A. V. KEYROUSE.

AIR MODIFYING DEVICE.

APPLICATION FILED APR. 20, 1915.

1,187,533.

Patented June 20, 1916.

Fig. 1.

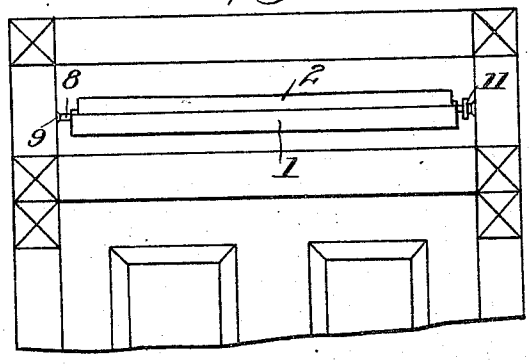


Fig. 2.

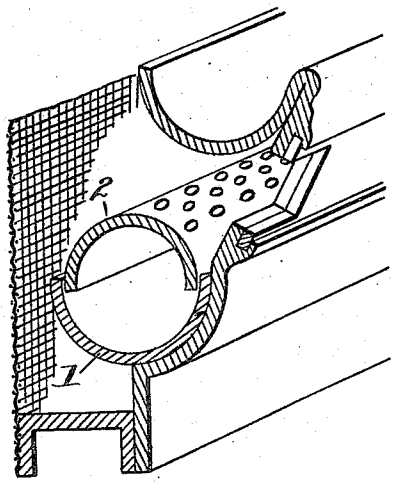


Fig. 3.

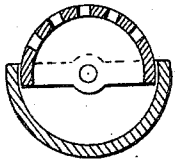


Fig. 4.

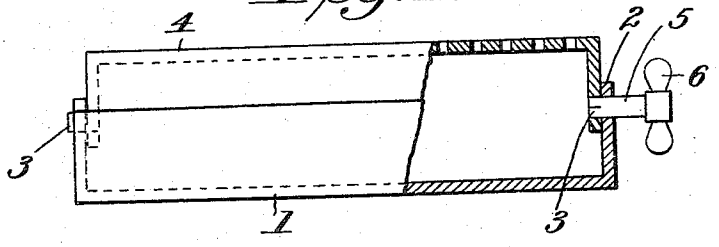


Fig. 5.

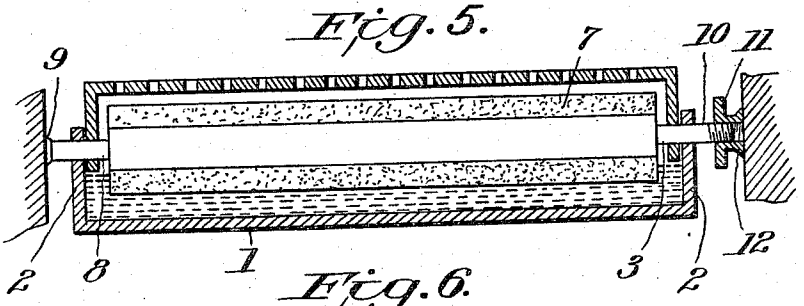
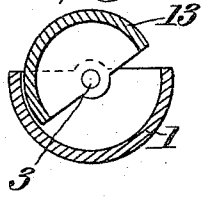


Fig. 6.



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UNITED STATES PATENT OFFICE.

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AIR-MODIFYING DEVICE.

1,187,533. Specification of Letters Patent. Patented June 20, 1916.

Application filed April 20, 1915. Serial No. 22,609.

To all whom it may concern:

Be it known that I, ANTHONY V. KEYROUSE, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Air-Modifying Devices, of which the following is a full, clear, and exact specification.

This invention relates to air modifying apparatus designed to be used as a humidifier or for distributing powdered or other perfume as a means of fumigation or improving the odor of the air.

One object of the invention is to provide a device of this kind which may be used either in a window ventilator or in the transom opening of a door.

Another object is to provide a container or trough for liquid or powdered material, equipped with an improved cover or closure which may be opened and closed very readily and without detaching or placing said cover in an awkward position when opened.

A further object is to provide the container with a rotary pad which may be adjusted simultaneously with the cover.

Other objects will appear as the description proceeds.

The invention will be first hereinafter described in connection with the accompanying drawings, which constitute a part of this specification, and then more specifically defined in the claims at the end of the description.

In the accompanying drawings, wherein similar reference characters are used to designate corresponding parts throughout the several views: Figure 1 is an elevation of the transom opening in a door frame, showing my improved air modifying apparatus supported therein. Fig. 2 is a sectional view through a window ventilator, showing my invention applied thereto. Fig. 3 is a cross section of one form of the device. Fig. 4 is a central vertical section taken longitudinally through one form of the device, such as is illustrated in Fig. 2. Fig. 5 is a similar view of a modified form of the invention, such as is applied to the transom opening illustrated in Fig. 1, and Fig. 6 is a cross section of another modification having an imperforate cover.

The container 1 is preferably trough-shaped and is substantially semi-circular on the inside. In the middle of each end 2 of the container there is journaled a pivot pin 3 for the cover 4 which is also semi-circular in form and of slightly less radius than the container, so that said cover may be turned inward to a position where it lies inside and close to the container, as illustrated in dotted lines in Fig. 3. One of the pivot pins 3 extends beyond the end of the container, as at 5 in Fig. 4, and is fitted with a knob or thumb nut 6 for turning the cover inward or outward at will. The cover is preferably perforated, as illustrated in Figs. 1 to 5, inclusive, so that the odor or perfume of the contents of the device may escape when the cover is closed, the idea then being to open the cover only when the supply of perfume or other material is to be replenished.

As illustrated in Fig. 5, the device may be provided with a rotary pad 7 adapted to absorb the liquid or carry a powder from the interior of the trough-shaped container 1 to the projecting outer surface of the pad when the latter is rotated. Said roller or pad 7 may be attached to inward projections 8 on the pivot pin 3 for the cover, so that the pad and cover may be turned simultaneously. In this way, a new supply of liquid or powder will be insured for the exposed or projecting upper portion of the roller each time the cover is opened for replenishing the supply in the container or simply for renewing the supply of material on said exposed portion of the pad. It will be understood that either form of the device, that is, with or without the pad 7, may be used in any convenient place, such as in a window ventilator or in the transom opening of a door frame.

Fig. 1 shows the device with the pad applied to a transom opening, while in Fig. 2, the device is shown without the pad, applied to a window ventilator of the type disclosed in my pending application, filed August 5, 1913, Serial Number 862,750, but it will be understood that either form of the air modifying device may be used in either place.

When applied to a transom opening, one of the pivot pins for the cover is extended beyond the end of the container and flared at the end, as at 9 to give an enlarged bearing against one end of the transom opening. The other pivot pin also projects beyond the end of the container and is screw-threaded,

as at 10. A nut 11, preferably provided with a milled edge, is fitted on the screw-threaded portion 10 and provided with a flared outer end 12 to engage the opposite end of the transom opening from that engaged by the flared end 9 of the other pivot pin. By turning the nut 11 on the threaded end 10 of the pivot pin, the whole device may be readily clamped in the transom opening or removed therefrom when desired.

Instead of being perforated, the cover may be made solid or imperforate, as at 13 in Fig. 6. In this form of the invention, it will be necessary to open the cover partially at least when it is desired to distribute the perfume or odor emanating from its contents. By opening the cover slightly at one side or the other, as shown in Fig. 6, the current of perfume may be directed as desired, for instance into the room, in the window or door of which the device is placed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:—

1. The combination with a container semi-circular in cross section, of a cover of similar form but slightly less radius pivoted to turn concentrically within the container, and a rotary pad arranged within the container and cover concentric therewith.

2. The combination with a container, of a cover pivoted to rotate on the container, a rotary pad, and means for simultaneously rotating the cover and pad.

3. The combination with a container, of a rotary cover therefor, pivot pins for the cover extending through the ends of the container, the projecting portion of one of said pivot pins being screw-threaded, and a nut fitted on said screw-threaded portion of the pin for the purpose specified.

In testimony whereof I have signed my name to this specification.

ANTHONY V. KEYROUSE.

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