

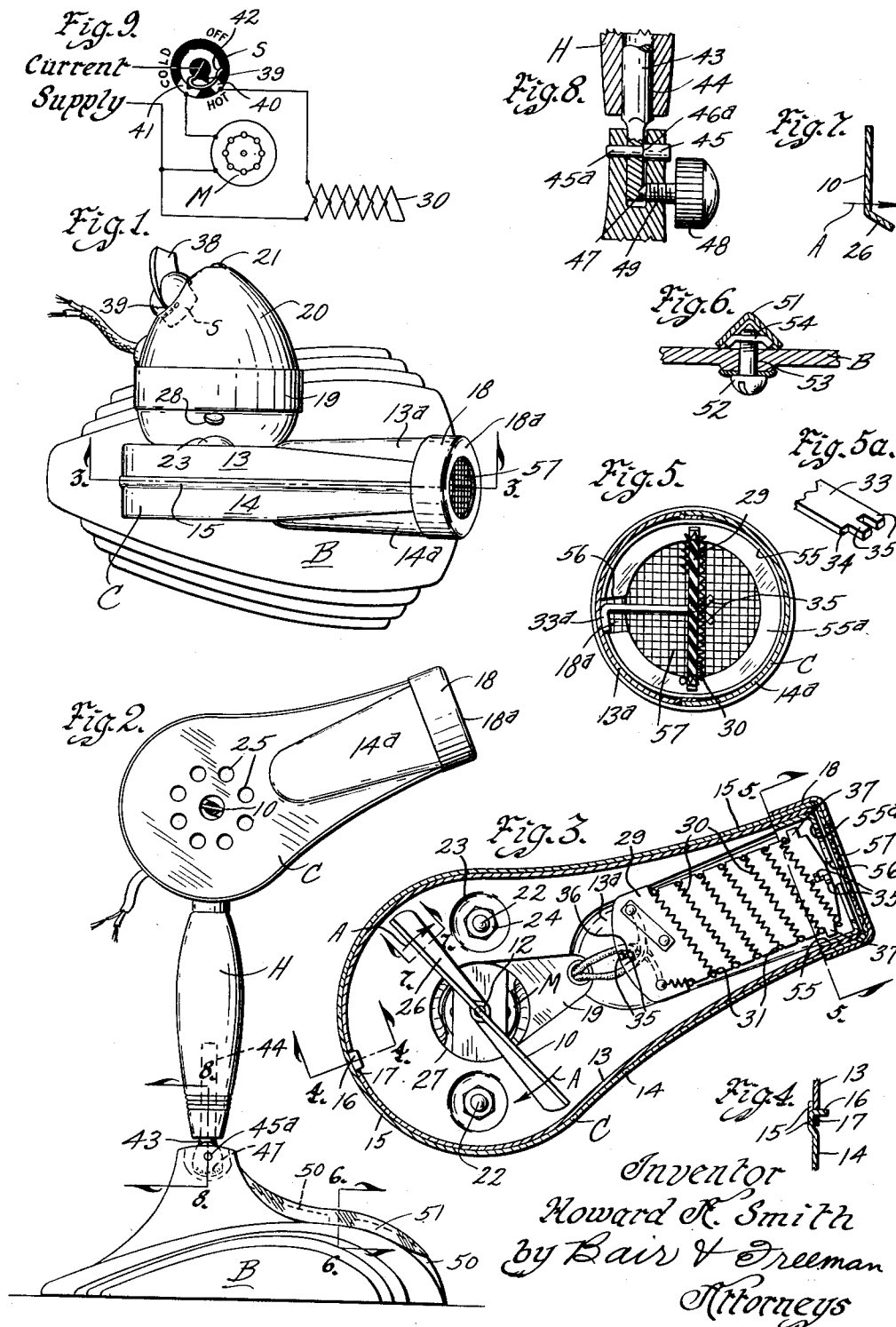
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DRIER FOR HAIR AND THE LIKE

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DRIER FOR HAIR AND THE LIKE

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One of the objects of my present invention is to provide a simple and inexpensive electric drier for hair and the like, the parts of which may be readily assembled and conveniently operated

Figure 5 is a sectional view on the line 5-5 of Figure 3.

Figure 5a is a perspective view of an end of the heating element support used in my hair drier.

Figure 6 is an enlarged sectional view on the line 6-6 of Figure 2 showing means to secure a trim element in position on the supporting base of my hair drier.

Figure 7 is an enlarged sectional view on the line 7-7 of Figure 2 showing details of the fan which I use in connection with my hair drier.

Figure 8 is an enlarged sectional view on the line 8-8 of Figure 2 showing means to locate the hair drier at different desired inclinations relative to its supporting base; and

Figure 9 is an electro diagrammatic view of the fan, motor, heating means and control switch of my hair drier.

On the accompanying drawing I have used the reference character B to indicate a supporting base, H a handle and C a fan casing. Within the casing C a fan blade 10 is provided which is mounted on the shaft 12 of a fan motor M.

The casing C is formed of two casing members 13 and 14. The casing members 13 and 14 are shaped to surround the fan 10 and have discharge nozzle portions 13a and 14a respectively. The casing member 14 has a flange 15 which, as best shown in Figure 4, extends over the edge of the casing member 13. At the left hand end of the casing C the casing members 13 and 14 are held together by a tongue 16 extending through a slot 17. The opposite ends of the casing members 13 and 14 are held assembled relative to each other by an annular rim member 18. The rim member 18 is slipped in position over the forward ends of the casing members 13 and 14 as shown in Figures 3 and 5 and may be welded or soldered in position if found necessary.

A second annular rim member 55, split at 56 to clear a heating element support 33, is mounted in the nozzle 13a-14a. A protective screen 57 is mounted between flanges 18a and 55a of the rim members 18 and 55 and engages the outer end of the nozzle.

The casing member C is secured to a motor housing for the motor M which housing comprises a pair of coacting housing members 19 and 20 held assembled by a screw 21. Bolts 22 (see Figure 3) extend from the casing member 19 through perforated indentations 23 of the fan casing member 13 wherein nuts 24 are screwed on to the bolts 22.

The fan member 10 is of the blower type

A further object is to provide a hair drier consisting of a motor driven blower fan with electrically heated means for the air propelled thereby, a control switch being provided for selectively furnishing either cold or hot air by energizing respectively the fan motor only or the fan motor and the heating element simultaneously.

Another object is to provide an inexpensive heating means for the air being discharged by the hair drier which is supported in the discharge nozzle of the hair drier, means being provided for protecting the user against being burned by the heating element and such means being in the form of a guard of wire mesh or other perforated material over the discharge nozzle of the hair drier.

A further object is to provide a hair drier including a pair of casing members which may be readily assembled and which support the heating means and the protecting screen in a novel manner.

Still another object is to provide means whereby the fan of the hair drier draws heated air from the motor thus keeping it cool during prolonged operation of the drier.

Still a further object is to provide a supporting base for the hair drier and a novel means for adjusting the inclination of the air discharge nozzle relative to this base, the base being supplied with a trim element for ornamental purposes which is connected to the base by an inexpensive and readily assembled means.

With these and other objects in view, my invention consists in the construction, arrangement and combination of the various parts of my device whereby the objects contemplated are attained as hereinafter more fully set forth and pointed out in my claims and illustrated in the accompanying drawing in which:

Figure 1 is a plan elevation of a drier for hair and the like embodying my invention.

Figure 2 is a side elevation thereof.

Figure 3 is an enlarged sectional view on the line 3-3 of Figure 1 showing internal details of the fan casing and the fan and heating means therein.

Figure 4 is a sectional view on the line 4-4 of Figure 3 showing the connection of parts of the fan casing at one end thereof.

adapted to discharge air by centrifugal force, such air being drawn in through intake openings 25. The blade 10 has portions 26 which draw heated air from the motor M through an opening 27 of the fan casing member 13. Cooling air is admitted to the motor housing through an intake opening 28 (see Figure 1).

For heating the air being discharged from the hair drier, I provide heating means comprising an insulating base plate 29 and a coiled resistance element 30. The element 30 is wound around the base plate 29 and located in notches 31 in opposite edges of the plate. The plate in turn is supported substantially longitudinally of the air discharge nozzle of the fan casing by a rear supporting bar 32 and a forward supporting bar 33. The bars 32 and 33 are secured to the casing member 13 by spot-welding or the like and have at their outer ends shoulders 34 and prongs 35 as shown in Figure 5a.

The plate 29 is provided with notches 36 at its ends to receive the bars 32 and 33 and rests against the shoulders 34 thereof after which the prongs 35 are bent in opposite directions during the assembling operation. The supporting bars 32 and 33 thereby support the base plate 29 in a position substantially midway between the sides of the fan casing C. To prevent any undesired contact of the heating element 30 with the casing C, I provide projections 37 on the forward end of the plate 29 which eliminate any possibility of bending the bar 33 out of shape so that the heating element contacts with the casing.

For controlling the energization of the motor M and the heating element 30, I provide a switch S. The switch S has a control handle 38 and a pointer 39. The switch is provided with a pair of contacts 40 and 41 (see Figure 9) and with a bridging contact 42. The bridging contact is arranged to contact with either both contacts 40 or 41 thereby causing the hair drier to discharge hot air because both the motor and the heating element are energized or to engage only the contact 41 for supplying cold air by energizing the motor and not the heating element. Movement of the switch to "off" position results in the contact 42 disengaging both contacts 40 and 41.

The handle H is adapted for holding the hair drier in the hand if desired. When the hair drier is mounted on the base B, a pin 43 extending upwardly therefrom frictionally engages in a bore 44 of the handle H. The pin 43 is pivoted on a pivot pin 45. The pin 43 has an extension 46a provided with circumferentially spaced indentations 47. A set screw 48 is threaded in an opening 49 of the base B and selectively coacts with the indentations 47 whereby the pin 43 may be adjusted to different angles of inclination relative to the base B and locked in such positions, whereby the inclination of the air discharge nozzle may be varied as desired.

The base B is provided with a bead 50. The base may be of cast metal with the bead cast thereon and it is desirable from an ornamental standpoint to have the bead of a different color or finish than the rest of the base, such as chromium plated. This can be readily accomplished by providing a trim element 51 overlying the bead 50 and secured to the base as by a screw 52 (see Figure 6). The screw 52 extends through an opening 53 of the base and is threaded into a cross bar 54 spot welded to the inner surface of the trim element 51.

My hair drier can be economically made and readily assembled when made in accordance with the foregoing specification. Control of the air therefrom both as to inclination and as to whether it is cold or hot, is readily selectable by the operator.

Some changes may be made in the construction and arrangement of the parts of my device without departing from the real spirit and purpose of my invention and it is my intention to cover by my claims any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim as my invention:

1. In a drier for hair and the like, a fan casing including an air inlet opening and an air discharge nozzle, a fan in said casing for discharging air from said casing through said nozzle, said fan casing and nozzle comprising a pair of longitudinally divided opposed casing members, interfitting hook means for retaining said casing members assembled at one end thereof, an annular rim member encircling the other end thereof to retain said other end assembled, a second annular rim member inside said discharge nozzle adjacent the discharge end thereof, heating means for air discharged from said nozzle by said fan and comprising an insulating base, a heating element thereon and supports for said insulating base extending from one side of said casing, said second rim member being split to clear one of said supports.

2. In a hair drier, a fan casing having an air inlet opening and an air discharge nozzle, a motor connected to said casing, a fan on the shaft of said motor within said casing, said fan having a blade for throwing off air centrifugally, a motor casing for said motor and provided with an air inlet, said blade having a flange portion arranged at an incline to the general plane of the blade to draw heated air from said motor casing.

3. In a drier for hair and the like, a fan casing including an air inlet opening and a discharge nozzle, a fan in said casing for discharging air from said casing through said nozzle, said fan casing and nozzle comprising a pair of longitudinally divided opposed casing members, interfitting hook means for retaining said casing members assembled at one end thereof, an annular rim member encircling the other end thereof to retain said other end assembled, a second annular rim member inside said discharge nozzle adjacent the discharge end thereof, said annular rims having inturned flanges, and a perforate member confined in position between said flanges.

4. In a hair drier, a fan casing having an air inlet opening and a discharge nozzle, a motor connected to said casing, a fan on the shaft of said motor within said casing, said fan having a blade for throwing off air centrifugally and discharging it through said discharge nozzle, a motor casing for said motor and provided with an air inlet, said motor casing having an outlet opening communicating with said fan casing adjacent the center thereof, said fan blade having a flange directed forwardly with relation to the rotation of the blade and arranged at an angle to the general plane of the blade to draw air heated by said motor through said outlet opening from said motor casing whereupon such air is discharged from said discharge nozzle by said blade.

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