

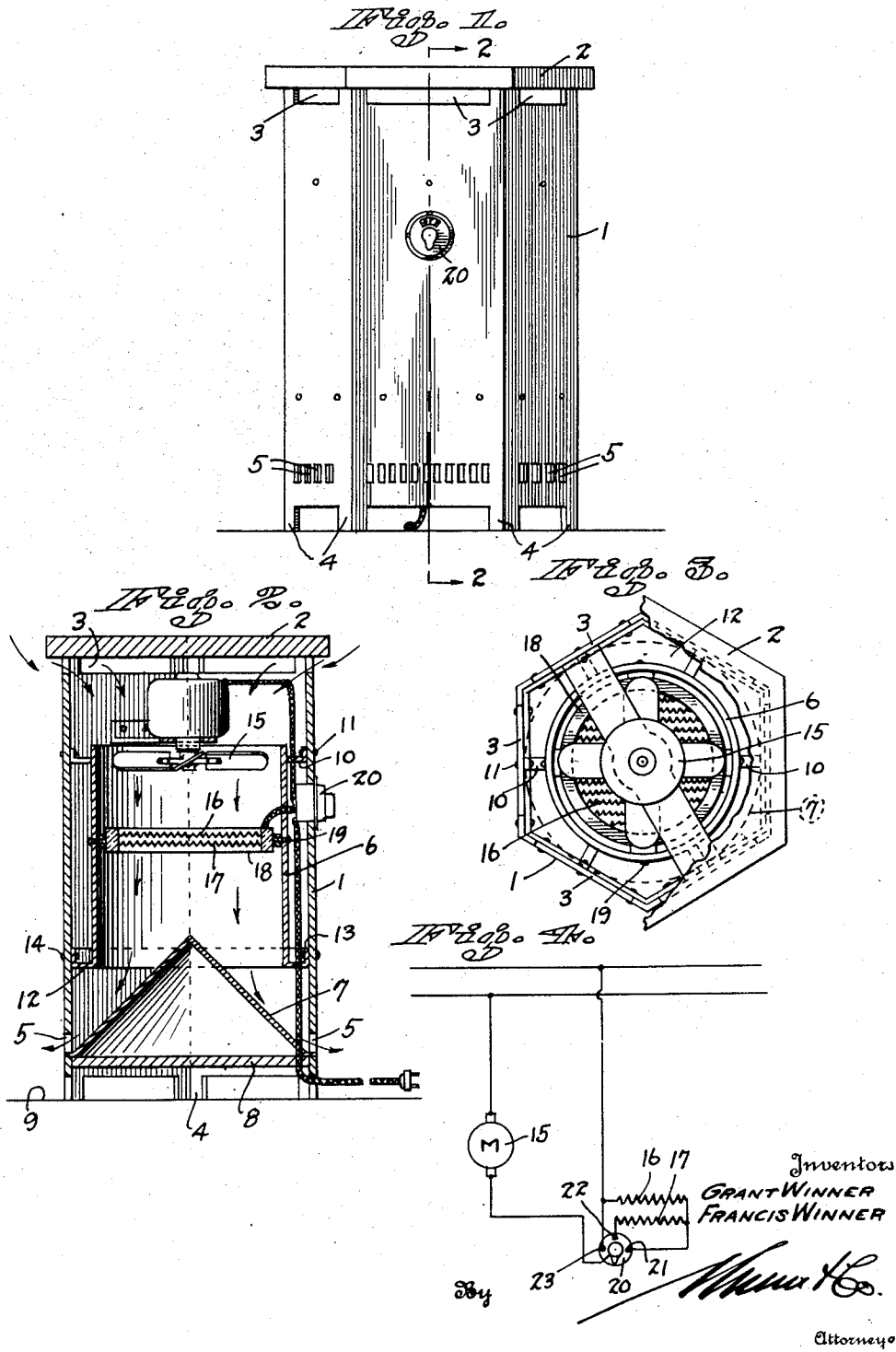
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HEATING OR COOLING DEVICE

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UNITED STATES PATENT OFFICE

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HEATING OR COOLING DEVICE

Application filed February 28, 1928. Serial No. 257,769.

Our invention relates to improvements in heating or cooling devices, and it consists in the combinations, constructions, and arrangements hereinafter described and claimed.

An object of our invention is to provide a heating or cooling device which is portable, and which resembles a piece of furniture. The casing is always cool even while the device is being used as a heater.

A further object of our invention is to provide a device of the type described which employs a fan and one or more heating coils, the coils and fan being controlled by an electric switch which permits one or more coils to be thrown on while the fan is in operation, or to electrically disconnect all of the coils, and permit the fan to continue in operation, whereby the device is changed from a heating device to a cooling device.

A further object of our invention is to provide a device of the type described that employs novel means for conducting air from the top to the bottom of the device, and for deflecting this air out across the floor.

Other objects and advantages will appear in the following specification, and the novel features of our invention will be particularly pointed out in what we hereinafter claim.

Our invention is illustrated in the accompanying drawing forming a part of this application, in which:

Figure 1 is a front elevation of the device;

Figure 2 is a section along the line 2—2 of Figure 1;

Figure 3 is a top plan view of the device with a portion of the cover broken away; and

Figure 4 is a wiring diagram.

In carrying out our invention we provide an outer casing 1 that may be of any shape desired. In the drawing we have shown this shape as being hexagonal. The casing is covered by a top member 2 and is provided with recesses 3 adjacent to the top, which form openings for permitting air to enter the casing. The bottom of the casing is provided with legs 4 and a plurality of openings 5 for the passageway of air therethrough.

The air enters the casing through the openings 3, and passes downwardly through a

cylinder member 6, and onto a cone-shaped member 7. The cone is supported by a bottom member 8 and its outer periphery is disposed adjacent to the openings 5, as clearly shown in Figure 2. The air passing downwardly through the cylinder 6 is deflected toward the openings 5 and passes from these openings out along the surface of the floor 9.

The cylinder 6 has outwardly extending projections 10, and these projections are turned up, and are secured by rivets 11, or other suitable fastening means, to the casing 1. These projections support the upper end of the cylinder. The lower end of the cylinder has an outwardly turned flange, and this flange has an upwardly turned portion 13 for permitting it to be secured to the casing 1 by rivets 14. A dead air space is provided between the cylinder and the casing, due to this construction.

At the top of the casing we mount a fan 15, and directly below this fan we dispose heating coils 16 and 17. The coils are carried by an insulating ring-shaped member 18, which in turn is secured to the cylinder 6 at 19. A switch 20 is disposed in the casing 1 and is electrically connected to the motor fan 15 and to the coils 16 and 17 by wires, as shown in the wiring diagram in Figure 4.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

When the switch 20 is turned onto the terminal 21, see Figure 4, the motor 15 and the coil 16 will be connected in series. A swinging of the switch onto contact 22 will throw the coil 17 into series with the coil 16, and the motor 15. These are the two degrees of heat that can be given off by the device.

When the device is desired to be used as a fan, the switch can be swung onto contact 23 and this connects the fan with the source of current and disconnects the heating coils 16 and 17.

Although we have shown and described one embodiment of our invention, it is to be understood that the same is susceptible of various changes and we reserve the right to employ such changes as may come within the scope of the invention as claimed.

We claim:

A portable air heater comprising a casing having air inlet openings at its top and air outlet openings at its bottom, a cover for the casing, a tubular member disposed within the casing and being spaced away from the casing wall, heating means disposed within the tubular member, a fan disposed above the heating means for forcing air thereby, and a cone disposed at the bottom of the casing for directing air radially from the tubular member to the outlet openings, the air disposed between the casing wall and tubular member acting as a heat insulator for keeping the casing wall unheated at all times.

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