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DISPENSING DEVICE

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Fig. 1.

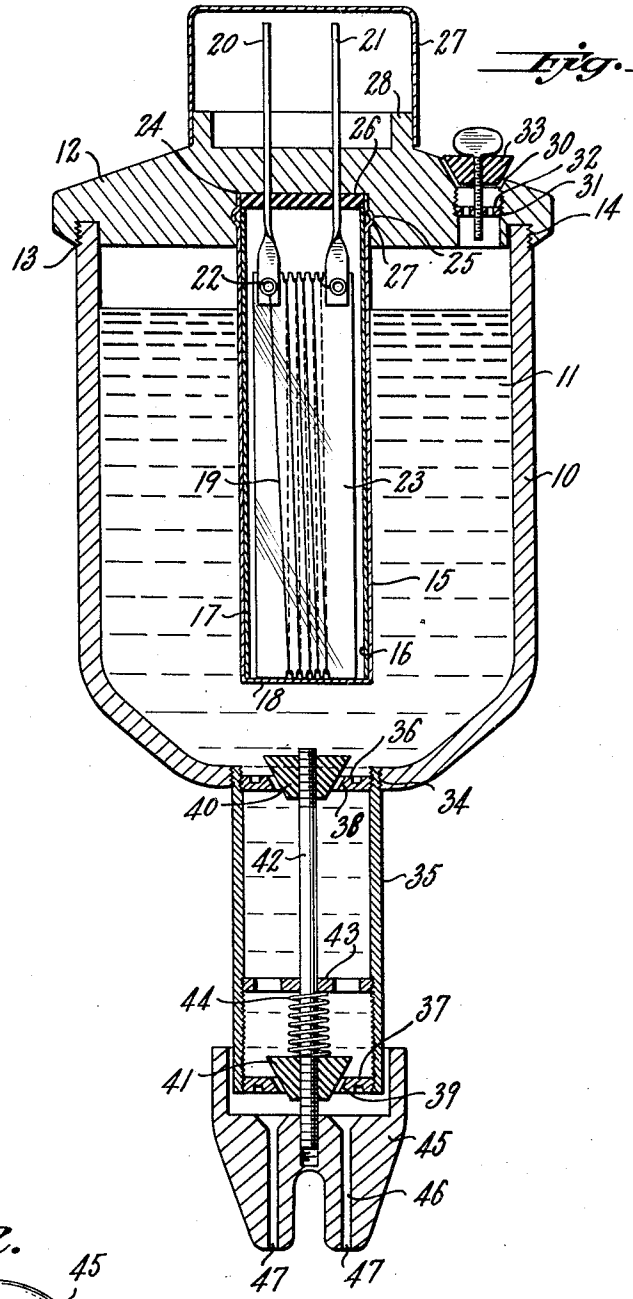
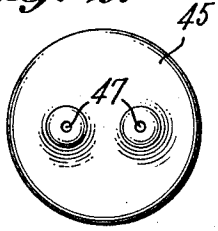


Fig. 2.



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DISPENSING DEVICE

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5 Claims. (Cl. 128—24.1)

This invention relates to a dispensing device. More particularly it relates to liquid dispensers with heating means for use in skin massaging, scalp treatment and hair reconditioning.

In dispensing oils and the like for massaging the skin and scalp it is necessary that the viscosity of these oils or like materials be reduced with the aid of heat to hasten the absorption by the scalp or skin of these oils thus increasing their therapeutic value.

Present appliances for dispensing preheated or cool fluids as used in the massage, skin and scalp treating arts are of relatively clumsy construction with the result that they are ineffective, unsanitary and permit wastefulness of the material they contain. In such types of devices, the liquid material cannot be easily measured out for each use whereby a certain amount once withdrawn from the device must be discarded. Furthermore, these devices do not have proper means of removing definite quantities of the liquid contents while the device is being used for combing and when the contents are removed they are placed on a wad or pad of cotton material. If the contents are preheated they become chilled upon exposure and thereby lessened their therapeutic effects.

With the above and other disadvantages of the prior art in mind it is one of the objects of this invention to provide an efficient, novel dispensing device of simple and effective construction for therapeutic liquid materials used in scalp and massaging treatments.

It is another object of the present invention to provide a device for dispensing preheated liquids in definite or measured quantities, either prior to or during use.

Another object of the present invention is to provide a novel type of liquid dispensing device which can be heated preparatory to use and laid in any desired position while the contents are being heated.

One further object of the present invention is to provide a manually operative dispensing and combing device for use in massaging the scalp and combing the hair while warmed fluid is being simultaneously applied.

With the above and other objects in view, the present invention generally includes a novel mechanical combination of cooperative parts for retaining and heating liquid substances therein and permit easy dispensing and application of the liquid therefrom.

In the drawing:

Fig. 1 is a sectional elevation of a preferred form of the invention, and

Fig. 2 is an end view of the embodiment shown in Fig. 1.

Referring to the drawing, in which like reference characters refer to like parts thruout, a container 10 for a fluid 11 used in treating the scalp and skin has an upper opening for accommodating a cap 12. The upper exterior end portion of the container is threaded at 13 for retaining the cap 12 at threaded circumferential groove 14. Said cap is provided with a depending casing 15 having a wall 16 of electrical resistant material, the interior of the wall 17 and bottom 18 respectively of said casing. The casing may be of any desired shape or form to accommodate a heating element 19 in connection with plug-in terminals 20 and 21 respectively. It is to be noted that the terminals extend thru the cap 12 to permit easy connection with an electric socket not shown, as a source of heating. Said terminals are also riveted at 22 to an insulation member 23 depending in casing 15.

Casing 15 is set into the roof of cap 12 by any suitable means such as threading or may be plugged into position as shown in which the cap has a central depression 24 provided with an annular groove 25. The casing is provided at its upper end with a leakage proof cover 26 and an annular extension 27 fitting into groove 25. The top of cap 12 has an upwardly extending annular section 28 integral therewith, for a cover member 27. Said member is used to protect plug in terminals 21 when the device is not being heated. In order to permit removal of the fluid from the container 10 when in operation, a vent 30 is provided which can be easily adjusted. The vent has an opening in cap 12 as shown in Fig. 1. The opening is threaded at its upper end, thus forming a seat 31 for a spider washer 32 which can be adjusted to any desired position above the seat. Connected with the center of washer 32 is a screw valve 33 which fits snugly into the opening of the vent. It is to be noted that the valve may be adjusted to any desired position in the vent.

Container 10 has a threaded central opening 34 at its lower end to which is screwed a tubular member 35. Mounted at the opposed ends of said member 35 are spider washers 36 and 37, respectively. Each of said washers has a seat 38 and 39, respectively, for accommodating opposed vales 40 and 41, mounted on a central reciprocable shaft 42. Intermediate the washers 36 and 37 is another washer 43 screwed to the

wall of member 35 and thru the center of which passes shaft 42. Said washer is screwed to any desired position inside tubular member 35 whereby to retain the shaft 42 in a coaxial position, upon reciprocating movement of the same.

Intermediate washer 43 and valve 41 is a tension spring member 44 for forcing the shaft in a downward position and prevent outward flow of the fluid from container 10 and tubular member 35. Said shaft 42 has one end depending outwardly from the tubular member for connecting a multi-nozzled member 45. It is to be noted that said member has a plurality of conduits 46, outlets 47 from which the fluid from tubular member 35 flows upon raising of the same. Furthermore, said nozzled member may be in the form of comb teeth for permitting the fluid to escape therefrom while combing, massaging or scalp treatment is in progress.

From the foregoing description taken in connection with the accompanying drawing, the preferred embodiment of the invention as disclosed is for heating and dispensing fluids of a therapeutic value for skin or scalp treatment by non-professionals or professionals, such as hair dressers, beauticians, manicurists, chiropodists, masseurs, physiotherapists, physicians and the like.

The device may be placed in any desired position when the contents are to be heated. For example, electric sockets in walls permit the device to be plugged into the sockets while the vent of the device is closed. Also, the liquid contents of the device may be heated without scorching or charring of the same since an enclosed heating unit is provided. Furthermore, none of the liquid leaks from the device since flow of the same is only permitted upon raising of the nozzle member whereupon a quantity flows out therefrom by way of the valve seats of the tubular member. The valves are raised by the pressure on the nozzle to permit the flow of the liquid. The liquid can be easily drawn from the device by the operator pressing the palm of his hand upwardly against nozzle member 45 which in turn raises the valve seats. After the desired quantity of liquid is removed into the hand of the operator and pressure is released from the nozzle member spring member 44 forces the shaft 42 outwardly thus causing the valves thereon to close against the seats of the washers 36 and 37. Or the operator may take the device in his hand and use the same for treating and massaging the scalp while the fluid passes thru the outlets 47 of the member 45 and a combing effect is imparted to the hair. While warm liquids are usually dispensed from the device, there is no limitation with respect to the same. The liquid can be warmed to any desired temperature to suit the purpose for which intended.

The device can be made of any size dependent upon the use. It may also be made for manual or stationary use. The parts comprising the device may be of any suitable material whether metal, plastic material, molded or cast. Furthermore, it is to be noted that the nozzle member may be preferably of plastic material and is provided with a plurality of comb like outlets to permit combing of the hair of the scalp while the fluid is being applied on the hair, skin or any affected part. It is to be noted that the member 43 may be so adjusted as to permit any desired quantity of material to escape through the outlets 47 when member 45 is pressed.

While one preferred form of the invention has been described in connection with the accompanying drawing, it is to be noted that modifications as to form, size, type, use of materials, arrangement and correlation of parts may be made without departing from the spirit and scope of the invention.

I claim:

1. A device for controllably dispensing liquids and the like for use in scalp treatments and the like, comprising a container for liquids, a demountable cover for the container, provided with a vent therein, heating means depending from the cover into the container and coaxial therewith, and having an outer metal casing to prevent contact of the means with the liquids, closure member mounted in the cover for said casing, tubular extension means, extending from the container and in alignment with the heating means, seating means at opposed ends of the said tubular extension means, and reciprocable tensioned closure means coincidental with the extension means adapted to contact said seating means for permitting simultaneous flow from the container and the tubular means externally therefrom.

2. A dispensing device for warmed fluids for skin or scalp treatment, comprising a closed container for fluids, an adjustable vent in the container disposed above the liquid line in the container, enclosed heating means in the container, said means being connectible with a source of electrical energy and having an outer case intermediate the fluids and means, extension tubular means integral with the container and coaxial therewith, having a valve seat therein, reciprocable tensioned means coaxial with the tubular means having a valve mounted thereon fitting in the valve seat, and conduited extensioned non-resilient means fixed to the tensioned means for simultaneously permitting the flow of liquid from the container and massaging the skin or scalp.

3. A manually usable liquid dispensing device for use in skin and hair treatment, comprising a closed container for liquids and the like, enclosed heating means in the container coaxial with said container, said heating means having a pair of spaced terminals extending from the container for plugging with a source of electricity, a casing for the heating means extending into the container covering the heating means and protecting the same from contact with the liquid when in the container, venting means in the container, a tubular extending member concentric with the container having a plurality of spaced valve seats therein, and an intermediate guide member in the tubular member, a reciprocable tensioned member adapted to pass thru said guide member and carrying a pair of spaced valves thereon adapted to rest on the corresponding valve seats in the tubular member, and a multi-perforated non-resilient adjustable combing and massaging member mounted on the reciprocable member adapted upon application of the device to actuate the reciprocable member to permit the flow of the liquid from the container.

4. A manually usable liquid dispensing device for massaging with oils and the like comprising a container for liquids, removable cover means for the container having a manually adjustable vent therein, an enclosed heating element depending from the cover into the center of the container, having a plurality of spaced plug-in members for connection with a source of electrical energy, a metal casing for the heating ele-

ment adapted to conduct heat from the element into the container, a tubular extending member concentric with the container having a plurality of spaced valve seats therein, and an adjustable intermediate guide member in the tubular member, a reciprocable member adapted to pass thru said member and carrying a pair of terminal valves thereon adapted to rest on the correspondent valve seats in the tubular member, a spring member encircling the reciprocable member disposed intermediate the guide member and the lower terminal valve for normally forcing the valves against their respective valve seats, and a perforated adjustable non-resilient combing and massaging member mounted on the reciprocable member adapted upon application of the device to actuate the reciprocable member to permit flow of the liquid from the container.

5. A liquid dispensing device, according to claim 3, in which the multi-perforated comb member is adjustably mounted on the reciprocable member to form a space intermediate with the terminal portion of the tubular member to permit elevation of the reciprocable member, said comb member having an annular extension surrounding the terminal portion of the tubular member.

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