April 21, 1925. 1,534,875

W. E. SIDAY

MEANS FOR DISINFECTING AND HEATING AIR

Filed Aug. 16, 1921 2 Sheets-Sheet 1

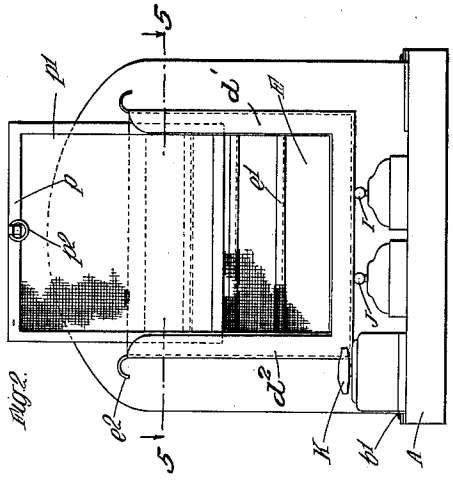


Fig 2.

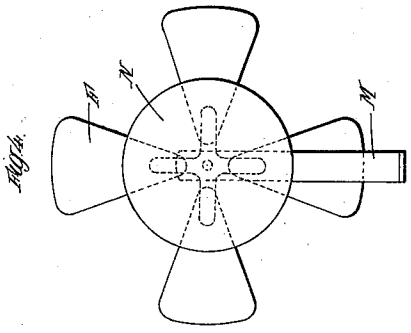


Fig 4.

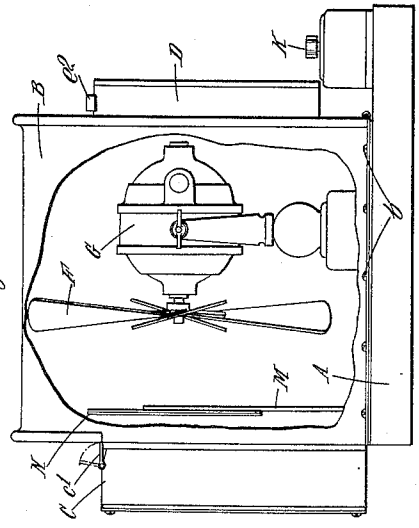


Fig 1.

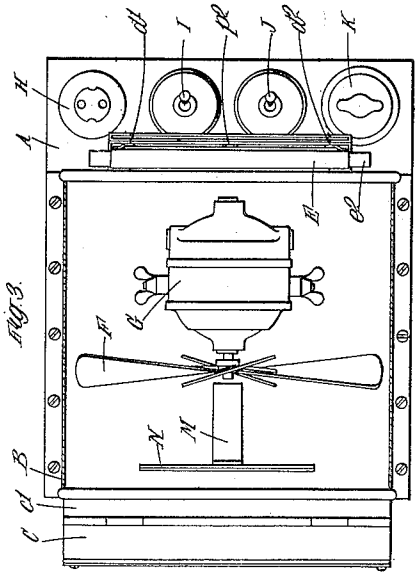


Fig 3.

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MEANS FOR DISINFECTING AND HEATING AIR

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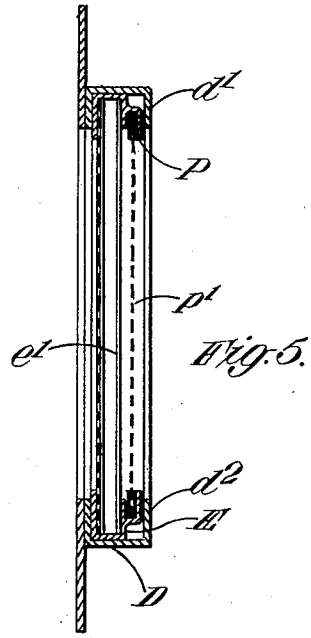


Fig. 5.

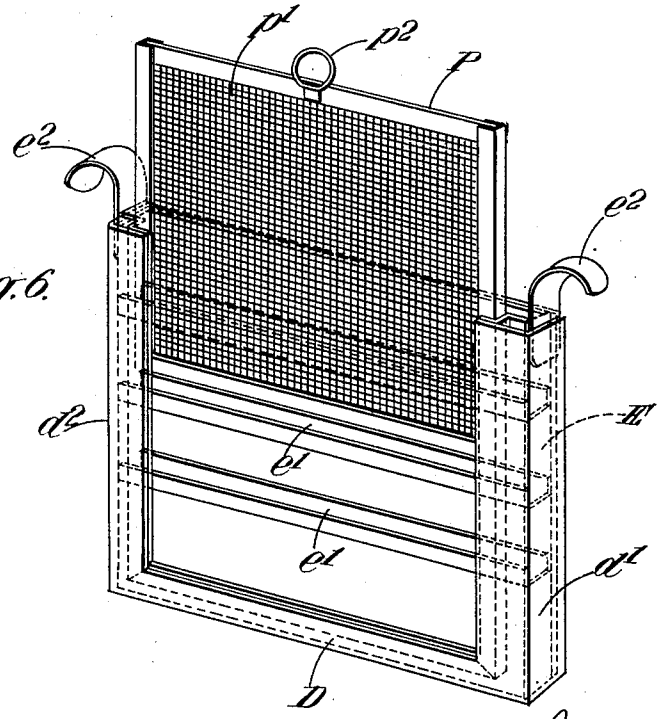


Fig. 6.

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Patented Apr. 21, 1925. 1,534,875

UNITED STATES PATENT OFFICE.

WILLIAM ERNEST SIDAY, OF NORTH KENSINGTON, LONDON, ENGLAND.

MEANS FOR DISINFECTING AND HEATING AIR.

Application filed August 16, 1921. Serial No. 492,738.

To all whom it may concern:

Be it known that I, WILLIAM ERNEST SIDAY, a subject of the King of Great Britain, residing at 43 St. Helens Gardens, North Kensington, London, England, have invented certain new and useful Means for Disinfecting and Heating Air, of which the following is a specification.

This invention relates to apparatus for filtering, diffusing, disinfecting, aromatizing, heating or cooling air.

According to this invention a fan is combined with an electric radiator and a container for disinfecting or aromatizing material in such manner that the current of air produced by the fan passes through the said radiator, and also through the said container. The radiator can be shut off from the fan and used alone for heating purposes only in the ordinary way, that is, the radiator can be operated at times merely as a heating element for air in the room in which the device is placed or when the radiator is not heated, the fan can deliver through the radiator a current of air either at atmospheric temperature or chilled by passing through an icebox or other cooling device, with or without the use of the disinfecting or aromatizing material in the apparatus, from which such material can readily be removed when desired.

In order that the said invention may be clearly understood and readily carried into effect, the same will now be described more fully with reference to the accompanying drawings, in which:—

Figure 1 is a side elevation of apparatus embodying this invention, in which part of the casing or cover is shown as being broken away in order to reveal the fan and a motor for driving the fan.

Figure 2 is a rear elevation.

Figure 3 is a plan with the roof or main body of the casing removed.

Figure 4 is a front elevation of the fan and baffle plate shown in Figures 1 and 3.

Figure 5 is a horizontal section through the container taken substantially along the line 5—5 of Figure 2.

Figure 6 is a perspective view of the rear of the container.

A indicates a base of wood or other material, which may be of any form suitable to the location of the apparatus. B is the main casing, which can be secured to the base in a readily removable manner, say by screws b^1. C is a box secured to the front of the said casing and enclosing an electric radiator of any known or suitable kind, the front of this box being open and provided with a grating or wire netting. D is an open-topped rearward extension of the casing B having in-turned flanges d^1, d^2, forming a container into which a wire gauze box E can be inserted and retained by the said flanges, F is a fan and G a motor for driving the said fan. H is a socket for receiving the terminal plug of an electric cable, I and J are switches for putting in action some or all of the heating elements in the radiator, and K is a controller for regulating the speed of rotation imparted to the fan F by the motor G. At the top of the radiator box C is a hinged lid c^1, which can be lifted to allow of the insertion or removal of a sliding partition (not shown) which sliding partition when in position cuts off the man casing from the radiator, the latter being then used in the ordinary way for radiating heat into the room or other place where it is situated. On a standard M is supported a baffle plate or disc N which prevents the occurrence of a back draught of air through the parts of the fan F adjacent to the axis thereof. The container box E may be a deep narrow box of wire gauze, comprising a number of shelves e^1 on which disinfecting or aromatic material may be placed, say in the form of crystals, perforated slabs, or pads of absorbent material saturated with a liquid disinfecting or aromatic preparation. The box E is held in place by the flanges d^1, d^2 and can be lifted out therefrom by means of the hooks or lugs e^2, when the air current passing the fan is not required to be treated with disinfectant or aromatized. A back or cover is provided on the box E consisting of a thin metal frame P filled in with a sheet of wire gauze, p^1 and having a ring p^2 to facilitate the sliding out of the back or cover when it is required to remove or replenish the disinfecting or aromatic material; in Figure 2 this back or cover is shown half lifted, exposing the two lower shelves in the box.

What I claim and desire to secure by Letters Patent of the United States is:—

1. A portable apparatus of the class described comprising a casing having inlet and outlet openings at opposite ends, a fan mounted within said casing and adapted to force

air through said outlet opening, heating means positioned in the path of air discharged through said opening, said means being supported from the casing, and a baffle plate within the casing between the fan and the discharge opening for preventing back draught through the casing.

2. A portable apparatus of the class described comprising a casing having inlet and outlet openings at opposite ends, a fan mounted within said casing and adapted to force air through said outlet opening, heating means positioned in the path of air discharged through said opening, said means being supported from the casing, a baffle plate within the casing between the fan and the discharge opening for preventing back draught through the casing, and means on the casing at the inlet opening for supporting a disinfecting or aromatizing material in the path of air drawn into the casing by said fan.

3. A portable apparatus of the class described comprising a casing having inlet and outlet openings at opposite ends, a fan mounted within the casing and adapted to force air through said outlet opening, heating means positioned in the path of air directed through said opening, said means being supported from the casing, means for introducing a dividing partition between said heating means and the fan for completely shutting off the heating means from the interior of the casing, and a baffle plate within the casing between the fan and the discharge opening for preventing back draught through the casing.

WILLIAM ERNEST SIDAY.