June 5, 1951 P. W. SNOWMAN 2,555,941

PNEUMATIC DEVICE FOR CLEANING THE SCALP AND HAIR

Filed Oct. 20, 1947

Fig. 1.

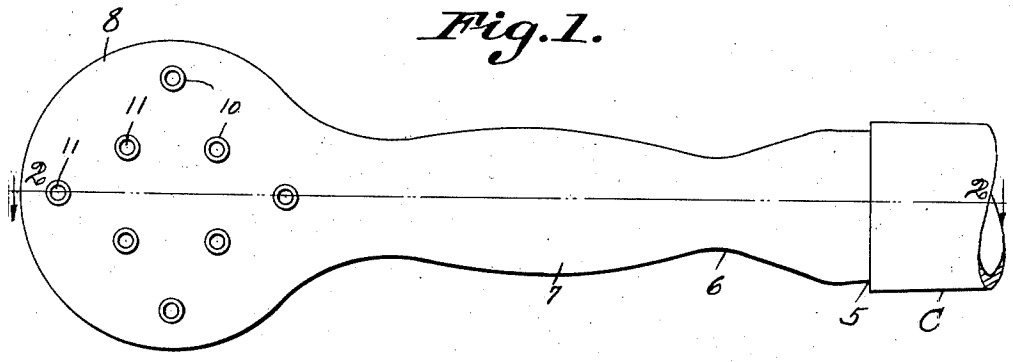


Fig. 2.

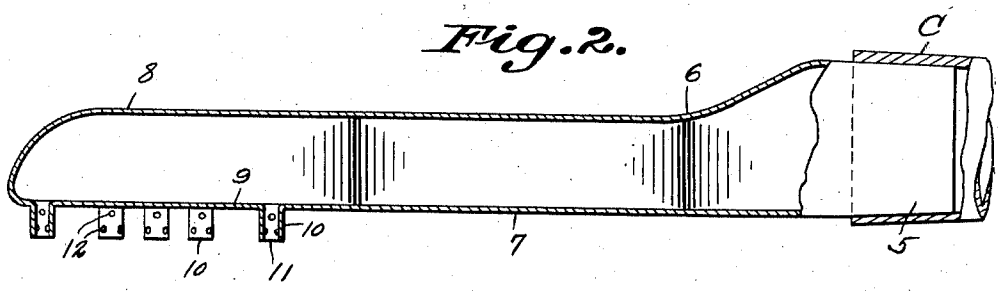


Fig. 3.

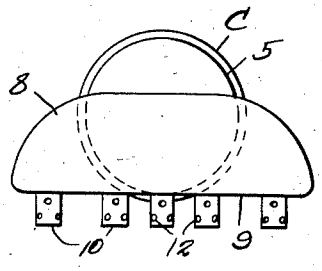
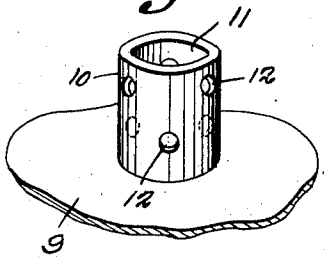


Fig. 4.



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PNEUMATIC DEVICE FOR CLEANING THE SCALP AND HAIR

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1 Claim. (Cl. 15—397)

1

This invention relates to a device adapted for the removal of loose dandruff from the hair. More particularly, the invention has reference to a device of the character described which is attachable to a vacuum cleaner or the like, and is so designed as to remove dandruff in a novel and efficient manner upon the setting up of a pneumatic suction.

The primary object of the invention is to provide a device of the type stated which, on setting up of the pneumatic suction, acts simultaneously on dandruff lying on the scalp, and on dandruff in the hair itself, in a manner utilizing the suction to a maximum extent.

It is a further important object of the invention to provide a dandruff-removing device which in itself is of small, simple, and inexpensive construction, having no moving parts, and being capable of indefinite use without possibility of getting out of order.

In its broadest aspects, the invention contemplates the formation of a hollow device readily attachable to the conventional vacuum cleaner hose, and embodying a handle and a head from which extends a plurality of small hollow fingers the outer ends of which are wholly open, and the side walls of which are formed with a number of small perforations.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claims, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing

Figure 1 is a bottom plan view of a dandruff-removing device constructed in accordance with the invention connected to a vacuum cleaner hose coupling.

Figure 2 is a longitudinal section on line 2—2 of Figure 1.

Figure 3 is an end elevation, taken from the left of Figure 2.

Figure 4 is a perspective view, on an enlarged scale, of one of the fingers, a portion of the head to which it is attached being broken away.

Referring to the drawing in detail, my dandruff-removing device is preferably of hollow construction throughout, and has one end 5 wholly open and formed in any suitable manner for detachable connection to the coupling C of a conventional vacuum cleaner or the like.

2

In this connection, it is pointed out that the particular formation of the open end 5 can and obviously would be varied according to the formation of the coupling C of the particular cleaner or cleaners to which it is to be connected. In the drawing, I have illustrated one type of construction, purely for the sake of example, but other designs could as well be used, it being essential only that the cooperating end 5 and coupling C make a suitably air tight connection.

The open end 5 is taperingly merged, as at 6, into a continuing hollow handle 7, formed for ready gripping by the user. At its other end, the handle 7 communicates with, and is preferably integral with, a hollow head 8, this in the present instance being shown as substantially flat and circular in conformation.

At 9 I have indicated the flat under side of the head, and from this under side or bottom 9 is outwardly extended a plurality of short widely spaced projecting fingers 10. In the drawing, and referring particularly to Figure 1, the fingers are arranged in an outer and an inner series, but this arrangement can be varied if desired. I have found the arrangement illustrated particularly desirable, however, because it in effect staggers the relationship of the several fingers, so that a row of them appears regardless of the direction in which the device is moved through the scalp of the user. This is readily apparent from Figures 2 and 3, Figure 2 showing the fingers as they appear from the side, and Figure 3 showing them as they appear from the end.

The fingers 10 are of tubular formation, having open inner ends communicating with the hollow interior of the head 8, and having open outer ends, as shown at 11, that present themselves to the scalp. It may be noted at this point that the whole device can be of integral construction, and can be formed of any desired hard material which is suitable, such as aluminum, this construction extending to the fingers 10.

In the side wall of each finger 10, and spaced from end to end of each finger, there is formed a plurality of small side openings 12, the purpose of which will become apparent when the operation of the device is described.

In the use of the invention, the end 5 thereof is first connected to the coupling C of a conventional vacuum cleaner, not shown. The vacuum cleaner being set in operation, it is seen that air will be drawn through the large end opening 11 at the outer end of each finger 10, and through the several side openings 12 thereof. The user grasps the handle 7, and applies the

device to the scalp. In use of the device, the outer ends of the fingers 10 are placed directly thereagainst, and the device is then moved by the user over the scalp, with care being taken to keep the outer ends of the fingers, having the large openings 11, in position against the scalp itself, so far as possible. It is, of course, impossible to close the end openings 11 completely by pressing the device against the scalp, and I do not propose that this be done, since the device operates with full efficiency simply by holding it substantially close to the scalp. The underside 9 of the head has the positive effect of pressing the hair down so that all of it is in the vacuum field of the openings 12.

The pneumatic suction set up by the vacuum cleaner causes dandruff lying on the scalp itself to be drawn into the large openings 11, whence it proceeds, of course, through the device and to the cleaner. At the same time, dandruff which is in the hair is drawn through the side openings 12. In this connection, an important characteristic of the invention is that the substantial closing of the end openings 11 in the manner described above increases the suction through the side openings 12, correspondingly increasing the vacuum field surrounding the side wall of each finger 10.

In this way, I have found, the device acts with unusual efficiency to remove simultaneously dandruff both from the scalp and from the hair, by simple manipulation of the device in the manner stated.

What is claimed is:

A hair and scalp cleaning device comprising a hollow body including a coupling at one end for connection to a vacuum hose, a hollow generally flat, head at the other end, and a hollow handle integral with and communicating at opposite ends with said head and coupling; and a plurality of fingers integral with said head, said fingers respectively having bores of constant diameter from end to end of the fingers, said fingers being open at opposite ends and the open ends of the fingers being of the same diameter as the bores thereof, one end of each finger communicating with the interior of the head and the other end of each finger being proportioned to be passed over a scalp, said fingers being short and only slightly smaller in diameter than they are long, the fingers being spaced widely apart and defining between them wide clear spaces for engagement between the fingers of substantial amounts of hair, each finger having a plurality of small openings formed in its side wall and spaced longitudinally of and circumferentially of said side wall.

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