Jan. 14, 1930. P. E. GAIRE 1,743,963

HAIR DRYING MACHINE

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Fig. 1.

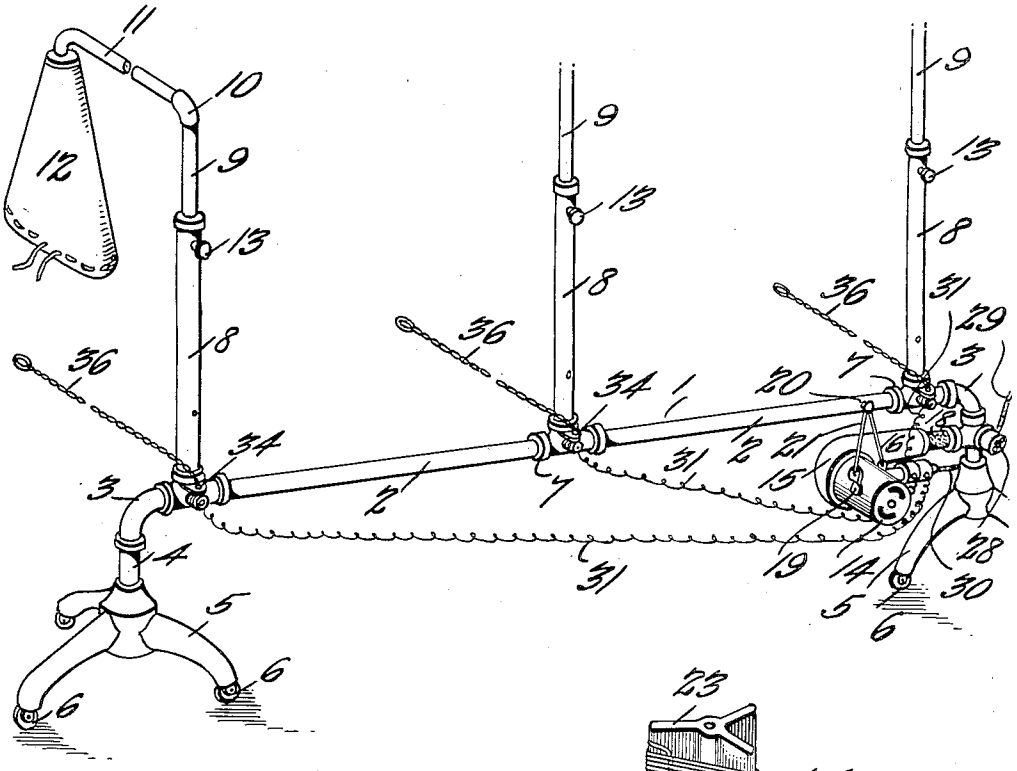
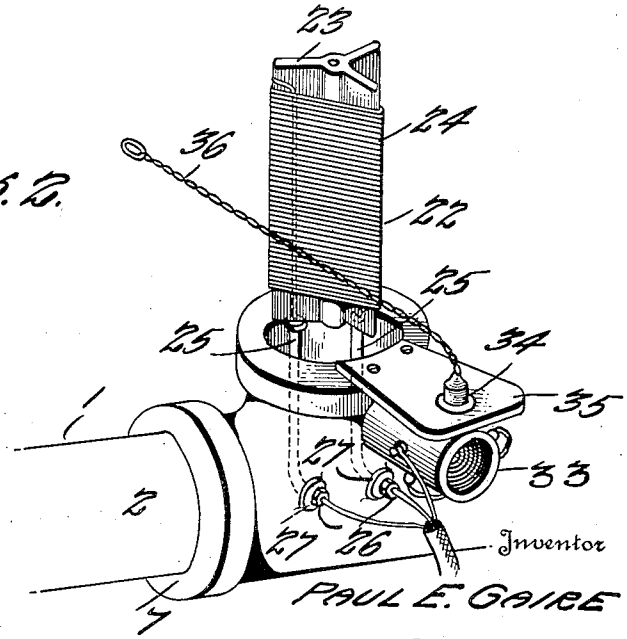


Fig. 2.



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Fig. 3.

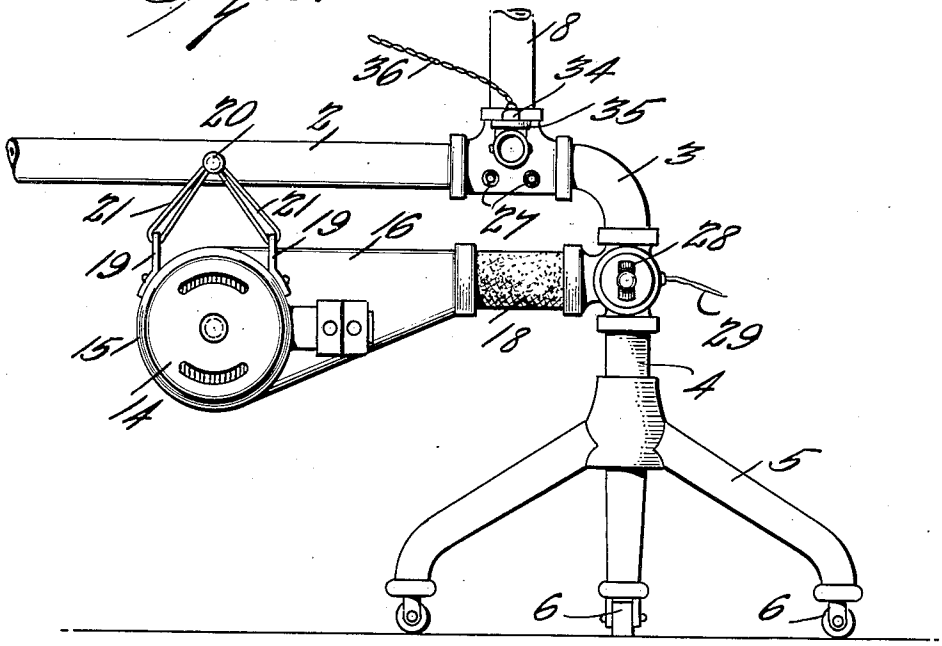


Fig. 5.

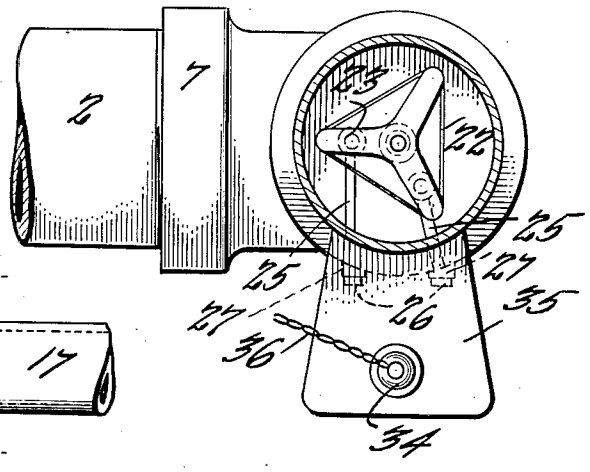
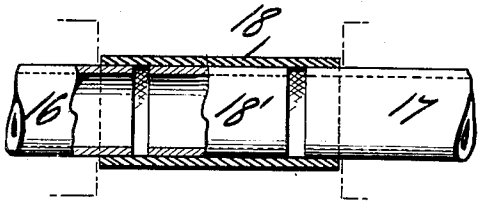


Fig. 4.



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UNITED STATES PATENT OFFICE

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HAIR-DRYING MACHINE

Application filed January 10, 1929. Serial No. 331,564.

This invention relates to improvements in portable hair drying machines of the type designed more particularly for use in hair dressing and treating parlors where, following washing and treatment of the hair, it is necessary that the hair be rapidly dried without any deleterious effect.

The primary object of the invention is the provision of a hair drying machine involving a plurality of independent hair driers, each provided with its own source of heat and each mounted on a movable support, with each of the hair driers independently adjustable.

A further object of the invention is the provision of means for supplying a current of air as the drying medium, which current of air is subjected to the influence of a heater for each individual hair drier; the current of air being supplied by mechanism carried by and movable with the machine as a whole and so connected and mounted with respect to such machine as to avoid the transference of vibrations to the individual driers of the motor mechanism for inducing the air current.

A further object of the present invention is the provision of means whereby the heaters of the independent hair driers may be separately governed at will, thus providing for the heating of such individual driers as may be in use and for the convenient control of the heat of any one drier without regard to the heat conditions of any other drier.

The invention is illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the improved hair drying machine.

Figure 2 is an enlarged perspective view showing the connection of one of the individual driers with the main supporting bar, the arrangement of the heating element for such individual drier being illustrated and the individual drier standard being shown in dotted lines.

Figure 3 is an enlarged side elevation showing the mounting of the motor fan casing.

Figure 4 is a sectional view of the flexible support for the fan motor casing.

Figure 5 is a sectional detail of the heater support.

The improved drying machine includes a main suporting bar 1, preferably made up of a plurality of hollow sections 2 and terminally provided through the use of elbow couplings 3 and short rod sections 4, with appropriate foot elements 5 which are constructed to support the bar 1 at a convenient height from the floor and preferably provided with casters or rollers 6 by which the machine as a whole may be moved conveniently from place to place, as desired. The main supporting bar 1, as stated, is made up of sections connected by T couplings 7, the short leg of which extends upwardly and vertically with respect to the main supporting bar to receive by threaded connection a fixed standard 8 of the independent drier.

Slidably mounted in the standard 8, in a non-locking relation, is the depending hollow upright 9 of a drier section 10 which, in addition to the depending hollow upright 9, includes a laterally extending bar 11 at the free end of which is connected and supported in any usual or preferred manner any conventional or special type of hood 12 to be placed over the head of the person for the drying of the hair. As the upright 9 of the individual drier is slidably mounted in the standard 8 thereof, it is apparent that the lateral bar 11 may, within the limits of the respective sections 8 and 9, be adjusted to varying heights, as may be required to accommodate persons of different heights. A set-screw 13 temporarily holds the upright 9 at any adjusted height with respect to the standard 8.

From the above arrangement, it will be apparent that the improved machine contemplates the use of any desired number of individual driers, and that such individual driers may be independently adjusted to varying heights as may be required. Of course, the main supporting bar and the independent driers are hollow throughout, thus providing for a free flow of the heating medium as will later appear.

The heating medium is in the form of a current of air generated by means of a motor

driven fan and forced through the supporting bar and independent driers. This fan motor is indicated at 14 and requires neither specific illustration nor description, in that any conventional hand motor and fan may be employed. An important detail, however, in connection with the fan and motor is to so support the casing for such fan and motor as to prevent the necessary vibrations of such parts from being communicated to the drier as the attendant vibrations, if communicated to the drier, are objectionable and more or less irritating to the person whose hair is being dried.

To provide this specific mounting of the motor and fan, the casing 15 has a lateral extension 16 communicating with a similar extension 17 of a coupling employed in one of the rod sections 4 through a flexible intermediate section 18 which may be of rubber, reinforced or not as desired, and which will tend to a slight flexibility in the mounting for the motor and fan and avoid the transference of vibrations otherwise incident to the usual solid connection. Furthermore, the casing enclosing the motor and fan has spaced outstanding lugs 19 which are connected to pins 20 on the main supporting bar 1 by elastic connectors 21. These connectors may be in the form of rubber bands, springs or like elements. The flexible coupling between the motor fan casing and the adjacent rod section 4, is preferably a rubber sleeve-like section 18, the ends of which are fitted over the extension 17 and an extension from the rod section, the rubber sleeve being interiorally reinforced substantially throughout its full free length by a metal sleeve 18', in Figure 3.

Thus, the motor and fan casing, as well as the enclosed parts, have a flexible unit connection with one of the supporting legs and are resiliently supported as a unit from the main supporting bar 1. Thus, the motor and fan and the casing therefor are in effect universally hung to permit the necessary freedom of vibration without, however, transmitting this vibration to any of the drier parts. It is of course understood that each foot section 5 closes the lower end of the hollow pipe section 4, so that the air produced by the fan is directed through the main pipe section and through each of the individual driers.

Each individual drier is provided with an electric heating element, capable of energization at will, and of sufficient capacity to heat the air directed through that drier, so that heated air is delivered to the hood 12. The heating elements are indicated at 22 and any electrically operated heating element of appropriate capacity and form may be used. It is not considered necessary to either specifically illustrate or describe such heater, though for convenience it is here shown as a frame 23 on which the heating wire 24 is arranged. The heater as a whole is of course of a size to fit loosely within the upright 8 of each independent drier, so that the air forced through the upright in the operation of the machine will pass the more or less incandescent wires of the heater and become heated.

The heating element is supported on rods 25, two being preferably employed which extend down into the T coupling forming the juncture between the main rod sections and the upright and are bent laterally to extend through openings in the coupling where they may be secured by nuts 26. The rods 25 are of course insulated in any appropriate manner, as indicated at 27, from the T coupling and are preferably hollow to provide for the convenient passage therethrough of the wires leading to and energizing the heater.

Mounted on the coupling 17 by which the motor fan casing is supported is a switch 28, conductors 29 leading in one direction therefrom to the usual plug by which the machine as a whole may be connected to any standard socket of the city service. Beyond the switch, conductors 30 lead to and control the motor of the fan, these conductors 30 being branched into conductors 31, one for each independent drier. Said conductors 31 lead to and through the pipes 25 forming the support for the heater in each instance. One of the wires 32 leads through a conventional switch 34 supported by a plate 35 projecting from the T coupling 7 of the particular independent heater upright 8, a chain, cord, or other convenient manual operator 36 serving to control the switch 34 at will. This may be controlled by the patient.

Thus, the energization of the fan motor, that is the production of the heating medium, is controlled by the switch 28 and the heating of that medium for each independent drier is controlled by the conductors 31 governed by the manually controllable switch 34. Therefore, any one or more of the independent heaters, having been adjusted to accommodate the height of the person being treated, may be put in use by energizing the heater of such independent drier or driers, and the desired heat of the heating medium, in accordance with the purpose of the particular treatment, may be controlled by the switch 34. Thus, several patients may be treated at the same time, each having the device adjusted to accommodate the particular patient and the heat delivered to that particular patient at will.

It will of course be appreciated that if desired the current delivered to any particular heater may be regulated in degree through the use of an ordinary adjustable resistance, such as indicated at 33 in Figure 2. Thus, not only is the application of the heat controlled, as by switch 34, but the degree of that heat, as by the variable resistance 33.

It is to be particularly noted that the inde-

pendent heaters, that is the lateral pipe 11 thereof, may be swung to practically any position radially of the upright 8 and that the machine as a whole is completely and entirely portable within the range of the length of the conductors 29. This adaptation provides a drying machine which is substantially completely flexible with respect to its positions and adjustments to fit any particular use. Furthermore, when not in use, the machine, by this very capability of flexibility, may be placed against the wall entirely out of the way and presenting no objectionable obstruction. It is of course to be understood that the exposed parts of the drying machine are preferably to be highly finished and ornamental in order that the machine as a whole may provide an attractive and pleasing apearance which is so highly desired and characteristic of the places of business in which treatments of this kind take place.

What is claimed to be new is:

1. A portable hair drying machine including a main supporting bar, a plurality of independent driers carried thereby, means for creating a current of air for uninterrupted delivery through said independent driers, and heating means carried by each independent drier for independently heating the air of each drier.

2. A hair drying machine comprising a main supporting bar, a plurality of independent driers carried by said bar, each of said driers being independently adjustable, means for directing a current of air through each of said driers, a heating element in each drier in the path of the air current passing therethrough, means for selectively energizing the heating elements, and means for varying the heating effect of any heating element.

3. A hair drying machine including a main bar, means for supporting the bar to permit it to be moved from place to place, a plurality of independent driers carried by said bar, each of said driers being adjustable as to height and angular position with respect to the main supporting bar, a motor fan for uninterruptedly delivering air under pressure to the independent driers, an electric heater in each independent drier, means for selectively energizing the heaters, and a manually controlled means for governing the energization of each heater.

4. A hair drying machine including a main bar, means for supporting the bar to permit it to be moved from place to place, a plurality of independent driers carried by said bar, each of said driers being adjustable as to height and angular position with respect to the main supporting bar, a motor fan for delivering air under pressure to the independent driers, means for flexibly supporting the motor fan with respect to the main supporting bar, an electric heater in each independent drier, means for selectively energizing the heaters, and a manually controlled means for governing the energization of each heater.

5. A hair drying machine including a main bar, means for supporting the bar to permit it to be moved from place to place, a plurality of independent driers carried by said bar, each of said driers being adjustable as to height and angular position with respect to the main supporting bar, a motor fan for delivering air under pressure to the independent driers, a flexible coupling between the motor fan casing and main supporting bar, resilient hangers connecting said motor fan casing and the main supporting bar beyond the flexible coupling, an electric heater in each independent drier, means for selectively energizing the heaters, and a manually controlled means for governing the energization of each heater.

In testimony whereof I affix my signature.

PAUL EDMUND GAIRE. [L. S.]