R. W. McGARVEY.

SAFETY RAZOR.

APPLICATION FILED NOV. 7, 1919.

1,418,191. Patented May 30, 1922.

FIG. 1.

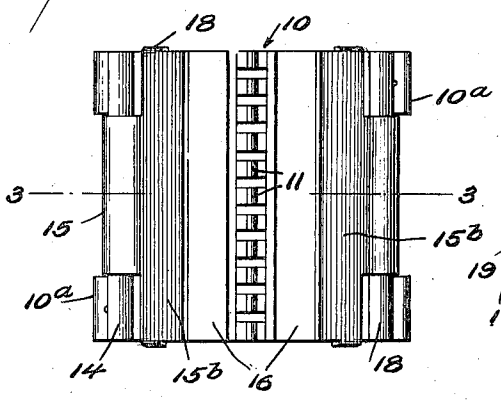
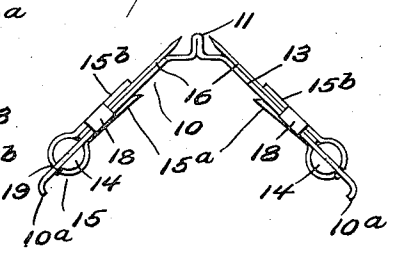


FIG. 2.



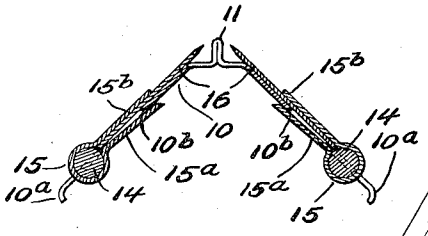


FIG. 3.

FIG. 4.

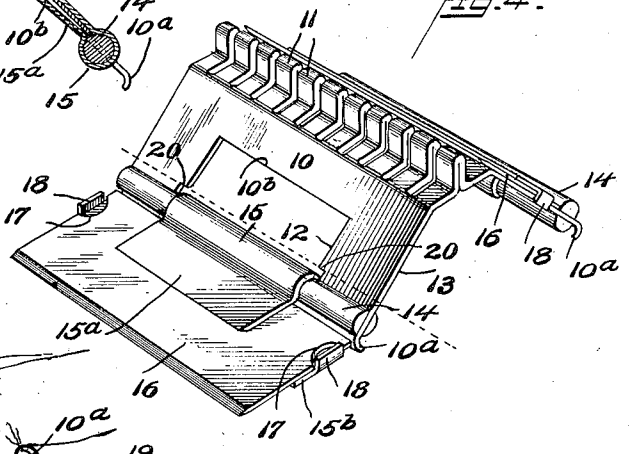


FIG. 5.

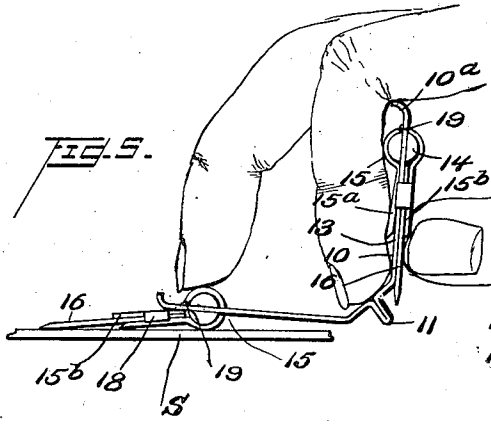
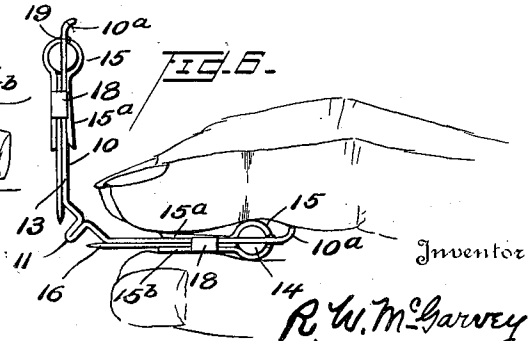


FIG. 6.



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SAFETY RAZOR.

1,418,191. Specification of Letters Patent. Patented May 30, 1922.

Application filed November 7, 1919. Serial No. 336,349.

To all whom it may concern:

Be it known that I, ROBERT W. McGARVEY, a citizen of the United States, and residing at Sparrows Point, Baltimore County, State of Maryland, have invented certain new and useful Improvements in Safety Razors, of which the following is a specification.

Numerous attempts have heretofore been made to provide a safety guard for razors which is as efficient in operation as the old-fashioned unguarded razor and which has at the same time the additional features of increased safety to the user, decreased bulk and cheapness. The general objects of this invention are to produce a razor which is simple, may be rapidly and easily stropped, and which allows a perfect control of the cutting edge of the razor in shaving.

The present invention provides a safety razor which has all the advantages of the unguarded razor and many advantages not realized by safety razors which have heretofore been constructed. It is simple, the blades may be easily stropped in the holder by even an inexperienced operator, and there is little danger of the strop being cut, the blades are quickly insertable and removable, a perfect control on the cutting edge is realized by the operator in shaving, and by the provision of two blades in the holder instead of a single blade the razor is rendered particularly useful to persons having tough beards who ordinarily must stop to replace a blade in the guard or holder before completing a shave, due to the fact that the first blade has become dull. The design of the frame or holder of this razor is such that in shaving it is gripped over a flat surface with the finger tips almost at the cutting edge of the blade, allowing a cutting stroke that cannot be equaled with safety by any other razor, especially razors having long handles giving a long leverage.

The blades can be not only conveniently stropped when in the holder but can be honed without removal therefrom simply by working them over a honing stone, and neither in stropping or honing is the skill required which is necessary in sharpening the old straight unguarded blade razor. One embodiment of the invention is disclosed by way of example in the following description when taken in connection with the accompanying drawings in which:

Figure 1 is a top plan view of the safety razor;

Figure 2 is an end elevation of the same;

Figure 3 is a section along 3—3 of Figure 1;

Figure 4 is a perspective view showing one of the blades in cutting position and one in stropping position;

Figure 5 is a side view of the razor in stropping position in the hand of a user;

Figure 6 illustrates the manner in which the razor is grasped for shaving.

The frame of the razor comprises two similar plates 10 disposed at substantially a right angle to each other, and suitably secured together or formed integral, the common edge of the two plates forming the safety guard 11, which is toothed or serrated in the usual manner. Each of the plates 10 is cut away at 12 leaving a tongue or bar 13 on either side of this recess. A bar 14 slotted at its ends to fit around guide bars 13 of each plate 10 is slidably mounted thereon parallel to the safety guard 11, and projections 10^a on the outer ends of guide bars 13 prevent the bar 14 from slipping off. Journaled on each of the bars 14 is a razor blade carrying member 15.

Each member is rotatable around one of the bars 14 and is adapted to hold between its two parallel side portions 15^a and 15^b the razor blade 16. The razor blades are notched at 17 at their opposite ends and into these notches the lugs 18, which are integral with portions 15^b of the members 15, are adapted to enter to prevent the blade from slipping from the holder. The portion 15^a of the member 15 in reality comprises a latch cooperating with the edge 10^b of the plate 10 to hold the blade carrying member 15 with the blade held thereby, in position for shaving. In Figures 2 and 3 the razor blades and their supporting members 15 are shown in shaving position with the blades lying flat against the plates 10 and firmly held in such position by latches 15^a which have slipped over and engaged the edges 10^b of the plates 10, the members 15 being made of springy material, and the parts will remain in this position until the bars 14 have been pulled outwardly, disengaging members 15^a and 10^b and rendering the blade holding portions free to rotate through an angle of 180°, about the bars 14.

Projections 19 of small size are also provided on the guide members 13 and the sliding bars 14 must be forcibly moved over these stops in shifting from one position to another.

In inserting the blade into member 15 its ends must be bent upwardly somewhat to bring the notches 17 into engagement with the lugs 18, and in removing the same one end must be bent until the notch has been disengaged from the lug 18.

In Figure 4 the razor is shown with one blade in stropping position except that the bar 14 has been moved downwardly along guides 13 to show the stops 20. These stops 20 serve to position the blade in both stropping and shaving as, in performing either function, the bar 14 is moved upwardly (Figure 4) until it reaches the position indicated by the dotted line, the shoulders 20 preventing further movement and determining the relative positions of the edge of the blade and the guard edge 11. In stropping, however, the blade is free to rotate through nearly 180° about the bar 14, the motion in one direction being limited by the member 15^a striking the plate 10 and in the other direction by the ends of the member 15^b striking the outer ends of the guide bars 13. In Figure 5 the razor is shown positioned on a strop S and the operator's fingers in proper position. When at the end of the stroke the blade is quickly rotated about the bar 14 into position (doubled under plate 10) for a return stroke, by exerting a small tangential force with the middle finger of the hand on the rounded part of member 15. As the razor is being drawn along the strop a considerable downward pressure is exerted by the hand and the rounded part of member 15 and the edge of the blade are tightly pressed against the strop. The blade may be honed when in the same position and without removing the same from the holder.

In Figure 6 the manner of holding the razor when shaving is illustrated. Here the vertical blade is the cutting blade and the horizontal blade holding portion serves as a handle. It should be noted that the operator's fingers are within a very short distance of the cutting edge of the razor whereby the "feel" of the operator is rendered more sensitive and the liability of his cutting or scraping his face greatly decreased. The frame is preferably stamped from sheet metal, and also the blade holding members, but other material may be utilized if desired.

Obviously many changes and alterations in the specific features of the invention may be made and I do not limit myself to the exact embodiment described and illustrated.

What is claimed is:

1. In a safety razor, in combination, two razor blade supporting plates rigidly secured together at an angle, the space between the plates being unobstructed and each plate being of a size and shape to be conveniently grasped and held as a handle by the fingers, and a razor blade secured to each of said plates, the adjacent edges of said blades constituting cutting edges.

2. A safety razor having a frame comprising two plates arranged at an angle to each other and meeting in a common edge, two razor blades, and means associated with each plate for securing a razor blade thereto, said means being adjustable to hold the blade in a fixed position for shaving or in position for stropping.

3. A safety razor having a frame comprising two plates arranged at an angle to each other and meeting in a common edge, two razor blades, and means associated with each plate for securing a razor blade thereto, said means including a member having a pivotal connection with the plate and being adapted to hold the blade in fixed position for shaving or to allow the blade to swing for stropping purposes.

4. A safety razor having a frame comprising two plates arranged at an angle to each other rigidly secured together and meeting in a common edge which forms a guard, each plate having a recess adjacent and parallel to said edge, and means for securing a razor blade to either of said plates with its cutting edge parallel to the guard and overlying one of said recesses.

5. A safety razor comprising, in combination, a frame portion consisting of two plates arranged at an angle to each other and meeting in a common edge, said edge being toothed to form a safety guard, a bar secured to one of said plates near its outer edge, said bar being parallel to the toothed edge of the frame and slidable toward and away from the same, a razor blade pivotally secured to said slidable bar and means for locking said razor blade in operative position with its cutting edge adjacent and parallel to the toothed edge of the frame.

6. A safety razor comprising in combination, a plate, a blade carrying member pivotally and slidably secured to said plate, and means comprising interengaging portions of said plate and member for locking said member against movement, with the cutting edge of the razor blade parallel to and spaced from one edge of said plate, said latter edge acting as a safety guard, and a handle secured to said plate.

7. A safety razor comprising in combination, a plate, a bar slidably secured to said plate, a blade carrying member pivotally and slidably secured to said plate, and means comprising interengaging portions of said plate and member for locking said member against movement, with the cutting edge of the razor blade parallel to and spaced from

one edge of said plate, said latter edge acting as a safety guard, and a handle secured to said plate.

8. In a safety razor, in combination, a flat plate, a blade carrying member pivotally secured to said plate and adapted to swing relatively thereto for stropping purposes, the swinging movement of said member in both directions being limited by abutment against the plate, to an angle of substantially 180°.

9. In a safety razor, in combination, a flat plate, a blade carrying member pivotally secured to said plate and adapted to swing relatively thereto for stropping purposes, the swinging movement of said member in both directions being limited by abutment against the plate to an angle of substantially 180°, and means for locking said member to the plate with the cutting edge of the blade in shaving position.

10. In a safety razor, in combination, a flat plate having a guard, a blade, a member carrying said blade and secured to said plate to swing about an axis parallel to the plate for stropping purposes and also slidable relatively to the plate into locking engagement therewith to be held thereby against such rotation, for shaving purposes, the swinging movement of said member in both directions being limited by abutment against the plate, to an angle of substantially 180°.

11. In a safety razor, in combination, a flat plate having a guard along one edge and two spaced parallel portions extending at right angles thereto, a bar having its ends slidably engaging said portions for movement toward and from the guard, and a blade pivotally supported on the bar and adapted to be swung about said bar as an axis for stropping purposes, or to be locked to said plate with its edge adjacent the guard, for shaving purposes.

12. In a safety razor, in combination, a flat plate having a guard along one edge and two spaced parallel portions extending at right angles thereto, a bar having slots in its ends to slidably receive said spaced portions of the plate and movable toward and from the guard, and a blade pivotally supported on the bar and adapted to be swung about said bar as an axis for stropping purposes, or to be locked to said plate with its edge adjacent the guard, for shaving purposes.

13. In a safety razor, in combination, a flat plate having a guard along one edge and two spaced parallel portions extending at right angles thereto, a bar having its ends slidably engaging said portions for movement bodily toward and from the guard, a member mounted on said bar and adapted to rotate about the bar as an axis or to engage the plate upon movement of the bar toward the guard to interlock therewith and to be held in fixed relation thereto, and a blade secured to said member.

14. In a safety razor, in combination, a flat plate having a guard along one edge and two spaced parallel portions extending at right angles thereto, a bar having its ends slidably engaging said portions for movement bodily toward and from the guard, a member mounted on said bar and adapted to rotate about the bar as an axis or to engage the plate upon movement of the bar toward the guard to interlock therewith and to be held in fixed relation thereto, and a blade secured to said member, the ends of said member and blade overlapping the parallel projecting portions of the plate so that rotation of the member and blade about the bar as an axis is limited to substantially 180°.

15. In a safety razor, in combination, two razor blade supporting plates rigidly secured together at an angle, each plate being of a size and shape to be conveniently grasped by the fingers and held as a handle, members attached to the plates adjacent their outer edges and forming projections normal to the plates, and a razor blade secured to each of said plates, the adjacent edges of said blades constituting cutting edges.

16. In a safety razor, in combination, two razor blade supporting plates rigidly secured together at an angle, each plate being of a size and shape to be conveniently grasped by the fingers and held as a handle, members secured to the plates adjacent their outer edges and extending parallel to such edges forming projections normal to the plates, and a razor blade secured to each of said plates, the adjacent edges of said blades constituting cutting edges.

17. In a safety razor, in combination, two razor blade supporting plates rigidly secured together at an angle, each plate being of a size and shape to be conveniently grasped by the fingers and held as a handle, bars secured adjacent the outer edges of the plates and extending parallel thereto said bars projecting normally to both surfaces of each plate, and a razor blade secured to each of said plates, the adjacent edges of said blades constituting cutting edges.

18. A safety razor including in combination, a handle, a blade, a blade supporting device forming with the blade a unitary structure for stropping purposes, and means to limit the swinging movement of said structure in both directions in stropping by contact therewith between the cutting edge of the blade and the pivotal axis of said device.

19. A safety razor including in combination, a handle, a blade supporting member pivoted to swing for stropping purposes, and means connected to the handle to limit

the swinging movement of said blade supporting member in both directions when stropping by contact between the cutting edge of the blade and the pivotal axis of said member.

20. A safety razor including in combination, a handle, a blade supporting member pivoted to swing for stropping purposes, and means connected to the handle to limit the swinging movement of the blade to an angle of substantially 180°.

21. A safety razor including in combination, pivoted blade carrying members, and a common guard intermediate the pivotal axes of the blade carrying members, said members being independently oscillated for stropping purposes.

22. A safety razor including in combination, a handle, two blade supporting members pivoted to swing for stropping purposes, a common guard for the blades, and means connected to the handle to limit the swinging movement of the blades when stropping.

23. A safety razor including in combination, a handle, two blade supporting members pivoted to swing about parallel axes for stropping purposes, a common guard for the blades supported on said members, said guard being parallel to the axes of the blade supporting members, and means connected to the handle to limit the swinging movement of said members in both directions.

24. A safety razor including in combination, a handle, a blade, a blade supporting device forming with the blade a unitary structure for shaving and stropping purposes, and means connected to the handle to limit the swinging movement of each of said structures in one direction of rotation by abutment against said swinging structure between the cutting edge of the blade and the pivotal axis of the swinging structure.

25. A safety razor, in combination with a plate, a blade carrying member pivotally secured to said plate and adapted to swing relatively thereto for stropping purposes, the swinging movement of said member in both directions being limited by abutment of the same against the plate.

In testimony whereof I affix my signature.

ROBERT W. McGARVEY.