

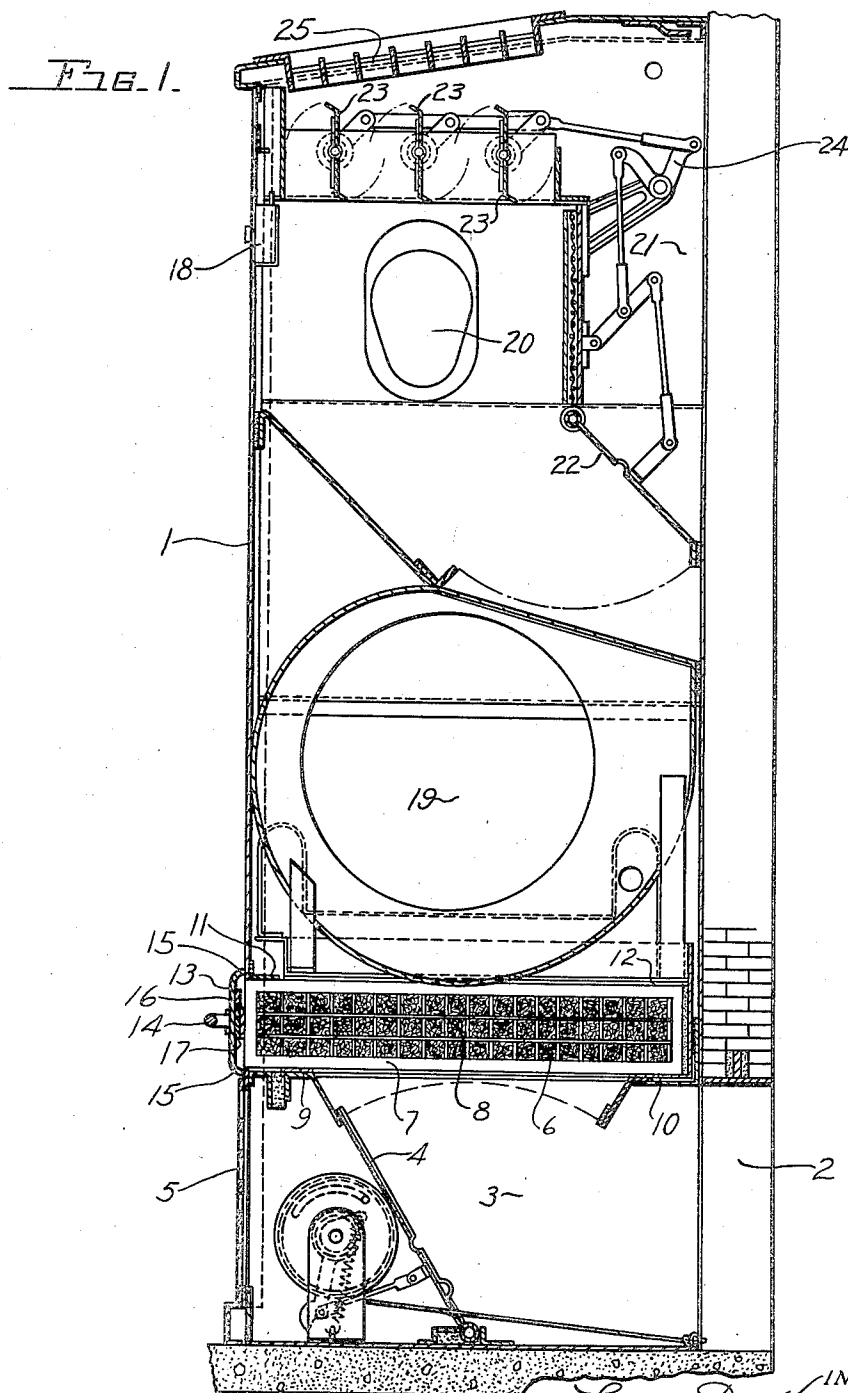
Nov. 1, 1932.

L. D. HARNETT

1,886,337

UNIT HEATER

Original Filed Aug. 29, 1929 3 Sheets-Sheet 1



INVENTOR
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BY *Paulmier & Paulmier*
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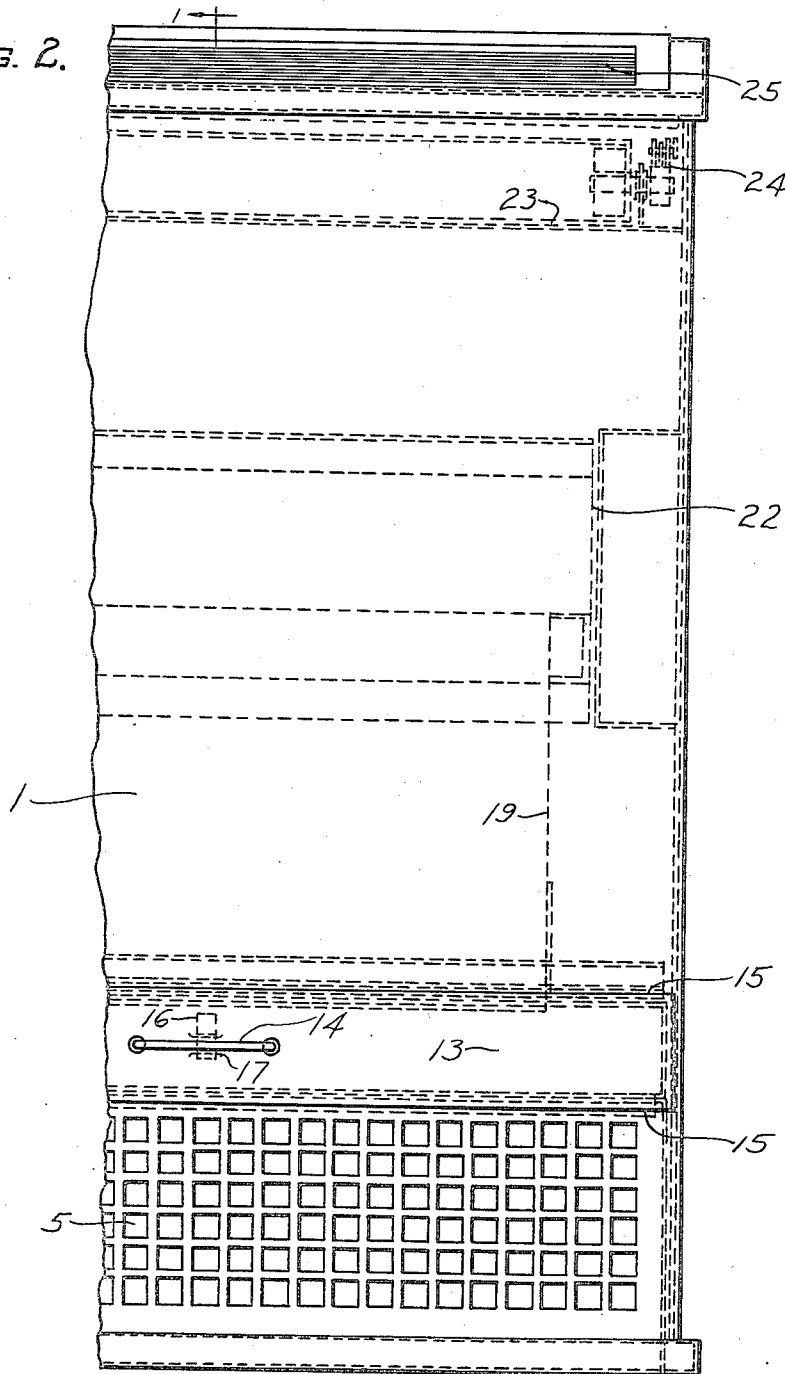
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UNIT HEATER

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FIG. 2.



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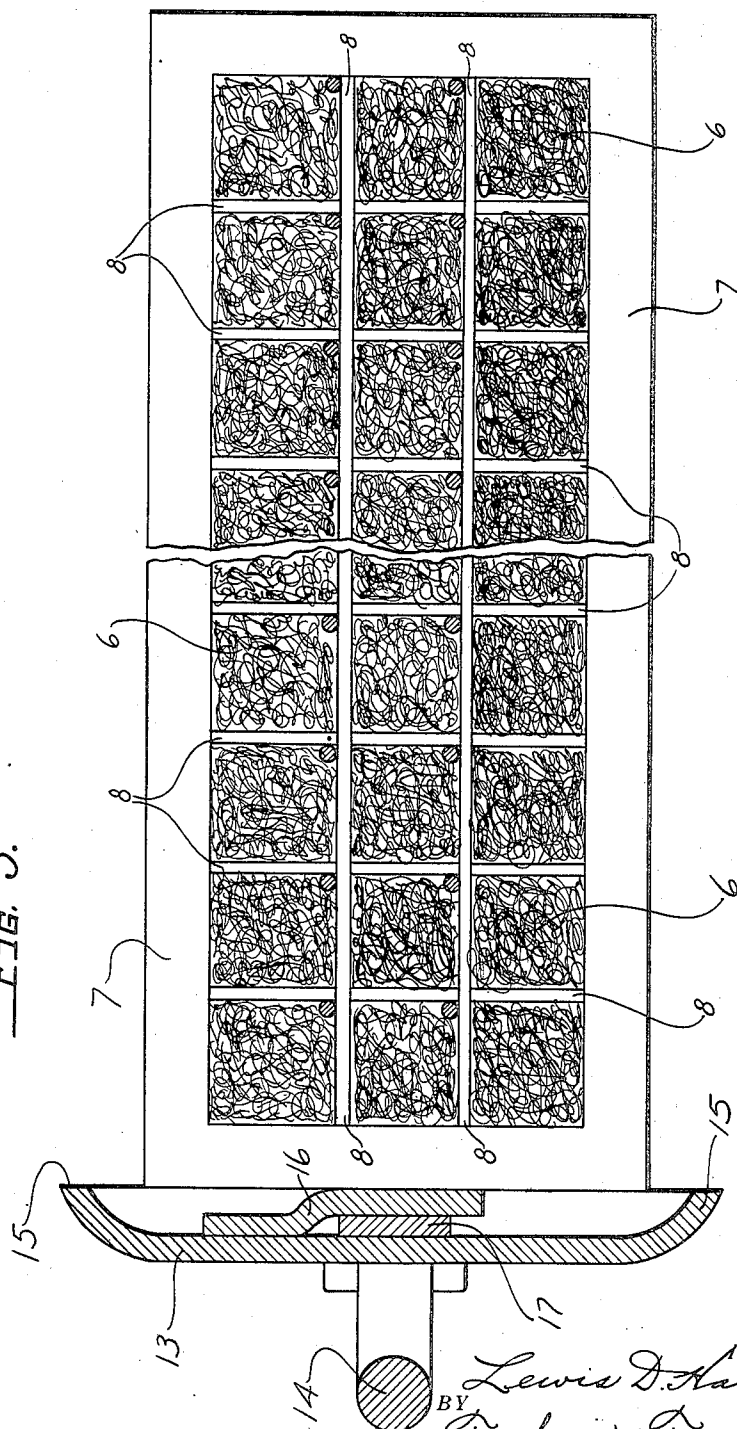
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UNIT HEATER

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3 Sheets-Sheet 3

FIG. 3.



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UNITED STATES PATENT OFFICE

LEWIS D. HARNETT, OF COLUMBUS, OHIO, ASSIGNOR TO THE BUCKEYE BLOWER COMPANY, OF COLUMBUS, OHIO, A CORPORATION OF OHIO

UNIT HEATER

Original application filed August 29, 1929, Serial No. 389,163. Divided and this application filed November 5, 1931. Serial No. 573,126.

My invention relates to heating and ventilating apparatus and in particular to unit heaters and ventilators.

It is the object of my invention to provide a detachable and removable filtering medium which may be removed from the unit heater and ventilator for cleaning, replacement and repairs without the necessity of unlocking the heater. It will be understood that the unit heater and ventilator has its mechanism enclosed in a casing which is securely locked to prevent tampering with the adjustments. It has been found that very serious consequences in upsetting the delicate adjustments of such unit have resulted from the necessity of having them opened by persons who must remove and clean the filters. The temptation to tamper with the mechanism has resulted in disturbing the apparatus which such persons are not authorized to deal with.

It is also a tedious process of locking and unlocking the cabinets in order to get at the filters and in large buildings where there are many such units it is an item of cost of major importance.

It is the object of my present invention to be able to remove and install the filters without opening the cabinets.

This application is a division of my application Ser. No. 389,163, filed August 29, 1929, which matured into Patent No. 1,847,609, March 1, 1932.

Referring to the drawings:

Figure 1 is a vertical section on the line 1—1 of Figure 2;

Figure 2 is a front elevation of half of the unit heater and ventilator;

Figure 3 is a detail side elevation of the filter with the filter door in section.

Referring to the drawings in detail, 1 indicates a casing having a bottom air inlet opening 2 into the air inlet damper compartment 3 controlled by the damper 4. Fresh air enters through the opening 2 from the outside of the building or air from the inside of the room may enter the chamber 3 through the grill opening 5. The air then passes upwardly through the filtering medium of the steel wool 6 carried in the cage

7. This cage or frame has vertical, transverse and longitudinal retaining grill or rod members 8 as well as the bottom. The entire unitary structure slides into position on the bottom frame members 9 and 10 and beneath the upper frame members 11 and 12. The front of the filter frame carries a detachable cover 13 having a handle 14. The cover engages the main casing 1 alone with turned over edges 15 so that any buckling of the cover will not cause leakage. The cover is detachably mounted on the frame by the tongue 16 entering the loop 17. This filter may be locked into position if desired, but usually that is not necessary as the case itself is locked by the lock 18. The air is drawn upwardly through the filter by the blower 19 and discharged over the radiator 20 or through the bypass passageway 21 according to the position of the dampers 22 and 23 controlled by the link system 24. The air then passes outwardly through the grilled exit 25. Thus the air passes in a straight line path from either the outside or the inside of the roof first through the filtering medium and thence into the blower and over the radiator, or into the bypass. This preliminary cleaning removes the foreign material so that there will be no accumulation on the blades of the fan, the motor or upon the radiator to reduce the radiation. It also removes the foreign material from the air.

It will be understood that these steel wool filters are cleaned by immersing in cleaning liquid or spraying or subjecting to other treatment so that it is highly desirable to remove the cover 13 which forms a part of the decorative casing in order that it shall not become injured by this cleaning treatment.

It will be understood that I desire to comprehend within my invention and within the scope of my claims such modifications as may be fairly comprehended within such claims and invention due to necessary modifications to adapt my invention to varying conditions of use and to varying purposes.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In combination, a frame, filtering me-

dium therein, a stop on one end of said frame and a casing cover having a tongue inserted beneath said stop whereby said casing cover may be detached from the frame when the
5 filtering medium is being cleaned.

2. In combination, a frame, filtering medium therein, a stop on one end of said frame, a casing cover having a tongue inserted beneath said stop whereby said casing cover
10 may be detached from the frame when the filtering medium is being cleaned and a handle on said detachable cover member.

In testimony whereof, I affix my signature.
LEWIS D. HARNETT.

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