June 9, 1931. F. A. HOGREBE 1,809,038

APPARATUS FOR COOLING SCALP

Filed Sept. 24, 1928

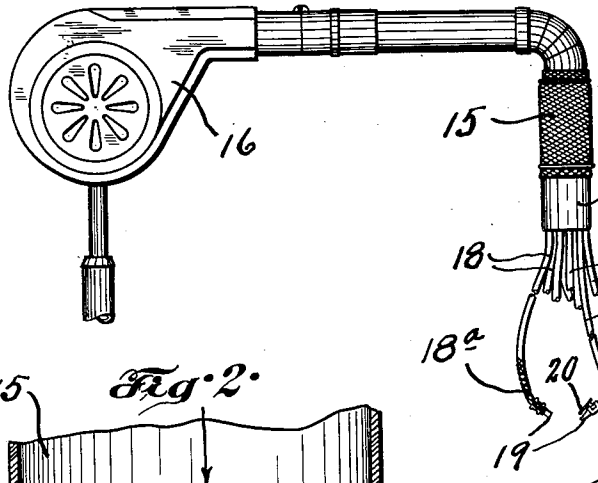



Fig. 1.

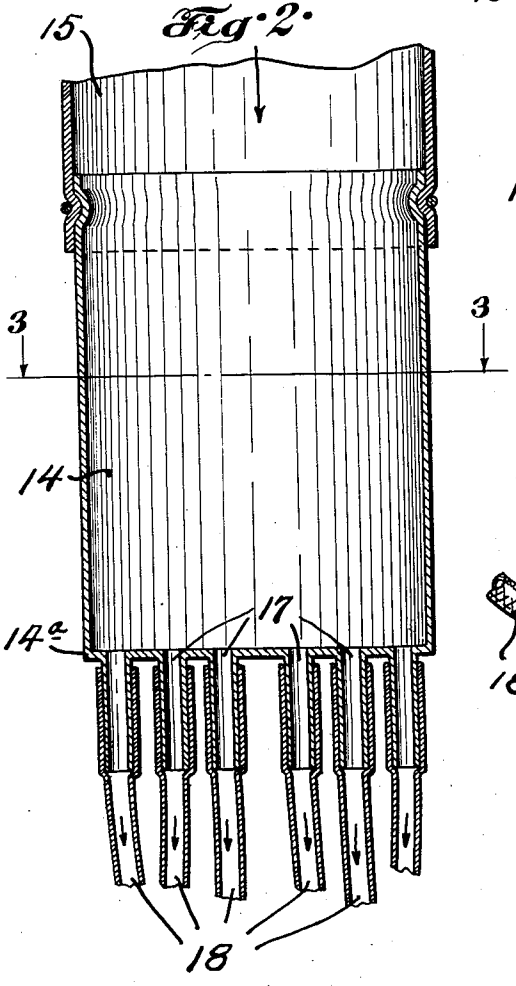



Fig. 2.

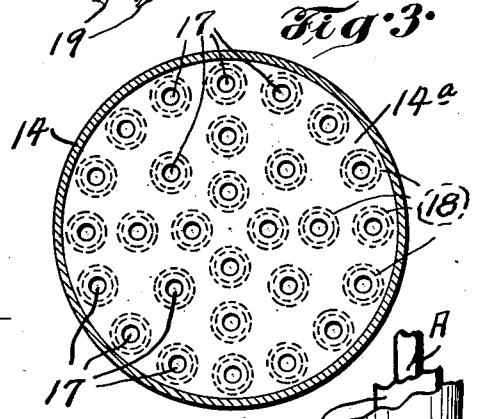



Fig. 3.

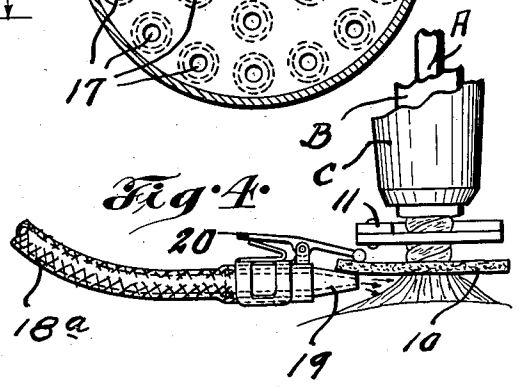



Fig. 4.




Fig. 5.

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# UNITED STATES PATENT OFFICE

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## APPARATUS FOR COOLING SCALP

Application filed September 24, 1928. Serial No. 308,019.

This invention relates to cooling devices for hair treating apparatus.

In the use of hair waving apparatus, it sometimes happens that the scalp of the person whose hair is being treated is injured by the steam generated by the process of permanent hair waving.

The objects of the present invention are to provide a suitable device whereby a current of air is released in close proximity to the scalp, thereby cooling the same and blowing away steam that may have escaped from the curling apparatus.

Other objects of the invention are to provide a single distributor having one end adapted to be detachably connected to a suitable air blower, such as a hair drier, and having its opposite end closed and provided with a plurality of flexible tubular extensions or ducts communicating with and leading from said distributor. The free ends of said extensions are adapted to be attached in positions adjacent to the scalp of the person whose hair is being treated so as to deliver thereagainst a current of air forced from said distributor by said air supply means.

Further objects of the invention are to provide each free end of such tubular extension with a nozzle and means for detachably attaching said nozzle in position adjacent to the scalp and the curling rod.

Additional objects of the invention are to provide an apparatus of the class described which is economical to manufacture and operate, can be readily attached to and detached from position and which can be used with any existing type of permanent hair waving apparatus.

With these and other objects in view, my invention consists in certain novel features of construction and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a general view showing my device in use.

Figure 2 is an enlarged longitudinal section through the distributor.

Figure 3 is a horizontal cross section of same taken on line 3—3 of Figure 2.

Figure 4 is an enlarged side elevational view of the nozzle showing the same applied in position.

Figure 5 is a longitudinal section through the same.

The device embodying my invention is designed to be readily connected to any convenient air supply means. The discharge of the air is effected through members which are not parts of the hair waving apparatus but are independent thereof and are provided with means for readily attaching said members or nozzles to the means associated with the hair waving apparatus, such as felt pads generally used to protect the scalp from the curling rods. This arrangement enables the use of my improved device with any type of hair waving apparatus, thereby greatly increasing the range of usefulness of my device.

In the hair waving process, a portion of the hair is twisted on a curling pin A and is held thereon by a wrapper B which is usually treated with a suitable liquid. A heating element C is then placed over the curling pin and the hair.

In order to protect the scalp from the heat and the steam generated by the heating of the liquid, a felt pad 10 is slipped over the said portion of hair and placed close to the scalp and a fiber washer 11 is placed on top of felt washer 10. This fiber washer is preferably made of two pieces hingedly connected together so as to enable the positioning and removal of the fiber washer without the necessity of threading the hair therethrough, thereby providing a comparatively small opening for the reception of hair.

The above described method is the one generally used. In practice, it has been found that a certain amount of steam or hot liquid will find its way through said washers to the scalp and cause injury to the scalp, sometimes producing total loss of hair at such spots.

My improved device comprises a tubular member 14 of suitable diameter and length.

One end of this member is left open and has secured thereto one end of a flexible tubular coupling or connection 15, the opposite end of which is adapted to be detachably secured to the discharge end of a suitable air blower or air supply means, such as a hair drier 16. The opposite end of member 14 is closed as shown at 14a and formed in said closed end is a series of outwardly projecting tubular extensions or nipples 17 which communicate with the interior of said member 14 and open outwardly. Each nipple 17 receives one end of a flexible tubing 18. This tubing is of suitable length so as to allow convenient manipulation thereof and the free end of each tubing is provided with a flattened nozzle 19 through which the air is discharged in a flat stream. Each nozzle 19 has arranged thereon a clamping member 20, preferably spring-pressed against said nozzle and adapted to be slipped over the edge of a felt pad 10 so as to hold said nozzle and said end of the tubing in position on the head of the person whose hair is being treated. When thus positioned, the nozzle 19 is disposed on the underside of the pad 10 and practically rests on the scalp.

The size of tubular member 14 is such as to accommodate the proper number of nipples 17 and supply the latter with the proper amount of air. The number of nipples used is substantially the same as the number of curling pins A used with the waving apparatus so that each curling element is supplied with a nozzle 19. The air discharged from the supply means 16 is delivered by the coupling 15 to the distributor 14. From the latter a proper portion of air is forced through each nipple 17 and tubing 18 to a nozzle 19 which directs the air against the scalp, thereby cooling the same and preventing any steam or hot liquid from coming in contact therewith, and causing injury thereto.

The use of my scalp cooling device does not interfere in any way with the operation or the installation of the hair waving apparatus and does not affect the hair which is being treated. As said cooling device is entirely independent of the hair waving apparatus, it may be applied in position at any time during the hair waving treatment and may be discontinued whenever desirable. The device is supported in position by the hair drier 16 from which it is suspended by the flexible coupling 15. As practically all of the establishments are equipped with hair driers, they can adopt the use of my cooling device without any very great additional expense. Furthermore, as no separate stand is required, my device does not take up any floor space and can be readily put away.

When tubing 18 is formed of rubber, it is preferably provided near its free or nozzle end with a heat resistant portion or covering 18a which protects the tubing from injury from heat of the hair curling devices with which it may be accidentally brought in contact. Coupling 15 is designed to provide ready means for connecting the distributor to any convenient air supply. However, if desired the distributor itself may be attached to such air supply means.

The air discharged from the nozzles is of sufficient quantity to cool the scalp and blow away steam or hot liquid which accidentally finds its way past said washer and pad. In this manner, the scalp is effectively protected and all danger of injury thereto is removed, making the hair waving process safe and comfortable.

While I have shown and described the preferred form of my invention, it is to be understood that the arrangement of parts and the construction of device can be changed or modified without departing from the spirit of my invention.

I claim:

1. A device for cooling scalp comprising in combination a hollow distributor having one end open and the other closed and provided with a plurality of nipples extending from said closed ends, a flexible tubular coupling connected to the open end of said distributor and adapted to be connected to a suitable source of air supply, a plurality of flexible tubular connections attached to said nipples and leading from said distributor, and a nozzle attached to the free end of each connection and adapted to be detachably secured to the edge of a protector pad forming a part of hair treating apparatus, whereby a current of air is discharged against the scalp and blows away steam generated by said hair treating apparatus.

2. A device for cooling scalp comprising in combination a tubular distributor open at one end and closed at the other, said closed end being provided with a plurality of nipples, a flexible tubular coupling secured to said open end and adapted to be connected to a suitable air blower, a plurality of small tubular connections secured to said nipples and communicating with said distributor, a nozzle attached to the free end of each tubular connection, and means on each nozzle for attaching the latter to the edge of a felt pad forming part of a hair treating apparatus and inserted between the scalp and the hair being treated, whereby air is discharged from said nozzle between said pad and said scalp in a direction to cause steam escaping past said pad to be deflected away from said scalp.

3. A cooling device for hair treating apparatus comprising in combination a hollow

distributor having one end open and the other end closed and provided with a plurality of nipples extending therefrom, a tubular coupling leading from the open end of said distributor and adapted to be connected to a suitable source of air supply, a plurality of small flexible tubular connections connected to said nipples, a nozzle attached to the free end of each connection and adapted to be detachably secured to a scalp protector pad with the discharge end of said nozzle thereunder for discharging a current of air against the scalp, and spring-pressed means on each nozzle for detachably securing the latter in position on said protector pad.

4. A cooling device for hair treating apparatus comprising in combination with a protector pad used with hair treating apparatus to protect the scalp against steam, of a hollow distributor provided with a tubular flexible extension adapted to be connected to and supported by a suitable air blower, a plurality of small flexible tubular connections leading from said distributor, a nozzle attached to the free end of each tubular connection, and means on each nozzle for detachably securing the same to the edge of the protector pad whereby said nozzle is arranged against the underside of said pad and in a plane parallel therewith and adjacent to the scalp of the treated hair and discharges a current of air transversely of the strand of hair being treated.

5. The combination with a suitable hair blower, and a hair treating apparatus including a plurality of pad protectors, of a tubular coupling detachably secured at one end to said blower, a hollow distributor having one end open and the other end closed, said coupling being connected to the open end of said distributor, a series of nipples extending from the closed end of said distributor, a plurality of flexible tubular connections secured at one of their ends to said nipples, a nozzle arranged on the free end of each tubular connection, and means on said nozzle for detachably attaching said nozzle to the edge of each pad protector and adjacent to the scalp of the strand of hair that is being treated, thereby delivering a stream of air adjacent to and tangentially of said scalp during the hair treating process.

6. A cooling device for hair treating apparatus comprising in combination a hollow tubular distributor adapted to be supplied with air under pressure, a plurality of flexible tubes of comparatively small diameters leading from said distributor, each tube terminating in a nozzle, and means arranged externally on each nozzle for detachably securing each nozzle to the margin of a protector pad of a hair treating apparatus and in close proximity to the scalp of the treated hair, whereby a current of air is discharged from said nozzle tangentially to the scalp whereby the steam escaping beyond said protector pad is blown away from the scalp.

In testimony whereof I hereunto affix my signature this 15th day of September, 1928.

FRANK A. HOGREBE.