

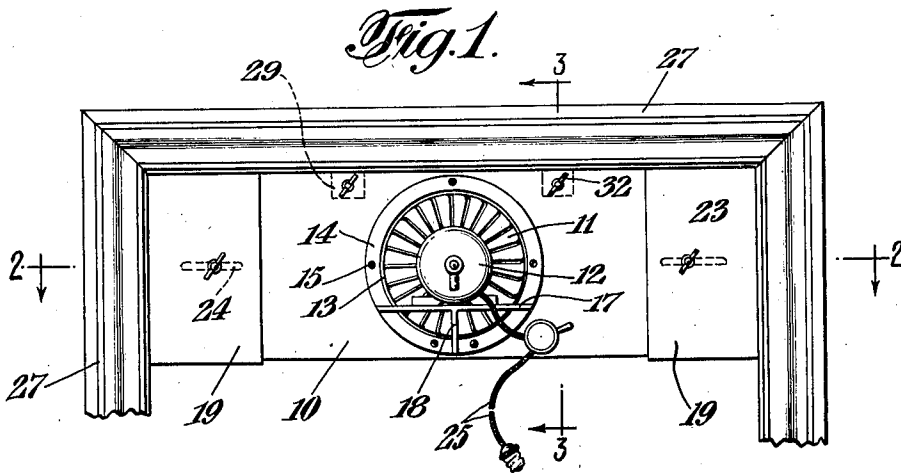
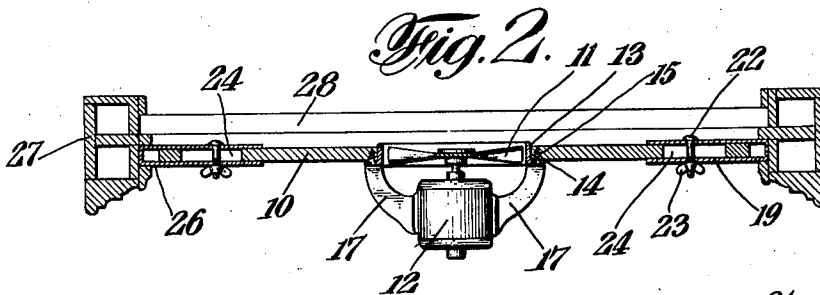
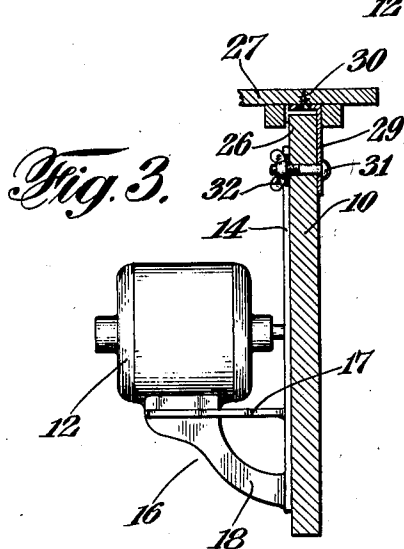
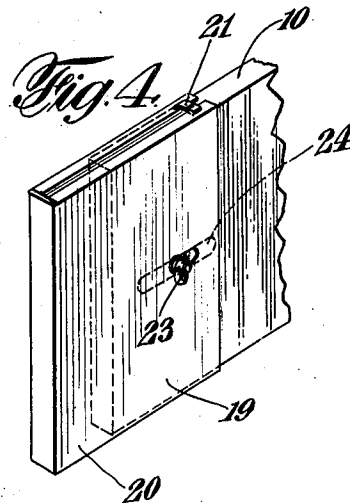
April 1, 1930.

G. DE BOTHEZAT

1,752,372

FAN UNIT

Filed June 30, 1928



INVENTOR.
George De Bothezat
BY
Edwards, Lager & Rower,
ATTORNEYS.

UNITED STATES PATENT OFFICE

GEORGE DE BOTHEZAT, OF NEW YORK, N. Y.

FAN UNIT

Application filed June 30, 1928. Serial No. 289,535.

This invention relates to a fan unit and particularly to an adjustable fan unit for ventilating purposes.

The object of this invention is to provide a fan unit of simple construction and high efficiency adapted to be adjustably fitted within openings such as windows, doors and the like.

A further object of the invention is to provide an adjustable fan unit which will efficiently remove air laden with obnoxious odors, fumes and the like from an enclosure such as a kitchen, laundry, cellar or any room in which air ventilation is desired.

Further objects and advantages of the invention will be apparent by reference to the following specification and drawings in which

Fig. 1 illustrates an elevational view of a fan unit constructed in accordance with this invention secured to the upper section of an ordinary window frame.

Fig. 2 is a horizontal sectional view on line 2-2 of Fig. 1.

Fig. 3 is a vertical sectional view taken on line 3-3 of Fig. 1, and

Fig. 4 is a perspective view of one of the extensible end sections of the fan unit.

Referring to the drawings, the illustrated embodiment of the invention comprises a panel 10 of wood, metal or any suitable material having a central circular opening for the fan 11. The fan 11 is of the disk pressure type adapted to develop high static pressure and is secured to the motor shaft of the motor 12 to rotate therewith. The fan rotates in a frame having a ring section 13 passing through the opening in the panel 10 and is provided with an integral flange section 14 extending at right angles to the ring section 13. This flange bears against the back of the panel 10 and is secured thereto by means of screws or bolts 15. Cast with the ring section 13 and flange section 14 is a T-shaped bracket 16 having a flat surfaced table 17 and a supporting arm 18. The motor 12 is secured to this table 17 in any desired manner such as by clamps or bolts.

The panel is provided at each end with laterally adjustable or extensible box-like or

channel sections 19 each of which slidably fits over the ends of the panel 10. Each of these extensible sections is constructed out of one single sheet of metal bent to U-shape, the parallel sides being held at their inner ends by upper and lower clips 21. The extensible sections are each held in adjusted position by a bolt 22 and winged nut 23, the bolts passing through registering holes in the channel sections 19 and elongated slots 24 in the panel board 10. This detail may be reversed if desired. That is, the hole might be in the panel and the elongated slots in the extensible sections. If desired, an adjustable rheostat element 25 can be secured to the panel 10 as shown in Fig. 1 for regulating the speed of the motor and the revolutions of the fan.

In the drawings the fan unit is shown by way of illustration secured at the top of the lower window sash groove 26 of a window frame 27. It will be readily seen in Fig. 2 that the upper sash 28 can be fully closed when the fan unit is not in use as it passes in front of the unit which has no protruding parts, the pane of the upper sash which is the outside sash, providing a protection against weather conditions. The L-shaped brackets 29 are secured to the top of the window frame in the upper part of the lower window sash groove 26 by means of screws 30. The panel 10 is secured to these brackets by screw bolts 31 passing through the bracket 29 and the panel having winged nuts 32 threaded thereon.

The panel board with the fan and motor mounted thereon can be secured to the window frame with the extensible sections adjusted to the width of the window without interfering with the opening and closing of the window sashes.

This fan unit is installed as illustrated with little difficulty and when operated will eliminate all fumes and odors and insure a steady stream of fresh air through the kitchen, laundry, or whatever room it is installed.

I claim:

In a ventilating system, the combination with a window frame, brackets secured to the

top of said frame within the groove for the lower window sash, a panel removably secured to said brackets provided with a fan opening therein, a circular frame secured to
5 said panel provided with an integral motor supporting table, a disk pressure fan within said circular frame, a motor secured to said supporting table adapted to rotate said fan, extensible end sections embracing the ends of
10 said panel and slidingly adjustable thereover, the sections being adjustable to the width of said window frame and fitting snugly within the side grooves of the lower window sash, and fastening means passing through said
15 panel and also through said end sections for securing said end sections and panel in adjusted relationship.

GEORGE DE BOTHEZAT.

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