Dec. 25, 1923. 1,478,635

J. H. CANNON

HAIR DRIER

Filed Oct. 4, 1919

Fig. 1.

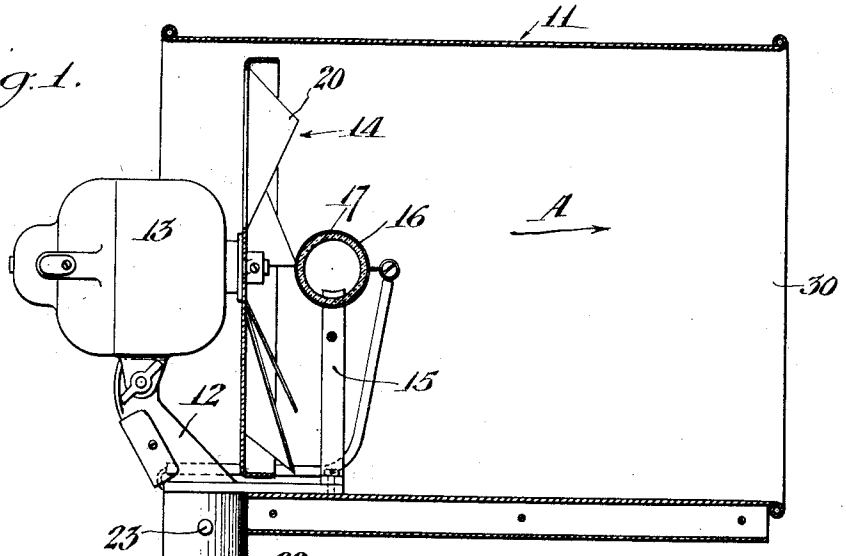


Fig. 2.

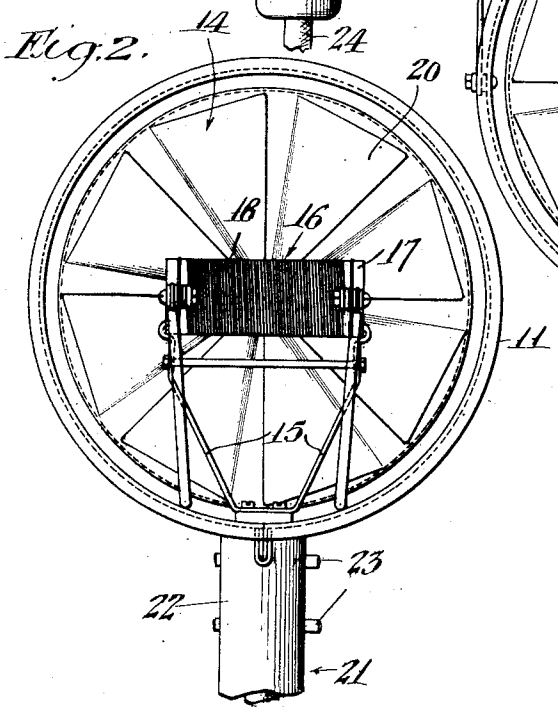
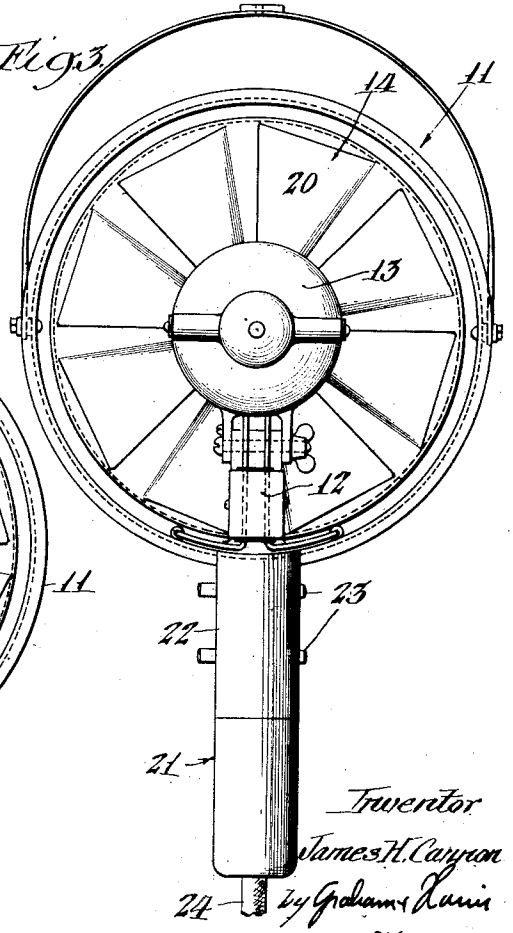


Fig. 3.



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UNITED STATES PATENT OFFICE.

JAMES H. CANNON, OF LOS ANGELES, CALIFORNIA.

HAIR DRIER.

Application filed October 4, 1919. Serial No. 328,592.

To all whom it may concern:

Be it known that I, JAMES H. CANNON, a citizen of the United States, residing at Los Angeles, Los Angeles County, State of California, have invented a new and useful Hair Drier, of which the following is a specification.

My invention relates to devices used in hair dressing establishments for drying the hair of patrons after it has been washed or treated.

An object of the invention is to provide a drier which will utilize radiant heat in combination with moving currents of air. It is a well known fact that the hair may be dried by forcing a blast of hot air through it and various devices are sold for this purpose. All of the devices of this character with which I am familiar are, however, objectionable on account of the fact that they are very inefficient and that the rate of drying is very rapid and tends to injure the hair or scalp.

All the previous devices with which I am familiar employ some means of heating a blast of air which is then projected against the hair or scalp.

My invention works upon a different principle, in that the air is only slightly heated, the heat being supplied as radiant energy directly to the hair and scalp, and the air current being utilized simply to carry away the vapors produced by the mild heating of the hair and scalp. It is a well known fact that radiant energy in the form of light has an extremely beneficial effect on the hair and skin, and it is a further object of my invention to utilize this principle.

Further objects and advantages will be made evident hereinafter.

Referring to the drawings which are for illustrative purposes only.

Fig. 1 is a horizontal cross section through one embodiment of my invention.

Fig. 2 is a cross section on a plane represented by the line 2—2 of Fig. 1.

Fig. 3 is a rear view of my invention.

In the embodiment shown, a cylinder 11 is provided, this cylinder being preferably formed of sheet metal having a highly polished inner surface. Secured in a bracket 12 at the rear of the cylinder 11 is an electric motor 13 having a reflector 14 secured to its shaft, this reflector being highly polished. Carried on a support 15 is a resistance element 16 which may conveniently be formed of a porcelain spool 17 on which wire 18 is wound. The element 16 is located on the axis of the cylinder 11. The reflector 14 has vanes 20 formed therein, these vanes being bent to provide an opening therebetween so that the reflector is also in effect a fan. The direction of rotation of the motor 13 is such that the vanes 20 force a blast of air through the cylinder 11 in the direction of the arrow "A" of Fig. 1.

A handle 21 is provided outside of the cylinder 11, this handle carrying a switch box 22 containing electric switches operated by buttons 23, one of these switches controlling the resistance element, and the other switch controlling the motor.

The method of operation of my invention is as follows:—

A current supplied through a flexible cord 24 passes through switches operated by the buttons 23 to the motor 13 and to the resistance element 17. The motor turns the reflector 14 at a high rate of speed, thus forcing the current of cool air through the center of the cylinder 11, this air being slightly heated by the walls of the cylinder and by the material of the reflector. The air therefore tends to keep the walls of the cylinder 11 the motor 13 and the reflector 14 cool at all times so that there is no danger of oxidizing the polished metal and thus reducing its reflecting efficiency or burning out the motor 13 by reflected and conducted heat. The wire 18 is so proportioned that it is white hot under the action of the current, the incandescent surface of the wire throwing off radiant energy which is reflected from the reflector 14 and from the walls of the cylinder 11 through the opening 30 at one end of the cylinder 11. The hair which it is desired to dry is placed over this opening, the radiant energy striking upon it tends to raise its temperature and vaporize any moisture that is contained therein. This moisture is carried away by the stream of air projected by the fan.

I have found that by depending wholly upon radiant energy for the heating, and using the air as an absorbing medium that several important advantages result. In the first place, there is great economy of operation over the ordinary method of heating a large volume of air as almost the entire heat is utilized directly in vaporizing the moisture in the hair, the air which is used being heated only slightly. Where electric heat-

ing elements are used to heat air which is then blown through the hair a large part of the heat is absorbed as only a portion of the heat carried in the air can be used in vaporizing moisture from the hair.

A further advantage arises from the use of radiant energy on the hair and scalp, this radiant energy having a very beneficial effect on both the hair and scalp.

I claim as my invention:

1. A hair drier comprising a cylinder having an open end over which the hair to be dried is placed; a motor located inside and on the axis of said cylinder; a heating element located inside and on the axis of said cylinder, said heating element being raised to a visibly radiating temperature when in use; a reflector carried on the shaft of said motor; and vanes formed in said reflector so shaped as to force air towards said open end along the axis of said cylinder.

2. In a hair drier, a heating element; a reflector for said heating element; vanes formed in said reflector; and means for rotating said reflector in such a direction as to cause said vanes to produce a current of air.

3. A hair drier comprising a stationary reflector; a radiant heating element inside said reflector; and a rotating reflector, said rotating reflector having vanes formed therein which force a current of air against the hair to be dried.

4. A hair drier comprising: a heating element which is raised to a temperature above a dull red heat when the drier is in use; a reflector so situated that a considerable portion of the heat from said element falls thereon and is reflected in a useful direction, said reflector having fan blades formed thereon; and means for rotating said reflector.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 27th day of September, 1919.

JAMES H. CANNON.