Oct. 30, 1934. M. P. McCARTY 1,978,804

ELECTRIC SAFETY RAZOR BLADE

Filed Dec. 21, 1932

FIG. 1.

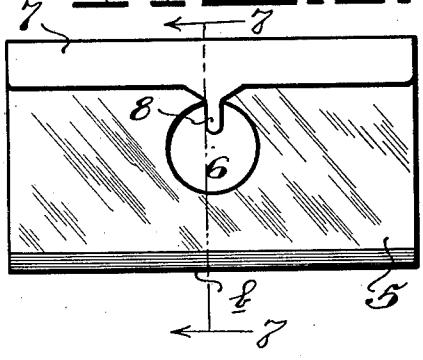


FIG. 2.

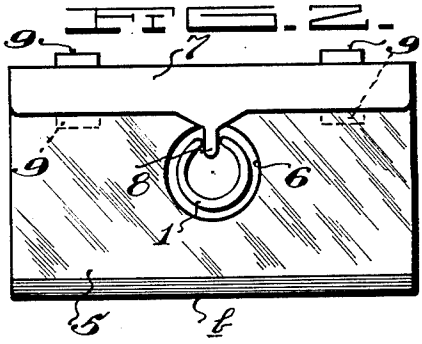


FIG. 3.

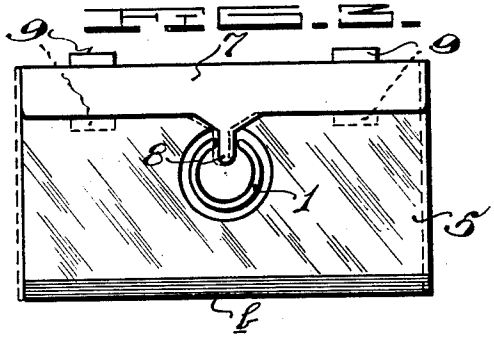


FIG. 4.

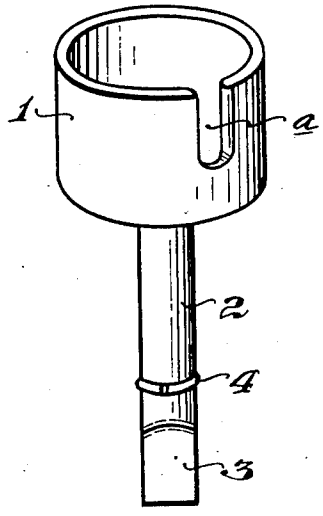


FIG. 5.

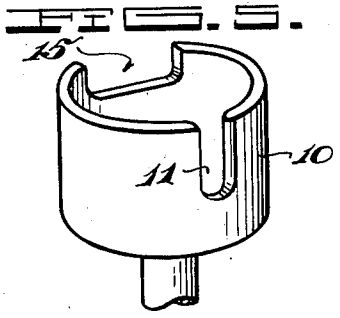


FIG. 7.

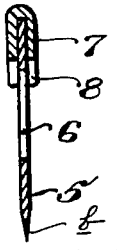
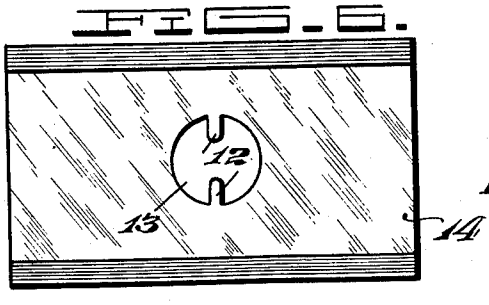


FIG. 6.



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UNITED STATES PATENT OFFICE

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ELECTRIC SAFETY RAZOR BLADE

Madison P. McCarty, Dallas, Tex.

Application December 21, 1932, Serial No. 648,169

2 Claims. (Cl. 30—12)

This invention relates to razors and shaving implements and especially to the electrical or magnetically operated razor, and the invention has particular reference to an improved type of blade adapted for use in connection with certain types of such razors as specified. The invention has for its principal object to provide, as a new and novel article of manufacture, an electric safety razor blade having means in the body thereof for the reception of an oscillating element by which positive longitudinal motion may be imparted to the blade within the guard usually provided upon the razor handle.

The invention further comprehends among its objects, an improvement in blades of the character above set forth having provisions for constraining the blade to move strictly in a longitudinal direction, consequently maintaining uniformity of stroke and obviating lost motion.

A further object of the invention is to provide an improved razor blade peculiarly adaptable for use in connection with the electro-magnetic oscillating device described and claimed in Letters Patent No. 1,813,630, dated July 7, 1931.

With the foregoing objects as paramount, the invention resides in the new article of manufacture exemplified in the annexed drawing and described in the detail description to follow.

Figure 1 represents a side view of an electric safety razor blade embodying the invention.

Figure 2 is a similar view showing the oscillating element carried by the razor and through the medium of which, combined with certain features of the blade are instrumental in causing the blade to move longitudinally in the guard.

Figure 3 is a view similar to Figure 2, showing in dotted lines the movement of the blade.

Figure 4 is a perspective view of the oscillating or blade moving element.

Figure 5 is a view similar to Figure 4 but showing an oscillating member slightly modified to conform with the double edged blade.

Figure 6 is a view of the double edged blade, and

Figure 7 is a transverse section on lines 7—7 through Figure 1.

Continuing with a more detailed description of the drawing, it may be stated for the sake of clarity that the type of razor for which the blade described herein is designed is so constructed that oscillating motion is imparted to a driven element, which in turn transmits oscillatory motion to the element shown in detail in Figure 4 which is comprised of a sleeve 1 having a slot *a* therein and a pin 2, the lower end of which is flattened as at 3. While it forms no part of the present invention, a split ring 4 lies within an annular groove around the pin 2 for the purpose of locking the oscillating element to the driven element of the electro-magnetic oscillating device described in the patent identified in the preamble hereof.

Referring now particularly to the invention, the blade 5 constructed of high grade steel is perforated to provide the opening 6, midway between the sides of the blade and spaced from the cutting edge *b* thereof. The opening or cut-away portion 6 is shown in the present case as being circular but it is obvious that no limitation is intended, since this opening may be of any shape to accommodate the oscillating element shown in Figure 4.

The blade 5 is reinforced along one of its edges by a rib 7 and in the case of the structures shown in Figures 1 to 3 inclusive, the projection 8 is formed on the rib midway of its ends and extends into the opening 6 in the manner shown. When the blade is inserted into the head of the razor, not shown, the slot *a* of the device shown in Figure 4 receives the projection 8 and in order to constrain the blade to move longitudinally as shown in Figure 3 in dotted lines, guides 9 are provided. These guides form a part of the guard of the razor and in fact, may be elongated rather than in the form of a projection as shown in Figures 2 and 3. These guides do not necessarily form a part of the present invention and are shown merely to illustrate one form of constraining means for the blade when movement is imparted thereto by the oscillating element shown in Figure 4.

The drawing shows that the projection 8 is an integral part of the rib 7 but it is obvious that even in the case of a single edged blade, the cut-out or opening 6 may be of such shape as to define the projection, that is to say, the projection 8 may be a part of the blade stock.

Referring to Figure 6, a slightly modified form of blade is shown although the principle of the invention remains the same but in order to adapt this particular type of blade to the razor, it is necessary to slightly alter the oscillatory device in the manner shown in Figure 5. In this figure, the cylindrical member 10, instead of having a single slot 11 therein to accommodate the projections 12 in the aperture 13 of the blade 14 it must be cut away as shown at 15 in order that the companion projection 12 will not be interfered with during oscillation of the said

member 10, otherwise, the blade would be locked against movement.

Manifestly, the construction shown is capable of some modification and such modification as is considered within the scope and meaning of the appended claims is also considered within the spirit and intent of the invention.

What is claimed is:

1. In combination with a cylindrical oscillating element having a vertical slot therein, a safety razor blade comprising a rectangular blade member having a circular opening midway between its ends to receive said oscillating element, a rib embracing one edge of said blade member and having an integral projection intermediate its ends and arranged to extend into said opening whereby to be received by the vertical slot in said oscillating element when said element is disposed in said opening.

2. In combination with an oscillating element, a safety razor blade including a member having a sharpened edge and a circular opening therein midway between its ends, a rib embracing the opposite edge of said blade member and having a projection thereon extending into said opening for engagement by said oscillating member whereby to impart endwise movement to said blade.

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