

June 8, 1954

S. STEINBERG

2,680,290

SAFETY RAZOR AND BLADE THEREFOR

Filed Feb. 1, 1949

Fig. 1.

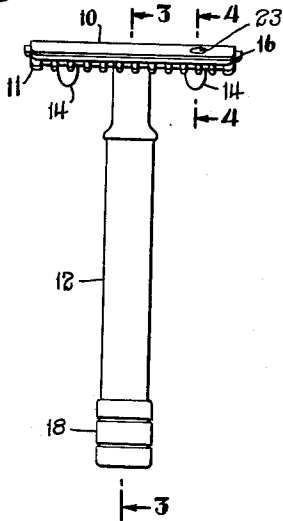


Fig. 3.

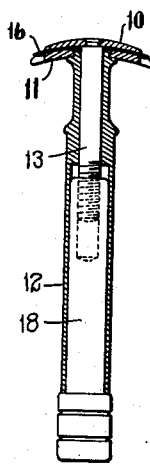


Fig. 2.

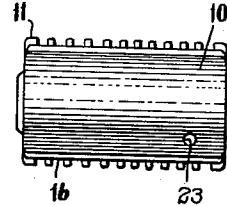


Fig. 5.

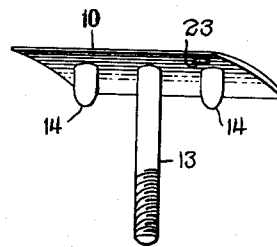


Fig. 4.

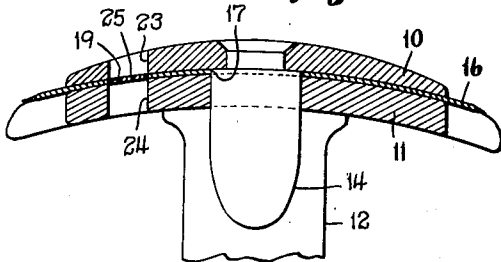


Fig. 6.

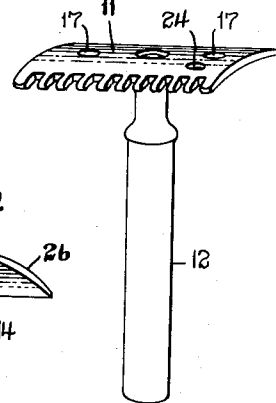


Fig. 9.

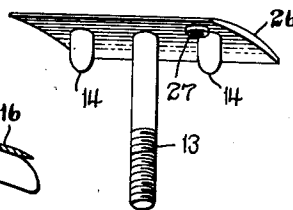


Fig. 8.

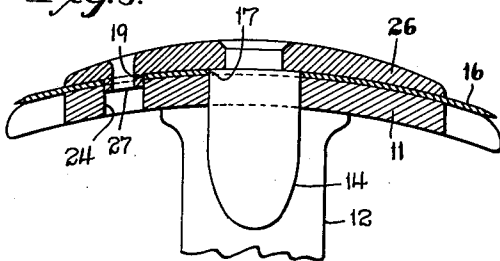


Fig. 7.

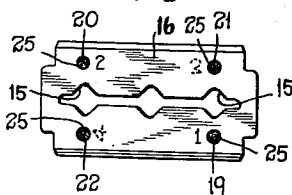


Fig. 10.

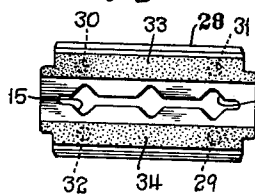


Fig. 11.

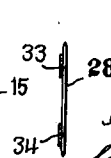
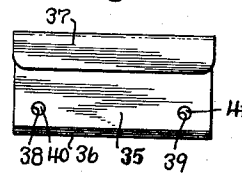


Fig. 12.



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UNITED STATES PATENT OFFICE

2,680,290

SAFETY RAZOR AND BLADE THEREFOR

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Application February 1, 1949, Serial No. 73,941

7 Claims. (Cl. 30—34)

1

The present invention relates to shaving implements and relates more particularly to safety razors and blades therefor.

As will be apparent from the following, the present invention contemplates a safety razor and blade therefor whereby a user may readily ascertain which cutting position of a blade in a safety razor will provide a fresh shaving edge.

I am aware that it has heretofore been proposed to provide safety razors and safety-razor blades for cooperation whereby a user may identify which position a blade should be placed in the holder in order to provide a fresh shaving edge, but such prior proposed structures have been open to objections which render them unsatisfactory or only partially satisfactory in use, among which objections may be mentioned difficulties which the user encounters in endeavoring to take note of the indications provided.

One of the major objects of the present invention is to provide a superior safety razor and blade therefor whereby a user may readily and easily ascertain which cutting position of the blade will provide a fresh shaving edge.

Another object of the present invention is to provide a superior safety razor and blade therefor constructed and arranged whereby persons having poor eyesight or persons of normal eyesight but in dim light may readily locate the desired cutting position of the blade with respect to the safety razor proper.

With the above and other objects in view, as will appear to those skilled in the art from the present disclosure, this invention includes all features in the said disclosure which are novel over the prior art.

In the accompanying drawings, in which certain modes of carrying out the present invention are shown for illustrative purposes:

Fig. 1 is an elevational view of a safety razor including a blade and embodying the present invention;

Fig. 2 is a top or plan view thereof;

Fig. 3 is a view mainly in longitudinal section on the line 3—3 of Fig. 1 and partly in elevation;

Fig. 4 is a sectional view taken on the line 4—4 of Fig. 1 but on a larger scale;

Fig. 5 is a perspective view of the outer clamping-member detached;

Fig. 6 is a similar view of the inner clamping-member together with its handle and tightening-member;

Fig. 7 is a face view of a double-edge razor-blade suitable for use in the safety razor shown in the preceding figures;

Fig. 8 is a sectional view similar to Fig. 4 but showing a modified form of the outer clamping-member;

Fig. 9 is a perspective view of the outer clamping-member of the structure shown in Fig. 8;

Fig. 10 is a face view of another form of double-

2

edge razor-blade embodying the present invention;

Fig. 11 is an edge view of the razor-blade of Fig. 10; and

Fig. 12 is a face view of a single-edge razor-blade embodying the present invention.

The structure of Figs. 1 to 7 incl.

For purposes of making clear a preferred embodiment of the present invention there is shown in Figs. 1 to 6 inclusive a substantially-standard safety razor of the well known "Gillette" type which in the form shown includes an outer clamping-member 10, a complementary inner

clamping-member 11, and a tubular handle 12. The tubular handle 12 projects rigidly downwardly from the central portion of the inner clamping-member 11 above referred to and the latter in effect constitutes a "head" for the said handle 12. The outer clamping-member 10 is provided centrally with a depending stem 13 which is externally threaded at its lower end and which is adapted to extend downwardly into the tubular handle 12, as is indicated in Fig. 3. The said outer clamping-member 10 is also provided on each of the respective opposite sides of its stem 13 with two similar locating-lugs 14—14 which are adapted to extend downwardly through suitable apertures 15—15 in a wafer-type razor-blade 16 formed, as usual, of high-grade steel. The said locating-lugs 14—14 after passing through the apertures 15—15 in the razor-blade 16 (Fig. 7) pass downwardly through apertures 17—17 formed in the inner clamping-member 11.

In a manner common in the art, the razor-blade 16 is located between the under surface of the outer clamping-member 10 and the upper surface of the inner clamping-member 11 and may be tightly held in the position referred to by means of a tightening-member 18.

The main portion of the tightening-member 18 above referred to is extendible upwardly into the tubular handle 12 and is internally-threaded, as indicated in Fig. 3, to threadedly cooperate with the threaded lower end of the stem 13 of the outer clamping-member 10.

The razor-blade 16 previously referred to is provided adjacent each of its four corners respectively with apertures 19, 20, 21 and 22. Any given one of the said apertures is adapted, when the razor-blade is in position between the clamping-members 10 and 11, to register with combined punchout-and-sight openings 23 and 24 respectively formed in the clamping-members 10 and 11 adjacent similar corners thereof. The combined punchout-and-sight openings 23 and 24 just referred to are not only in registry with each other, but extend completely through the respective clamping-members in which they are formed, as is especially well shown in Fig. 4.

Usually, and as indicated in Fig. 7, the various

3

surfaces of the razor-blade such as 16 are marked with numerals, since in common practice it is customary to consider an identical edge as being a different edge when the blade is turned over. Thus, the blade 16 is provided with four designations respectively 1, 2, 3 and 4, as is indicated in Fig. 7. This feature is, as noted, common in double-edge razor-blades.

The razor-blade 16 has its respective apertures 19, 20, 21 and 22 each filled with a body of non-metallic and readily displaceable material providing punchout areas or members 25. The said punchout areas or members may be formed, for instance, of cellulose acetate, cellulose nitrate, polyvinyl chloride or any other suitable synthetic or natural resin having the characteristics of normally remaining in place in its given aperture and of being readily punctured or displaced.

The nonmetallic displaceable material of which the punchout areas 25 are formed is not transparent but translucent so that while light will pass therethrough the actual presence of the members 25 may be readily perceived which would not be the case were the same to be completely transparent.

Furthermore, and in the preferred mode of carrying out the present invention, the respective bodies 25 of synthetic material in the apertures 19, 20, 21 and 22 will be differently colored with respect to each other. Thus, the four bodies of nonmetallic displaceable material 25 in the blade 16 may be respectively translucent and colored red, blue, yellow and green.

One mode of utilizing the present invention would be for the user of the razor to insert and clamp a fresh blade like 16 between the clamping-members 10 and 11 and then by means of a toothpick, pencil or other instrument either totally displace or puncture the particular punchout member 25 which happens to be in registry with the combined punchout-and-sight openings 23 and 24 in the respective clamping-members 10 and 11. Before punching out the body as just described, the user could peer through the openings 23 and 24 by holding the razor up to the light to ascertain whether or not he was starting with the number 1 shaving edge, which in the present instance would be indicated by the red coloration of the particular punchout member 25 (in the aperture 19) which at the time is registered with the said openings 23 and 24.

After using the first edge, the user of the razor could, on the next occasion, install the blade 16 in such manner that the aperture 20 was in alignment with the openings 23 and 24 and if upon inspection the aperture proved to be vacant, the user would then know that he was re-using a previously used edge.

Thus, by having the openings 23 and 24 respectively extending completely through the clamping-members 10 and 11 not only is the punching out or displacement of the punchout member 25 rendered convenient but the user may sight through the said openings by holding the razor up to the light and thus rapidly and surely ascertain whether or not he has installed a blade in the razor in such manner as to provide a fresh cutting edge.

The structure of Figs. 8 and 9

The structure of Figs. 8 and 9 employs the same inner clamping-member 11 and its associated features as was illustrated in the preceding Figures, but the outer clamping-member 10 is

4

replaced by a similar but slightly altered outer clamping-member 26. The clamping member 26 is provided with a tubular punch 27 which is adapted to extend into the combined punchout-and-sight opening 24 in the inner clamping-member 11 as is indicated in Fig. 8.

When a blade such as 16 is mounted upon the upper surface of the inner clamping-member 11 and the outer clamping-member 26 is applied thereover, the tubular punch 27 may be forced through the selected one of the apertures 19 to 22 inclusive to displace the punchout-member 25 therefrom. The opening through the tubular punch 27 provides a sight-opening which takes the place of the sight-opening 23 of the previously described outer clamping-member 10.

The razor-blade of Figs. 10 and 11

In Figs. 10 and 11 is illustrated a slightly modified form of razor-blade which may be utilized in place of the razor-blade 16 previously described. The razor-blade 28 is formed with four apertures respectively designated by the reference characters 29, 30, 31 and 32 and respectively corresponding to the previously described apertures 19, 20, 21 and 22.

Instead of providing inserts of nonmetallic synthetic material as was the case with the razor-blade 16 previously described, the razor-blade 28 has adhered to one or more of its faces two strips respectively designated by the reference characters 33 and 34. The said strips are formed of the same type of material as has been previously described in connection with the features 25.

The razor-blade 28 above described may be substituted for the blade 16 in the razors previously described and the particular areas of the respective strips 33 and 34 overlying the various apertures 29, 30, 31 and 32 provide the displaceable aperture-closing means or punchout areas similar to the means 25 before described.

The structure of Fig. 12

In Fig. 12 is indicated a single-edge razor-blade generally designated by the reference character 35, and having one edge sharpened as at 36 and its other edge provided with a clip 37 in a manner usual in the art. Adjacent its respective opposite ends the blade 35 is provided with one of two apertures 38 and 39 respectively covered or closed by bodies 40 and 41 of nonmetallic material similar to the material described in connection with the body 25 previously described.

The razor-blade 35 may be utilized in a "Gem" type or other suitable razor designed for the handling of single-edge blades and in which the respective clamping-members are provided with combined punchout-and-side openings similar to the features 23, 24, or 27, 24 previously described.

The invention may be carried out in other specific ways than those herein set forth without departing from the spirit and essential characteristics of the invention, and the present embodiments are, therefore, to be considered in all respects as illustrative and not restrictive, and all changes coming within the meaning and equivalency range of the appended claims are intended to be embraced therein.

I claim:

1. As a new article of manufacture, a safety razor having blade-holding means including cooperating clamping-members constructed and arranged to hold a razor-blade therebetween, the

5

said blade-holding means having a combined punchout-and-sight opening extending therethrough from the upper to the lower face thereof and located adjacent one end of the said blade-holding means and also spaced laterally from and to one side of the longitudinal center line of the holding means, the combined sight-and-punchout opening of the said blade-holding means being substantially straight and of sufficient size to permit a pencil point or the like be extended completely therethrough to displace the aperture-closing means of a razor blade and to permit light to pass therethrough to ascertain whether or not such aperture-closing means has been displaced.

2. As a new article of manufacture, a safety razor having blade-holding means including co-operating clamping-members constructed and arranged to hold a razor-blade therebetween, each of the said clamping-members having a combined punchout-and-sight opening extending therethrough from the upper to the lower face thereof in registry with the similar opening in the other clamping-member and located adjacent one end of the said blade-holding means and also spaced laterally to one side of the longitudinal center line of the holding means, the combined punchout-and-sight openings of the said clamping-members being sufficiently straight and of sufficient size to permit a pencil point or the like be extended completely through both thereof to displace the aperture-closing means of a razor blade and to permit light to pass therethrough to ascertain whether or not such aperture-closing means has been displaced.

3. As a new article of manufacture, a safety razor having blade-holding means including a first clamping-member and a second clamping-member cooperating with the said first clamping-member to hold a razor-blade therebetween, each of the said clamping-members having a combined punchout-and-sight opening extending therethrough from the upper to the lower face thereof in registry with the similar opening in the other clamping-member and located adjacent one end of the said blade-holding means and also spaced laterally from the longitudinal center line of the holding means, the combined sight-and-punchout opening in the said first clamping-member being in the form of a tubular punch extendible into the registering opening in the second clamping-member to displace the aperture-closing means of a razor blade and to permit light to pass therethrough to ascertain whether or not such aperture-closing means has been displaced.

4. As a new article of manufacture, a rectangular metallic razor blade having a plurality of apertures formed therein and respectively located adjacent the opposite ends of the razor blade and each of said apertures being closed by displaceable translucent aperture-closing means respectively of different coloration from each other.

5. As a new article of manufacture, a rectangular metallic double-edge razor blade having four apertures formed therein and respectively located adjacent its corners and each of said apertures being closed by displaceable translucent aperture-closing means respectively of different coloration from each other.

6. As a new article of manufacture, a safety razor having blade-holding means including co-operating clamping-members constructed and arranged to hold a razor-blade therebetween, the said blade-holding means having a combined

6

punchout-and-sight opening extending therethrough from the upper to the lower face thereof and located adjacent one end of the said blade-holding means and also spaced laterally from and to one side of the longitudinal center line of the holding means, a substantially rectangular razor blade between the clamping members provided with a plurality of normally closed apertures formed therein and respectively located adjacent the opposite ends of the blade and each spaced laterally to one side of the center line of the blade the same as the openings in the clamping members so as to be in alignment with these latter openings in at least one position of the blade, each of said apertures in the blade being closed by easily displaceable nonmetallic aperture-closing material, the combined sight-and-punchout opening of the said blade-holding means being substantially straight and of sufficient size to permit a pencil point or the like be extended completely therethrough to displace the aperture-closing means of a razor blade and to permit light to pass therethrough to ascertain whether or not such aperture-closing means has been displaced.

7. As a new article of manufacture, a safety razor having blade-holding means including co-operating clamping-members constructed and arranged to hold a razor-blade therebetween, each of the said clamping-members having a single punchout-and-sight opening adjacent one corner only extending therethrough from the upper to the lower face thereof in registry with the similar opening in the other clamping member and located adjacent one end of the blade holding means and also spaced laterally to one side of the longitudinal center line of the holding means, a substantially rectangular metallic razor blade between the clamping members having a plurality of apertures formed therein and respectively located adjacent the opposite ends of the blade in diagonally opposite corners at locations spaced laterally from the longitudinal and transverse center lines of the blade as are the sight openings in the blade-holding means so that each blade opening may be located in alignment with the sight opening in one position of the blade, each of said blade apertures being closed by easily removable nonmetallic aperture-closing material, the combined punchout-and-sight openings of the clamping members being of sufficient size to permit a punching member be completely inserted therethrough to displace the aperture closing material of an opening in a blade in alignment therewith to permit light to pass therethrough to ascertain whether or not such aperture closing material had been displaced.

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