SAFETY RAZOR WITH MEANS FOR RETRACTING GUARD PLATE

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ABSTRACT OF THE DISCLOSURE

A safety razor adapted to clamp its blade in the conventional manner, with the blade edge guarded by a guard plate, and designed so that the guard plate can be shifted laterally to a retracted position to expose the blade for more precise cutting, without protection by the guard plate.

FIELD OF THE INVENTION

This invention relates generally to safety razors, and more particularly to a safety razor which can be used in the conventional manner, with its blade edge guarded, or in a manner with its blade edge unguarded and exposed to facilitate precise trimming, as of a beard or mustache.

BACKGROUND OF THE INVENTION

As is well-known to men wearing mustaches and beards, the trimming thereof with the usual safety razor is an uncertain task. The blade is covered over its corners, and the guard for the blade actually hides the blade edge from the user as he looks in the mirror while trying to trim the edges or corners of his mustache. The user must proceed by guess work, feel, or memory; he cannot see exactly what he is doing. Additionally, the usual guard not only obscures vision, but depresses the hair, so that selection of the hairs to be severed is impeded. The purpose of this invention, accordingly, is to provide a safety razor which can be used as such, or with the guard retracted to expose the blade, as in a straight edge razor.

BRIEF SUMMARY OF THE INVENTION

The invention involves several concepts, one of which, in order to allow free and unrestricted cutting of the corners of the blade, is to shorten the conventional guard plate and clamp plate so that these members are equal in length to the blade edge. The blade edge is thereby better exposed and available at its corners for use in precise trimming. A second concept is to remove the guard plate from its usual position underlying and projecting beyond the blade edge, so as to afford a naked blade edge and the invention accomplishes this by arranging for shifting the guard plate laterally from its normal guard position to a retracted position. The retraction of the blade guard is facilitated by making the blade guard flat on top and bottom, and by using a flat surface, rather than the usual concave surface, on the underside of the razor "head," i.e., the blade clamp. The blade guard is thus slideable in a flat slot. The blade guard has laterally extending slots, in which are received guide pins on the blade clamp, as well as the shank of the screw which holds the head or blade clamp on the razor. These guide pins as well as limit the blade guard in its lateral shift or retraction.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view showing the use of the razor of the invention with the blade guide retracted to expose the blade edge;

FIG. 2 is a perspective view showing the razor of the present invention in a different aspect from that of FIG. 1;

FIG. 3 is a side elevational view of the razor of the invention, with parts broken away on a medial section;

FIG. 4 is a view similar to a portion of FIG. 3, but showing the blade guard retracted to expose one edge of the blade;

FIG. 5 is an exploded view, showing the clamp head and guard blade each in elevation, with one of the parts rotated through 180° from its position assembled with the other, the blade being shown in phantom lines; and

FIG. 6 is an exploded view of the head, guard, and handle, with the head and guard in longitudinal section, and only a fragmentary portion of the handle included.

DESCRIPTION OF A PREFERRED EMBODIMENT

The invention may be carried out with many forms of safety razors, but is here exemplified as embodied as an improvement in a safety razor which has been in common use since its introduction many years ago. It comprises a head or blade clamp means 10, with a convex cylindrical upper or outside surface 11, and a rectangular outline, from the under or inner side of which projects a screw threaded stud 12. Heretofore, the inner or under side of this head 10 has had some form of cylindrical concavity, so that the blade, pressed upwards from below, could be forced into a cylindrical curve. I prefer, as a novel feature of my invention, to provide the head 10 with a flat planar underneath surface 13.

The stud 12 is adapted to be screwed into a screw-threaded socket 14 in the end of a handle 15, and between the relatively large flat end surface 16 on the handle 15 and the flat under surface on the clamp head 10 is a blade guard plate 18, formed, in the present embodiment of the invention, with parallel flat upper and lower faces 20 and 21. The blade 24 can be of various makes, e.g., a Gillette blade, and is positioned, as usual, between the clamp head and guard plate. Tightening up of the handle, by rotating it, clamps the head or clamp 10, the guard, the blade, and the handle, in tight assembly. With the blade accurately centered (FIG. 3) the two edges of the cylindrical surface of the head engage the blade a suitable distance back from the blade edges. The two edges of the guard plate are bevelled, as at 26 (see FIG. 3) beginning at a line immediately under the edges of the head 10, and sloping downwardly and outwardly to thin edges 28 spaced outwardly of the blade edges. The relationship is such that the blade edge would project through and a slight distance beyond a plane extending between the guard edge 28 and the convex surface 11 of the head 10. This, of course, is simply the conventional guard arrangement in safety razors. The bevelled portion of the guard is formed with the conventional slots 30 for passage of soap and cuttings.

The threaded stud passes through an aperture 34 in the guard 18. The conventional aperture in this location is round, but the aperture 34, here is elongated in one direction laterally of the guard 18.

The blade 24 may have the usual longitudinal slot 36, configured along its edges to define an aperture at 37 for free passage of the clamp stud 12. The clamp head has two projecting pins 40, located along its longitudinal center line. The pins are sized to substantially match the width of the blade slot 36, and thus prevent lateral or pivotal movement of the blade from its centralized position. The pins 40 project through the blade and into lateral guide slots 42 in the guard 18, which receive them with a close but sliding fit. The slots 42, preferably elongated in a single direction from the center of the guard plate, and extend laterally in the same direction as the elongated slot or aperture 34.

The razor is in position for shaving in the normal manner in FIG. 3. To expose a blade edge for trimming the
handle is loosened, and the guard 18 retracted, in the direction indicated by the arrow, to the position of FIGS. 1, 2 and 4. This can easily be accomplished by grasping the guard by its end edges and moving it in the direction permitted by the elongated slots 34 and 42. The handle is then re-tightened so as to clamp the blade firmly. The unguarded blade edge of the razor can then be used for trimming the mustache, or trimming around it to shape its outline. The razor can easily be used in this fashion to cut one hair at a time, either at the surface of the skin, or at any length. It will be noted that the ends of the elongated slots 34 and 42 precisely position the blade relatively to the guard, alternatively for shaving in the normal manner (FIG. 3), or for trimming with an unguarded blade edge (FIGS. 1, 2, and 4).

It will, of course, be understood that the razor improvement of my invention is subject to many modifications, especially to adapt it to different safety razors. Some of these have the "head," or blade clamp means in two parts, which pivot into clamping position. The invention is accordingly to be limited only in accordance with a fair construction of the appended claims.

I claim:

1. A safety razor, for use with a double edged safety razor blade, comprising the combination of:
   a blade clamp means engageable with one face of the blade, with a narrow margin of the blade edge exposed,
   a blade guard engageable with the opposite face of the blade and shaped to project beyond the blade edges,

at a clearance distance therefrom, to provide for guarded shaving.

a handle coupled to the blade clamp means and to the blade guard to clamp them tightly against opposite surfaces of the blade,

means mounting said blade guard and blade for relative lateral movement to one another between a centralized position in which the blade guard projects substantially equally beyond the blade edge at both edges of the blade, and a position laterally offset in one direction relative to said centralized position, in which the blade guard is retracted to a position behind the blade edge, so as to unguard said blade edge and increase its exposure, and

abutment means on the blade clamp means engageable with the blade guard for preventing lateral movement of the blade guard relative to the clamp head toward a position laterally offset in the opposite direction from said centralized position.

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