March 27, 1951 G. RAUGLAS 2,546,406

RAZOR BLADE

Filed April 8, 1946

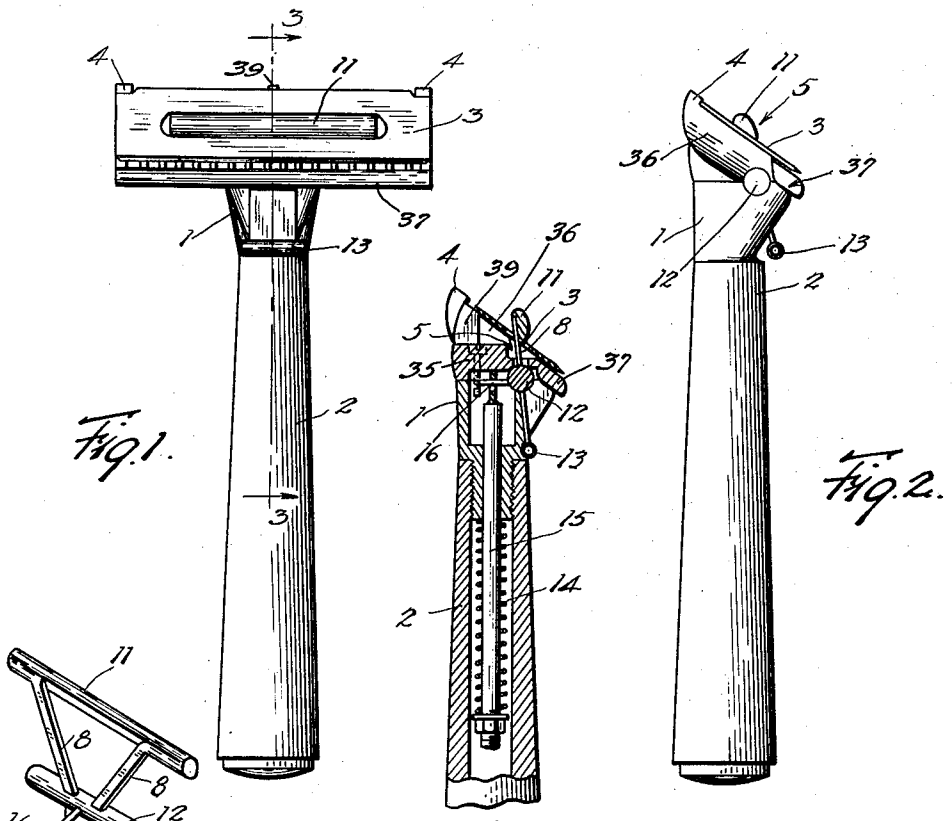


Fig. 1.

Fig. 3.

Fig. 2.

Fig. 6.

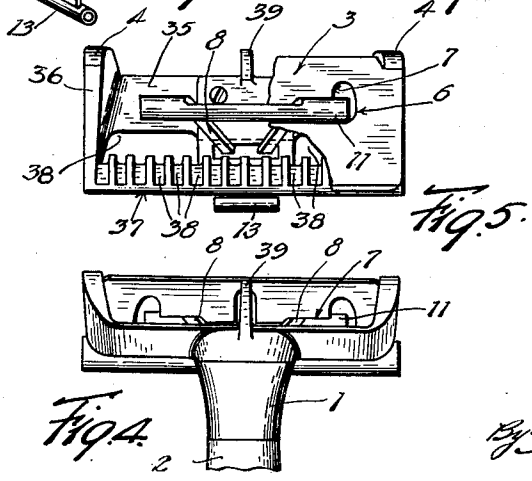


Fig. 5.

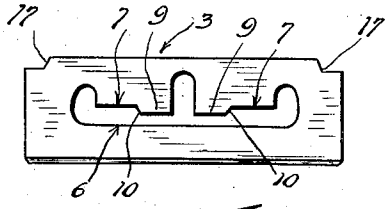


Fig. 7.

Fig. 4.

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RAZOR BLADE

Gerard Rauglas, Chicago, Ill.

Application April 8, 1946, Serial No. 660,535

2 Claims. (Cl. 30—351)

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My invention relates to razor blades, holders and containers therefor.

This application discloses an improvement or modification of the construction shown in my co-pending application Serial No. 637,893, filed December 29, 1945.

One of the objects of my invention is to provide an improved safety razor blade to be secured to a blade holder by an equalized clamping action.

Further objects and advantages of the invention will be apparent from the description and claims.

In the drawings, in which an embodiment of my invention is shown,

Figure 1 is a front elevational view of a razor blade and holder embodying my invention;

Fig. 2 is an elevational view from the left of Fig. 1;

Fig. 3 is an axial sectional view on the line 3—3 of Fig. 1;

Fig. 4 is an elevational view of the blade holder and blade from the left of Fig. 2;

Fig. 5 is a top plan view of the blade and holder;

Fig. 6 is a perspective view of the pressing and clamping element, and

Fig. 7 is a plan view of the blade.

Referring to the drawings in detail and first to Figs. 1 to 7, inclusive, the construction shown therein comprises a blade holder 1, detachably mounted on a handle 2 and a blade 3 detachably secured to the holder. The holder has positioning lugs 4 for limiting the rearward movement of the blade in the holder and positioning it laterally, and spring-controlled means 5 for pressing the blade rearwardly against the positioning means 4 and clamping the blade inwardly on the holder 1.

The blade 3 has a longitudinally-extending opening 6 through which the pressing and clamping means 5 may extend. The rear edge of this opening is shaped to provide a pair of longitudinally-spaced forwardly-extending spring leaves 7 for engagement with said clamping means 5 to provide an equalized clamping action.

The spring-controlled means 5 for pressing the blade rearwardly and clamping it inwardly comprise a pair of rearwardly-diverging rock arms 8 which extend through the opening 6. The leaves 7 are each provided with a forward extension 9 (Fig. 7), the outer edges 10 of which slope forwardly and inwardly for centering engagement with the inner edges of these arms 8. The arms are connected by a crossbar 11 which co-operates

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with the arms in clamping the blade on the holder. The rock arms 8 are mounted on a rockshaft 12 mounted in split bearings in the upper and lower sections of the holder 1, respectively. For operating this rockshaft a thumb piece 13 is provided which extends forwardly and downwardly into convenient position for operation by the thumb of the hand holding the handle.

For urging the blade rearwardly and clamping it against the holder a coil compression spring 14 is provided surrounding a plunger 15 slidably mounted in the holder 1. This plunger has a loose pin and slot engagement with a rock arm 16 secured to the rockshaft 12. This spring-pressed plunger tends to rotate the rockshaft 12 in a counterclockwise direction as viewed in Fig. 3. This will cause the ends of the arms 8 to bear against the rear edges of the slot in the blade, tending to force the blade rearwardly and to clamp it inwardly against the holder. The movement of the blade to the rear is limited by the engagement of the rear edge of the blade with the stop lugs 4 on the holder. The blade is notched at 17 for the reception of these lugs. The edges of these notches taper uniformly inwardly and rearwardly, as shown in Fig. 7, to insure centering of the blade laterally when it is pressed to its rear position. The outer edges of the forward extensions 10 on the blade converge forwardly toward each other so that as the arms 8 engage the sloping edges they also will tend to center the blade laterally.

In general, the crossbar just touches the blade when the blade has been pushed to its extreme rear position, thus assisting the arms 8 in clamping the blade on the holder and preventing any undue deflection of the blade. It also assists the user in placing the blade in the holder. It also serves to give the proper angle of the blade with respect to the skin.

In placing the blade on the holder, the user, placing the holder in one hand, will press downwardly on the thumb piece 13 to bring the arms and crossbar to the position shown in Fig. 3. With the other hand he will hold the blade between the thumb and forefinger, bringing the slot 6 in the blade into registration with the crossbar 11, and will then slip the blade down over the crossbar and release the thumb piece 13 to allow the arms 8 to engage the edges of the leaves 7 and press the blade rearwardly to bring it snugly against the back stops 4 and to clamp the rear portion of the blade snugly against the holder.

As the two leaves 7 may yield independently of

each other, each of the arms 8 will exert a rearward and inward movement on the leaves when the thumb piece is released, thus securing an equalized clamping action, since if one of the arms engages its leaf slightly in advance of the engagement of the other arm with its leaf the first engaged leaf will yield slightly, allowing the other arm and leaf to come into engagement.

With this construction the razor blade may be cleaned easily without removing it from the holder by holding it under a faucet so that the water may enter the receptacle or chamber formed by the base 35 and cheeks 36 of the holder and the lower side of the blade 3. The holder should be held under the faucet in such a way that the water enters from the open rear side of this chamber and streams downwardly between the lower face of the blade and the positioning bar 37 which is transversely grooved as indicated at 38. The water also streams out through the two openings 38 between the base 35 and the bar 37, which are located on opposite sides of the rock shaft 12. In order to support the middle portion of the blade, a central rib or post 39 is provided which extends upwardly from the base 35 and on which the rear edge of the blade 3 rests.

The above-mentioned chamber forms, in effect, a receptacle for collecting lather, etc., while shaving and a funnel for directing the water from the faucet against the blade and through the holder head when the blade is being cleaned.

Further modifications will be apparent to those skilled in the art and it is desired, therefore, that the invention be limited only by the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A single shaving edge safety razor blade having a narrow slot extending lengthwise of the blade, the front edge of which slot extends in general parallel to the front shaving edge of the blade from a position adjacent one end of the blade to a position adjacent the other end of the blade, the rear edge of said narrow slot lying adjacent the center line of the blade to provide a narrow blade portion of uniform width in front of said slot extending substantially from one end of the blade to the other, said slot having two notches extending rearwardly therefrom, one on each side of the middle of the slot.

2. A single shaving edge safety razor blade having a narrow slot extending lengthwise of the blade, the front edge of which slot extends in general parallel to the front shaving edge of the blade from a position adjacent one end of the blade to a position adjacent the other end of the blade, the rear edge of said narrow slot lying adjacent the center line of the blade to provide a narrow blade portion of uniform width in front of said slot extending substantially from one end of the blade to the other, said blade being of spring material and said slot having a notch extending rearwardly from each end thereof and a notch extending rearwardly from the central portion thereof to provide two leaf springs.

GERARD RAUGLAS.

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