July 15, 1947. L. M. COLES 2,423,874

ATTACHMENT FOR POWER RAZORS TO FACILITATE HAIR TRIMMING

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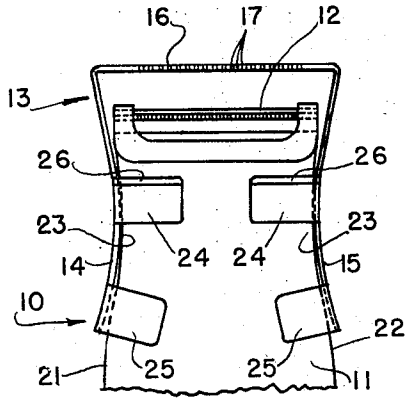

FIG. 1

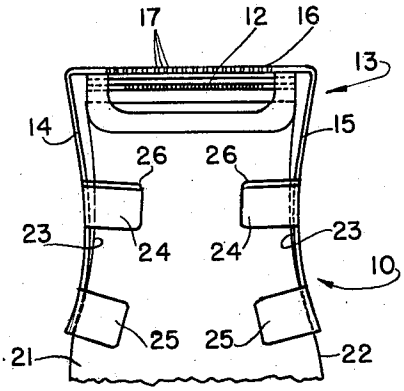

FIG. 2

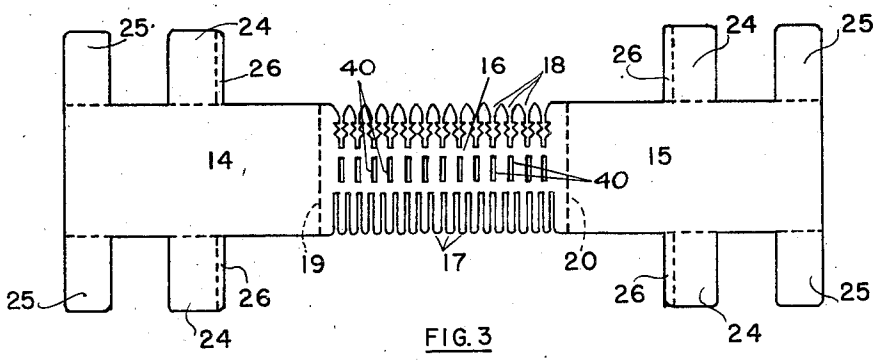

FIG. 3

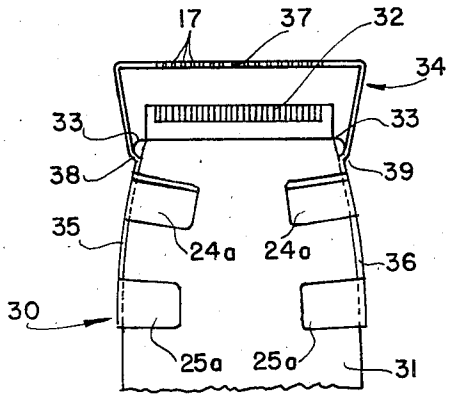

FIG. 4

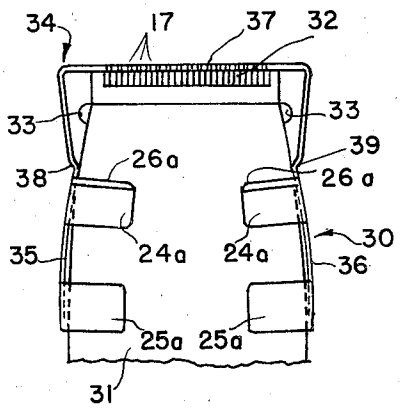

FIG. 5

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ATTACHMENT FOR POWER RAZORS TO FACILITATE HAIR TRIMMING

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6 Claims. (Cl. 30—90)

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This invention relates to new and useful improvements in electric razors or dry shavers and has particular relation to a combination of an electric razor or dry shaver and a hair trimming attachment therefor.

The objects and advantages of the invention will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawing wherein a satisfactory embodiment of the invention is shown. However, it is to be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit of the invention and the scope of the appended claims.

In the drawing:

Fig. 1 is an elevational view of the upper portion of a dry shaver having the attachment of the invention applied thereto and showing the attachment in its upper or outer position;

Fig. 2 is a similar view showing the attachment in its inner position;

Fig. 3 is a plan view of the blank prior to the bending up of the same to form the attachment;

Fig. 4 is a view similar to Fig. 1 but showing a slight modification; and

Fig. 5 is a front elevational view of the razor and attachment of Fig. 4 but with the attachment in its innermost position.

Referring in detail to the drawing, and at first more particularly to Figs. 1 through 3, at 10 is generally indicated an electric razor or dry shaver including a handle 11 and a cutter head 12 at one end of such handle. The construction of the cutter head is not of particular interest here but generally the cutter means of these devices includes an outer stationary element and an inner movable element, which latter, when the razor is in use, is reciprocated in a well known manner by power means (not shown) located within the handle 11.

The teeth of the cutter means are generally located at opposite longitudinal edges of the head so that in either direction of movement of the razor hair to be cut will enter through the cutter means and be cut off as the inner cutting element is reciprocated. All of the foregoing description relates to well known structures of electric razors and is given merely by way of setting forth general construction of such devices in order that the operation and use of the attachment of the present invention will be fully understood.

The attachment of the invention is generally designated 13 and is shown as of a one piece construction including a pair of arms 14 and 15 and

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an elongated part 16 connecting said arms. The blank from which the attachment is formed is shown in Fig. 3 and there it will be seen that the elongated part 16 is provided in one longitudinal edge with relatively fine teeth 17 and in its other longitudinal edge with coarser teeth 18, the formation of each such set of teeth providing openings for guiding hairs to a cutter head as will become apparent. Between its edges portion 16 is provided with close together, narrow slots 40 adapted to function with the type of razor shown in Figs. 4 and 5. When forming the device of the invention the generally U-shaped contour of the attachment is obtained by bending the blank of Fig. 3 along the dotted lines 19 and 20.

The razor handle 11 in its edges 21 and 22 is provided with concave portions 23. Attachment arms 14 and 15 are also bent to a concavo-convex shape so that when the connecting part 16 of the attachment is in an outer position, as in Fig. 1, the arms 14 and 15 fit snugly into the concave portions 23 in the edges 21 and 22 of the handle 11. On their front and rear edges the arms 14 and 15 are provided with upper and lower lugs 24 and 25 respectively and the lugs of one arm extend toward those of the other arm so that when the attachment is on the razor the lugs from the forward edges of the arms are against the front side of the razor handle while the lugs on the rear edges of the arms are against the rear side of the razor handle, the arms themselves being against the edges of such handle.

The entire device 13 or at least the arms 14 and 15 thereof are of spring metal whereby such arms, when the attachment is positioned as in Fig. 1, closely embrace the edges of the handle 11. The curve of the arms is such with respect to the curve 23 of the edge portions of the handle that the arms are constantly tending to shift the entire attachment to the position of Fig. 1 so that said arms may follow the curvature 23 of the handle.

The device is shiftable from the position of Fig. 1 where part 16 is substantially spaced from the cutter means 12 to the position of Fig. 2 where the part 16 is substantially against said cutter means. This shifting of the attachment results in a forcing or spreading of the arms 14 and 15 with respect to the edges of the handle so that immediately the attachment is released, when positioned as in Fig. 2, the spring arms act to shift the attachment to the position of Fig. 1.

When trimming the hair the operator places his index and middle fingers on slight lips 26 formed on the upper edges of the upper lugs 24.

Then by flexing his fingers he may draw the attachment inwardly so as to dispose the part 16 close against the cutter head 12 or as close to the cutter head as he may desire. Occasionally by straightening his fingers he permits the attachment to move to the position of Fig. 1 where tapping the device will serve to discharge all cut hairs therefrom.

From this it will be seen that while holding the razor the user simply by bending his index and middle fingers shifts the attachment so as to dispose the elongated part 16 in the desired relation to the cutter means 12 and that by simply permitting his fingers to straighten the device is permitted to move to an open position so that cut hairs may be readily knocked from the device. The lips 26 are not essential but are provided as a convenient means to eliminate any sharp edges which might otherwise be engaged by the operator's fingers.

Figs. 4 and 5 are for the purpose of showing how the attachment may be applied to a razor having a different shape of handle and a different construction of cutter head. In such figures the razor is generally designated 30 and the same includes a handle 31 which is reduced in width towards its outer end at which cutter head 32 is located. This type of handle is provided with a suitable stop means here shown as a pair of beads 33 arranged one on each edge of the handle adjacent the cutter means.

In the modification, the attachment is generally designated 34 and the same includes side arms 35 and 36 and an elongated part 37 connecting such arms and of the construction of the part 16 of the figures first described. That is, the part 37 is provided in its longitudinal edges with teeth 17 and 18 and intermediate such edges with the slots 40. Further, the arms of the attachment 34 are provided with lugs 24*a* and 25*a* corresponding with the lugs 24 and 25 previously described. In this case, the lugs 24*a* are provided with the slight lips 26*a* corresponding with the lips 26 of the figures previously described.

Intermediate their ends, the arms 35 and 36 are provided with offset portions 38 and 39 respectively and which portions are adapted to engage with the beads or other stop means 33 when the attachment is in an outer or released position as in Fig. 4. Arms 35 and 36 are of spring metal and are so set as to substantially constantly hug the edges of the handle 31 and owing to their spring action and the shape of the handle the spring action of the arms constantly tends to shift the entire attachment to the outer or released position of Fig. 4.

In using the device, the operator engages a pair of the lugs 26*a* with his index and middle fingers and holds the device inwardly with the elongated part 37 in the desired relation to the cutter means 32. Simply by releasing the attachment the spring action of its arms cooperating with the shape of the handle shifts the attachment to the position of Fig. 4 so that cut hair may readily be knocked from the device. As the device is used hair entering through the slots 40 passes into the cutter head 32 (Schick type) and is cut. In this connection it is noted that the slots are preferably of lengths greater than the width of the cutter head 32 so that some hair entering the slots may enter the side openings of the razor head.

It is believed that the construction and operation of the present hair trimming device will now be fully understood but here it is pointed out that owing to the construction of the side arms of the two attachments shown and their shape together

with that of the shape of the razor handles the arms are constantly tending to cause the entire attachment to ride outwardly on the razor, as to the position of Figs. 1 and 4. In Figs. 1 and 2 the shape of the arms together with the shape of the razor handles limits this outward movement to approximately that shown in Fig. 1, and in Figs. 4 and 5 the beads or other stop means 33 together with the offsets 38 and 39 in the attachment arms limit outward movement of the attachment approximately to the position shown in Fig. 4.

The device is easily moved inwardly from this outward position either to the positions of Figs. 2 and 5 or to any intermediate positions as may be desired by the operator. Since the arms of each of the attachments are, in effect, springs constantly pressing against the razor handle the movement of the attachments by the operator as described is always with ease and smoothness. Further, the spring or resiliency of the arms enables the device or attachment to be easily sprung over the end of the razor, off and onto the razor. Thus the attachment may easily be removed from the razor for cleaning of the shearing head and may be easily replaced.

When the device of the invention is used on the type of razor of Figs. 1 and 2 the teeth 17 or 18 serve to guide the hairs to the cutter head and to raise the hairs into the cutter head. On the type of razor of Figs. 4 and 5 the teeth raise the hairs, moving them out from the head and combing them backwards. These raised hairs spring into the openings or slits 40 and thus are presented to the cutter.

Having thus set forth the nature of my invention, what I claim is:

1. In combination with a power razor comprising a handle having a cutter means at one end and supporting a power means for operating said cutter means, said cutter means including an outer stationary element, said element elongated and having teeth opening through its front and rear elongated sides, a hair trimming attachment for said razor, said attachment including arms against the opposite transverse edges of said handle, an elongated part extending over said outer cutter element, said part having teeth opening through its front and rear longitudinal edges for guiding hairs to the cutter means whereby to have the razor cut on the up and on the down stroke, lugs on the front and rear edges of said arms and engaging the front and rear sides of said handle, said arms resilient and yieldingly engaging the edges of said handle, said handle including edge portions tapering toward its end whereat said cutter means is located whereby engagement of said portions by the resilient arms tends to cause said attachment to shift on the razor and carry its elongated part outwardly away from the cutter means, and said handle and arms shaped to limit the extent of such outward movement of the attachment on the handle.

2. In combination with a power razor comprising a handle having a cutter means at one end and supporting a power means for operating said cutter means, said handle generally rectangular in transverse section and including front and rear sides and a pair of opposite edges, a hair trimming attachment for said razor comprising arms against the edges of said handle and an elongated part extending between said arms and across said cutter means, said part having openings for guiding hairs to said cutter means, said arms resilient and yieldingly engaging the edges of said handle, said handle including edge portions inclining to-

ward its end whereat said cutter means is located whereby engagement of said portions by the resilient arms tends to cause said attachment to shift on the razor and carry its elongated part outwardly from the cutter means, and said handle and at least one of said arms shaped to limit the extent of such outward movement of the attachment on the handle.

3. In combination with a power razor comprising a handle having a cutter means at one end and supporting a power means for operating said cutter means, said handle generally rectangular in transverse section and including front and rear sides and a pair of opposite edges, a hair trimming attachment for said razor comprising arms against the edges of said handle and an elongated part extending between said arms and across said cutter means, said part having openings for guiding hairs to said cutter means, said arms resilient and yieldingly engaging the edges of said handle, said handle including edge portions inclining toward its end whereat said cutter means is located whereby engagement of said portions by the resilient arms tends to cause said attachment to shift on the razor and carry its elongated part outwardly from the cutter means, and cooperating means on said handle and attachment and limiting the extent of such outward movement of the latter on the former.

4. In combination with a power razor comprising a handle having a cutter means at one end and supporting a power means for operating said cutter means, said handle generally rectangular in transverse section and including front and rear sides and a pair of opposite edges, a hair trimming attachment for said razor comprising arms against the edges of said handle and an elongated part extending between said arms and across said cutter means, said part having openings for guiding hairs to said cutter means, lugs on the front and rear edges of said arms and extending at least partially across the front and rear sides of said handle, said arms resilient and yieldingly engaging the edges of said handle, said handle including edge portions inclining toward its end whereat said cutter means is located whereby engagement of said portions by the resilient arms tends to cause said attachment to shift on the razor and carry its elongated part outwardly from the cutter means, said handle and at least one of said arms shaped to limit the extent of such outward movement of the attachment on the handle.

5. In combination with a power razor comprising a handle having a cutter means at one end, a hair trimming attachment for said razor comprising a pair of arms against opposite sides of said handle and an elongated part extending between said arms and across said cutter means, said part having openings for guiding hairs to said cutter means, resilient means constantly urging said attachment outwardly into a position with said elongated parts spaced from said cutter means, and cooperating means on said handle and attachment for limiting the extent of such outward movement of the attachment.

6. An attachment for a razor of the kind described comprising a part to extend across the cutter head of the razor, and said part having teeth on its opposite edges and having openings in its portion between such rows of teeth.

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