

March 5, 1940.

C. E. HARDING
ELECTRIC RAZOR HEAD
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2,192,676

Fig. 1.

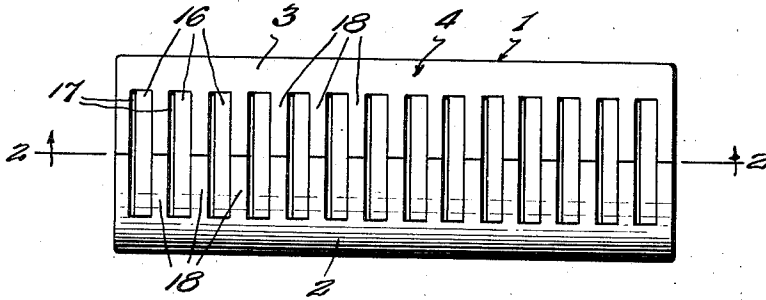


Fig. 2.

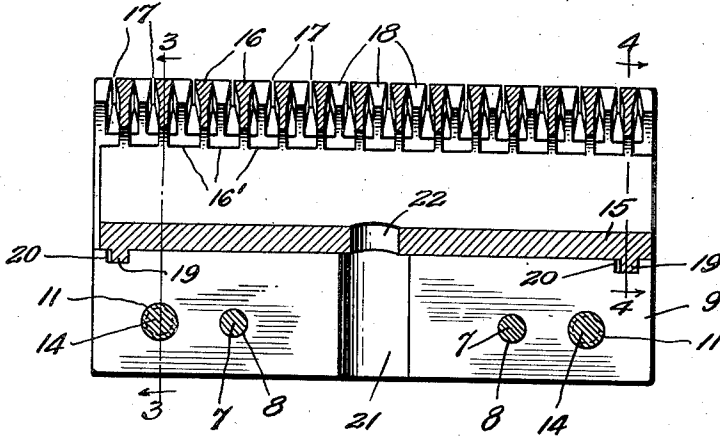


Fig. 3.

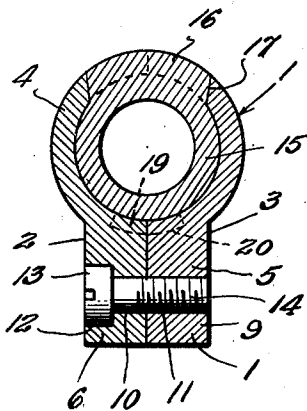


Fig. 4.

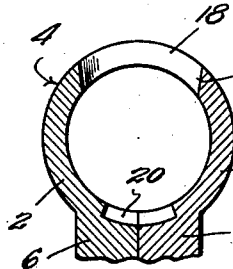
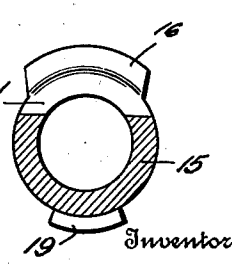


Fig. 5.



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ELECTRIC RAZOR HEAD

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2 Claims. (Cl. 30-42)

This invention relates to a head for an electric razor, and it is one object of the invention to provide a head for a razor of this type having improved cutting means of such construction and relation to each other that during use of the razor hair growing from a person's face may be very easily cut without danger of cutting the skin.

Another object of the invention is to provide a razor head including an outer hollow member or body portion and an inner tubular member which is mounted within the hollow body and serves not only to cooperate with the hollow body during cutting of a beard but also constitute a tubular member for receiving the clipped hair during a shaving operation.

Another object of the invention is to provide the hollow body and tubular inner member with companion teeth so formed and associated with each other that a good clipping action may take place and in addition to provide interengaging means between the body and the inner tubular member for limiting longitudinal shifting movement of the inner member and thus prevent dulling of the cutting edges of the teeth by violent contact thereof with each other when a razor equipped with the improved head is in use.

The invention is illustrated in the accompanying drawing, wherein

Figure 1 is a view looking at the outer side of the razor head and showing the relation of the cutting teeth to each other,

Figure 2 is a longitudinal sectional view taken on the line 2-2 of Figure 1,

Figure 3 is a sectional view taken transversely through the razor head on the line 3-3 of Figure 2,

Figure 4 is a sectional view taken transversely through the outer member or body portion of the improved razor head with the inner tubular member removed, the view being on the line 4-4 of Figure 2, and

Figure 5 is a view similar to Figure 4 taken transversely through the inner tubular member of the razor head.

This improved razor head has an outer tubular body portion indicated in general by the numeral 1 and consisting of companion sections 2 and 3 which cooperate with each other to form a tubular barrel 4 having a longitudinally extending bar 5 along its rear or inner side. This bar not only serves as a carrier for the barrel 4 but also constitutes the member by means of which the head is operatively associated with the remainder of an electric razor of a conventional

construction. The bar-forming flange or lip 6 of one section of the body carries pins 7 for fitting snugly within sockets 8 formed in the bar-forming flange or lip 9 of the other section of the body and serve to brace the two sections against longitudinal movement out of their proper relation to each other. It should also be noted that the lip or flange of the section 2 is formed with openings 10 which register with threaded openings 11 formed through the lip of the section 3 and that outer end portions of the openings 10 are enlarged to form sockets 12 to receive the head 13 of screws 14, by means of which the two sections are firmly held in engagement with each other. Therefore, the heads of the screws will be counter-sunk to impart a neat appearance to the razor head and also eliminate obstructions.

The tubular inner member 15 fits snugly within the tubular portion or barrel of the outer member and is formed with outstanding circumferentially extending teeth 16 which engage in the slots 17 of the outer member or barrel 4 between the teeth 18 of this barrel which extends circumferentially of the barrel and are of such length that ends of the teeth will have contacting engagement with end walls of the barrel, as shown in Figure 3. The teeth 16 are of somewhat less width than the slot 17, as shown in Figures 1 and 2, and, therefore, although the teeth will be prevented from having shifting movement longitudinally in the slot, they may have shifting movement transversely therein during reciprocating movement of the tubular member 15 longitudinally in the outer member or barrel 4 and sharpened side edges of the teeth 16 moved into and out of cutting engagement with the sharpened side edges of the teeth 18 for clipping hair engaged between the teeth 16 and 18. These teeth 16 and 18 have beveled side faces which intersect the outer edge faces of the teeth at such an angle that they provide sharp cutting edges along sides of the teeth. It should also be noted that since the confronting side edge faces of the teeth diverge inwardly flaring spaces are provided between the teeth so that as hair is clipped it may pass easily into the bore of the tubular inner member through the slots 16' between the teeth 16 thereof and then pass out through an open end of the inner member when the razor is turned to a position disposing the tubular inner member vertically and shaken. The sharpened side edges of the teeth should be prevented from striking each other with sufficient force to dull their edges, and in order to do so, the inner tubular member carries

transversely extending ribs or webs 19 which engage in recesses or grooves 20 formed in the shank or cross bar of the outer member or barrel, the grooves 20 being of such length that they will snugly receive the ribs of the inner member and of such width that they will permit transverse shifting of the ribs in the grooves. It will thus be seen that the ribs 19 will serve to assist in preventing turning movement of the tubular inner member in the barrel and also constitute means for limiting longitudinal sliding movement of the inner member, and these sharpened side edges of the teeth cannot be dulled by too violent contact with each other when the razor is in use.

The operating means for the razor has not been illustrated but will consist of conventional means having a portion extending through the passage 21 formed midway the length of the cross bar or shank of the outer member and engaged in the opening 22 formed through the rear portion of the inner member midway the length thereof and registering with the passage 21, as shown in Figure 2.

Having thus described the invention, what is claimed as new is:

1. A razor head comprising a body formed of longitudinally extending sections each having a transversely arcuate upper portion and a depending lip along its lower edge, said sections being disposed in side by side contacting relation to each other and forming a cylindrical open ended barrel and a depending shank, the barrel being formed with longitudinally spaced transversely extending slots across its upper portion and having its under portion formed with inter-

nal notches spaced from its ends, the material of the barrel between the slots constituting teeth and having sharpened side edges, a tubular inner member slidable longitudinally in said barrel and formed with transversely extending slots and outstanding ribs between its slots constituting teeth operating in the slots of the barrel between the teeth thereof and having their side edges sharpened for clipping engagement with the sharpened side edges of the teeth of the barrel, side faces of the teeth of the barrel and inner member being disposed at an incline to provide inwardly flaring spaces between the teeth of the barrel and inner member, and tongues carried by said inner member in spaced relation to ends thereof and engaged in the notches formed in the barrel to limit sliding movement of the inner member in the barrel.

2. A razor head including a body formed of mating sections, said sections having arcuate portions defining a tubular barrel, said sections having depending lips engageable to provide a relatively thick shank, means releasably connecting the sections to each other, said sections having their upper portions slotted to define transversely extending teeth, and a tubular inner member operatively mounted within the barrel and having radially extending teeth engageable within the slots of the barrel, said teeth being engageable with the first mentioned teeth for effecting a clipping operation upon shifting of the inner member, and ribs carried by the inner member and engageable in the shank for limiting movement of the inner member in the barrel.

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