Aug. 3, 1948. C. S. WILSON 2,446,398

HANDY COMB

Filed Sept. 21, 1946

FIG. 1.

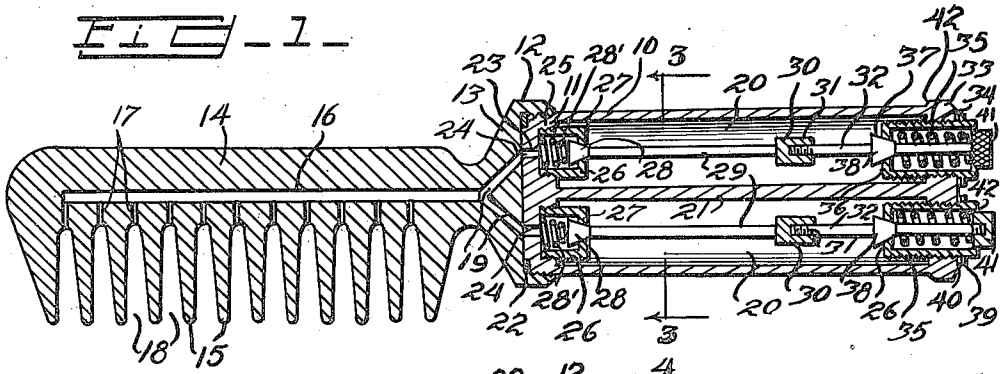


FIG. 2.

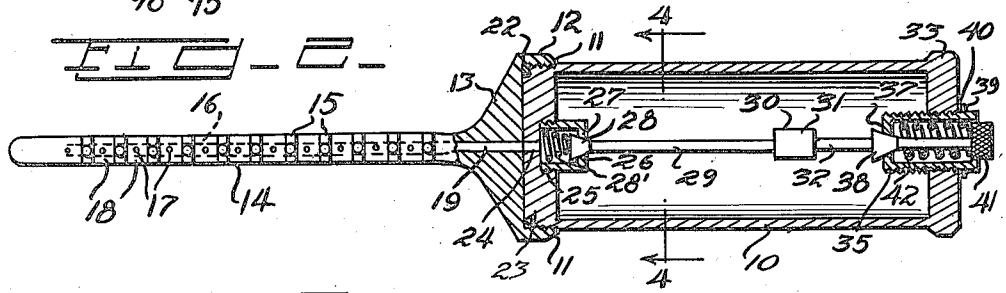


FIG. 3

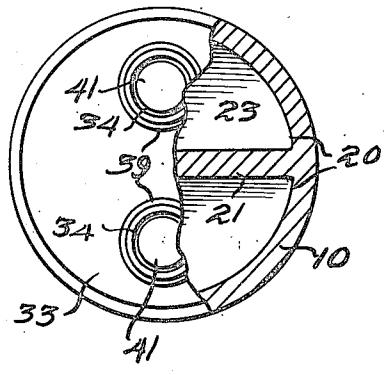
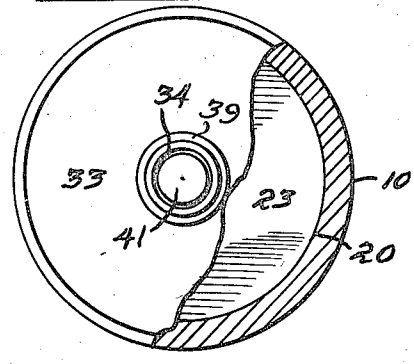


FIG. 4.



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HANDY COMB

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4 Claims. (Cl. 132—13)

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This invention relates to combs, and the object thereof is to provide a handy and improved comb provided with means for supplying hair oil, hair tonic, hair dye such as "Color Bak" and the like, to the hair, in the act of combing the same.

Another object of the invention is to provide a comb in which the handle serves as a container or reservoir for the liquid to be applied to the hair, and is fed to the comb between the teeth thereof, the handle having one or more chambers for containing the liquid and provided with means through which the same may be filled and for conveniently feeding the liquid into the comb for application to the hair.

Another object of the invention is to provide a comb in which the handle is provided with a valve or valves for controlling the flow of the liquid to the comb, and a closure means connected to the valve to supply air to the container for the liquid to assist in the flow thereof to the comb, said valve being normally closed, and the operating means for the valve providing means by which the handle container may be supplied with the liquid which is fed to the comb.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a longitudinal sectional view of a comb constructed in accordance with the invention and having two containers or chambers in the handle thereof.

Figure 2 is a sectional view at right angles to Figure 1, in which the handle has a single container or chamber for the liquid.

Figure 3 is a sectional view taken on the line 3—3 of Figure 1, and

Figure 4 is a sectional view taken on the line 4—4 of Figure 2.

As shown in the drawings, in which like reference characters designate corresponding parts throughout the several views, 10 designates the handle in the form of a tubular container externally threaded at one end, as indicated at 11, to engage threadedly within an internally threaded flange 12 formed at one end of an enlargement 13 provided on the comb 14. The comb has the usual teeth 15, and the body or back of the comb is provided with a longitudinal channel or passage 16 leading into a plurality of lateral branch passages 17 extending between the teeth 15 and communicating with the spaces 18 therebetween, so that the liquid to be supplied to the

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hair, in the form of hair oil, hair tonic, hair dye or the like, will be supplied to the teeth 15 in the act of combing the hair, for the purpose of evenly distributing the same for application to the hair and scalp. In the enlargement 13, the passage or channel 16 as shown in Figures 1 and 3 of the drawings, is provided with a pair or branches 19 leading into separate chambers 20 into which the handle 10 is divided by a longitudinal partition or wall 21. An interposed gasket or packing 22 may be provided between the end wall or head 23 of the handle 10 and the end wall of the enlargement 13 formed by the flange 12, in order to render the joint liquid tight, the branch passages 19 communicating with the interior of the handle through bores or passages 24 extending through the end wall 23 to communicate with the chambers 20.

Removably attached to the end wall 23 over the passages 24, within threaded counterbores 25 provided in the inner face of the end wall 23 over the passages 24, are valve chambers 26 shown cylindrical and provided with tapered seats 27 therethrough, with which tapered valves 28 cooperate to close said passages. The valves 28 are provided with stems 29, which are provided with enlargements 30 having threaded sockets 31 forming couplings with stem sections 32 which thread into said sockets. Springs 28' in chambers 26 seat valves 28.

The outer end of the handle is provided with a thickened wall 33 provided with threaded bores or openings 34 therethrough to receive cylindrical cups 35 externally threaded to engage the threaded bores 34. The inner end walls 36 of the cylinders 35 are provided with tapered seats 37, in which tapered valves or heads 38 formed on the stem sections 32 engage, to close outwardly and open inwardly, the same as the valves 28. The outer ends of the cylinders 35 freely open and project, and may be externally knurled, for gripping and turning the same. These ends may be formed with annular flanges 39, between which and the end wall 33, around the threaded bores 34, gaskets 40 may be inserted to form a liquidtight joint. The interior of the cylinders are smooth, and the stems 32 extend axially therethrough and are provided with knurled heads or buttons 41 on their outer ends movable within the cylinders and held outwardly by springs 42 between the end walls 36 and the heads or buttons 41, to hold the valves 38 seated at the tapered passages or seats 37.

In the construction shown in Figures 2 and 4, the device is the same, except that the partition

wall 21 dividing the tubular handle into two compartments, chambers or containers for the liquid to be applied to the hair, is omitted, thereby forming a single chamber or container for the liquid, with the valve mechanism positioned centrally therein. This form is provided for holding a single liquid or medicament. However, in the operation, the cylinders in either instance, are simply removed from the bores 34 by screwing the same outwardly, thereby detaching the stems 32 from the threaded sockets at the threaded connections 31. When this is done, the liquid is supplied into the chambers or chamber 20 through the holes or bores 34 and then the cylinder 35 is again threaded into the bore 34, at the same time connecting the stem 32 with the socket 31 of the enlargement 30 forming a coupling between the stem sections 29 and 32, the threads being of the same gauge and pitch for this purpose. When this is done, the springs 42 will seat the valves 38, the heads or buttons 41 of cylindrical form being detachably mounted on the outer ends of the stems or sections 32, to facilitate assembly. At the same time, the springs 42 will seat the valves 28 at the tapered seats 27. Therefore, by merely pressing in on the enlargements or buttons 41, air will be permitted to enter the chambers 20 by the unseating of the valves 38, to permit the liquid in the chamber or chambers 20 to flow through the passages 27, 24, 19, 16 and 17, through the spaces 18 between the teeth 15, by reason of the unseating of the valves 28, for the purpose of supplying the liquid to the hair in the act of combing the same for treatment of the hair and scalp, as will be obvious. This obviates the necessity of employing bottles, or splashing or spilling the liquid in the hands, or on the person whose hair is being treated. The device may be used in barber shops or by individuals for their own use. It threfore forms a handy device, which eliminates the necessity of employing bottles as is customary in applying hair oil, hair tonic or the like to the hair. Heads 41 form pistons to force the liquid under pressure.

When stems or stem sections 29 and 32 are connected, valves or valve heads 28 and 38 are held seated by both springs or sets of springs 28' and 42, but when the stems 32 are disconnected from the stems 29 at couplings 30—31 and the outer valve assemblies are removed by removing the cylinders or valve casings 35 together with the springs 42, springs 28' keep valve heads 28 seated to prevent escape or flow of the oil or tonic from the handle to the comb.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

I claim:

1. A comb comprising a comb portion having a longitudinal passage in the back thereof with lateral passages communicating with the spaces between the teeth of the comb, said comb having an enlargement at its inner end, a cylinder coupled in said enlargement and communicating with the passage interiorly, valve seats at the inner and outer ends of the handle, valves detachably connected and cooperating with said seats to simultaneously seat and unseat, and inwardly movable means connected to the valves and normally held outwardly at the outer end of the handle, to normally seat said valves and permit the same to be pressed inwardly for unseating the same to supply air to the interior of the handle and permit liquid therein to flow to the passage and spaces between the teeth of the comb.

2. A comb comprising a comb portion having a longitudinal passage in the back thereof with lateral passages communicating with the spaces between the teeth of the comb, said comb having an enlargement at its inner end, a cylinder coupled in said enlargement and communicating with the passage interiorly, valve seats at the inner and outer ends of the handle, valves detachably connected and cooperating with said seats to simultaneously seat and unseat, cups detachably connected to the enlargement of the comb at the passage and in the outer end of the handle, said cups having tapered seats, valves cooperating with said seats and comprising separable stems coupled within the handle, an enlargement on the outer end of the stem movable in the outer cup, and a spring in said cup and engaging the enlargement and end wall of the cup, to force said enlargement outwardly and seat said valves simultaneously for permitting simultaneous depression and opening thereof against the action of said spring to supply liquid from the handle to the passage.

3. A comb comprising a comb portion having a longitudinal passage in the back thereof with lateral passages communicating with the spaces between the teeth of the comb, said comb having an enlargement at its inner end, a cylinder coupled in said enlargement and communicating with the passage interiorly, valve seats at the inner and outer ends of the handle, valves detachably connected and cooperating with said seats to simultaneously seat and unseat, a handle comprising a tubular member threaded into the enlargement of the comb and having an end wall with passages communicating with the first named passage, cups threaded into the end wall of said tubular handle and having valve seats through the end walls thereof and interior valve chambers, valves cooperating with said seats within the chambers and having stems extending therefrom, cylinders threaded through bores in the outer end of the handle and having inner end walls with seats, stems coupled to the first named stems and having valves cooperating with the seats of the cylinders in the same direction as the first named valves, said handle being divided into separate compartments and the second named stems extending outwardly through the cylinders, enlargements threaded on the outer ends of the second stems, and springs in the cylinders against their inner walls and seated against said enlargements, to force the same outwardly for seating said valves simultaneously and adapted to be pressed inwardly to unseat the valves to permit the liquid to flow from the chambers to the passage in the comb and to the spaces between the teeth thereof.

4. A comb comprising the comb proper having a longitudinal passage in the back thereof with lateral passages extending to the spaces between the teeth of the comb, the inner end of the comb having an enlarged flanged portion, a tubular handle removably attached in said enlargement at the flanged portion and having an end wall with a passage therethrough communicating with the first named passage, a cup detachably connected to said end wall around the passage and having a tapered seat in the inner end wall thereof, and forming an interior chamber with said end wall, a valve cooperating with said seat to open inwardly and close outwardly and having a stem extending through the handle, a stem de-

tachably connected to the first named stem within the handle and having a valve in the length thereof, a cylinder threaded through a bore in the outer end of the handle and having a seat at its inner end with which the second named valve cooperates to seat in the same direction as the first named valve, a button on the outer end of the stem projecting from the cylinder and adapted to move into the same to unseat the valves, and a spring in the cylinder and engaging the button at its outer end, to normally seat the valves and when pushed inwardly, to permit air to enter the handle and the liquid to flow from the handle to the passage in the comb and between the teeth thereof.

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