No. 809,360. PATENTED JAN. 9, 1906.

N. W. DIBLE.

APPARATUS FOR PROMOTING THE GROWTH OF HAIR.

APPLICATION FILED OCT. 4, 1904.

Fig. 1

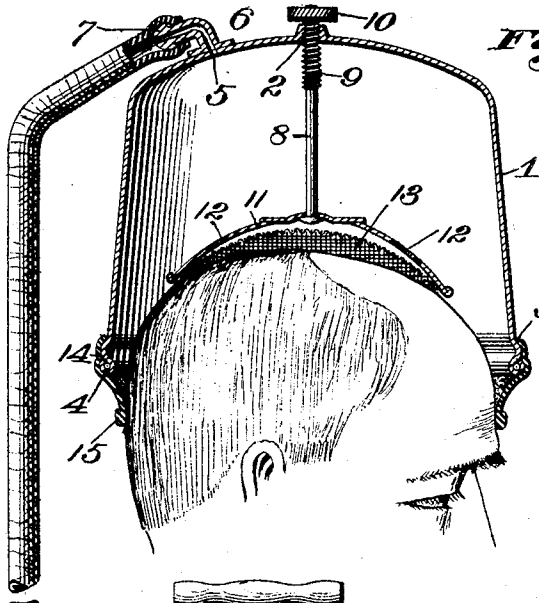
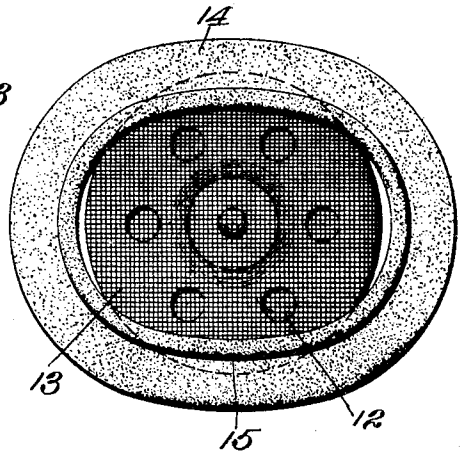


Fig. 3.



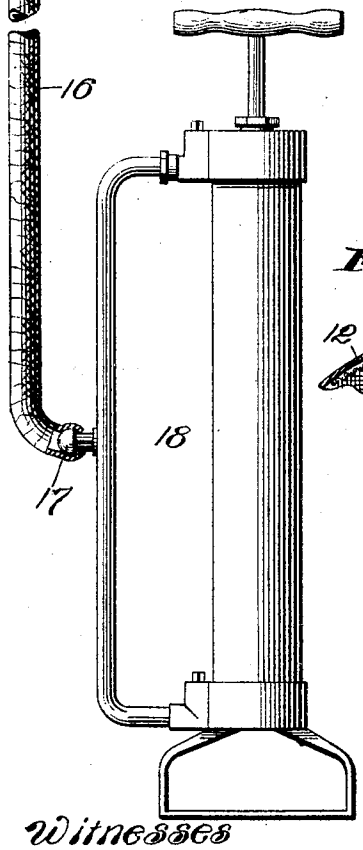


Fig. 4.

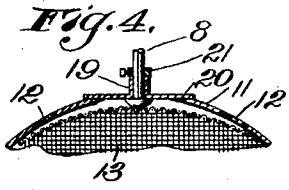


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

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APPARATUS FOR PROMOTING THE GROWTH OF HAIR.

No. 809,360. Specification of Letters Patent. Patented Jan. 9, 1906.

Application filed October 4, 1904. Serial No. 227,104.

To all whom it may concern:

Be it known that I, NAPOLEON W. DIBLE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Apparatus for Promoting the Growth of Hair, of which the following is a specification.

This invention relates to apparatus for promoting the growth of hair, and more especially to that type embodying a cap for use upon the patient's head and means for creating a vacuum in said cap and by removing atmospheric pressure from the inclosed part of the head insure the circulation of the blood through the scalp. Heretofore all of such devices in actual use that have come under my observation are provided with an external support for the cap, and as a result the creation of a vacuum therein tends to pull the patient's head up into the cap, and thus unduly stretch the neck of the patient.

The prime object of my invention is to avoid this objectionable feature of the caps in common use by providing an internal support to rest upon the patient's head and apply the atmospheric pressure downward thereon.

A still further object is to provide an internal support which is adjustable toward or from the crown of the cap, so as to accommodate heads of varying sizes and shape and also to enable the patient to quickly and easily place the cap properly upon his head.

To these ends the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 represents a central vertical section of a vacuum-cap embodying my invention, said figure showing the same in operative relation to the head of the patient and means for creating the vacuum. Fig. 2 is a similar view of the cap with the parts disposed to permit the cap to be easily and quickly placed in operative position upon the patient's head. Fig. 3 is an inverted plan view of the cap. Fig. 4 is a sectional view showing a modified form of connection between the adjustable rod and internal support.

In the said drawings, 1 designates an air-tight cap of any suitable material which will withstand atmospheric pressure of size to fit loosely over the patient's head and provided with a threaded opening 2 at the center of the crown and with an external rib 3 near and a stiffening-bead 4 at its lower margin. It is also provided at a suitable point with an aperture 5 and with an external tube 6, registering with said aperture and provided at its opposite end with a bead or external enlargement 7.

8 is a rod of size to slide through the threaded hole, having a threaded enlargement 9 to engage said hole and a thumb-nut or handle 10 at its upper end.

11 designates an inverted cup secured, as shown in Figs. 1 and 2, rigidly on the lower end of rod 8 and provided with a series of openings 12. It is also provided with a foraminous bottom 13 of segmental form, the lower margin of said bottom being secured to the cap below openings 12, and said bottom is of shorter radius than the curvature of the top of the head, so as to arch above the same, as shown. This bottom is for the purpose of preventing hair on that part of the patient's head inclosed by the cup from becoming entangled with and possibly clogging the passage of air through openings 12.

14 designates a band of rubber or equivalent material which at one margin externally clasps the bead 4 and rib 3 of the cap with an air-tight relation, the band being of such formation that when not in use its opposite margin forms an opening which is preferably considerably smaller than that portion of the patient's head which it is designed to embrace, and at such margin it is preferably strengthened or stiffened by the bead or enlargement 15. In its normal or inoperative position it occupies the position shown in dotted lines, Fig. 2, and full lines, Fig. 3.

16 designates a tube, preferably of rubber, engaging the beaded end 7 of tube 6 and the intake-nozzle 17 of a vacuum-pump 18, the pump shown being of the duplex type, so as to exhaust air from the cap with each reciprocation of the handle. This pump is not detailed, as it forms no part of the invention forming the subject of this application, as any vacuum-pump, either single or double acting, may be used in lieu thereof. The pump shown forms the subject-matter of a separate application filed of even date herewith.

When the cap is to be placed upon the patient's head, the latter first turns handle 10 until the non-threaded portion of rod 8 is extending through the threaded hole 2, so

as to leave the internal support free to move up and down in the cap. The latter is then fitted upon the head and pressed downward until it assumes substantially the position shown in Fig. 2—that is, with the reinforced margin of the band engaging the head in a plane just above the patient's eyebrows—it being apparent that the support in such operation is raised by the pressure of the head thereunder. The cap is then pulled upward without disturbing the position of the support upon the head or the reinforced margin of the band until the lower end of the threaded portion of the rod is in engagement with the threaded hole 2. The rod is then turned by the handle until its threaded portion takes into said threads, this action of course turning the support upon the head when rigid with the rod, as shown in Figs. 1 and 2. The continued manipulation of the handle continues the upward movement of the cap until the parts are disposed substantially as shown in Fig. 1. After this relation of the parts has been established the lower end of the tube 16 is fitted upon the enlargement 18 of the intake-nozzle of the pump, as it is preferable that said tube and pump shall have been disconnected during such operation. The pump is now manipulated to exhaust the air from the cap, which action is obviously attended by an increasing pressure upon the head due to atmospheric pressure externally of the cap, the atmospheric pressure also insuring an air-tight relation between the elastic band and the head.

The removal of atmospheric pressure from the inclosed part of the head obviously insures the free and thorough circulation of the blood through the scalp, and repeated operations at suitable intervals stimulate the growth of hair thereon, according to expert opinion—that is, if the lack is due to atrophy of the scalp.

As the scalps of some patients may be susceptible to abrasion under the slightest friction, it may be advisable to establish a connection between the inverted cup 11 and rod 8 which will cause the former to move vertically with the rod, but will permit the latter to rotate without permitting corresponding movement of the former. To accomplish this result, the inverted cup may be swiveled on the lower end of the rod, as shown at 19 in Fig. 4, the rod being headed at its lower end, as at 20, and provided with a collar 21 immediately above the cup. With this construction it is obvious that the rod may be turned without imparting like movement to the inverted cup. It will be apparent of course that any other means may be employed which will permit of vertical adjustment of the support and that the construction may be otherwise varied without departing from the essential spirit and scope or sacrificing any of the advantages of the invention.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

1. An air-tight cap, an elastic band secured to the lower margin of the same, a support within the cap to rest upon the patient's head, means whereby the support is free to move toward or from the crown of the cap, and means whereby said support may be secured at the desired distance from the crown of the cap.

2. An air-tight cap, an elastic band secured to the lower margin of the same, a support within the cap to rest upon the patient's head, and a rod vertically adjustable through the crown of the cap and attached at its lower end to the support.

3. An air-tight cap having a threaded hole in its crown, an elastic band secured to the lower margin of said cap, a support within the cap to rest upon the patient's head, and a rod attached at its lower end to said support and capable of sliding through the threaded hole of the cap, and provided with a threaded portion for engagement at times with said threaded hole.

4. An air-tight cap having a threaded hole in its crown, an elastic band secured to the lower margin of said cap, a support within the cap to rest upon the patient's head, a rod attached at its lower end to said support and capable of sliding through the threaded hole of the cap and provided with a threaded portion for engagement at times with said threaded hole, and a handle secured to the upper end of the rod externally of the cap.

5. An air-tight cap, an elastic band secured to the lower margin of the same, and a support within the cap to rest upon the patient's head, the same comprising an inverted cup provided with openings, and a foraminous bottom bridging the lower side of said openings.

6. An air-tight cap, an elastic band secured to the lower margin of the same, a support within the cap to rest upon the patient's head, the same comprising an inverted cup provided with openings and a foraminous bottom bridging the lower side of said openings, and means for creating a vacuum in said cap.

In testimony whereof I affix my signature in the presence of two witnesses.

NAPOLEON W. DIBLE.

Witnesses:
H. C. RODGERS,
G. Y. THORPE.