Dec. 14, 1937. W. MYER 2,102,278

SAFETY RAZOR

Filed Aug. 8, 1935

Fig. 2

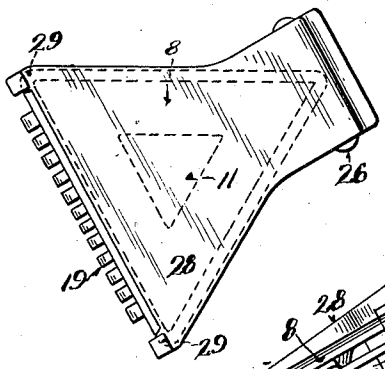
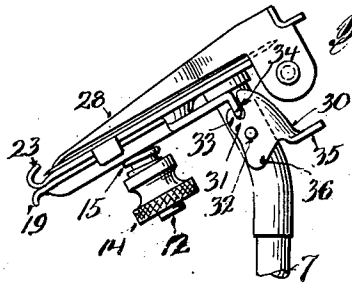


Fig. 3.



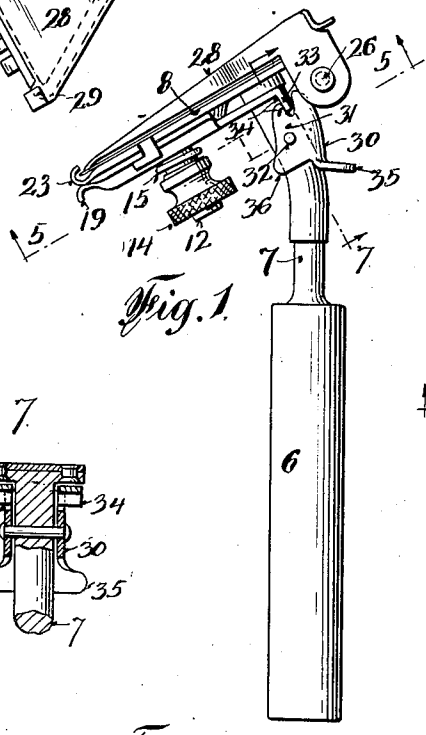


Fig. 1.

Fig. 8.

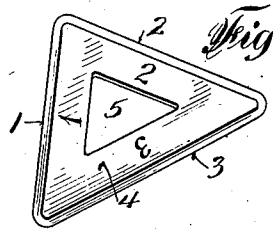


Fig. 7.

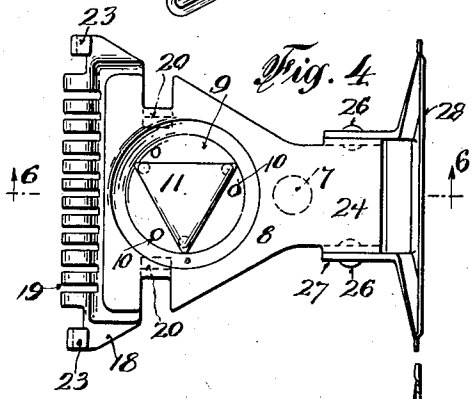


Fig. 4.

Fig. 5.

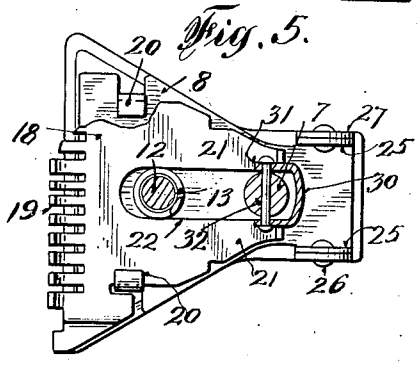
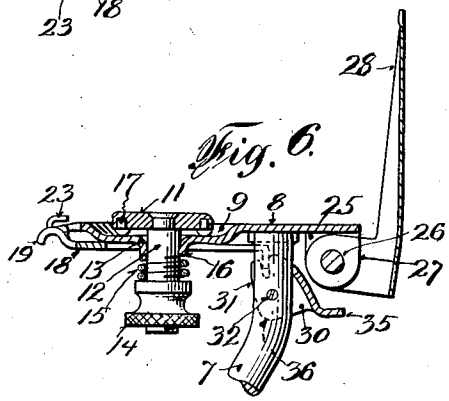


Fig. 6.



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SAFETY RAZOR

William Myer, New York, N. Y.

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3 Claims. (Cl. 30—58)

The present invention relates to safety razors, and more particularly to a safety razor having a blade of triangular form, having three cutting edges. The object of the invention is to provide a razor of this type wherein the blade may be quickly shifted in relation to the guard member or comb to bring any one of the three cutting edges into operative relation with the guard and without lifting the blade from the razor to shift it.

By employing the present invention the user is supplied with a blade having at least three shaving edges which blade may be shifted as stated, to bring any of the cutting edges into operative relation with the guard member and this may be effected during the period of shaving or the shifting may be accomplished after each complete shave. My invention really embodies a blade having more than two cutting edges and it therefore could include a blade having four cutting edges, but I prefer the embodiment shown in the drawing wherein the blade is of triangular shape in order to keep the razor as neat and compact as well as convenient in shape and proportions.

The blade is clamped between the guard or comb member and a cover member, the latter being hinged to the frame of the razor so that it may be readily swung upwardly both for permitting the blade to be removed and a new one to be placed in position, and also to permit the shifting of the blade to bring the different cutting edges into active position. I also provide means operated by a small lever for shifting the guard member in relation to the blade for a purpose which will appear in the detailed description of my invention.

The shifting of the guard member also effects the locking engagement between the stops at the corners of the guard member and the corners of the hinged cover plate. Other features and advantages will be set forth in the following detailed description of my invention.

In the drawing forming part of this application,

Figure 1 is an end elevation of a razor embodying my invention in the preferred form,

Figure 2 is a plan view thereof,

Figure 3 is a view similar to Figure 1 but showing the lever operated to disengage the guard member from the cover plate,

Figure 4 is a plan view of a razor with the blade removed and with the cover plate swung upwardly,

Figure 5 is a sectional view taken on the line 5—5 of Figure 1,

Figure 6 is a sectional view taken on the line 6—6 of Figure 4,

Figure 7 is a sectional view taken on the line 7—7 of Figure 1, and

Figure 8 is a face view of the preferred form of blade used in my razor.

As stated above, the blade to be used in the present razor has more than two cutting edges and by preference the blade has three cutting edges 1, 2, 3 as shown in Figure 8, the blade being an equilateral triangular shape. The blade 4 as shown in Figure 8 may have the numerals 1, 2 and 3 formed on its face, as shown, to identify the three cutting edges, in order that the user may know which razor edge has been used and which has not, or which may be available. The blade is provided with an opening to receive the blade holding member, and this opening is shown as of equilateral triangular shape, as shown at 5.

The razor includes a handle 6 from the upper end of which extends a shank member 7 which is shown slightly curved, although the shape of the parts may be varied as desired. Attached to the upper end of this shank is the member 8 immovably mounted on the shank and forming what might be called the head of the razor. This head is of flaring shape of the general form of a triangle with its narrow portion disposed at the upper end or near the point of attachment with the shank and from there it flares outwardly towards the front or shaving side of the razor. This head is preferably formed of sheet metal which is stamped to form a circular depression 9 near the forward edge of the head and I have shown three stop recesses 10 formed in the bottom wall of the recessed portion to serve the purpose hereinafter described.

There is a triangularly shaped blade engaging member 11 arranged to revolve in the depressed portion 9 of the head. This blade engaging member, while extending into the circular depression 9 is high enough to extend slightly above the top face of the head, as shown in Figure 6, so that when the triangular blade is placed on the top surface of the head the triangular engaging member 11 will project through the triangular opening 5 of the blade and form means for revolving the blade in the manner hereinafter described. This engaging member has attached to its central portion a stud 12 which extends through an aperture 13 in the head of the razor and below the head of the razor there is a knurled nut 14 threaded onto the stud 12. There is a spring 15 which is coiled around the stud, with one end

pressing against the nut 14 and the other end pressing against the boss 16 of the head 8.

On the under side of the blade engaging member 11 I have attached at the three corners small buttons or projections 17 which are adapted to co-operate with the several depressions 10 to lock the razor engaging member in different positions.

The guard member 18 having a comb 19 on its forward edge is positioned against the under side of the head where it is held by the lugs 20 turned under from the head plate 8 and passing around opposite edges of the comb member, which lugs permit the comb member to slide forwardly and backwardly a slight extent in relation to the head of the razor. The rearward extending plate 21 of the comb member is slotted at 22 to straddle the stud 12 and also to straddle the shank 7. The comb member is shown as provided at the two corners with upwardly and rearwardly extending hooks 23 which are adapted to form means for interlocking with the cover plate.

The head of the razor extends rearwardly at 24 behind the point of engagement of the shank 7 with the head and its rear end is provided with downwardly turned ears 25. To these ears are hingedly connected by pins 26 the downwardly turned ears 27 formed at one end of the cover plate 28 so that the cover plate hinges from the hinge pins 26. The opposite corners of the cover plate are shown provided with short projections 29 having slanting top surfaces which co-operate with the hooks 23 at the corners of the comb member.

There is a small lever 30 shown as formed of sheet metal to provide a yoke portion 31 extending partly around the shank 7 with the arms of the yoke pivotally connected with the shank by means of the hinge pin 32. The upper arm of this lever is provided with slots 33 extending downwardly from the upper end of the lever arm, to receive therein two downwardly extending flanges 34 formed on the rear, split portion 21 of the comb member, as shown in Figures 1 and 3. The lower portion of this lever member has an outturned finger piece 35 which may be pressed to rock the lever member in either direction. This lever member is shown as having two extending tongues 36 which co-operate with the shank of the razor to frictionally hold the lever in the position shown in Figure 1 which is the position the parts are in when the razor is in actual use.

Operation

The razor is shown in Figure 1 in the condition ready for shaving. The razor is used in shaving the same as any other type of safety razor. In the condition shown in Figure 1 the blade rests on the top face of the head 8 of the razor with the razor engaging member 11 extending partly through the triangular opening 5 in the blade, and one of the triangular edges of the blade extends across the teeth of the comb in proper position for shaving. The top or cover plate 28 presses down on the top of the blade, holding it in position and the top plate itself is held in position by the hooks 23 at the corners of the razor which engage the slanting top surfaces of the projections 29 of the cover plate, thereby locking the latter in operative position. During this condition of the razor, the lever 30 is in the position shown in Figure 1, which is the furthest it can be turned clockwise in this view. In this position the tongues 36 frictionally engage the shank 7 and hold the lever in position.

The user may proceed to shave with the razor, using the particular edge which we will say is the one indicated by the numeral 1; and while this edge of the razor is being shaved with, the remaining edges are covered to protect the operator because they lie within the confines of the cover plate and the head of the razor. Having used the edge indicated as 1, if the operator desires to use a fresh edge for a different portion of the face or during a different shaving, the following steps will be taken: First, the finger piece 35 will be pressed upwardly to rock the lever 30, thereby moving the comb member forwardly until the hooks 23 disengage from the cover member, whereupon the cover member may be pressed by a finger of the hand to swing it upwardly on its pivot 26. The operator then grasps the nut 14 on the under side of the razor and turns the same, which action causes the blade engaging member 11 to turn within the circular recess 9.

When the blade engaging member 11 begins to turn, the small buttons or projections 17 will ride out of the recesses 10 and this is permitted because the coiled spring 15 allows the stud 12 and the member 11 to move upwardly against the resistance of the spring. The nut 14 may be turned until the blade edge marked 2 is in parallel position with the comb at which time the projections 17 will be caused to snap back into the recesses 10 by the action of the spring 15 thereby locking the blade in its newly adjusted position.

The cover member 28 may then be swung down against the blade and the lever 30 may be swung clockwise in Figure 3 to bring the comb member into accurate relation with the forward edge of the blade and to move the hooks 23 into engagement with the projections 29 of the cover plate to lock this plate in active position. These several steps may be performed in a matter of a few seconds.

The user may now proceed to shave and as the No. 2 edge is in active position he will have a fresh edge with which to continue shaving. In the same manner as described above, the edge No. 3 may be brought into active position.

Whenever it is desired to remove the blade from the razor, it is only necessary to operate the lever 30 to throw the comb member forwardly and then by swinging the top plate upwardly the blade is exposed, ready for instant removal. In other words, it is only necessary to lift it off the blade engaging member 11. While providing a razor having a triangular blade with three separate cutting edges, I preserve the better features of safety razor construction.

It will be obvious that when the nut 14 is turned to shift the position of the blade, it is not necessary for the operator to touch the blade. It is also obvious that the blade engaging member 11 automatically locks in each of the three positions.

Having described my invention, what I claim is:

1. A safety razor including a handle having a head of substantially triangular shape mounted thereon, a comb member mounted on said head and having a comb co-operating with the active edge of the razor blade along one side of said triangular head, a razor blade of triangular shape adapted to seat on said head and having an aperture therein, a cover plate hinged to said head for engaging the top of the blade to hold it in co-operative relation with said comb, a razor engaging member mounted on said head and projecting upwardly to extend into the aper-

ture of the razor blade spring snap, means tending to hold said blade engaging member in various adjusted positions to permit different edges of the blade to be aligned with said comb, means attached to said head for turning said plate engaging member to align different edges thereof with said comb.

2. A safety razor including a handle having a head mounted thereon of substantially triangular shape against the top surface of which the blade is adapted to rest, a comb member to co-operate with one of the cutting edges of the blade adjacent one of the edges of said triangular head and a non-flexing triangularly shaped blade having an aperture therein, an angular and revolvable blade engaging member on said head adapted to be received in the aperture of said blade, a stud on said blade engaging member extending downwardly through an aperture in the head, a spring on said stud urging said blade engaging member downwardly, and means below the head for turning said stud and said blade engaging member to turn the razor blade to bring its different cutting edges in co-operative relation with the comb, and means for clamping the blade on said head.

3. A safety razor including a handle having a head thereon, said head having a top surface against which a blade is adapted to seat, a comb member co-operating with one of the edges of the blade, a triangular blade having an aperture therein and adapted to seat on said head, an angularly shaped revolvable blade engaging member on said head adapted to be received in the aperture of said blade, projections on the under side of the blade engaging member, recesses in said head and in which said projections are adapted to seat, said blade engaging member having a stud extending downwardly through the razor head, a spring around said stud urging said blade engaging member downwardly, means for turning the blade engaging member to bring different edges of the blade in co-operative relation with the comb, and means for clamping the blade upon the head.

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