June 27, 1961 L. V. CIRIGLIANO 2,989,770

SCALP MASSAGING AND CLEANING DEVICE

Filed June 11, 1959 2 Sheets-Sheet 1

Fig. 1

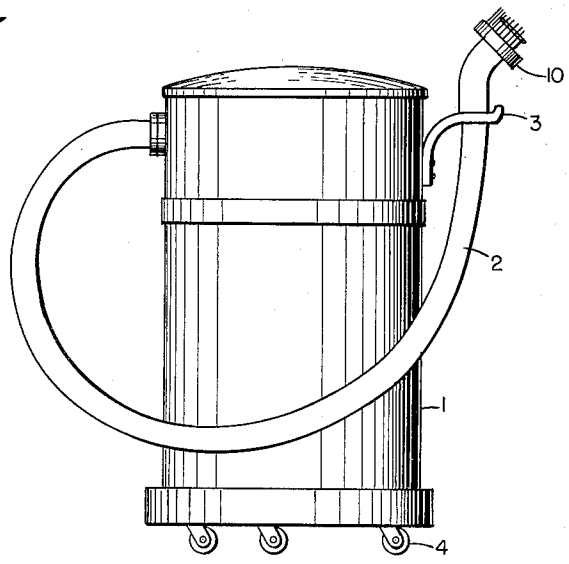


Fig. 2

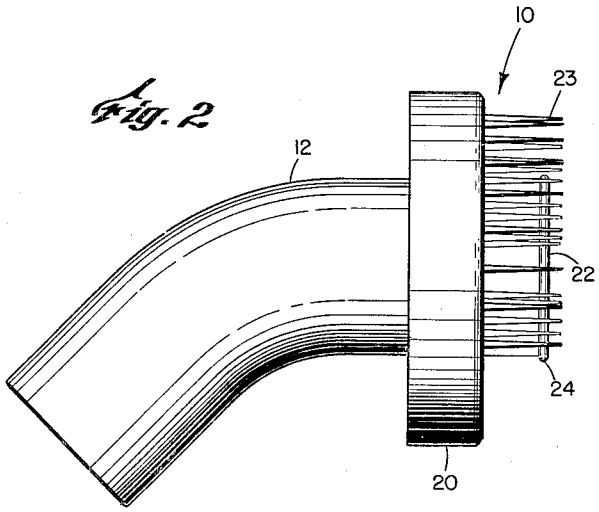
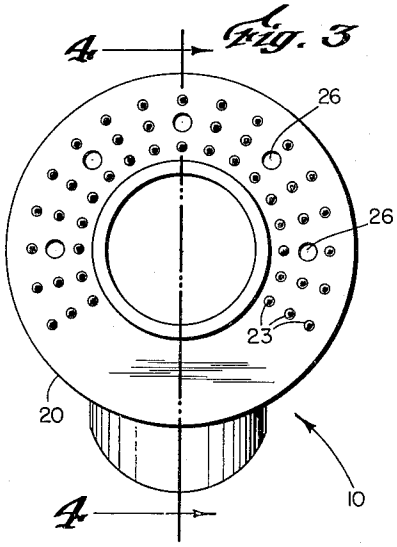


Fig. 3



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June 27, 1961 L. V. CIRIGLIANO 2,989,770

SCALP MASSAGING AND CLEANING DEVICE

Filed June 11, 1959 2 Sheets-Sheet 2

Fig. 4

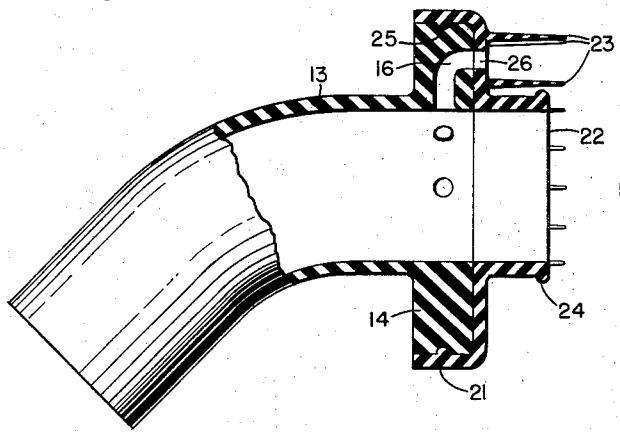


Fig. 5

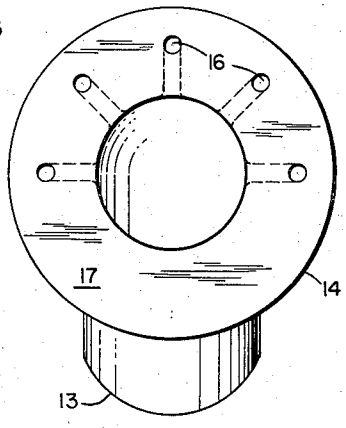
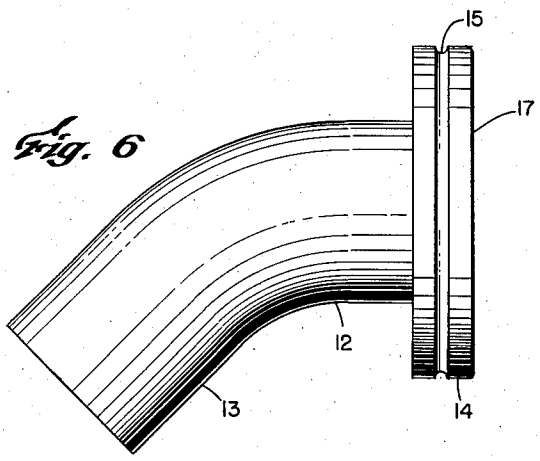


Fig. 6



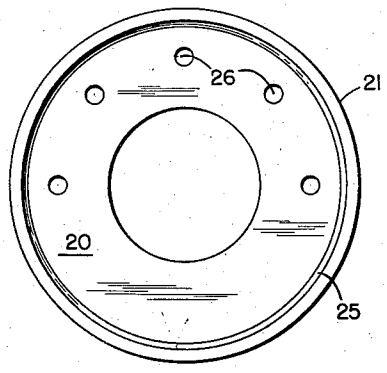
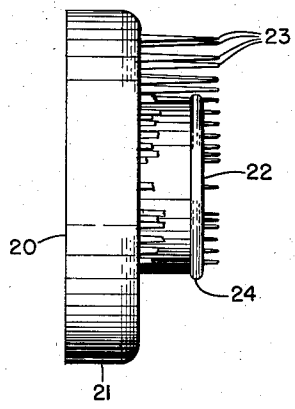


Fig. 7

Fig. 8



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SCALP MASSAGING AND CLEANING DEVICE

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4 Claims. (Cl. 15—396)

This invention relates generally to flexible scalp massaging and cleaning devices for use in barbershops, beautysalons, and the like. More particularly, it relates to a flexible scalp massaging and cleaning device that excels in simplicity and ease in operation, in permitting its repeated sanitary application, and in low manufacturing cost. Moreover, the device is designed to be attachable to any conventional vacuum hose connected to any standard vacuum machine, requiring thus no special equipment for its operational use and application.

It is known that numerous devices of a similar nature have been developed and proposed. To my knowledge, however, not one of these known devices has fulfilled the long felt want for a simple, inexpensive, sanitary, and yet efficient device that would accomplish two results in a single application. For this reason, it is believed that the device of the invention represents a material advancement in this art. In its application to the human scalp, my device simultaneously accomplishes two desirable results: massaging and cleaning the scalp of hair trimmings and the like. Furthermore, these two results are brought about in a single application by simple brush-like movements of the device about the scalp, the neck, and the shoulders. Since my device is removable and readily exchangeable, it permits its repeated sanitary application to each new customer.

It is, therefore, an object of the invention to provide a flexible scalp massaging and cleaning device at a low manufacturing cost.

More specifically, it is an object of the invention to provide a flexible scalp massaging and cleaning device that is simple and sanitary in operation, inexpensive to manufacture, and accomplishes two results of massaging and cleaning the scalp in a single application.

Furthermore, it is an object of the invention to provide a flexible scalp massaging and cleaning device that is removable and easily exchangeable to permit its repeated sanitary application.

It is another object of the invention to provide a flexible scalp massaging and cleaning device that is readily attachable to any conventional vacuum hose of any standard vacuum machine.

Other and further objects will become apparent from the following description.

In general, the flexible scalp massaging and cleaning device of the invention comprises two parts: a nozzle piece and a prong member removably attached to said nozzle piece. The device is conveniently molded of an elastomeric material, such as natural or synthetic rubber or any of the various plastics. The nozzle piece is so shaped at one end as to provide a tubular attachment to any conventional vacuum hose and serves at the same time as a convenient grip for the operator's hand. At the other end of the nozzle piece is provided an enlarged rim to receive and securely hold in place the detachable prong member. This arrangement permits the utilization of a clean, sterilized prong member for each new customer. Several arcuate rows of flexible teeth project from and are integral with the prong member. These flexible teeth accomplish the massaging operation, while the suction generated by the vacuum machine through the nozzle piece accomplishes the cleaning operation by sucking up hair trimmings and the like off the customer's head, neck, shoulders, and clothing.

For a more detailed description of the invention, reference may now be made to the following description taken in connection with the accompanying drawing, in which:

FIG. 1 is an elevational view of a standard portable vacuum machine having a flexible hose to which the device of the invention has been attached;

FIG. 2 is a side elevational view of the device of the invention, shown here and in the subsequent figures at full size;

FIG. 3 is a front elevational view of the device of the invention;

FIG. 4 is a side elevational view of the device with part of it broken away and in section along the line 4—4 of FIG. 3;

FIG. 5 is a front elevational view of the nozzle piece of the device;

FIG. 6 is a side elevational view of the nozzle piece of the device;

FIG. 7 is a rear elevational view of the prong member of the device, and

FIG. 8 is a side elevational view of the prong member with some of the projecting flexible teeth broken off to show the centrally protruding circular flange.

With particular reference to FIG. 1, the reference numeral 1 denotes a standard portable, electrically operated vacuum machine, movable about a floor on convenient swivel 4, and having a flexible hose 2 and a hook 3 to hold the hose in place. The electrical connection for the vacuum machine has been omitted from the drawing. The scalp massaging and cleaning device 10 of the invention is shown conveniently attached to the hose 2.

FIG. 2 is a full size side elevational view of the scalp massaging and cleaning device 10, showing its two component parts, the nozzle piece 12 and the detachable prong member 20, in assembled relation. FIG. 3 shows the same device 10 in front elevation. Both the nozzle piece 12 and the prong member 20 are conveniently molded of an elastomeric material, such as natural or synthetic rubber or any of the various flexible plastics.

Referring in particular to FIG. 6, representing a side elevational view of the nozzle piece 12 only, it can be seen that the nozzle piece 12 is shaped with a tubular fitting 13 on one end and having an enlarged rim 14 on its other end. The tubular fitting 13 is formed for insertion into any conventional vacuum hose. In the alternative, it may be formed as a sleeve to fit over the end of a hose. The tubular fitting 13, furthermore, is slightly bent, substantially as shown, to provide a convenient and secure grip for the operator's hand. The enlarged rim 14 is shaped to receive and securely hold in place the removable prong member 20. The rim 14 is provided with an annular groove 15 in its outer periphery, and with a number of spaced holes 16 at its front flat surface 17, as may be best observed in FIG. 5.

The prong member 20, shown in FIGS. 7 and 8, is formed of a collar section 21, a centrally protruding circular flange 22 having a reinforcing brim 24, and three arcuate rows of flexible teeth 23 projecting from the collar section 21 about said flange 22 and out of the plane formed by the brim 24. A number of spaced holes 26 are provided among the teeth 23 corresponding to the holes 16 formed in the nozzle piece 12. The collar section 21 is provided with an internal ring 25 for engagement with said annular groove 15 of the nozzle piece 12, when the two component parts are in assembled relation, as may be best seen in FIG. 4.

Assembly of the two flexible component parts is accomplished simply by insertion of the nozzle piece 12 with its rim 14 into the collar section 21 of the prong member 20 until the internal ring 25 of the collar sec-

tion snaps into the annular groove **15** of the rim **14**. For best results, the holes **26** should be adjusted to cover the holes **16** of a nozzle piece **12**. Disassembly requires only a firm pull applied to the collar section **21** of the prong member **20** sufficient to dislodge the ring **25** from the groove **15**.

The operational application of my scalp massaging and cleaning device **10** is as follows. Before its intended use, the operator takes a clean, sterilized prong member **20** and snaps it onto the nozzle piece **12**. Then by holding the device **10** at the tubular fitting **13**, the operator moves the device **10** with quick, brush-like motions, over the head, neck, shoulders, and clothing of the customer. In so doing, the flexible projection teeth **23** massage the scalp, while the suction provided by the vacuum machine through the nozzle piece **12** picks up hair trimmings and the like from the aforementioned areas. After use, the operator removes the used prong member **20** from the nozzle piece **12** and replaces it with a clean one. The operator may employ two or more prong members **20** which may be conveniently stored in sterilized condition in a liquid bath furnished in a suitable container within easy reach of the operator.

I claim:

1. A flexible scalp massaging and cleaning device made of an elastomeric material, for use with a conventional vacuum machine having a hose, said device being attachable to said hose and comprising a nozzle piece and a prong member removably attached to said nozzle piece, said nozzle piece shaped as a tubular fitting on one of its ends and having a rim on its other end, said rim being provided with an annular groove in its outer periphery and with a central orifice and a number of spaced holes at its front surface, communicating with the hollow interior of the nozzle piece, said prong member having a collar provided with an internal ring for engagement with said annular groove, a centrally protruding circular flange communicating with the central orifice of the nozzle piece at least one arcuate row of flexible teeth projecting from said prong member about said circular flange and beyond the plane of the edge of said flange, and a series of spaced holes formed among said teeth communicating with the holes in said nozzle piece.

2. A flexible scalp massaging and cleaning device made of an elastomeric material and attachable to a conventional vacuum hose, said device comprising a nozzle and a removable prong member, said nozzle having a tubular fitting and a rim, said rim provided with an annular

groove in its outer periphery and with a central orifice and a series of spaced holes at its front surface communicating with the hollow interior of the nozzle, said removable prong member having a collar provided with an internal ring for engagement with said annular groove, a centrally protruding circular flange integral with said prong member communicating with the central orifice of the nozzle and having a brim, at least one arcuate row of flexible teeth projecting from said prong member beyond the plane of said brim, and a series of spaced holes formed among said teeth communicating with the holes in said nozzle.

3. A flexible scalp massaging and cleaning device made of an elastomeric material and attachable to a conventional vacuum hose, said device comprising a nozzle piece and a prong member removably attached to said nozzle piece, said nozzle piece formed of a tubular fitting and a rim, with a flat front surface, said rim being provided with an annular groove at its periphery and with a central orifice and a number of spaced holes at its front surface communicating with the hollow interior of the nozzle piece, said prong member formed of a collar section provided with an internal ring for engagement with said annular groove, and of a centrally protruding circular flange section communicating with the central orifice of the nozzle piece and having a brim, said prong member having at least one arcuate row of flexible teeth projecting from said prong member about said centrally protruding circular flange section and beyond the plane of said brim, and a number of spaced holes formed among said teeth aligned with the holes in said nozzle piece.

4. A flexible scalp massaging and cleaning device as described in claim 3, in which the said elastomeric material is rubber.

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