

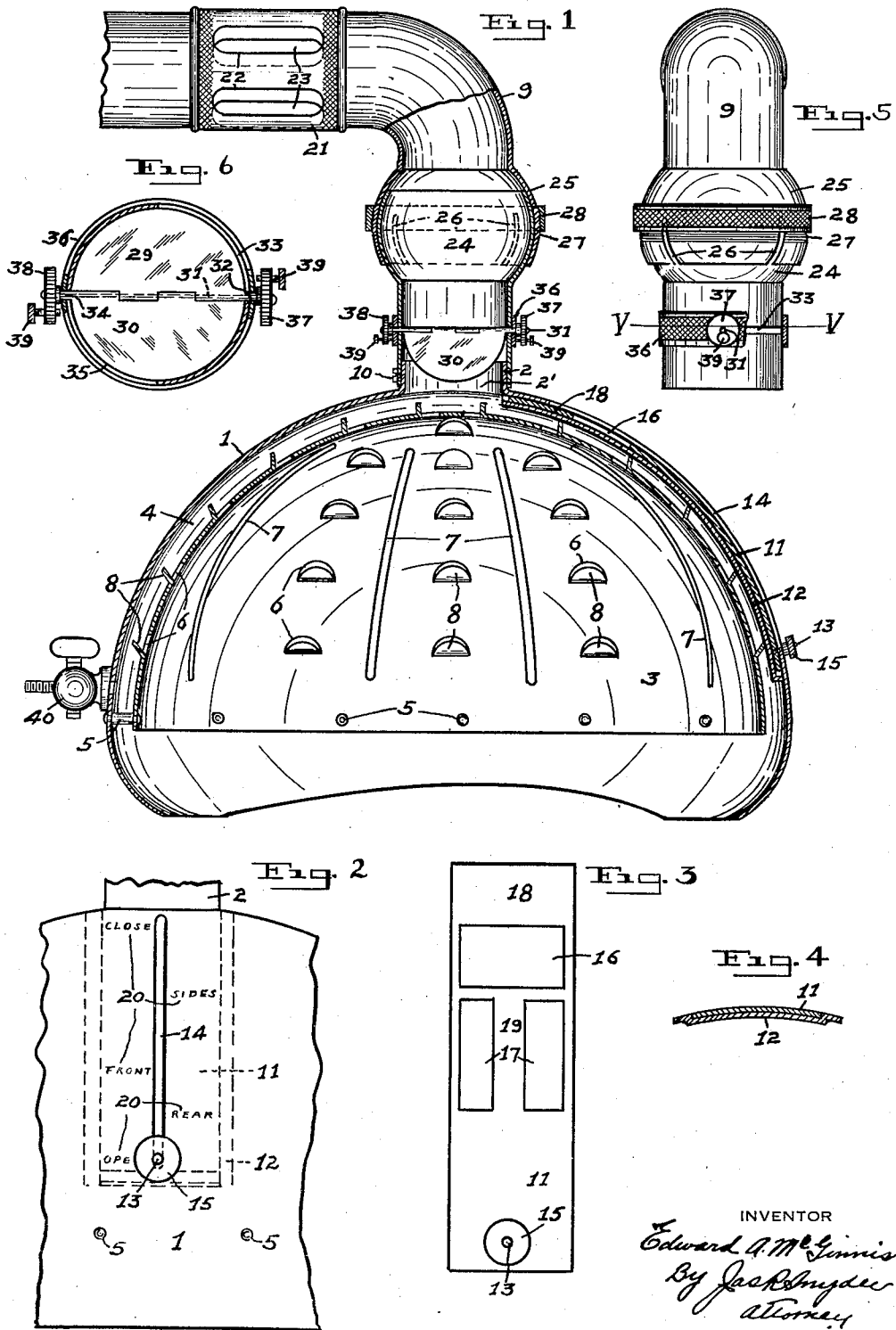
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HAIR DRIER

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HAIR DRIER

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My invention relates to hair driers of the type utilizing blown heated air as a drying medium.

The primary object of the invention is to provide a hair drier of the character described, in a manner as hereinafter referred to, which embodies novel means for selectively controlling and distributing the heated air to the hair at the front, rear, or sides of the head, to establish regulated diffusion of heated air for effecting a uniform, expeditious drying operation.

Further objects of the present invention is to provide a device of the class stated which is simple in its construction and arrangement, durable and highly efficient in its use, compact, adjustable and comparatively inexpensive to manufacture and operate.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention hereinafter disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the drawing wherein like numerals of reference designate corresponding parts throughout the several views:—

Figure 1 is a vertical cross sectional view of a hair drier constructed in accordance with the invention.

Figure 2 is a fragmentary front view thereof.

Figure 3 is an expanded plan view of the air regulating slide.

Figure 4 is a transverse cross sectional view of the regulating slide and the associated slide guide.

Figure 5 is a front view of the conduit member.

Figure 6 is an enlarged sectional view of the conduit on line V—V, Figure 1.

Referring in detail to the drawing 1 denotes a substantially hemi-spherically shaped confining dome having its top provided with

vertically extending, centrally disposed tubular heat inlet neck 2. A heat distributor 3 is mounted in the confining dome 1. The heat distributor 3 extends parallel to the inner side of the confining dome 1 and is spaced from the latter to provide a heat chamber 4 having an open lower end. The heat distributor 3 is fixedly supported in position by a plurality of inter-connecting spacing pins 5.

The confining dome 1 with its associated distributor 3, is adapted for being positioned on the head to completely cover and enclose the hair upon the latter during the hair drying operation.

The heat distributor 3 is formed with a plurality of semi-round apertures 6 and with elongated slots 7, which communicate with the heat chamber 4 and provide passages for the heated air from the latter to the hair. The straight wall of each of the apertures 6 carries a lip 8 which inclines into the heat chamber 4 at a proper angle to direct the heated air from the latter through the apertures 6.

A tubular heat conduit 9 is detachably fixed, by a set screw 10, or in any other suitable manner, to the inlet neck 2, and conducts the heated air from the source of supply to the heat chamber 4.

A quadrant regulating slide 11 is positioned against the inner side of the confining dome 1. The regulating slide 11 is shiftably mounted for vertical adjustment in a vertically extending slide guide 12, which is disposed in the heat chamber 4 and fixed to the inner front side of the confining dome 1.

The regulating slide 11 is curved to conform to the curvature of the confining dome 1 and is provided with a screw bolt 13 which is fixed to the lower end thereof. The bolt 13 projects through an elongated, vertically disposed slot 14 formed in the confining dome 1, and is provided with an adjusting nut 15 which seats against the outer side of the confining dome 1.

The regulating slide 11 is shifted in the slide guide 12, to the position desired by forcing the adjusting nut 15 upwardly or

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downwardly along and on the slat 14. The regulating slide 11 is locked in position by the adjustment of the nut 15 upon the screw bolt 13 to engage the confining dome 1. As the screw bolt 13 extends through the slot 14, the length of the latter necessarily determines and limits the distance of travel permitted in the adjustment of the regulating slide 11.

The purpose of the slide 11 is to regulate the opening 2', in the inlet neck 2 so as to direct the heated air to the hair at any part of the head required.

The adjustment of the regulating slide 11 shifts the latter along and against the lower end of the opening 2', in the inlet neck 2. The regulating slide 11 is formed with a transversely disposed opening 16 and with a pair of longitudinally extending, transversely aligned openings 17. The opening 16 has an area commensurate to one-half the area of the opening of the inlet neck 2, and is spaced from the upper end of the regulating slide 11 by the end portion 18. The pair of openings 17 are positioned below the transverse opening 16 and are separated by the division strip 19 disposed therebetween.

When the regulating slide 11 is in its lowered position, as shown in Figure 1, the upper end thereof clears the opening 2', in the inlet neck 2 and no portion of the latter is closed by the regulating slide 11. By shifting the regulating slide 11 upwardly until the upper end thereof extends across the center of the inlet neck opening 2', the front half of the latter will be closed and the rear half thereof will be open, thereby directing all of the heated air toward the hair at the rear of the head. By further shifting the regulating slide 11 upwardly until the end portion 18 closes the rear half of the inlet neck opening 2, the heated air will pass through the transverse opening 16 and be directed to the hair at the front of the head. Upon still further upward movement of the regulating slide 11, the pair of longitudinally extending openings 17 will be brought into registration with the inlet neck opening 2'. The heated air currents passing through the latter will strike the division strip 19 and will be deflected to pass through the pair of openings 17 to the hair at both sides of the head. In shifting the regulating slide 11 upwardly to the limit permitted by the engagement of the screw bolt 13 in the slot 14, the inlet neck opening 2' will be covered and closed completely by the regulating slide 11 to prevent the passage of the heated air therethrough.

The confining dome 1 is provided with suitable designations 20 indicating to the operator, the exact adjustment positions of the regulating slide 11. The designations 20 are disposed adjacent to the slot 14 and

are so positioned that when the adjustment nut 15 is shifted in alignment therewith, the corresponding position of the regulating slide 11 is effected.

The heat conduit 9 is provided with a sleeve valve 21. The latter is provided with a series of apertures 22 and revoluble on the conduit 9. The conduit 9 is formed with correspondingly positioned apertures 23, and the rotatable adjustment of the sleeve valve 21 effects the closure and opening of the conduit apertures 23.

The sleeve valve 21 is provided to dissipate the heated air when not required or to reduce the temperature of the conduit 9 when the latter is closed. The sleeve valve 21 further functions to admit cold air to the heated air in quantities to most efficiently effect the drying operation.

The conduit 9 is provided with a flexible ball and socket connection to facilitate the adjustment of the device to the head. The portion of the conduit 9, adjacent to the confining dome 1, is expanded to form a ball member 24. The adjoining end of the conduit 9 is likewise expanded to form a corresponding socket member 25, which overlaps the ball member 24. The socket member 25 is provided with a plurality of vertically extending slots 26 which are open at their lower ends. The outer periphery of the socket member 25 is formed with screw threads 27, which are engaged by a knurled clamping ring 28. Owing to the open slots 26, the adjustment of the clamping ring 28 on the socket member 25 will compress the latter to establish the proper engagement between the ball member 26 and the socket member 27.

A pair of shutters, respectively indicated at 29 and 30, is mounted in the passage of the conduit 9 adjacent to the latter's connection with the inlet neck 2. The shutters 29 and 30 are semi-circular in contour and have a combined area commensurate to the transverse area of the conduit 9.

The shutters 29 and 30 are hingedly connected to a common shaft 31, which extends diametrically through the conduit 9. The shutter 29 is provided with a hinge extension 32 which extends through a circumferentially disposed slot 33 formed in the conduit 9. The shutter 30 is likewise provided with a hinge extension 34 which extends through a circumferentially disposed slot 35 formed in conduit 9.

Each of the slots 33 and 35 extend approximately one-quarter distance around the conduit 9 and are diametrically opposed relatively to each other. The hinge extensions 32 and 34, extend through and are pivotally journaled in a knurled bearing band 36, which surrounds the conduit 9 and covers the slots 33 and 35.

The outer ends of the hinge extensions 32

and 34 carry fixed operating knobs, respectively indicated at 37 and 38 for adjusting the respective shutters 29 and 30. Each of the operating knobs 37 and 38 is provided with a set screw 39 which is adapted to engage the bearing band 36 for securing respective shutters 29 and 30 in the adjusted position.

The shutters 29 and 30 normally depend in the open position, as shown in Figure 1, and may be independently adjusted to any position by the manipulation of respective operating knobs 37 and 38. The slots 33 and 35 allow the shutters 29 and 30 to be drawn around to any desired position by the circumferential adjustment of the bearing band 36 upon the conduit 9.

By the adjustment of the shutters 29 and 30, the passage of the conduit 9 may be completely or partially closed or opened, or the front half, rear half, or either side half of the said conduit passage may be opened or closed, as the provision of the slots 33 and 35 permit of the shutters 29 and 30 being drawn from one diametric position to another disposed at right angles to the latter.

This universal and independent adjustment of the shutters 29 and 30, provides effective means for controlling, diffusing and distributing the heated air currents to most efficiently effect the hair drying operation.

The set screws 39 are preferably mounted in respective knobs 37 and 38 to dispose same in a direction conforming to the flat plane of the shutter 29 or 30 associated therewith. By this arrangement, the operator can readily determine the exact disposition of the shutters 29 and 30 by noting the positions of the set screws 39.

While this invention is primarily intended for drying hair, the same is also admirably adapted for steaming the latter. For this purpose, the confining dome 1 is provided with a steam inlet valve 40, which is preferably disposed adjacent to the lower end of the former. During the steaming operation the inlet neck opening 2' is closed by the regulating slide 11 to prevent entrance of steam to the conduit 9.

The present invention combines a construction providing a most efficient device of its kind, which is conveniently operable to dry hair uniformly and expeditiously.

What I claim is:

1. In a hair drier of the character described, a hot air confining dome having a hot air inlet opening, and means for opening and closing the latter, said means further operable for selectively directing the hot air from said inlet opening to different portions of said confining dome.

2. In a hair drier of the character described, a hot air confining dome having a

hot air inlet opening, and means for opening and closing the latter, said means further operable for controlling the passage of the hot air from said inlet opening to selectively distribute the hot air to different portions of said confining dome.

3. In a hair drier of the character described, a hot air confining dome provided with a hot air inlet opening, and a regulating slide supported by said confining dome and operable for opening and closing said inlet opening, said regulating slide further operable for controlling the passage of the hot air through said inlet opening to selectively divert the same in different directions in said confining dome.

4. In a hair drier of the character described, a hot air confining dome provided with a hot air inlet opening, a regulating slide mounted on the inner side of said confining dome, said regulating slide being formed with a plurality of apertures and adjustable against said inlet opening for controlling the passage of the hot air from the latter to selectively distribute the hot air to different portions of said confining dome.

5. In a hair drier of the character described, a hot air confining dome provided with a hot air inlet opening, a regulating slide mounted on the inner side of said confining dome, said regulating slide being formed with a plurality of apertures and adjustable against said inlet opening for controlling the passage of the hot air from the latter to selectively distribute the hot air to different portions of said confining dome, means for adjusting said regulating slide and means for indicating the position of said regulating slide.

6. In a hair drier of the character described, a hot air confining dome provided with a hot air inlet opening, a regulating slide mounted on the inner side of said confining dome, said regulating slide being formed with a plurality of apertures and adjustable against said inlet opening for controlling the passage of the hot air from the latter to selectively distribute the hot air to different portions of said confining dome, means carried by said regulating slide for shifting the same to the adjusted position and further operable for locking the regulating slide in the adjusted position, and means formed on said confining dome for indicating the position of said regulating guide.

7. In combination a hair drier of the character described comprising a hot air confining dome provided with an inlet opening, a hot air supply conduit connected with said confining dome and communicating with said inlet opening, means for opening and closing said inlet opening and for selective-

ly directing the hot air to different portions of said confining dome, and a flexible element connecting portions of said conduit for facilitating the adjustment of the said confining dome.

5 In testimony whereof I affix my signature.
EDWARD A. MCGINNIS.

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