

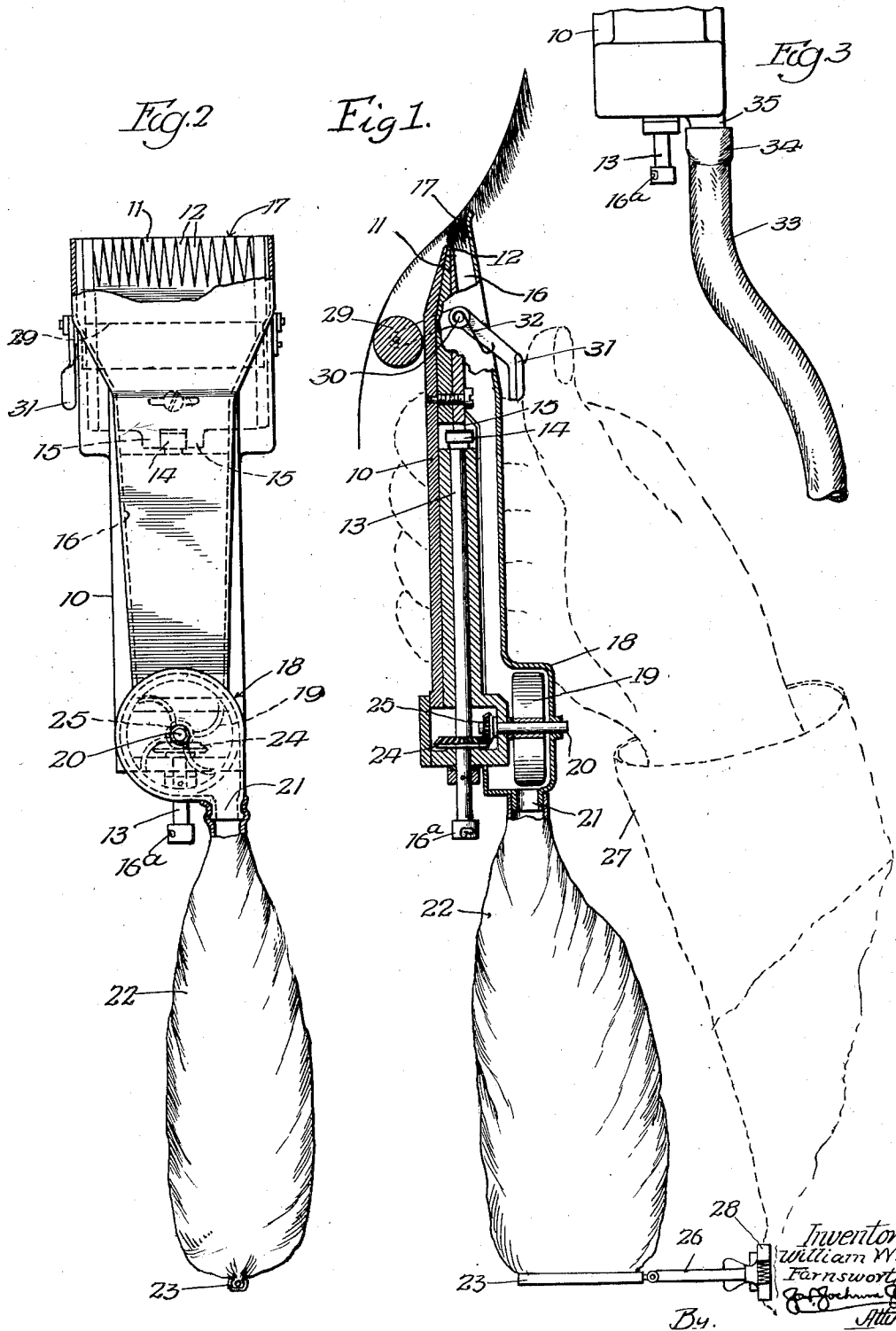
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HAIR CUTTER

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UNITED STATES PATENT OFFICE.

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HAIR CUTTER.

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To all whom it may concern:

Be it known that I, WILLIAM W. FARNSWORTH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hair Cutters, of which the following is a specification.

This invention relates to improvements in hair cutters particularly of the type embodying co-operating cutter blades, one of which is reciprocated with respect to the other by means of a power driven shaft which is operatively connected with the reciprocable cutter, and one of the objects of the invention is to provide an improved cutter of this character embodying means for drawing, by suction, the ends of the hair into the intake end of a nozzle and between the spaced fingers of the cutter, at substantially right angles thereto and in position to be cut, thereby eliminating the use of a comb by the operator when cutting the hair.

A further object is to provide improved means for directly conveying away by means of air currents, the hair which is cut.

A further object is to provide improved means for delivering the cut hair into a bag or receptacle where it will be confined until it is desired to otherwise dispose of the same, with the result that any diseased hair or skin from the scalp will be prevented from contaminating the atmosphere, to be inhaled by the barber or other person.

A further object is to provide an improved means for spacing the cutter from the surface being operated upon and varying at will the extent of such space.

A further object is to provide an improved device of this character which will be of a simple, durable, light and compact structure and convenient for the barber to handle and operate.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawing illustrating this invention, and in which—

Figure 1 is a vertical, longitudinal sectional view of a cutter constructed in ac-

cordance with the principles of this invention.

Figure 2 is a top plan view of the cutter.

Figure 3 is a modified form of the invention.

Referring more particularly to the drawing the numeral 10 designates a suitable support for the cutter 11 which is held stationary with respect thereto. Co-operating with the stationary cutter is a reciprocable cutter 12, which may be reciprocated in any desired or suitable manner such as from a driving or power shaft 13 having an eccentric 14 connected therewith, and which eccentric is adapted to operate between spaced shoulders 15 carried by the reciprocating cutter 12. The cutter blades may be of the ordinary and well known construction embodying spaced co-operating fingers between which the hair projects to be cut by the edges of the fingers as the cutters are relatively reciprocated.

The shaft 13 is adapted to be driven in any desired or suitable manner preferably from power driving mechanism, which latter is connected with the shaft 13 in any suitable manner such as by means of an ordinary coupling 16.

The driving shaft is housed within the cutter casing and may be of any desired length.

Connected with the cutter is a conduit 16 which is provided with a narrow inlet opening 17 disposed adjacent the cutting point or plane of the cutter. The inlet opening 17 is substantially co-extensive with the cutting plane of the cutter, so that when suction is created through the nozzle, the hair will be drawn between the cutting fingers thereby causing the fingers to also serve in the nature of a comb, rendering it possible to dispense with the use of a comb in connection with this device.

A fan casing 18 is also provided and has communication with the conduit 16. Within the casing 18 is a suction creating fan 19 connected with a shaft 20 journaled in suitable bearings. This fan when rotated operates to create a suction in the conduit 16 and will also draw the hair which is severed by the cutter into the conduit and convey it away from the surface which is being operated upon. The fan casing 18 discharges through an outlet opening 21 into a receptacle 22 and which receptacle is

provided with a discharge outlet closed by a suitable clip 23 so as to permit the contents of the receptacle to be emptied when desired.

5 The fan is operated in any desired or suitable manner, preferably from the shaft 13 through the medium of a gear 24 connected with the shaft, which meshes with a gear 25 carried by the fan shaft 20.

10 If desired a suitable hanger 26 may be provided for supporting the receptacle 22 from the sleeve 27 of the operator, and a clip 28 may be detachably connected with the hanger 26 for securing the hanger to the sleeve.

15 With this improved construction it will be manifest that the clipper may be grasped by the hand of the operator in a manner as shown in Figure 1, and when the hand is held in a natural position. With the use of this improved clipper or cutter, when the hair is severed, the suction created in the conduit 16 will draw the uncut hair to the cutter and hold the hair in a position to be cut, that is in the position in which it would be held if a comb were used to elevate the hair to be cut, but with the present invention the use of a comb is dispensed with. The suction will also convey away the cut hair as well as any diseased portion of the scalp. The severed hair and foreign particles will be deposited in the bag or receptacle 22 which will prevent them from being distributed to the atmosphere to contaminate the latter.

20 If desired and as a means for varying the amount of space between the active edge of the cutter and the surface to be operated upon, there may be provided a roller 28 of any desired construction which may be pivotally mounted as at 30 and is disposed beneath the cutter so as to engage the surface being operated upon. A suitable lever or handle 31 may be connected with the roller support and by means of which handle or lever the operator may, with his finger, move the roller 29 about the pivot 30 against the stress of a spring 32 and thereby move the roller toward or away from the lower surface of the cutter casing to vary the space between the active edge of the cutter and the surface being operated upon.

25 The spring 32 tends normally to hold the roller 29 back against the face of the cutter support as shown in dotted lines in Figure 1. If desired the fan 19 and casing 18 may be dispensed with and a flexible tube or conduit 33 may be connected by one end 34 to the outlet 35 of the conduit 16, through which tube suction is created through the nozzle 17. The other end of the conduit 33 may be connected with a stationary receptacle (not shown) to discharge thereinto, or the conduit may convey the hair to any suitable point of discharge.

charge.

While the preferred forms of the invention have been herein shown and described, it is to be understood that various changes may be made in the details of construction and in the combination and arrangement of the several parts, within the scope of the claims, without departing from the spirit of this invention.

What is claimed as new is:—

1. In combination a hair cutter, a conduit associated with the cutter, the inlet of the conduit being disposed adjacent the cutting edge of the cutter, means for creating a suction in the said conduit, the said conduit receiving the hair directly it is severed, a receptacle with which the said conduit has communication for delivering the hair thereinto, and means for supporting the said receptacle from the person of the operator.

2. In combination a hair cutter embodying a reciprocable cutter blade, actuating means for the cutter, a conduit having its inlet adjacent the cutting edge of the cutter, a fan casing supported by the cutter handle and with which casing the said conduit has communication, a fan in the casing, there being a discharge outlet from the casing, means for actuating the fan, said fan operating to draw the hair into the casing from the said conduit and discharge the hair through the said outlet, a receptacle for receiving the hair from said outlet and for confining the hair, and means for supporting the said receptacle from the person of the operator.

3. A hair cutter including a reciprocable cutter proper, means for actuating the cutter, means adjustably connected with the cutter support for holding the cutter proper spaced from the hair carrying surface, and means for freely moving the last said means away from and towards the cutter support at will and for maintaining the same in its adjusted position with respect to the cutter, all during the cutting operation.

4. A hair cutter including a reciprocable cutter proper, means for actuating the cutter, means adjustably connected with the cutter support for holding the cutter proper spaced from the hair carrying surface, and means for freely moving the last said means away from and towards the cutter support at will and for maintaining the same in its adjusted position with respect to the cutter, all during the cutting operation, the first recited means including a roller movable over the said surface.

5. A hair cutter including a reciprocable cutter proper, means for actuating the cutter, means adjustably connected with the cutter support for holding the cutter proper spaced from the hair carrying surface, and means

for freely moving the last said means away from and towards the cutter support at will, the last recited means including a lever disposed in a convenient position to be engaged
5 by the hand of the operator.

6. A hair cutter including a reciprocable cutter proper, means for actuating the cutter, means adjustably connected with the cutter support for holding the cutter proper spaced
10 from the hair carrying surface, and means for freely moving the last said means away from and towards the cutter support at will, the last recited means including a shiftable roller and a lever for shifting the roller,
15 said lever extending over the cutter support and in a convenient position to be engaged by a finger of the operator.

7. A hair cutter including a movable cut-

ting element, actuating means for operating said element, a conduit having an inlet adjacent the cutting plane of the cutter, a fan casing with which the conduit has communication, a suction fan in the casing, an operative driving connection between the said actuating means and the fan, a receptacle
20 for receiving the cut hair from the fan casing, and means for supporting the said receptacle from the person of the operator, the said fan being disposed in the rear of and spaced for a considerable distance from
25 the said cutting element.
30

In testimony whereof I have signed my name to this specification, on this 20th day of March, A. D. 1924.

WILLIAM W. FARNSWORTH.