Sept. 10, 1940. M. EHRLICH 2,214,017

HEAD HOOD SEALING DEVICE

Filed Jan. 28, 1938

Fig. 1.

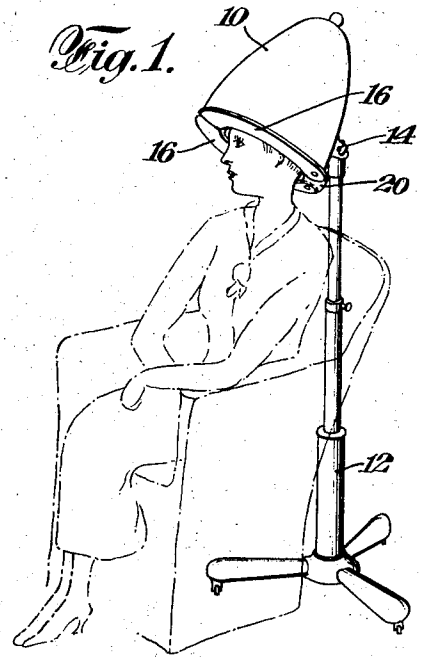


Fig. 2.

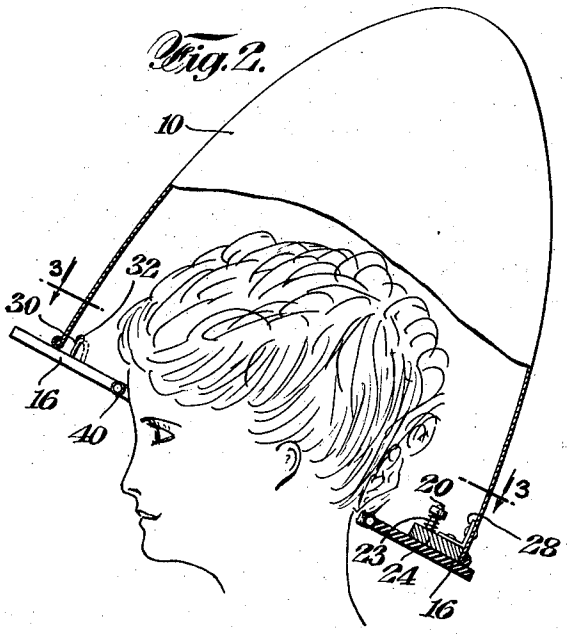


Fig. 3.

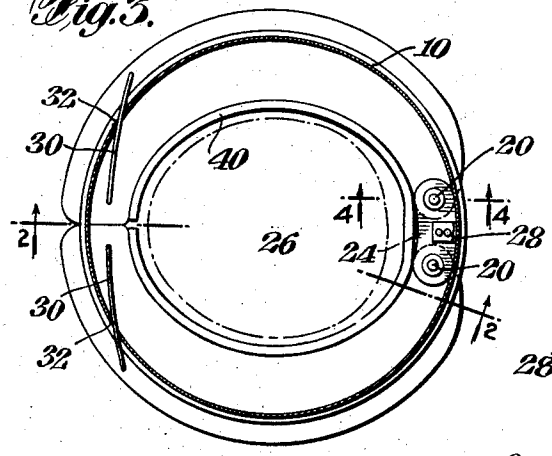


Fig. 6.

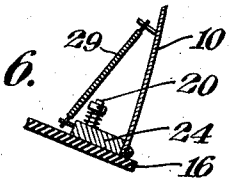


Fig. 5.

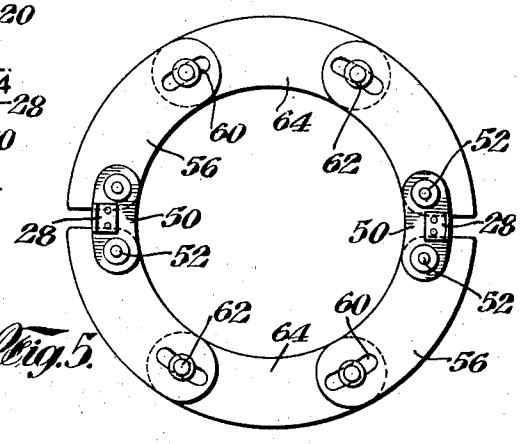
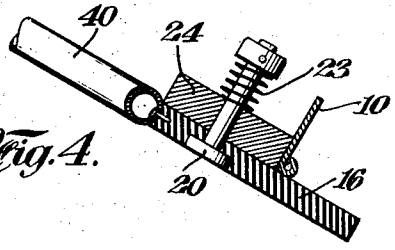


Fig. 4.



INVENTOR
Maximilian Ehrlich
BY
Benjamin Kahn
ATTORNEY

Patented Sept. 10, 1940

2,214,017

UNITED STATES PATENT OFFICE

2,214,017

HEAD HOOD SEALING DEVICE

Maximilian Ehrlich, Cedarhurst, N. Y.

Application January 28, 1938, Serial No. 187,366

4 Claims. (Cl. 34—26)

This invention relates to improvements in scalp treating machines and more particularly to head hoods and sealing devices for confining the fluid treating medium employed in connection with such machines used in beauty salons.

One of the principal objects of the invention is to provide a safe, simple, efficient, and sanitary device of the character described whereby economy in quantity and/or temperature-maintenance of the fluid treating medium is effected, and whereby certain improved operating conditions are obtained.

Improved operating conditions in the above sense includes not only the gain to the salon proprietor in reduction in time and material cost of the treatment, etc., but also includes the physical comfort and mental ease of the patron during confinement in the machine.

Another object is to provide a device of the above character capable of easy and rapid application to the patron's head at the commencement of the treatment, and, at the will of the patron, capable of permitting her instantaneous disassociation from the machine in the event it becomes necessary.

Other objects and advantages obtained are; the adaptability of the device to various head sizes and shapes; and retention of the fluid treating medium within the hood for optimum operating conditions with all head sizes and shapes.

Other objects and advantages will become apparent in the following specification having reference to the drawing forming part of this disclosure and wherein like reference characters refer to similar parts throughout the several views, and in which:

Figure 1 is a perspective view of a machine shown in use.

Figure 2 is an enlarged longitudinal sectional view of the hood portion of the machine shown in Figure 1.

Figure 3 is a sectional view taken substantially on the line 3—3 of Figure 2.

Figure 4 is a fragmentary detail view taken substantially on the line 4—4 of Figure 3.

Figure 5 is a view similar to Figure 3, but showing a modified form of the invention, and

Figure 6 is a fragmentary view similar to Figure 2 and showing a modification of the embodied structure.

In the embodiment of the invention illustrated, in Figs. 1 to 4, the scalp treating machine shown as an example is a hair and scalp drier having a hood 10 suitably adjustably supported from an upright standard 12, the hood being pivotally joined to the standard as at 14, whereby universal adjustment of the hood is provided. As illustrated, the sealing means for the hood comprises a split sealing ring including a pair of swingable sections or blades 16 pivoted as at 20 to a supporting member 24. This supporting member is illustrated as suitably secured to the open end of the hood at the rear thereof, but it is to be understood that the supporting member may be secured at the front. Each of the members 16 is substantially flat, and in outline is substantially semi-spherically arcuated. One end of each of the blades 16 is pivotally secured as at 20 to the supporting member 24, and the blades are complementarily arranged so as to provide a head receiving opening 26, substantially oval in shape, at the open end of the hood. The blades are preferably made of "bakelite" or other easily cleanable rigid material.

A bracket 28 (Figs. 2 and 3) is suitably secured to the hood 10 at the rear portion thereof, and the supporting member 24 is retained at the rear of the hood by attachment to this bracket 28 as by means of rivets or the like.

A blade supporting means is preferably provided for each of the blades to keep them from sagging at their forward end and to keep the blades in substantially sealed engagement with the edge of the opening of the hood. This means may comprise springs 23 cooperative with the pivots 20 and adapted to urge the blades against the supporting member. The lower surface of the supporting member shown is preferably positioned in the plane of the hood edge and the supporting member may be extended to partially or totally surround the internal perimeter of the edge of the hood to form the edge for sealing engagement with the blades. This spring pivot construction provides a frictional retaining means for the blade positions and is adapted to support the forward end of the blades against sagging and is further adapted to maintain a substantial seal between these blades and the edge of the hood.

If desired, the spring type pivots may be substituted by pivots of ordinary simple construction and any other suitable means elsewhere of the pivots may be employed to provide a frictional support. A particular type of such support is illustrated in Figs. 2 and 3 and is disposed near the forward ends of the blades and comprises a yieldable supporting leaf or yoke springs 30. Each of these springs 30 may be fastened at one end to the blade and adapted to pass through

a suitable opening 32 in the hood. The yoke springs are of such size as to permit the necessary adjustments of the blades for varying head sizes. The parts under such construction will thus remain in the positions manually set, the friction being merely sufficient to counteract the vibratory effects of the machine tending to displace the blades.

A resilient rail which may be in the form of a rubber tube 40 may be suitably secured to the internal edges of the blades 16, forming a split ring, the rail ends terminating at the forward ends of the respective members 16. This rail is preferably, but not essentially, continuous across the supporting member 24, and may be made of several sections.

In the form shown in Figure 5 the sealing means comprises a complete ring made up of a plurality of flat segments of arcuate outline. Two supporting members 50, like 24, may be employed, and disposed at the front and back of the hood. These members 50 are suitably secured to the hood, as by means similar to that previously described in connection with the member 24. The members 50 are each provided with pivots 52 for pivotally connecting to arcuate segments 56, each of which is provided at the free end thereof with a slot, 60.

Arcuate members 64 are adapted to cooperate with the free ends of the members 56, spanning the gap therebetween and thereby forming an enclosed sealing means in the form of an oval. The members 64 are joined to the members 56 by any suitable pin and slot construction 62 which may be of the frictional engaging character. The pivots 52 may be of simple type as shown, or may be of the frictional type as shown in Fig. 4 of the previous form.

With the pivoted and slotted construction shown in Fig. 5, the size of the oval is rendered adjustable, the adjustment being accomplished by moving the members 64 toward and apart from each other. The corresponding movement is thus imparted to the members 56. The pin and slot connections 62 between the free ends of the members 56 and the members 64 may be of such character as to frictionally engage the ends of these arcuate members to one another in order to retain the sealing ring in the desired position manually set by the operator.

It will be noticed that the opening provided in the sealing means for receiving the head of the patron is approximately normal head shaped.

It will be observed in Figure 3 that the sealing means almost completely surrounds and encloses the patron's head. Little space for escape of the fluid treating medium remains, and it is desirable to almost completely seal or completely engage the sealing member all around the patron's head. Under these same conditions, practically all head sizes are capable of being accommodated by the adjustability of the blades of the sealing means. By suitable adjustment of the blades with respect to the patron's head, the operator is enabled to obtain optimum operating conditions. This is accomplished in some cases by complete contact, and in others by leaving a slight space.

In the form shown in Figure 6 the bracket 28 shown in the previous form is dispensed with and one or more springs 29 are employed for holding the sealing means against the edge of the hood. It will be noted that the springs are so positioned as to exert upward and lateral components, the latter urging the supporting member 24 rearward against the hood internally thereof. Under such constructions, the sealing means is yieldably held against the open edge of the hood, and it will be appreciated that in the event that a patron unintentionally or purposely bends down without first spreading the blades, the sealing means will yieldingly react to a sufficient extent to prevent any undue movement of the head of the patron sufficient to upset the machine. It will be seen that in this form of the invention the blades may be pivoted to one another and to the supporting member 24. The member 24 acts as a pilot or positioning means for the sealing means.

In operation of the device the blades 16 are spread apart and the hood is raised and the machine is moved so that the hood is displaced over the patron's head. The hood is then lowered to the desired elevation and the blades are moved toward each other to a desired position. With the parts in this position the treating fluid is projected against the patron's head in the usual manner.

With the parts in operative condition, it will be noticed that the patron is afforded a limited amount of freedom of movement within the hood, while at the same time the patron is not held captive. This is a highly desirable feature, in view of the fact that a great many patrons find it objectionable to be made captive.

It will be particularly noticed that no parts of the sealing ring are in fixed contact with the patron's head and that a minimum amount of contact with the sealing edge is afforded, thereby rendering the device highly sanitary.

In the form of the invention shown in Figs. 2 and 3, and in the event a patron bends down, without first spreading the blades, the blades are automatically spread apart allowing removal of the patron's head without the danger of upsetting the machine.

It will be appreciated that while it is highly desirable from the standpoint of the salon proprietor to prevent the patron from leaving the machine, it will also be appreciated that from the standpoint of the patron the freedom of movement afforded by this device is highly desirable.

It will be seen that while the subject invention provides a limited amount of freedom, at the same time it provides a sealing means of semi-captive character.

Having thus described my invention as exemplified in two preferred embodiments thereof, it is to be understood that minor changes not involving the underlying principle thereof may be made without departing from the spirit and scope of the invention.

What I desire to claim is:

1. In a hair and scalp treating machine, the combination of a hood having a wall providing a head opening at the terminating edge thereof, a pivot-providing means on said hood, adjustable head sealing means comprising flat, rigid, arcuate segments pivoted to said means, and means yieldably urging the segments flatwise against the edge of the hood, said segments extending outwardly beyond the wall of the hood and providing a head opening spaced inwardly of the wall of the hood.

2. In a hair and scalp treating machine, the combination of a hood having a wall providing a head opening at the terminating edge thereof, a pivot-providing means on said hood, adjustable head sealing means comprising flat, rigid, arcuate members pivotally supported by said means, and yieldable means urging the members flatwise

against the edge of the hood, said members extending outwardly beyond the wall of the hood and providing a head opening smaller than the head opening in the hood, said yieldable means adapted to frictionally retain said arcuate members in predetermined positions.

3. In a hair and scalp treating machine, a hood adapted to confine a fluid-treating medium and having a wall providing an open end adapted to receive a human head and providing a uniplanar edge at the said opening, pivot-providing means on said hood, flat head-sealing segments engageable flatwise with said edge, said segments comprising rigid, flat, arcuate members adjustable with respect to each other, arranged in a single plane, and pivotally supported by said means, said segments extending inwardly and outwardly beyond the wall of the hood, spring means yieldably urging said segments against the edge of the hood, whereby said segments are frictionally engageable and yieldably retained flatwise against the said edge of the hood, and frictionally adjustable at the said pivots.

4. In a hair and scalp treating machine, a hood adapted to confine a fluid-treating medium and having a wall providing an open end adapted to receive a human head and providing a uniplanar edge at the said opening, flat head-sealing segments engageable flatwise with said edge, said segments including rigid, flat, and arcuate members frictionally adjustable with respect to each other, and pivot-providing means on said hood pivotally supporting said segments, said segments extending inwardly and outwardly beyond the wall of the hood whereby said segments are engageable flatwise against the said edge of the hood, said means including a spring cooperative with said pivotal means, whereby the segments are frictionally engaged with said edge, said pivotal means being disposed within the hood.

MAXIMILIAN EHRLICH.