

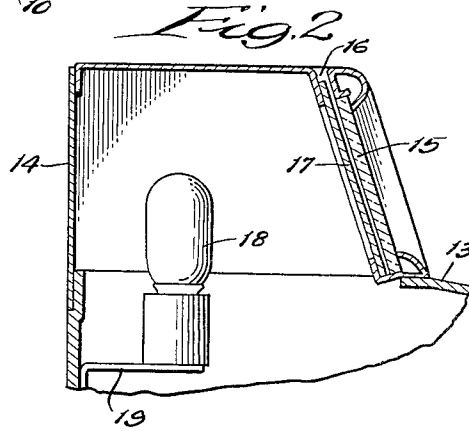
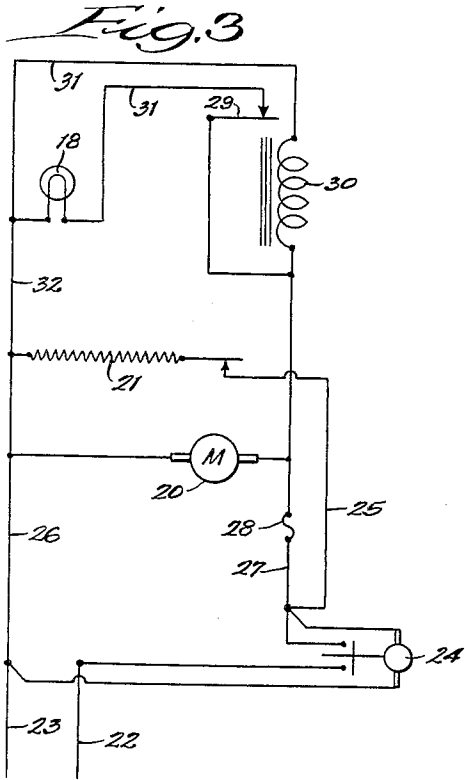
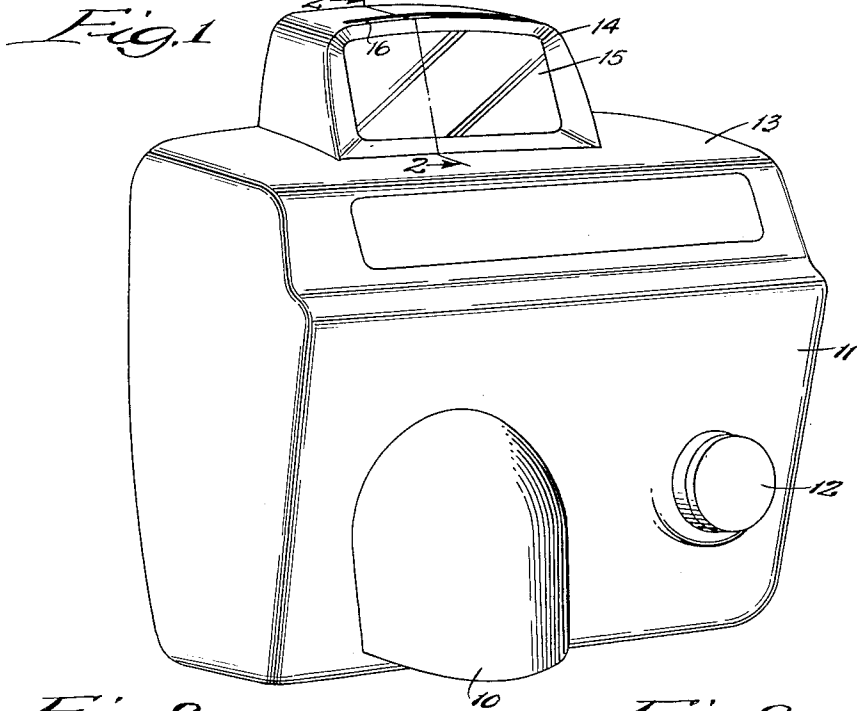
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DRYER AND VISUAL CONTROL THEREFOR

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DRYER AND VISUAL CONTROL THEREFOR

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3 Claims. (Cl. 219—39)

This invention relates to a dryer and visual control therefor. The invention is particularly useful in connection with a dryer for drying the hands or the hair and employing an electric resistance element for heating a current of air passed therethrough.

An object of the present invention is to provide in combination with a hand or hair dryer, a visual control which is effective for indicating optimum conditions for drying the hands or hair. A further object is to provide a mirror-like device into which the user of the dryer will automatically look while at the same time providing illumination as a means for indicating the flow of air with a maximum amount of heat therein for effective drying of the hands or hair. Yet another object is to provide a transparent mirror having a mirror effect by reason of its position, while at the same time allowing light rays to pass therethrough when a light bulb is illuminated therebehind, while also employing with such mirror or transparency an indicia-bearing device, which indicia becomes at once visible to the person using the dryer. A still further object is to provide an indicia-bearing slide in a position for illumination upon a dryer and delayed control timing means for illuminating the indicia plate after a predetermined time has elapsed since the starting of the dryer upon which the indicia-carrying device is supported. Other specific objects and advantages will appear as the specification proceeds.

The invention is shown in an illustrative embodiment by the accompanying drawing, in which—

Figure 1 is a perspective view of a dryer and visual control or display means associated therewith embodying my invention; Fig. 2, a broken vertical sectional view, the section being taken as indicated at line 2—2 of Fig. 1; and Fig. 3, a diagrammatic view of a wiring layout which may be employed.

The hand dryer or hair dryer may be of any suitable construction. The construction shown is that set out in greater detail in Clemens Patent No. 2,651,705, which issued September 8, 1953. Such a dryer has a blower which discharges air through a tubular outlet in which is mounted a transverse resistance element, and the air passing through the outlet and around the resistance element is heated thereby and then discharged through the outlet nozzle 10, rotatably mounted on the casing 11. A plunger 12 may be pressed inwardly to start the apparatus. Since such apparatus is well known, a detailed description herein is believed unnecessary.

Mounted upon the top 13 of the casing 11 is a hood 14 supporting at its forward end a transparent glass 15 and providing at the rear of the glass a slot or receptacle 16 for receiving an indicia-bearing slide 17. An electric light bulb 18 is supported upon a bracket 19 within the housing 14.

Referring more specifically to the wiring layout shown in Fig. 3, the numeral 20 indicates the motor for driving the blower, and the numeral 21 indicates the electric resistance element for heating the air delivered by the blower. The numeral 22 indicates a lead from a source of current

for the incoming current, and the numeral 23 may indicate the lead from the circuit and back to the source of current or to a ground, etc. The numeral 24 indicates a timing device which is of well known construction and which is effective in closing the circuit when the button 12 is pressed inwardly, and then, after a predetermined period of time, breaking the circuit. The current then flows through the leads 25 to the heating coil 21 and thence backwardly through lead 26 to lead 23. Similarly the current passes through the lead 27, fuse 28, and through the blower 20 and thence back to lead 26. Through the circuit so far described, when the button 12 is pressed inwardly to close the circuit, current flows through the motor 20 to start the blower and also through the resistance element 21 to create heat, the blower and resistance element being thus actuated simultaneously. As stated above, after a predetermined period of time, the timer 24 will break the circuit and both the blower and the heating element will be de-energized.

In the practice of the present invention, I provide a switch 29 actuated by the time delay 30 so as to cause current to flow through the lead 31 to the electric light bulb 18. Current also flows through the coil 30 and lead 31 back to the lead 32 which joins lead 26 and thus completes the circuit. It will be understood that any suitable time delay device may be employed, as, for example, a bimetallic member may be heated to cause it to bend, after a period of time, and thus provide the switch contact. Since time delay structures are of well known construction, a detailed description herein is believed unnecessary.

Operation

In the operation of the structure described, the user presses the button 12 to energize the first circuit described, and thereby the motor 20 and heating element 21. While a portion of cool air may first be discharged through the nozzle 10, the element 21 rapidly heats up and a large volume of warm air is discharged. The time delay 30 is effective in closing the switch 29 to bring out an illumination of the bulb 18 and thus indicate that optimum drying conditions have been reached and that the hands or hair may now be effectively dried below the nozzle 10. By placing the transparent glass 15 at an angle, and by providing a strip 17 therebehind, as illustrated in Fig. 2, it is found that when there is no illumination of the bulb 18, the glass 15 becomes a mirror and the user of the dryer has the natural tendency to look into the mirror. After the short delay period, in which the blower and heater are reaching optimum conditions, the light bulb 18 is illuminated and the mirror effect disappears, leaving in place thereof a plate 17 bearing indicia thereon which may be in the nature of directions, information, advertisement, etc. In any event, the sudden illumination which changes the character of the structure from a mirror to an informative device causes the user of the dryer to realize that the dryer is in full and optimum operation and the hands placed below the nozzle 10 receive the full volume of air warmed to the desired high and uniform degree.

While in the foregoing specification I have shown a specific structure in considerable detail, it will be understood that the details of structure may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim:

1. In combination with a dryer equipped with a motor-driven blower for discharging air and an electric resistance element for heating the air, means for energizing said motor and resistance element, a display housing carried by said dryer, an indicia-bearing film adapted to be supported by said housing, a light bulb in said housing adapted, when illuminated, to pass light rays through

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said film, and delay control means for illuminating said light bulb after a predetermined time following the energizing of said motor and resistance element.

2. The structure of claim 1, in which said housing is provided with a transparent panel supported in front of said film and providing a mirror effect when said light bulb is not energized.

3. In combination, a hand dryer provided with a motor-driven blower and a resistance element for heating the air delivered by said blower, a housing mounted upon said dryer having an open front side, a transparent panel in the open side of said housing, an indicia-bearing film, said housing providing a space adjacent said

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panel for supporting said film at the rear thereof, a light bulb in said housing, an electric circuit including said resistance element and motor, and a second circuit communicating with said first-mentioned circuit and including said light bulb, said second circuit having an open switch adapted to be closed by a time delay device after said first-mentioned circuit has been energized for a predetermined period of time.

References Cited in the file of this patent

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