ELECTRICALLY HEATED SAFETY RAZOR

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ELECTRICALLY HEATED SAFETY RAZOR
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5 Claims. (Cl. 219—21)

1. A razor comprising a razor body having a handle and a razor blade, and a heating element secured to the handle and characterized by a shell provided with a series of holes arranged in a ring to better provide for the circulation of air, and pointed out in the claims at the end thereof.

In the drawing Figure 1 shows a side elevation of the assembly of the safety razor and its handle.

2. A razor body as described wherein the section being taken on a line 2X—2X of Figure 1, the head of the safety razor itself being omitted.

Figure 2 is a sectional view of the assembly, the handle provided with a modified form of the sleeve and its collar with radial holes shown in the handle and collar.

3. A razor body as described wherein the section being taken on a line 2X—2X of Figure 1, the head of the safety razor itself being omitted.

Figure 3 is an end elevation of the sleeve and its collar as used in the end of the handle looking at it from the right in Figure 2.

4. A razor body as described wherein the section being taken on a line 2X—2X of Figure 1, the head of the safety razor itself being omitted.

Figure 4 is a detailed view showing a side elevation of the sleeve and its collar.

5. A razor body as described wherein the section being taken on a line 2X—2X of Figure 1, the head of the safety razor itself being omitted.

Figure 5 is a detailed view showing the end of the handle provided with a modified form of the sleeve and its collar with radial holes shown in the handle and collar.

6. A razor body as described wherein the section being taken on a line 2X—2X of Figure 1, the head of the safety razor itself being omitted.

Figure 6 is a detailed view of the sleeve and its collar showing radial holes in the collar.

7. A razor body as described wherein the section being taken on a line 2X—2X of Figure 1, the head of the safety razor itself being omitted.

Figure 7 is a sectional view of a modified form of the handle in which radial fins are provided on the inside of the handle which fins are placed 120° apart between centers, which fins engage the sleeve and hold it centered, it being understood in such case that the collar and its head are omitted so that the space between the fins is open at the end of the handle.

8. A razor body as described wherein the section being taken on a line 2X—2X of Figure 1, the head of the safety razor itself being omitted.

Figure 8 is a section on the line 5X—5X of Figure 7.

9. In the several figures of the drawing like reference numerals indicate like parts.

In the drawing reference numeral 1 indicates a hollow handle which is tapered, being small at the end where the wires enter the handle and large at the end where the safety razor is supported. This handle is made of Bakelite or any other suitable insulating material. Into this handle extends the copper conducting wires 2—2, which are connected to a heating element of any standard type, which heating element is contained in a metal tube 3. On the end of this tube 3 is a sleeve 4 which makes a sliding fit therewith. Integral with this sleeve 4 is a collar 5 which makes a sliding fit with the large end of the handle, the head or flange 6 that connects the collar to the sleeve being perforated with a series of holes 7 as are shown in Figures 3 and 2. This sleeve engages with the tube of the heating element and holds it centered in the handle so that an air space surrounds it and the holes in the flange 6 at the large end of the handle and the opening at the small end of the handle permit a circulation of air through the handle, for the purpose of keeping the handle cool.
In Figure 5, I have shown the handle perforated with a series of radial holes as indicated at 8 with which register similar holes 9 on the collar 10 which also provide ventilation and the circulation of air. In one of these holes a set screw 11 can be used for the purpose of positively holding the collar in the handle. A similar set screw 11 is also provided in the handle and collar as shown in Figures 1 and 2.

As shown in Figures 7 and 8 I provide fins 14 on the inside of the handle 16, these fins being preferably three in number and spaced 120° apart between centers. With the bearing surface on the inner ends of these fins the sleeve 16 makes a sliding fit. This sleeve will be held in place by a set screw 17. In this sleeve the tube 3 engages with the sleeve 16 with a sliding fit, and in all these forms shown in Figures 1, 2, 5 and 7 the heat is conducted from the tube 3 to the sleeve that surrounds it.

In the outer end of each of these sleeves 4 and 16 a bore 18 is provided having a female thread therein with which engages the male thread on the screw or stem of the plate that supports the safety razor.

When the parts are assembled as shown in Figure 1, the heat travels by conduction to the two plates 20 and 21 between which the razor blade 22 is clamped.

It will also be understood that as the heating element is too large to pass through the small end of the handle, the conducting wire are first inserted through the handle from the small end and the heating element is connected to them and is then drawn to its proper place into the handle.

When the parts are assembled in this way and the current is turned on, the current will heat up the heating element and this in turn will heat the parts of the safety razor and keep them warm or hot so as to offset the cooling effect of the lather that is picked up during the shaving operation.

I claim:

1. An electrically heated safety razor comprising a hollow handle of heat insulating material open at both ends thereof and tapering from the head end to the tail end thereof, a metallic sleeve having one end thereof detachably fitted in the open head end of said handle with the other end thereof protruding from said handle and provided with a threaded bore for receiving the threaded stud of a safety razor assembly, a cylindrical encased electrical heating element slidably mounted in said sleeve and extending from said first end of said sleeve coaxially with said threaded bore, thereby being in heat-conductive relation with said safety razor assembly while also being centrally spaced within said hollow handle, and apertures at the head end of the handle to induce a cooling thereof by the circulation of air between the ends thereof.

2. An electrically heated safety razor comprising a hollow handle of heat insulating material open at both ends thereof, a metallic sleeve having one end thereof detachably fitted in the open head end of said handle with the other end thereof protruding from said handle and provided with a threaded bore for receiving the threaded stud of a safety razor assembly, a cylindrical encased electrical heating element slidably fitting in said sleeve and extending from said first end of said sleeve coaxially with said threaded bore, thereby being in heat-conductive relation with said safety razor assembly while also being centrally spaced within said hollow handle, and said sleeve having apertures therebetween to induce a cooling of the handle by the circulation of air between the ends thereof.

3. An electrically heated safety razor comprising a hollow handle of heat insulating material open at both ends thereof, a metallic sleeve having a portion of an enlarged diameter closely engaging the interior of the head end of said handle, a portion of reduced diameter extending from said first portion, protruding beyond the end of the handle and provided with a threaded bore for receiving the threaded stud of a safety razor assembly, a cylindrical encased electrical heating element mounted in said sleeve and extending from said first portion of said sleeve coaxially with said threaded bore, thereby being in heat-conductive relation with said safety razor assembly while also being centrally spaced within said hollow handle, said sleeve having a plurality of circumferentially spaced apertures at the junction of said portions to induce a cooling of the handle by the circulation of air between the ends thereof.

4. An electrically heated safety razor comprising a hollow handle of heat insulating material open at both ends thereof, a metallic sleeve having a portion of an enlarged diameter closely engaging the interior of the head end of said handle, a portion of reduced diameter extending from said first portion, protruding beyond the end of the handle and provided with a threaded bore for receiving the threaded stud of a safety razor assembly, a cylindrical encased electrical heating element mounted in said sleeve and extending from said first portion of said sleeve coaxially with said threaded bore, thereby being in heat-conductive relation with said safety razor assembly while also being centrally spaced within said hollow handle, and said sleeve having a plurality of apertures in the peripheral wall of the enlarged portion of said sleeve corresponding with corresponding apertures provided near the head end of said handle to establish a circulation of air between the tail end of said handle and said apertures, thereby to attain a cooling effect of the handle.

5. An electrically heated safety razor comprising a hollow handle of heat insulating material open at both ends and tapering from the head end to the tail end thereof, a metallic sleeve having one end thereof detachably fitted in the open head end of said handle with the other end thereof protruding from said handle and provided with a threaded bore for receiving the threaded stud of a safety razor assembly, a cylindrical encased electrical heating element slidably mounted in said sleeve and extending from said first end of said sleeve coaxially with said threaded bore, thereby being in heat-conductive relation with said safety razor assembly while also being centrally spaced within said hollow handle, said sleeve having apertures therebetween to induce a cooling of the handle by the circulation of air between the ends thereof.

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