May 6, 1947. F. LA FORIYES 2,420,251

HAIR DRIER WITH AIR RECIRCULATING MEANS

Filed May 8, 1944

Fig. 1

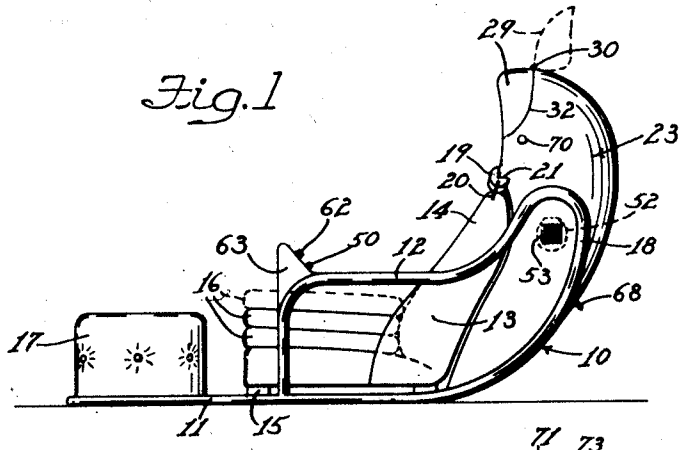


Fig. 2

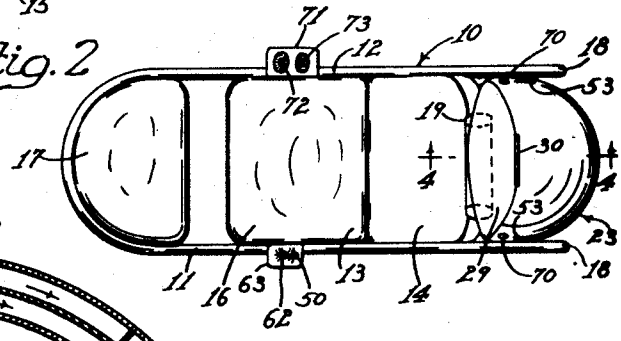


Fig. 4

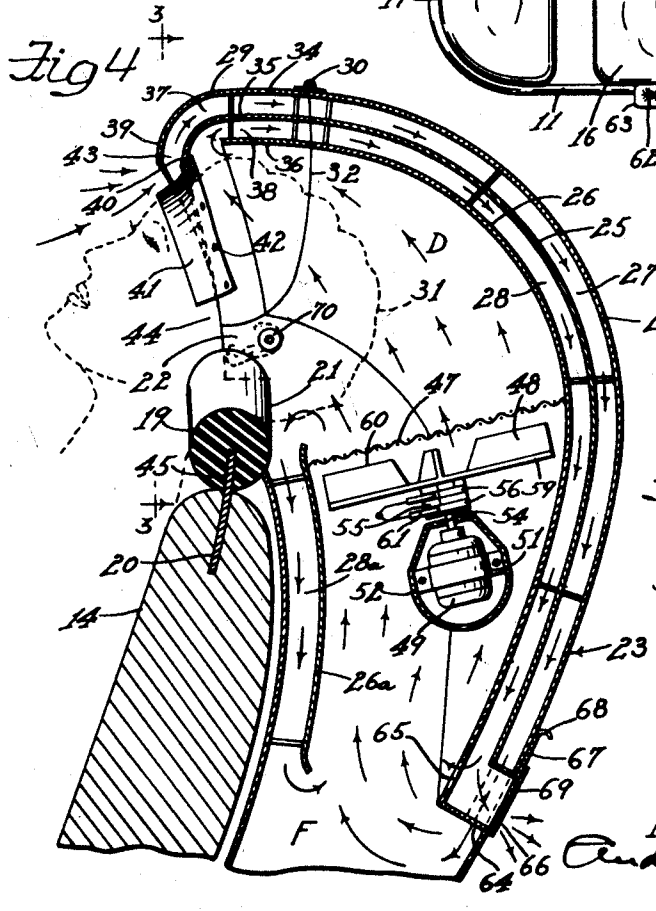


Fig. 3

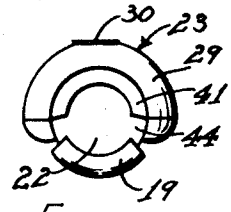
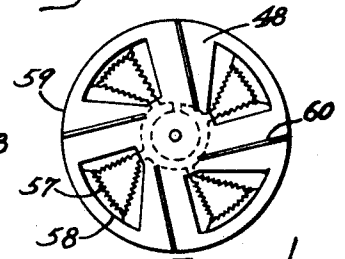


Fig. 5



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HAIR DRIER WITH AIR RECIRCULATING MEANS

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Application May 8, 1944, Serial No. 534,554

17 Claims. (Cl. 34—100)

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This invention relates to a new and improved hair drier for use in beauty parlors.

Beauty parlor operators have long recognized the need for a hair drier so designed that the customer may relax and rest, or sleep, while her hair is being dried. They have also recognized that the driers now available commercially are objectionable from the standpoint that the hot air flowing over the face for the half hour to an hour that it takes for the hair to dry dries out the skin to a very noticeable extent which is distinctly annoying to many customers, and eliminates any likelihood of their resting comfortably during such an ordeal. It is, therefore, the principal object of my invention to provide a hair drier so designed and constructed as to avoid the objections mentioned, the drier being formed as an integral part of a unit with a comfortable chair, to induce relaxation, and being, furthermore, provided with its cool air inlet so located that there will always be a soothing flow of cool air over the customer's face, for the double purpose of offsetting the heating effect of the drier and preventing flow of hot air over the face, any hot air leaking from the drier being entrained with the incoming cool air, so that it cannot give the undesirable drying action on the skin, and the overall efficiency of the unit as a drier is improved by reason of the reduction in the loss of air heated.

A salient feature of the hair drier of my invention is the fact that the heat source and blower fan are below and behind the head during the drying operation, so that the hair tends to project toward the heat source and can, therefore, be dried more efficiently, and the heat tending to rise naturally reaches all portions of the scalp to be dried without requiring nearly as energetic blowing action.

Another object of the invention consists in the provision in the drier housing of a cool air inlet passage and a hot air recirculation passage in parallel relation, extending lengthwise of the housing from a point above the head opening to a point below the fan and heating element, where the cool air passage discharges into the housing and the hot air recirculation passage also discharges a certain amount of hot air to be entrained with the cool air, a regulatable outlet being provided at the same point to permit escape of a variable amount of the moisture laden hot air, equivalent approximately to the amount of cool air taken in.

Still another object consists in the provision of an improved combined fan and heating means,

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which permits locating the fan in closer proximity to the hair to be dried without danger of scorching or burning with radiant heat, whereby greatly to improve the drying efficiency, the heating elements being provided directly in or on the fan, preferably between the blades thereof, so that any strands of hair that might protrude through the protecting screen, disposed in the housing below the head opening, cannot come in contact with the heating elements and the radiant heat is distributed to a comfortable degree to all parts of the scalp.

The invention is illustrated in the accompanying drawing, in which—

Figs. 1 and 2 are, respectively, a side view and top view of a hair drier unit made in accordance with my invention;

Fig. 3 is a front view of the drier housing and neck supporting cushion, showing the head opening between the neck cushion and the flexible sealing strip that fits over the forehead, this view being taken on the line 3—3 of Fig. 4;

Fig. 4 is a vertical section through the drier end of the unit, taken on the line 4—4 of Fig. 2, but on a larger scale, and

Fig. 5 is a face view of the fan showing the heating coils in the openings between the blades thereof.

The same reference numerals are applied to corresponding parts throughout the views.

Referring to the drawing, the reference numeral 10 designates a generally U-shaped frame that is preferably, though not necessarily, of tubular metallic construction, there being a U-shaped base portion 11 and generally rectangular-shaped end portions 12 which provide arm rests for the chair 13. The latter is of heavily upholstered construction and has a semi-reclining back 14 and is suitably attached, as at 15, to the base portion of the frame 10. A number of seat cushions 16 are provided on the chair, in order that the operator may quickly adjust the chair to people of different height. Two cushions will ordinarily suffice, but, as indicated in dotted lines, a third cushion may be provided if desired and thus accommodate children as well as adults. The foot stool 17, upholstered to match the upholstery of the chair 13, is also preferably, though not necessarily, supported on the base portion of the frame 10, so that the operator can, if he so desires, move the entire ensemble as a unit, by grasping the rear upwardly projecting handle extensions 18 and pulling or pushing the unit from one place to another. The unit will not weigh so much as to make

such sliding movement of the unit from one spot to another in a beauty parlor at all difficult. When the proper number of seat cushions 16 have been placed in the chair, the customer seated in the chair can rest the back of her neck on the cushion 19, that is mounted on a support 20 on top of the chair back 14. This cushion fits snugly in a cut-away front portion 21 in the lower wall of the head opening 22 provided in the upper end of the drier housing 23. The housing 23 is supported on the frame 10 between the handle portions 18 and extends from a point near the base upwardly and is curved forwardly at its upper end where the head opening 22 and the cushion 19 are provided.

The housing 23 is shown in section in Fig. 4 and has three curved walls 24, 25, and 26 forming the back thereof to define a cool air inlet passage 27 and a hot air recirculation passage 28 extending lengthwise of the housing parallel to one another. An inner front wall 26a is provided in spaced relation to the outer front wall of the housing 23, to provide a secondary hot air recirculation passage 28a in the front portion of the housing leading from the lower front portion of the drying chamber D and communicating with the lower portion of the fan chamber F. A separate front top housing section 29 is hinged on the top wall of the housing 23, as at 30, transversely of the upper end of the housing, to provide a larger head opening, so that the occupant of the chair can place her head over the cushion 19 and have her hair, indicated at 31, arranged by the operator inside the drying chamber D for quickest drying, as, for example, when the hair is to be partially dried preparatory to permanent waving. The operator, in other words, can reach past the person's head into the drying chamber D so long as the hinged section 29 is swung back out of the way, as indicated in dotted lines in Fig. 1. The parting line between the upper end portion of the housing and the section 29 is indicated at 32 in Fig. 4. The hinged section 29 has three walls, 34, 35, and 36, which register with the ends of the walls 24, 25, and 26, respectively, when the hinged section is in closed operative position, whereby to define extensions 37 and 38 of the cool air inlet passage 27 and hot air recirculation passage 28, respectively. The walls 34 and 35 extend forwardly beyond the end of the wall 36 and are curved downwardly, as indicated at 39, for three reasons: First, to restrict the head opening 20 so that the end portion 40 of the wall 35 will lie in a predetermined spaced relationship to the forehead of the chair occupant and accordingly reduce the size of the forehead and temple engaging seal means (41) necessary; secondly, to provide a support for the flexible seal strip 41 on the end portion 40 of the wall 35, the strip being fastened by screws or rivets, as indicated at 42, and extending radially inwardly with respect to the head opening 22 for sealing engagement over the forehead and temples of the chair occupant, as indicated in Fig. 4; and, thirdly, to provide the cool air inlet opening 43 in sufficiently close proximity to the sealing strip 41 and the face of the chair occupant to afford the desired cooling effect in the operation of the drier and, at the same time, insure entrainment with the ingoing cool air of any hot air that may leak out around the head of the chair occupant, and in that way avoid one of the most serious objections common to earlier driers. It is important to note that although the face is cooled, there is no opportunity for cool air to reach the moist scalp and chill the head and also interfere with the efficient drying of the hair. The cool air taken in does not even lower the temperature of the warm air directed against the scalp, because the cool air inlet passage 37 is above and on the outer side of the hot air recirculation passage 38. The strip 41, as indicated in Fig. 3, extends in a semi-circle around the upper portion of the head opening 22, and the cushion 19 extends in an arc around the lower portion of the head opening and has its ends in spaced relation to the ends of the sealing strip 41, as indicated at 44, so as to afford clearance for the ears and the pin curls that are usually formed adjacent the ears, the head being inserted in the drier far enough to dry these pin curls. If desired, towels, wads, or shields may be placed under the neck and up in front of the ears to help to seal the drier against loss of hot air during the operation of the drier. The strip 41 may be of rubber, or rubberized cloth, or other flexible and preferably resilient material. The cushion 19 may be of sponge rubber, or any other yieldable and preferably resilient material, and when made of sponge rubber is slotted lengthwise, as indicated at 45 in Fig. 4, to receive the support 20. The cushion can be compressed endwise as well as sidewise to the extent required to effectively seal the opening 21 so that there will be no leakage of hot air at this point. If desired, the cushion 19 may be made adjustable with respect to the support 20, or the support may be vertically adjustable with respect to the back of the chair, whereby to adjust the cushion 19 vertically in the head opening 22 as may be required to adapt the device to different sizes of heads and accordingly get the desired sealing action with the flexible seal strip 41 under all conditions.

The screen indicated at 47 extends substantially the full width of the inside of the drying chamber D, substantially horizontally, slightly below the head opening 22, so as to support any longer strands of hair that might otherwise come in contact with the fan 48. The latter is driven by an electric motor 49, the speed of operation of which may be controlled by a rheostat 50, or by any multiple speed switch means, to vary the air flow as desired, although, of course, a single speed switch may be employed. The location of the screen 47 below and behind the head with the fan discharging warm air upwardly therethrough is found to give much more efficient drying action without requiring nearly as energetic blowing action, because, for one thing, the hair projects more or less toward the screen thus affording a better opportunity for the warm air to reach the scalp, and the heat tends to rise naturally to all portions of the scalp to be dried so that a gentle blower action is sufficient and less heat is required. The motor 49 is supported on a bracket 51 inside an elongated tubular housing 52 that is of streamlined cross-section, as indicated in Fig. 4, with the small end of the section toward the fan 48 and the large end remote therefrom, whereby to reduce the resistance to air flow past the housing to a minimum. The housing 52 is suitably supported at opposite ends on the side walls of the housing 21, and louvers 53 are provided in the opposite side walls of the housing communicating with the ends of the motor housing 52, so as to allow air circulation through the housing past the motor 49 to reduce likelihood of its overheating in the operation of the drier. The armature shaft 54 of the motor

carries the fan 48 and, in accordance with the present invention, a hub 55 is provided on the fan 48 made of electrical insulating material, whereby to insulate from one another two metal bands 56 that are connected with the opposite ends of an electrical heating coil 57, the various intermediate portions of which are preferably supported in the openings 58 in the disk 59 between the blades 60 of the fan. Brushes 61 have leads extending therefrom to the rheostat 62, whereby to provide for control of the heating effect. The rheostats 50 and 62 are provided on a control panel 63 that is preferably mounted on one of the arm rests 12 of the chair, so that the operator, or the chair occupant, can readily make adjustments both as to speed of operation of the fan and as to the heat delivered, and accordingly suit the comfort of the particular individual or the needs of the particular situation. The fact that the heating coil, or coils, are not stationary but turn with the fan is of advantage for several reasons, one being that it eliminates any danger of any strands of hair that may protrude through the screen 47 coming into contact with the heating coils and being scorched or burned. This construction avoids discomfort to the chair occupant by reason of radiant heat from the heating elements, the radiant heat in this device being uniformly distributed to all parts of the scalp and accordingly giving greater comfort and increased efficiency in the drying of the hair. It also makes for a reduction in the resistance to air flow through the housing and reduces the likelihood of lint and dust accumulating on the heating coils and thus further obstructing the air passages and increasing resistance to air flow, and it permits placing the heating means and fan much closer to the screen 47 and accordingly much closer to the hair to be dried, for most efficient drying action, without involving any danger of scorching or burning the hair. While I have shown only two rings 56 in connection with a single heating coil, it will, of course, be understood that a multiplicity of such rings may be provided for a number of coils, and the heat may then be controlled by connecting as many coils with the current source as may be desired, each opening 58 in the disk 59 having two, three, or even more heating elements therein.

Indicated at 70 are earphones, which are mounted in the opposite side walls of the housing 23, at points where these phones will be in sufficiently close proximity to the ears of the chair occupant to enable her to listen to radio programs or phonographic recordings. In Fig. 2 a small radio receiving set is indicated at 71, having the usual dials 72 and 73 for station selection and volume control, the set being suitably secured to the arm rest 12, where it is in convenient reach of the chair occupant and operator. In some beauty parlors where a number of hair driers of the present type are installed, a combination radio and phonograph may be provided, and phonograph records may be played and the earphones 70 connected with the radio set and each chair may be equipped with a switch to permit the occupant to listen either to the phonograph recordings or tune in outside broadcasts with the set 71 alternately. If soothing music is played on the phonograph, it naturally tends to aid relaxation and rest, and each chair occupant can choose the phonograph recordings or outside broadcasts, or neither, as she prefers.

In operation, the cool air is drawn in through the opening 43 that extends in an arc over the

forehead and around the temples of the chair occupant, and this cool air is conducted through passages 37 and 27 and enters the lower portion of the fan chamber F at 64 and flows upwardly past the fan, where it is heated as it is discharged through the screen 47 against the hair of the chair occupant. Most of the moisture laden hot air is exhausted from the upper end of the drying chamber D through the hot air recirculation passages 38 and 28, and is conducted downwardly to the point 64 of admission of the cool air, where there is one opening 65 communicating with the inside of the housing 23 and another opening 66 communicating with the outside of said housing. A certain amount of moisture laden hot air is exhausted from the lower front corner of the drying chamber D and conducted through the passage 28a to the lower portion of the fan chamber F opposite the point 64, where the cool air enters, so that this hot air will be entrained with the cool air as it flows upwardly toward the fan 48. A slide 67 adjustable by the operator by means of the thumb-piece 68 in the guides 69 provided on the back of the housing regulates the discharge of moisture laden hot air through the opening 66, and in that way there is a balance set up between the amount of cool air taken in and the amount of moisture laden hot air allowed to be exhausted, some of the moisture laden hot air being entrained in the opening 65 with the incoming cool air so as to more or less temper the incoming cool air prior to its reaching the heating coil, or coils, 57, and accordingly increase the operating efficiency of the drier. In this connection, it should also be noted that the cool air inlet passage 27 extends the full length of the hot air recirculation passage 28 and there is accordingly a good opportunity for heat transfer through the intervening wall 25, so that the incoming cool air is subjected to an appreciable heating action even before it enters the lower portion of the housing 23.

It is believed the foregoing description conveys a good understanding of the objects and advantages of my invention. The appended claims have been drawn with a view to covering all legitimate modifications and adaptations.

I claim:

1. A hair drier for use with a chair having a reclining back portion, said hair drier comprising a vertically elongated housing disposed behind and adapted to be supported in rigid relation to said chair and providing a drying chamber therein open at one side above the back portion of the chair to accommodate the scalp portion of the head of an occupant in the chair, electrical air heating means and electrically operated air circulating means in said drier housing below the drying chamber for delivering warm air upwardly to said drying chamber, a neck rest of cushion material of arcuate form to fit the back of the neck of the chair occupant and supported on the top of the back portion of the chair, the lower wall of said chamber being cut away to provide an opening to receive said neck rest and the latter being compressed in said opening to seal the same, and a hinged top front section on said drier housing which is of arcuate form to conform generally to the forehead of the chair occupant and having an arcuate sealing strip of flexible material carried thereon and projecting therefrom for sealing contact with the forehead and temples of the chair occupant.

2. A hair drier for use with a chair having a reclining back portion, said hair drier comprising

a vertically elongated housing disposed behind and adapted to be supported in rigid relation to said chair and providing a drying chamber therein open at one side above the back portion of the chair to accommodate the scalp portion of the head of an occupant in the chair, electrical air heating means and electrically operated air circulating means in said drier housing below the drying chamber for delivering warm air upwardly to said drying chamber, a neck rest in the lower portion of the drier housing head opening, and a hinged top front section on said drier housing which is of arcuate form to conform generally to the forehead of the chair occupant and having an arcuate sealing strip of flexible material carried thereon and projecting therefrom for sealing contact with the forehead and temples of the chair occupant.

3. The combination with a hair drying chamber having an opening to receive the head, of heating means and means for circulating air heated by said heating means in said chamber through the hair of the head, means providing a passage on the wall of said chamber having a cool air inlet close to and above the head receiving opening for conducting air from the outside of said drying chamber to said heating and circulating means, said passage communicating with said chamber at a point remote from the head-receiving opening, a shield for the forehead portion of the head disposed in said hair drying chamber opening, said shield being disposed so as to prevent the cool air in entering the cool air inlet from coming into direct contact with the moist forehead or scalp, whereby said incoming cool air is caused to flow over the face while the head is entered in said drying chamber, and means providing another passage on the wall of said chamber for re-circulation of hot air, said passage communicating at one end with the chamber adjacent the head receiving opening and at the other end with the chamber at a point remote from said head receiving opening.

4. The combination with a hair drying chamber having an opening to receive the head, of heating means and means for circulating air heated by said heating means in said chamber through the hair of the head, means providing a passage on the wall of said chamber having a cool air inlet close to and above the head receiving opening for conducting air from the outside of said drying chamber to said heating and circulating means, said passage communicating with said chamber at a point remote from the head-receiivng opening, a shield for the forehead portion of the head disposed in said hair drying chamber opening, said shield being disposed so as to prevent the cool air in entering the cool air inlet from coming into direct contact with the moist forehead or scalp, whereby the incoming cool air is caused to flow over the face while the head is entered in said drying chamber, means providing another passage on the wall of said chamber for re-circulation of hot air, said passage communicating at one end with the chamber adjacent the head receiving opening and at the other end with the chamber at a point remote from said head receiving opening, and means providing an outlet opening for exhausting to the atmosphere some of the moisture-laden heated air from said re-circulation passage.

5. A hair drier as set forth in claim 4, including in combination with the outlet opening manually adjustable valve means for regulating the discharge to the atmosphere of heated air from the drier.

6. The combination with a hair drying chamber having an opening to receive the head, of heating means and means for circulating air heated by said heating means in said chamber through the hair of the head, means providing a passage on the wall of said chamber having a cool air inlet close to and above the head receiving opening for conducting air from the outside of said drying chamber to said heating and circulating means, said passage communicating with said chamber at a point remote from the head-receiving opening, a shield for the forehead portion of the head disposed in said hair drying chamber opening, said shield being disposed so as to prevent the cool air in entering the cool air inlet from coming into direct contact with the moist forehead or scalp, whereby the incoming cool air is caused to flow over the face while the head is entered in said drying chamber, means providing a passage on the wall of said chamber for conducting heated air from the drying chamber after passage through the hair of the head, said last named passage conducting such heated air in heat-transferring relation to the cool air flowing in the first named passage whereby to preheat the cool air, and means providing an inlet opening for delivering a portion of the last mentioned heated air into said drying chamber on the intake side of the air-circulating means and providing an outlet opening for discharging the balance of such air to the atmosphere.

7. A hair drier as set forth in claim 6, including in combination with the outlet opening manually adjustable valve means for regulating the discharge to the atmosphere of heated air from the drier.

8. A hair drier comprising a drying chamber having an opening to receive the head, means for heating and circulating air in the chamber through the hair of the head, a neck rest for said chamber below the point of insertion of the head, sealing means supported from a wall of the chamber above the point of insertion of the head into the chamber to seal said chamber against loss of air around the head by contact around the forehead, means providing an outlet opening above and closely behind said sealing means in the top of said chamber for exhausting moisture-laden heated air from the drying chamber, a manually adjustable restriction valve for said outlet opening, means providing a re-circulation passage on the wall of said chamber for returning moisture laden heated air from the discharge side of said heating and circulating means to the intake side thereof, and means providing a relatively unrestricted inlet opening for admitting outside air to said chamber on the intake side of the heating and circulating means.

9. In a hair drier of the character described comprising a hair drying chamber having an opening to receive the head and including heating means and blower means to force air heated by said heating means through the hair of the head entered in said head opening, means defining a cold air intake passage on said chamber, the inlet end of which is directly over the forehead portion of the head entered in the head opening and the outlet end of which communicates with the hair drying chamber in posterior relation to the heating means, said chamber having a warm air outlet opening provided therein over the forehead portion of the head entered in said head opening but behind the inlet end por-

tion of the cool air passage, and a forehead shield means on said chamber between the inlet end portion of the cool air passage and said warm air outlet opening for engagement with the forehead portion of the head entered in said head opening, whereby in the operation of the drier the cool air drawn in through the inlet end portion of the cool air passage is caused to pass over the face without, however, coming into contact with the moist forehead and scalp of the head entered in the head opening, the air heated by said heating means in said chamber being caused to flow over the entire scalp for hair drying purposes before being permitted to escape through the warm air outlet opening.

10. In a hair drier of the character described comprising a hair drying chamber having an opening to receive the head and including heating means and blower means to force air heated by said heating means through the hair of the head entered in said head opening, means defining a cold air intake passage on said chamber, the inlet end of which is directly over the forehead portion of the head entered in the head opening and the outlet end of which communicates with the hair drying chamber in posterior relation to the heating means, and a forehead shield means on said chamber behind the opening in the inlet end portion of said cool air passage for engagement with the forehead portion of the head entered in the head opening, whereby in the operation of the drier cool air drawn into the cool air passage is caused to pass over the face but is prevented from coming into contact with the moist forehead and scalp of the head entered in the head opening, said chamber having a warm air outlet opening provided therein for escape of moisture laden warm air after it has come into contact with the hair to be dried.

11. In a hair drier of the character described comprising a hair drying chamber having an opening to receive the head and including heating means and blower means to force air heated by said heating means through the hair of the head entered in said head opening, means defining a cool air passage on said chamber, the outlet end portion of which has communication with said chamber in posterior relation to said heating means, a movable top section for said chamber constructed to straddle the forehead portion of the head entered in the head opening and having a cool air passage therein, the inlet end portion of which is directly over the forehead and the outlet end portion of which communicates with the other end of the first-named cool air passage, whereby in the operation of the drier the cool air drawn into said cool air passages is caused to flow over the face of the head entered in the head opening, and a forehead covering shield on said movable top section which shields the moist forehead and scalp of the head entered in said head opening from the incoming cool air, said chamber having a warm air outlet opening provided therein for escape of moisture laden warm air after it has come into contact with the hair to be dried.

12. In a hair drier of the character described comprising a hair drying chamber having an opening to receive the head and including heating means and blower means to force air heated by said heating means through the hair of the head entered in said head opening, means defining a cool air passage on said chamber, the outlet end portion of which has communication with said chamber in posterior relation to said heating means, a movable top section for said chamber constructed to straddle the forehead portion of the head entered in the head opening and having a cool air passage therein, the inlet end portion of which is directly over the forehead and the outlet end portion of which communicates with the other end of the first-named cool air passage, whereby in the operation of the drier the cool air drawn into said cool air passages is caused to flow over the face of the head entered in the head opening, a forehead covering shield on said movable top section which shields the moist forehead and scalp of the head entered in said head opening from the incoming cool air, and a warm air outlet passage in said movable top section, the inlet end portion of which is above the forehead of the head entered in the head opening but behind said shield.

13. In a hair drier of the character described comprising a hair drying chamber having an opening to receive the head and including heating means and blower means to force air heated by said heating means through the hair of the head entered in said head opening, means defining a cool air passage on said chamber, the outlet end portion of which has communication with said chamber in posterior relation to said heating means, a movable top section for said chamber constructed to straddle the forehead portion of the head entered in the head opening and having a cool air passage therein, the inlet end portion of which is directly over the forehead and the outlet end portion of which communicates with the other end of the first-named cool air passage, whereby in the operation of the drier the cool air drawn into said cool air passages is caused to flow over the face of the head entered in the head opening, a forehead covering shield on said movable top section which shields the moist forehead and scalp of the head entered in said head opening from the incoming cool air, a warm air outlet passage in said movable top section, the inlet end portion of which is above the forehead of the head entered in the head opening but behind said shield, and a warm air re-circulation passage on said chamber, the inlet end portion of which communicates with the other end of the warm air outlet passage in said movable section and the outlet end portion of which communicates both with the atmosphere and with the said drying chamber, whereby some of the moisture laden warm air is permitted to escape to the atmosphere.

14. In a hair drier of the character described comprising a hair drying chamber having an opening to receive the head and including heating means and blower means to force air heated by said heating means through the hair of the head entered in said head opening, means defining a cool air passage on said chamber, the outlet end portion of which has communication with said chamber in posterior relation to said heating means, a movable top section for said chamber constructed to straddle the forehead portion of the head entered in the head opening and having a cool air passage therein, the inlet end portion of which is directly over the forehead and the outlet end portion of which communicates with the other end of the first-named cool air passage, whereby in the operation of the drier the cool air drawn into said cool air passages is caused to flow over the face of the head entered in the head opening, a forehead covering shield on said movable top section which shields the moist forehead and scalp of the head

entered in said head opening from the incoming cool air, a warm air outlet behind said shield above the forehead of the head entered in the head opening, and a warm air recirculation passage for said chamber, the inlet end portion of which communicates with the warm air outlet and the outlet end portion of which communicates both with the atmosphere and with the said drying chamber, so that some of the moisture laden warm air is allowed to escape to the atmosphere continuously in the operation of the drier.

15. In a hair drier, comprising a hair drying chamber having an opening to receive the head and including air heating means and air blower means to force heated air through the hair of the head entered in said head opening, a forehead shield for said chamber, means defining a cold air intake for said chamber over and in close proximity to said forehead shield and communicating with the hair drying chamber in posterior relation to the air heating means, and a warm air outlet for said chamber in posterior relation to said forehead shield, whereby in the operation of the drier cool air drawn into the cold air intake is caused to pass over the face without coming into contact with the moist forehead and scalp of the head entered in the head opening.

16. In a hair drier, comprising a hair drying chamber having an opening to receive the head and including air heating means and air blower means to force heated air through the hair of the head entered in said head opening, a forehead shield for said chamber, means defining a cold air intake for said chamber over and in close proximity to said forehead shield and communicating with the hair drying chamber in posterior relation to the air heating means, a warm air outlet for said chamber in posterior relation to said forehead shield, whereby in the operation of the drier cool air drawn into the cold air intake is caused to pass over the face without coming into contact with the moist forehead and scalp of the head entered in the head opening, and means defining a warm air recirculation passage for said chamber communicating at its inlet end portion with the warm air outlet and at its outlet end portion with the atmosphere to a restricted extent and with said chamber in posterior relation to the air heating means.

17. A hair drier as set forth in claim 16, including a manually adjustable valve means for regulating the discharge to the atmosphere of air from the outlet end portion of the recirculation passage.

FRANK LA FORIYES.

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