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HUMIDIFIER AND DISINFECTOR.

APPLICATION FILED OCT. 15, 1914.

1,189,600. Patented July 4, 1916.

Fig. 3

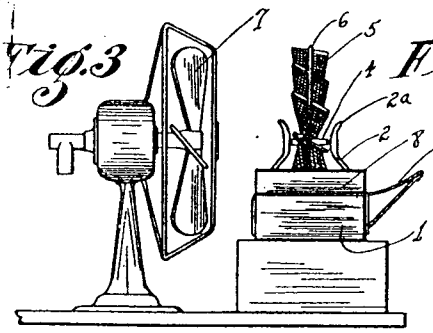


Fig. 4

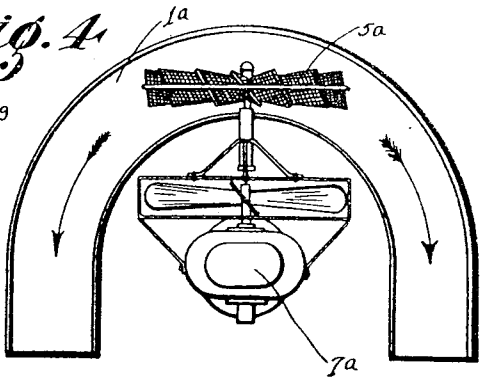


Fig. 1

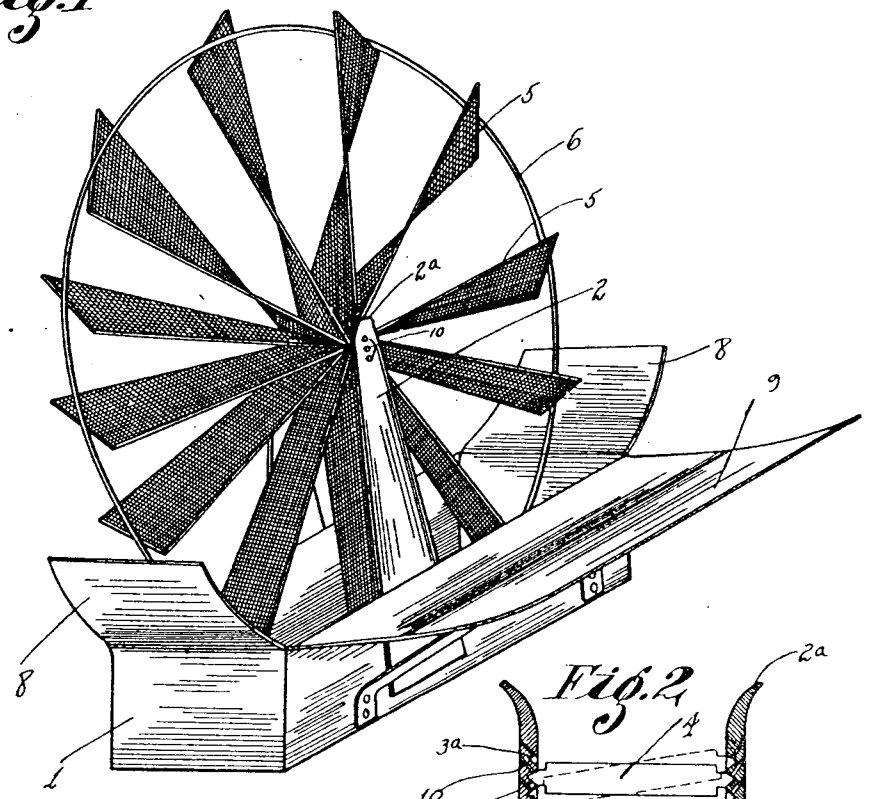


Fig. 2

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HUMIDIFIER AND DISINFECTOR.

1,189,600. Specification of Letters Patent. Patented July 4, 1916.

Application filed October 15, 1914. Serial No. 866,860.

To all whom it may concern:

Be it known that we, RAYMOND A. MALLETT, and CHARLES McCLUNG, citizens of the United States, residing at Sacramento, in the county of Sacramento, State of California, have invented certain new and useful Improvements in Humidifiers and Disinfectors; and we do declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in apparatus adapted for use in connection with electric fans, whereby with the movement of the air consequential upon the operation of the fan such air may be either moistened with water or with disinfecting material, such moistened air being thrown into the room in a cloud moistened condition or such disinfecting material likewise being distributed for apparent reasons.

The aim of the invention is to produce a wheel composed of a plurality of porous radial vanes, such vanes being removably journaled and positioned adjacent the electric fan in such a manner that the motion of the air generated by said fan will turn said wheel so that the vanes thereof will pass into and through a receptacle carrying water or disinfecting material. In this manner the porous vanes will become thoroughly pregnant with such water or disinfecting material and the action of the air therethrough will cause such air to become likewise impregnated with the same.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects, I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a perspective view of our improved invention. Fig. 2 is a sectional view of the bearings in which the wheel is mounted. Fig. 3 is a side elevation showing the position of the device adjacent an electric fan. Fig. 4 is a modified view showing the device attached directly to the frame of an electric fan.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 designates a shallow receptacle of any desired shape and depth adapted to hold the water or disinfecting material. On each side of the member 1 is an upwardly projecting support 2 provided with bearings 3 adapted to receive the spindle of the wheel. The wheel is composed of a plurality of radial vanes 5 made of wire screen or other suitable porous material suitably held and braced at their outer ends with an annular ring 6. When the wheel is placed adjacent the fan 7 the current of air generated by the movement of said fan actuates the wheel causing it to revolve slowly whereby the vanes 5 will move through the water or disinfecting material in the receptacle 1 and become thoroughly impregnated with such material and the passage of the air therethrough will likewise cause the air to become impregnated with either the moisture or the disinfecting material as may be desired. The member 1 is provided with side guards 8 and a front guard 9 to prevent any drippings from the wheel from falling outside the receptacle.

Inasmuch as some electric fans are inclined either downwardly or upwardly we have provided the members 2 with inclined bearings 3^a and 3^b respectively so that the spindle 4 may be inclined either upwardly or downwardly to conform to the incline of the fan.

The numeral 10 designates oil holes for the bearings 3, 3^a and 3^b. The members 2 may be of slightly resilient material with their outer ends curved as at 2^a whereby the spindle 4 may be either readily removed or inserted into the bearings.

In Fig. 4 we show the electric fan 7^a of the swinging type and with this type of fan the wheel 5^a will be journaled directly to the frame of the fan and moved in a circle therewith and hence the receptacle 1^a will be curved as shown, the structure and operation otherwise being the same.

From the foregoing description it will be readily seen that we have produced such a device as substantially fulfiis the object of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such devia-

tions from such detail may be resorted to as do not form a departure from the spirit of the invention as defined by the appended claims.

Having thus described our invention what we claim as new and useful and desire to secure by Letters Patent is:

1. A device of the character described comprising the combination with a revoluble fan, of a humidifier operable by the air currents from the fan, such humidifier comprising a receptacle adapted to contain a liquid, an absorbent wheel journaled above the receptacle in front of the fan and movable through the receptacle, the hub of said wheel being adjustable at different angles whereby the wheel may be arranged to operate directly in the air currents from the fan when the fan is inclined at different angles, as described.

2. A device of the character described comprising a receptacle, a pair of upwardly projecting supports on such receptacle, said supports being slightly resilient whereby they may be moved apart, each support being provided with a plurality of bearings disposed at different angles with respect to each other, and a porous wheel having a hub adapted to be pressed between said supports and projected into said bearings, as described.

3. A device of the character described comprising a receptacle, a pair of upwardly projecting supports on said receptacle, each support being provided with a plurality of bearings disposed at different angles with respect to each other, a wheel comprising a hub adapted to be projected into said bearings, and a plurality of radial vanes on said hub, as described.

In testimony whereof we affix our signatures in presence of two witnesses.

RAYMOND A. MALLETT.
CHARLES McCLUNG.

Witnesses:
LOUIS McGINNIS,
ERNEST R. SWAN.