

M. G. BUNNELL.
VENTILATOR APPARATUS.
APPLICATION FILED JULY 8, 1911.

1,212,450.

Patented Jan. 16, 1917.
2 SHEETS—SHEET 1.

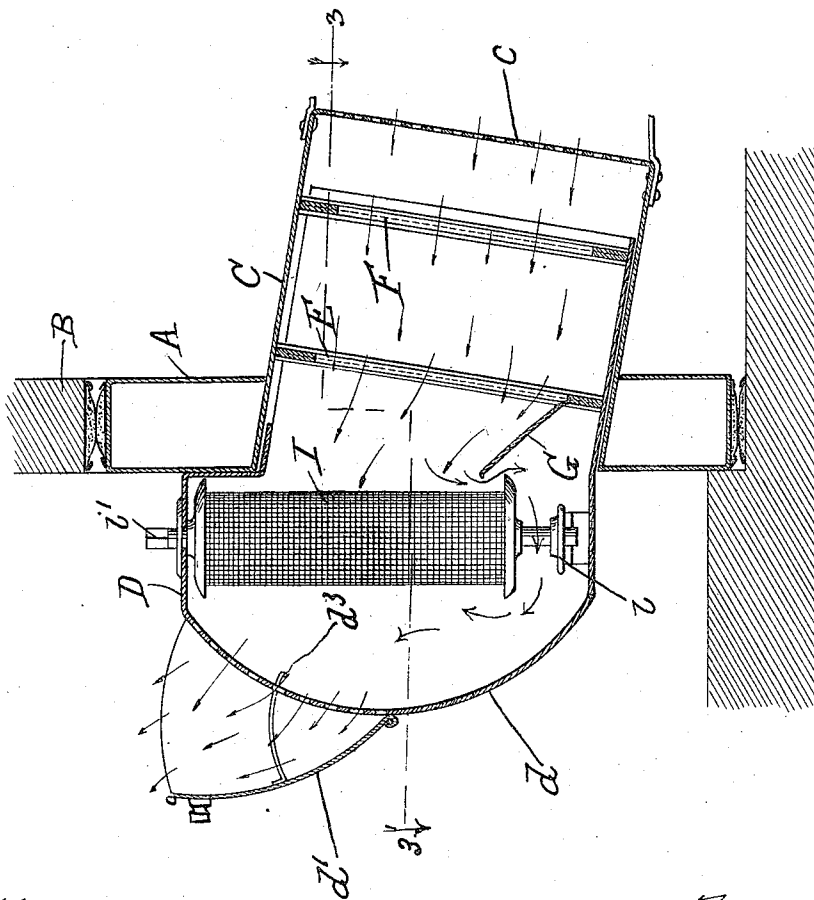


Fig. 1.

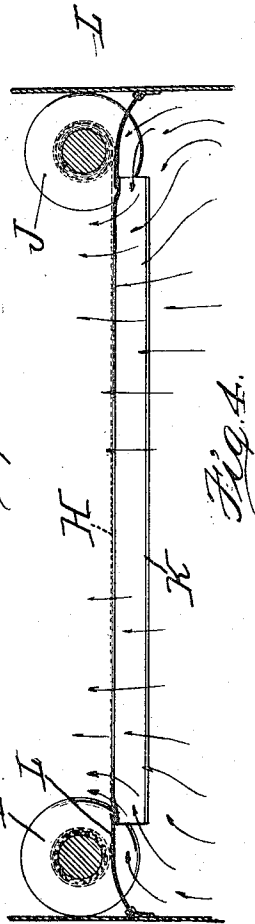
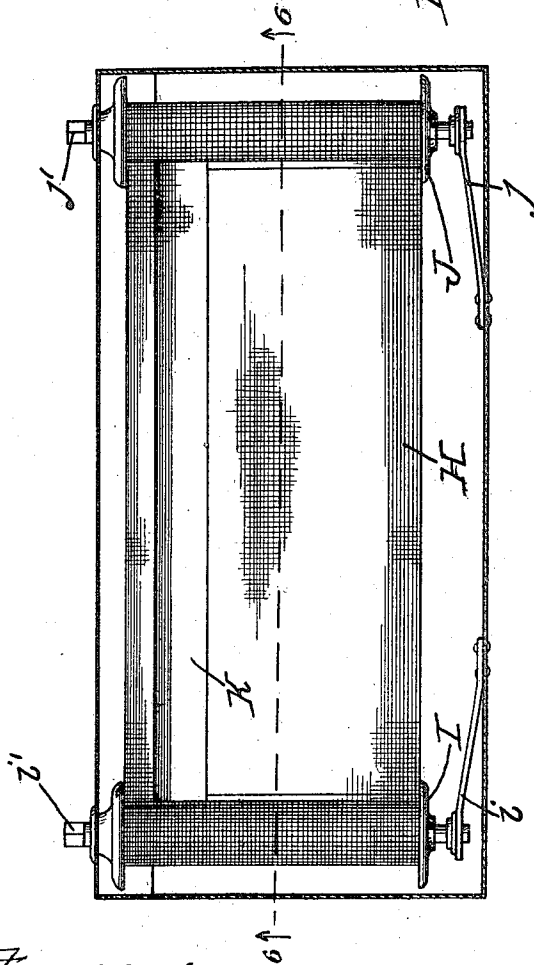
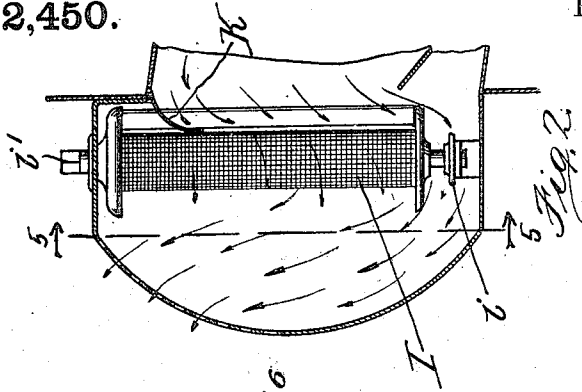
Witnesses:
E. H. Clegg
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Inventor:
Morton G. Bunnell
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UNITED STATES PATENT OFFICE.

MORTON G. BUNNELL, OF CHICAGO, ILLINOIS, ASSIGNOR TO FREDERICK C. AUSTIN, OF CHICAGO, ILLINOIS.

VENTILATOR APPARATUS.

1,212,450.

Specification of Letters Patent.

Patented Jan. 16, 1917.

Application filed July 8, 1911. Serial No. 637,541.

To all whom it may concern:

Be it known that I, MORTON G. BUNNELL, a citizen of the United States of America, and resident of Chicago, Cook county, Illinois, have invented a certain new and useful Improvement in Ventilator Apparatus, of which the following is a specification.

My invention relates to window ventilators of the kind in which a box is arranged to fit in the window below the sash, and in which means are provided in said box for collecting the dust, whereby an influx of pure air is insured.

Objects of my invention are to provide a ventilator of this general character in which a better and more efficient arrangement is employed for the cloth that catches the dust; to provide a better and more efficient arrangement of the screens or filters through which the air must pass before reaching the said cloth; to provide an adjustable arrangement whereby the insertion of the ventilator in a window is facilitated; and to provide certain details and features of improvement tending to increase the general efficiency of a ventilator of this particular character.

To the foregoing and other useful ends, my invention consists in matters hereinafter set forth and claimed.

In the accompanying drawings—Figure 1 is a vertical section of a window ventilator embodying the principles of my invention, the section being taken in a plane at right angles to the plane of the window. Fig. 2 is a sectional view, similar to Fig. 1, of the forward portion of the ventilator, showing the use of sheets of rubber or the like to prevent the air from passing over or around the ends of the sheet of cloth. Fig. 3 is a section on line 5—5 in Fig. 4. Fig. 4 is a section on line 6—6 in Fig. 5.

As thus illustrated, my invention comprises a rectangular frame A adapted to be inserted in the window below the sash B. This frame contains a sheet metal box C having an inwardly removable drawer D, which drawer is open at its rear or inner end to admit the air. The outer end wall *e* of the box is perforated to admit the air, and the entire outer end portion of the box has a pronounced dip or downward slant, as shown in Fig. 1. The exposed end of the drawer D has a curved front *d* which is perforated to permit the escape of the air.

This influx of air into the room is controlled by a hinged cover or damper *d'*, which is adapted to conform to the curvature of the wall *d* to close the openings in said wall. A rod *d²* is attached to said cover or damper, in position to slide in and out of the front wall *d*, and is provided with a head *d³* that limits the outward swing of said cover or damper. The incoming air is filtered or purified to some extent by the screens E and F, each screen being composed of a rectangular frame covered with wire or other porous cloth, and each screen being readily removable upward from the guides *e* and *f* in which they are held. A baffle plate G is disposed in position to receive the air from the screen E and direct it upward, said baffle plate being secured to the lower edge of the screen E. At this point the air strikes the surface of the cloth H which is carried on two vertically disposed rolls I and J, which latter are mounted on suitable bracket bearings *i* and *j* and provided with polygonal upper portions *i'* and *j'* by which they can be rotated to move the cloth along. In this way one roll can carry fresh or new cloth, and as fast as the stretched or unrolled portion becomes loaded with dust it can be moved along and rolled up on the other roll.

The air strikes the rough surface of the cloth, which latter may be cheese cloth or fabric having soft and rough surface, and in this way the fine dust is extracted from the air and remains on the cloth, the air then passing under the lower edge of the cloth and upwardly and out through the openings in the front of the box. To keep the air from passing over the cloth, or around the rolls, a sheet of rubber K, or like material is arranged at the top, and sheets of similar material L are arranged at the sides and suitably secured at their edges to the inside of the drawer D, these sheets resting yieldingly against the cloth to block the passage of the air. The bearings *i* and *j* are preferably flexible to permit removal and insertion of the rolls, and to give sufficient friction to keep the cloth between the rolls stretched tightly and smooth.

What I claim as my invention is:

1. A ventilator comprising a box having an air intake chamber provided with a baffle plate for catching the dust, consisting of a sheet of cloth disposed in the path of the air, and rolls for the ends of said sheet, said

rolls being disposed in position to cause the sheet to travel horizontally, and means for supporting said box in position with its outer side exposed to the atmosphere.

5 2. A window ventilator comprising a box having an air intake chamber provided with a baffle plate for catching the dust, consisting of a sheet of cloth disposed in the path of the air, rolls for the ends of said sheet, 10 said rolls being disposed in position to cause the sheet to travel horizontally, together with means for preventing the air from passing over the upper edge of the cloth, bearing against the surface thereof, and 15 means for supporting said box in position with its outer side exposed to the atmosphere.

3. A window ventilator comprising a box having an air intake chamber provided with 20 a baffle plate for catching the dust, consisting of a sheet of cloth disposed in the path of the air, rolls for the ends of said sheet, said rolls being disposed in position to cause the sheet to travel horizontally, together 25 with means for preventing the air from passing around the rolls, bearing against the surface thereof, and means for supporting said box in position with its outer side exposed to the atmosphere.

30 4. A window ventilator comprising a box having an air intake chamber provided with a baffle plate for catching the dust, consisting of a sheet of cloth disposed in the path of the air, and rolls for the ends of said

sheet, said rolls being disposed in position to 35 cause the sheet to travel horizontally, said rolls having exposed upper ends for the operation thereof, and means for supporting said box in position with its outer side exposed to the atmosphere. 40

5. A ventilator comprising a box having an air intake chamber provided with a baffle plate for catching the dust, consisting of a sheet of cloth disposed in the path of the air, rolls for the ends of said sheet, said rolls 45 being disposed in position to cause the sheet to travel horizontally, together with means for filtering the air before it strikes the said baffle plate.

6. A ventilator comprising a box having 50 an air intake chamber provided with a baffle plate for catching the dust, consisting of a sheet of cloth disposed in the path of the air, with space below the lower edge of said cloth, rolls for the ends of said sheet, said rolls 55 being disposed in position to cause the sheet to travel horizontally, and a baffle plate for deflecting the air upwardly against the cloth, disposed in front of said space, and means for supporting said box in position 60 with its outer side exposed to the atmosphere.

Signed by me at Chicago, Ill., this 30th day of June, 1911.

MORTON G. BUNNELL.

Witnesses:

GEORGE SCHMIDT,
S. LEWIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."