PATENT SPECIFICATION

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156,704

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Complete Accepted: Apr. 7, 1922.

COMPLETE SPECIFICATION.

Improvements in Safety Razors.

We, A. C. PENN, INC., a corporation organized and existing under the laws of the State of New York, of 149, Broadway, City, County and State of New York, United States of America, Assignees of HARRY W. GREENBRIER, a citizen of the United States of America, of 251, New York Avenue, Newark, County of Essex, State of New Jersey, United States of America, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to safety razors.

The object of the invention is to provide an improved safety razor characterized by simplicity of construction and ease of assembly of the parts, and in which provision is made whereby the angle of the cutting edge of the blade may be adjusted in order to vary the closeness of the cutting.

The invention comprises a safety razor in which the blade is normally frictionally held between a blade support and a clamping member which is separable from the support and is tiltably mounted thereon to permit ready insertion and removal of the blade, and an adjusting member within the handle secured to the blade support has screw-threaded engagement with said handle and when rotated advances into engagement with the blade and tilts the same and the clamping member relatively to the blade support to adjust the cutting angle of the blade.

The invention also consists in that the clamping member comprises a blade-engaging portion tiltably mounted on the blade support and having a downwardly depending portion terminating in forked resilient portions which engage the under surface of the blade support to hold said blade-engaging portion toward the blade support.

We are aware that a safety razor has been proposed in which the blade was frictionally held against the blade support by means of a spring clip having upper and lower portions or lips bearing respectively against the blade and the lower surface of the blade support, said upper and lower portions being joined by a curved portion lying in the rear of and out of engagement with the blade support.

The invention is illustrated in the accompanying drawings in which,

Figures 1, 2 and 3 are front, side and rear elevation views, respectively, of a razor embodying my improvements as preferably constructed.

Figure 4 is a section taken on line 4—4 of Figure 1,

Figure 5 shows the several elements of the razor disassembled.

The razor shown in the drawings is comprised in general of a head 1 and a detachable handle 2. The head portion includes a blade support 3, a clamping member 4 and a blade 5, which is held between its support and the clamping member. The blade support 3 is provided with a guard 6 on one of its longitudinal edges and a pair of spaced apart lugs 16 on the opposite edge, the latter functioning to aline or position the blade 5 in an endwise direction. An abutment 7 is formed centrally on the under surface of the blade support 3 and this abutment is provided with a threaded recess which serves as a socket for receiving external screw threads formed on the upper end of the handle 2. The abutment 7, is

preferably formed integral with the body portion of the support 3, having the adjacent metal on the front or contacting surface of the support either bored or cast out to permit the passage therethrough of the adjusting member 14 hereinafter mentioned.

The clamping member 4 is preferably of one piece and comprises a blade engaging portion 8 with a depending portion 9 bent at an acute angle to the portion 8 and extending downwardly a sufficient distance so that a second offset portion 10 will lie in a plane substantially perpendicular to the handle 2 and not intersect with the lower edge of the blade support 3. The offset portion 10 terminates in a pair of oppositely disposed and upwardly directed arms or forked resilient portions 11. The portion 10 of the clamping member is provided with an elongated slot or aperture 12 which permits the passage therethrough of the upper end of the handle 2 when inserted into the socket formed in the abutment 7 so that the handle serves to anchor the clamping member on the blade support while permitting tilting movement of the clamping member. Lips or turned-over-edges 13 function as a stop for limiting the rearward movement of the blade support 3 when the razor is assembled. The relation of the contacting parts of the blade support 3 and clamping member 4 is such that the arms 11 impinge against the under surface of the support and firmly hold these two parts together by means of friction. The lips 13 have the effect of constituting a hinge or pivot so that the clamping member is tiltably mounted on the support and the support and clamping member may be sprung apart to insert the blade 5. It may be mentioned that there is a certain degree of resiliency to the various portions comprising the clamping member 4 and this feature is relied upon when inserting the blade.

The handle 2 is cylindrical in shape, being reduced at its upper end and having a hollow core. External and internal threads are formed upon the reduced end of the handle 2. A shank 14 is adapted to be received within the handle and has an enlarged portion formed upon one end, while the major portion of its length is considerably reduced in diameter and is provided with threads adjacent the end thereof. The reduced end of the shank 14 when screwed upwardly is adapted to project beyond the end of the handle 2 so as to contact with the blade 5. Since the normal position of the blade is to lie in close engagement with the guard, by rotating the shank 14 the upper end thereof may be brought into engagement with the blade, and by continued rotation cause the blade to leave the guard. In this manner the angle of the cutting edge of the blade may be adjusted as desired in a very convenient and efficient way.

From the above it will be seen that when it is desired to insert the razor blade, this may be easily done by first unscrewing the shank 14 so that the upper end thereof does not extend beyond the corresponding end of the handle 2, then holding the razor by the handle and applying pressure with the thumb against the portion 9 of the clamping member 4, the outer edge of the portion 8 may be tilted upwardly so as to afford a space between the support 3, and the adjacent part of the clamping member 4. After the blade has been inserted between the clamping member 4 and the support 3 it is easily positioned by means of the ears 15 thereof coming in contact with lugs 16. The angle of the cutting edge of the blade may then be adjusted as previously described. As a matter of convenience the body of the handle and the enlarged portion of the shank may be knurled to assist in turning these parts when desired.

While I have herein shown and particularly described the preferred embodiment of my invention I do not wish to be limited to the precise details of construction and arrangement illustrated, as changes may readily be made without departing from the spirit and scope of my invention.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A safety razor in which the blade is normally frictionally held between a blade support and a clamping member which is separable from the support and is tiltably mounted thereon to permit ready insertion and removal of the blade, and an adjusting member within the handle secured to the blade support has screw-threaded engagement with said handle and when rotated advances into engagement with the blade and tilts the same and the clamping member relatively to the blade support to adjust the cutting angle of the blade.

2. A safety razor as claimed in Claim 1, wherein the handle serves to anchor or hold the separable clamping member on

the blade support, while permitting tilting movement of said clamping member.

3. A safety razor as claimed in Claim 1 or 2, wherein the clamping member comprises a blade-engaging portion tiltably mounted on the blade support and having a downwardly depending portion terminating in forked resilient portions which engage the under surface of the blade support to hold said blade-engaging portion toward the blade support.

4. A safety razor as claimed in Claim 3, wherein the downwardly depending portion of the clamping member is apertured to permit the passage therethrough of the handle to anchor the clamping member on the blade support.

5. A safety razor constructed and arranged substantially as hereinbefore described with reference to the accompanying drawings.

Dated this 6th day of January, 1921.

MARKS & CLERK.

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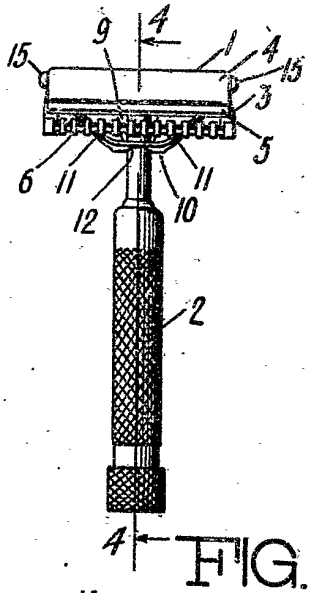

FIG.1

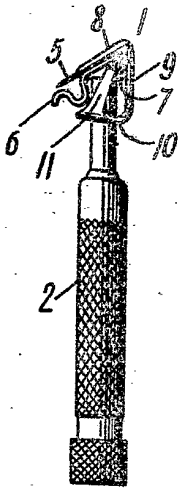

FIG.2

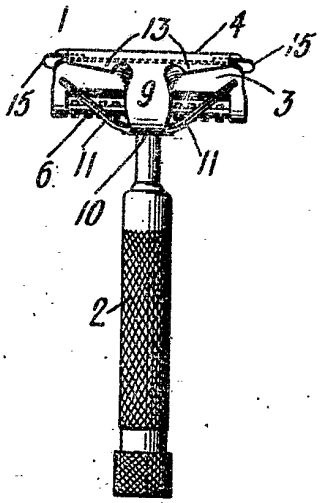

FIG.3

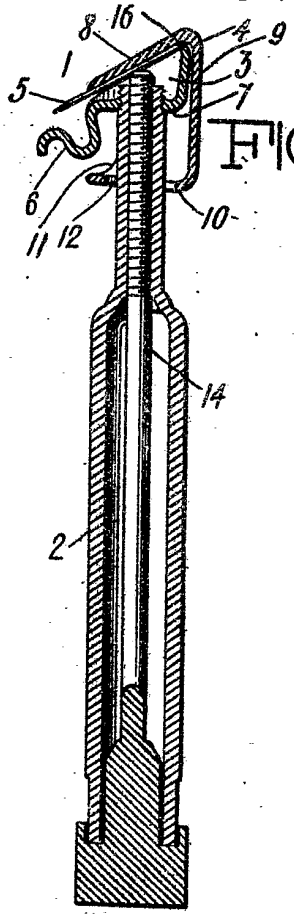

FIG.4

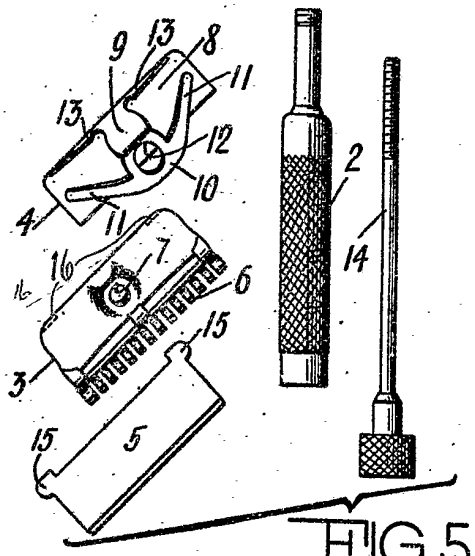

FIG.5

Malby&Sons, Photo-Litho