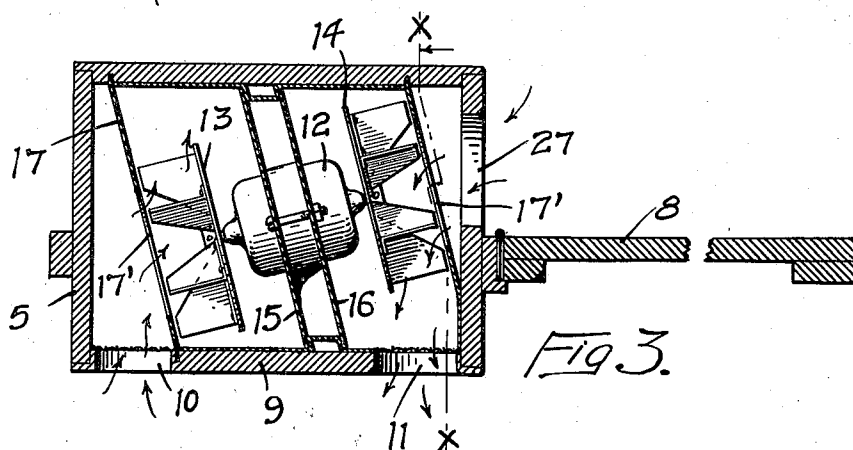
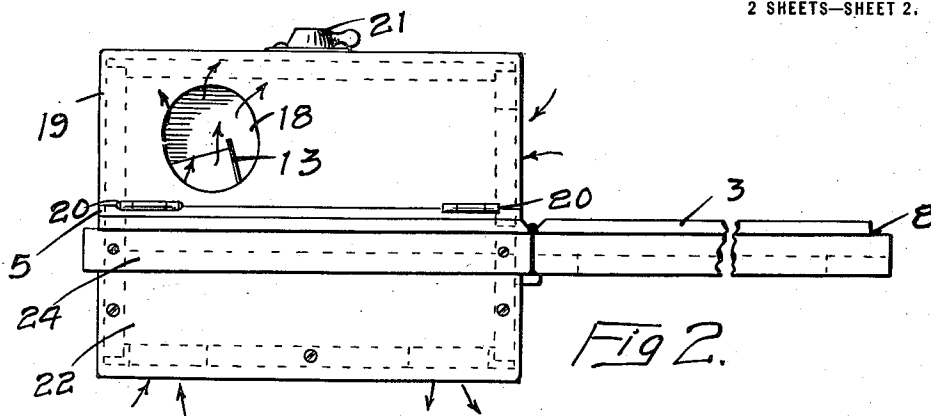
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UNITED STATES PATENT OFFICE.

LESLIE S. HACKNEY, OF ST. PAUL, MINNESOTA.

VENTILATING DEVICE.

1,153,067.

Specification of Letters Patent.

Patented Sept. 7, 1915.

Application filed June 8, 1911, Serial No. 632,039. Renewed February 15, 1915. Serial No. 8,290.

To all whom it may concern:

Be it known that I, LESLIE S. HACKNEY, of St. Paul, Ramsey county, Minnesota, have invented certain new and useful Improvements in Ventilating Devices, of which the following is a specification.

My invention relates to ventilating devices and particularly to those adapted for use in a window, the object of the invention being to provide means for easily and quickly introducing pure, fresh air into the room and exhausting the foul air.

A further object is to provide an apparatus of simple construction and one which can be installed in any window and operated at comparatively small expense.

The invention consists generally in a cabinet adapted to be placed between the sill of the window and the sash, and having intake and discharge ports and fans mounted in said cabinet.

Further the invention consists in a cabinet having a folding extension to allow it to be packed in compact form for shipping purposes.

Further the invention consists in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification, Figure 1 is an outside view of a window and wall, showing my invention applied thereto, Fig. 2 is a plan view of the ventilating cabinet, Fig. 3 is a horizontal sectional view, Fig. 4 is a side elevation, showing that portion of the cabinet exposed to the air, Fig. 5 is a sectional view on the line $x-x$ of Fig. 3.

In the drawing, 2 represents the wall of a building, 3 a window sill and 4 the lower sash.

5 is a cabinet, preferably rectangular in form and adapted to fit into the open window and supported by a plate 6 having a beveled lower edge 7 to rest upon the corresponding surface of the sill 3. The plate 6 has a hinged section 8 for convenience in inserting the device into a window, the section 8 being swung on its pivots slightly until the ends of the ventilator are inserted between the jambs of the window, and then upon swinging the sections until they are in line with one another, the device will be snugly fitted into the window frame. The pivots of the hinged section may also be re-

moved for convenience in packing and shipping. This hinged section 8 also has edges fitting the surface of the sill and the lower rail of the sash, so as to make a snug joint between the ventilating device and the parts of the window. The cabinet 5 has an outer vertical wall 9 provided with ports 10 and 11. One of these ports forms the fresh air intake port and the other one the foul air exhaust port.

Within the cabinet is a suitable source of motive power, preferably an electric motor 12. The shaft of the motor projects on each side thereof and the projecting ends carry the fans 13 and 14. The motor is supported in partition plates 15 and 16 and the fans and the motor are preferably inclosed in a casing 17, preferably of metal. The opposite walls of this casing are preferably parallel with one another and at an angle to the end walls of the cabinet, so that the motor and its shaft will lie diagonally in the casing and the fans will be similarly arranged, one being near the inner wall of the cabinet and the other near the outer wall, thereby forming chambers between the discharge ports of the cabinet and the fans. Openings 17' are provided leading from the fan chambers to the ports. This arrangement of the fans and the motor does away with the necessity of making the cabinet itself irregular in shape in order that the fans may be mounted eccentrically with respect to the middle line of the cabinet. I am thus able to economize in the size of the cabinet and make it of uniform, regular dimensions. The port 10 forms the intake opening of the cabinet and the fresh air flowing therein will be drawn into the fan and circulating around in the fan chamber will finally enter the discharge port 18, which I prefer to provide in the top 19 of the inner portion of the cabinet, said top being preferably hinged at 20 and having a suitable locking device 21. The outer portion 22 of the top of the cabinet is preferably fixed and has a flange 23 and a beveled surface 24 on which the window sash 4 is seated when the fan is in use, the surface 24 being beveled to form a close joint with the lower rail of the sash and the flange 23 projecting above the joint and sealing the same. By raising the hinged cover, access may be had to the interior of the cabinet and the fans. The flange 23 also prevents the cabinet from

being pushed out through the window if pressure should be applied to the inner walls of the cabinet.

I prefer to provide a screen 25 of comparatively small mesh in the intake opening 10 and a coarser screen 26 in the opening 11. This opening 11 communicates through the cabinet chamber with a port 27 through which the foul air is drawn from the room and discharged through the port 11. Both fans being operated at the same time, fresh air will be drawn into the room through the cabinet and the foul air will be simultaneously drawn out through the cabinet and discharged.

A device of this kind will be inconspicuous in a window and can be easily and quickly applied and the electric motor connected by suitable conductors, not shown, to the electric fixture in the room where the device is installed.

The device may be made in various sizes and the power of the motor may be varied according to the size of the room to be ventilated.

I claim as my invention:—

1. A window ventilating device comprising a cabinet having openings in its outer wall, one of said openings forming an intake for the fresh air and the other an outlet for the foul air, the wall of said cabinet having an outlet opening therein for the foul air and the inner portion of the wall of said cabinet having an outlet opening for the fresh air, said outlet and inlet openings communicating respectively with the corresponding openings in the outer wall of said cabinet, a partition located in said cabinet between the openings in its outer wall and dividing the interior of the cabinet into independent compartments, and fans mounted

in said compartments and operating to establish currents of fresh air inwardly through said fresh air openings, and currents of foul air outwardly through said foul air openings.

2. A window ventilating device comprising a cabinet adapted to fit into a window between the sill and the sash, said cabinet having openings in its outer wall, one of said openings forming an intake for the fresh air and the other an outlet for the foul air, the inner portion of one of the walls of said cabinet having an outlet opening therein for the foul air and a wall of said cabinet having an inlet opening for the fresh air, end partitions extending diagonally across said cabinet from wall to wall near the ends thereof and separating said fresh air intake opening and the foul air outlet opening of said cabinet from the middle portion of said cabinet, said partitions having openings therein, a central partition mounted diagonally in the middle portion of said cabinet and forming fan chambers between it and said end partitions, one of said fans being adjacent to the fresh air inlet opening of one of said partitions and the other fan adjacent to the foul air outlet opening of the other partition, one fan chamber communicating with the foul air outlet opening in the outer wall of said cabinet and the other with the fresh air inlet opening leading from said cabinet to the space to be ventilated.

In witness whereof, I have hereunto set my hand this 31st day of May 1911.

LESLIE S. HACKNEY.

Witnesses:

ASHLEY COFFMAN,
LOUIS JOHNSON.