

Quantifiable Hair Coloring Comb with Two Tubes

Technical Field

This utility model relates to a hair comb and in particular to a quantifiable hair coloring comb with two tubes.

Background

With the improvement of the people's living standard, require for hairdressing is increasing. Therefore, there are some hair coloring combs which are used by the person for hairdressing at home. For example, the application (Patent No. 99225819.7), entitled hair comb with two tubes and two channels, filed on February 25, 1999, by the present applicant, discloses a hair comb. In the comb body of the hair comb is provided with two channels, respectively coupled to two transfusion tanks each of which is respectively connected to a reservoir, controlled by a lever respectively. When the lever is pressed during operation, the fluid ejects from two reservoirs, through the two channels, and then out of the fluid outlets provided on the comb teeth. The hair coloring could be performed after the oxidant and the reducer for hair coloring, both of which are pressure latexes, are provided in the two reservoirs respectively, wherein the proportion of two mousse-like pressure latexes is adjusted under visual observation. However, the disadvantage of such hair comb is that visual measurement is unprecise and it is difficult to control the force when pressing the lever by hand. Therefore it is difficult to control the ejecting amount as well as the proportion of two pressure latexes, and the two reservoirs cannot be emptied at the same time, otherwise the effect of hair coloring would be bad, causing the hair to turn yellow or red and complicating the operation.

Summary

The object of this utility model is directed to a quantifiable hair coloring comb with two tubes, which could control the amount of the latexes for hair coloring.

To achieve such object, the technical solution of this utility model is as follows: a quantifiable hair coloring comb with two tubes comprising a comb handle and a comb body, wherein the comb body comprises a comb girder and comb teeth, a latex channel is provided in the comb girder, a drain conduit is provided in each comb tooth, a fluid outlet is provided on the surface of the comb tooth to communicate with the drain conduit, all of the drain conduits are in communication with the latex channel in the comb girder, the comb handle comprises a upper cover, the upper cover is provided with two reservoirs in its lower portion, and the valve of each reservoir is connected to a lever respectively, characterized in that: each reservoir is connected to the lower open of a quantifiable container respectively; a piston rod is provided in the upper open of the quantifiable container, wherein the lower end of the piston rod is connected to the quantifiable container and the upper end of the piston rod communicates with the latex channel in the comb handle through a hollow capillary. A fluid hole with its lower end closed is provided in the piston rod. A fluid inlet is provided on the side surface of the lower end of the piston rod to communicate with

the fluid hole. A seal ring is provided on the lower end of the piston rod. The seal ring is below the fluid inlet, and the upper end of the fluid hole communicates with the latex channel of the comb handle through the hollow capillary.

Initially, the valve of the reservoir is closed, and then the valve of the reservoir is opened when the lever is pressed, and simultaneously the quantifiable container slides downwards, such that the high pressure latex enters the quantifiable container from the reservoir to fill the quantifiable container instantaneously. In virtue of the seal ring provided on the lower end of the piston rod, the fluid inlet is sealed by the seal ring, and therefore the latex cannot eject into the piston rods from the fluid inlet. After the quantifiable container is fully filled, the valve of the reservoir returns to the original state when the lever is released, and the quantifiable container moves upwards to expose the fluid inlet. The latex from the quantifiable container flows into the fluid hole in the piston rod through the fluid inlet, and then into the latex channel in the comb handle through the hollow capillary, and finally ejects out of the fluid outlets in the surface of the comb teeth. The quantifiable container is employed as a middle measuring tool, thus easy to control the using amount. Because the comb girder is provided with only one latex channel and each hollow capillary communicates with this latex channel, the latexes in two reservoirs are mixed in the latex channel, achieving a better mixing effect. The advantage of this utility model is that the operation convenience is improved greatly, and it is easy to control the using amount, ensuring the proportion of 1:1 between the ejecting amounts from two reservoirs during each ejecting and achieving a good effect of hair coloring. This utility model has been trial-manufactured successfully by the applicant, and has a good effect.

Brief Description of the Drawing

Figure 1 is a schematic structure view of the present utility model when pressed downward;

Figure 2 is a schematic structure view of the present utility model without pressure;

Figure 3 is a partial enlarged view of Figure 1;

Figure 4 is side elevation view of Figure 1;

Figure 5 is a schematic structure view of the comb body portion;

Figure 6 is side elevation view of Figure 4.

Detailed Description of the Embodiments

The utility model will now be described more fully with reference to the accompanying drawings and the embodiments.

A quantifiable hair coloring comb with two tubes includes a comb handle and a comb body. The comb body includes a comb girder 3 and comb teeth 4. A latex channel 5 is provided in the comb girder 3. A drain conduit 6 is provided in each comb tooth 4. A fluid outlet 7 is provided on the surface of the comb tooth 4 to communicate with the drain conduit 6. All of the drain conduits 6 are in communication with the latex channel 5 in the comb girder 3. Two reservoirs 8 are

provided in the comb handle 1. The valve of each reservoir 8 is connected to a lever 9 respectively. The lever handle of the lever 9 extends beyond the comb handle 1. The quantifiable hair coloring comb is characterized in that: each reservoir 8 is connected to the lower open of a quantifiable container 10 respectively; the upper open of the quantifiable container 10 is provided with a piston rod 11, the lower end of which is connected to the quantifiable container 10 and the upper end of which is in communication with the latex channel 5 in the comb handle 1 through the hollow capillary 15. A fluid hole 12 with its lower end closed is provided in the piston rod 11. A fluid inlet 13 is provided on the side surface of the lower end of the piston rod 11 to communicate with the fluid hole 12. A seal ring 14 is provided on the lower end of the piston rod 11. The seal ring 14 is positioned below the fluid inlet 13. The upper end of the fluid hole 12 is in communication with the latex channel 5 in the comb handle 1 through the hollow capillary 15. In a preferred embodiment of this utility model, only one latex channel 5 is provided in the comb girder 3, and each hollow capillary 15 is in communication with this latex channel 5. In this embodiment, there are two reservoirs filled with oxidant and reducer latexes respectively, thus there are two hollow capillaries 15, both of which are inserted into said latex channel 5, and the inner diameter of the fluid inlet is 0.7 mm.

For the convenience of replacement, the comb handle comprises an upper cover 1. The lower portion of the upper cover 1 is connected with two reservoirs 8. The upper cover 1 is provided with large and small channels 18, 17. The quantifiable container 10 is positioned within and slidably connected to the large channel 18, and the piston rod 11 is positioned within and fixedly connected to the small channel 17. A rubber or plastic stopper 2 is provided at the joint between the upper end of the upper cover 1 and the comb girder 3. The reservoir 8 and the upper cover 1 are connected together by a bayonet-type cuff 20, or other detachable connector such as rabbet joint, buckle and the like. An anti-leak ring 19 is also provided above the fluid inlet of the piston rod 11.

A flexible plastic stopper 16 is provided in the lower open of the quantifiable container 10. The flexible plastic stopper 16 has a tapered open tapering from the broad section to the narrow section. The output port of the valve of the reservoir 8 is inserted into said tapered open. The flexible plastic stopper 16 is formed from the high pressure polythene, and the output port of the valve of the reservoir 8 is formed from the polyoxymethylene. The soft-hard cooperation between the flexible plastic stopper 16 and the output port of the valve of the reservoir 8, as well as the tapered open of the flexible plastic stopper 16, cause it easy to insert and draw the output port of the valve of the reservoir 8. And because of the soft-hard cooperation, the tight fittings are formed among the flexible plastic stopper, the output port of the valve of the reservoir, and the lower open of the quantifiable container. Under the effect of the output port of the valve of the reservoir, in virtue of the flexible plastic stopper 16, the quantifiable container moves up and down in the large channel 18 provided in the upper cover. The outer side structure of the quantifiable container 10 mates with the lever 9, and when the lever 9 is pressed downwards, the quantifiable container 10 moves downwards.

The reservoir 8 and its valve structure are prior technique, and not mentioned here.

What is claimed is:

1. A quantifiable hair coloring comb with two tubes comprising a comb handle and a comb body, wherein the comb body comprises a comb girder and comb teeth, a latex channel is provided in the comb girder, a drain conduit is provided in the comb tooth, a fluid outlet is provided on the surface of the comb tooth to communicate with the drain conduit, all of the drain conduits are in communication with the latex channel in the comb girder, the comb handle comprises an upper cover, the upper cover is provided with two reservoirs in its lower portion, and the valve of each reservoir is connected to a lever respectively, characterized in that:

each reservoir is connected to the lower open of a quantifiable container respectively;

a piston rod is provided in the upper open of the quantifiable container, wherein the lower end of the piston rod is connected to the quantifiable container and the upper end of the piston rod communicates with the latex channel in the comb handle through a hollow capillary.

2. The quantifiable hair coloring comb with two tubes of claim 1, characterized in that:

a fluid hole with its lower end closed is provided in the piston rod;

a fluid inlet is provided on the side surface of the lower end of the piston rod to communicate with the fluid hole;

a seal ring is provided on the lower end of the piston rod;

wherein the seal ring is below the fluid inlet, and the upper end of the fluid hole communicates with the latex channel of the comb handle through the hollow capillary.

3. The quantifiable hair coloring comb with two tubes of claim 1, characterized in that:

large and small channels are provided on the upper cover, wherein the quantifiable container is positioned within the large channel, and the piston rod is positioned within and fixedly connected to the small channel.

4. The quantifiable hair coloring comb with two tubes of claim 1, characterized in that:

an anti-leak ring is provided above the fluid inlet of the piston rod.