P. E. GLEASON.

SAFETY RAZOR ADJUSTMENT.

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1,168,388. Patented Jan. 18, 1916.

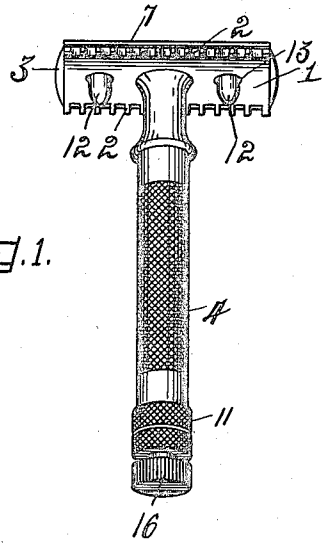


Fig. 1.

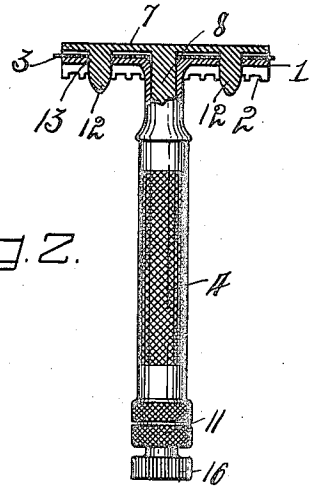


Fig. 2.

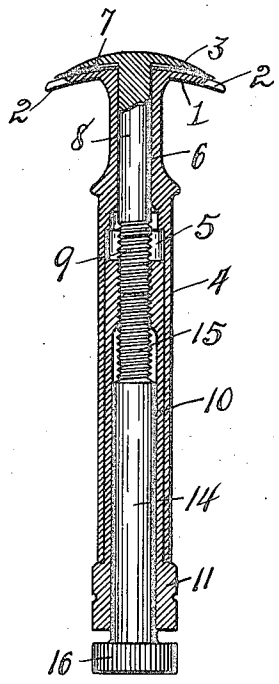


Fig. 3.

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SAFETY-RAZOR ADJUSTMENT.

1,168,388. Specification of Letters Patent. Patented Jan. 18, 1916.

Application filed April 7, 1915. Serial No. 19,753.

To all whom it may concern:

Be it known that I, PAUL E. GLEASON, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a certain new and useful Safety-Razor Adjustment; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to safety razors, and particularly to the blade adjustment of razors of the "Gillette" type.

With the "Gillette" razor it is possible to adjust the blade edges relative to the guard for a light or close shave. It is the practice of many men in using this razor to go over the face twice—first for a light shave, with the blade edge close to the guard, and the second time for a close shave, with the blade edge placed a greater extent from the guard. Difficulty is experienced each time, however, in securing the right adjustment, or if only one adjustment is used for all shaving, such adjustment is lost each time the blade is removed from the holder for the purpose of cleaning or replacement.

The object of my invention is the provision, in a razor of the class described, of simple, efficient and inexpensive means for maintaining the adjustment of a blade edge relative to the holder, and at the same time permitting the blade to be removed from the holder without disturbing the position of adjustment of said means, thereby enhancing the practicability and commercial value of razors of this character. Further objects and advantages of the invention will be apparent from the following detailed description thereof.

The invention is fully described in the following specification, and while, in its broader aspect, it is capable of embodiment in numerous forms, a preferred embodiment only thereof is illustrated in the accompanying drawings, in which,—

Figure 1 is an elevation of a razor of the "Gillette" type embodying my invention. Fig. 2 is a similar view thereof with the blade holder part in section, and Fig. 3 is a central section of the razor taken transversely of the blade holder and through the handle.

Referring to the drawings, 1 designates what may be termed the blade holder, such holder being transversely curved and having each side edge terminating in a comb 2 which serves as a guard for the adjacent edge of a blade 3 when secured to the holder. The holder 1 has a hollow handle 4 projecting centrally from its inner or concaved side, said handle forming in its outer end portion the chamber 5 and in its inner end portion the restricted passage 6, which opens at its inner end into said chamber and has its outer end opening through the holder 1.

The blade 3 is held to the holder 1 by a clamping or holding plate 7, which is substantially co-extensive in length with the holder 1 and has its inner surface curved transversely thereof to conform to the curved outer side of the holder 1. It is customary, however, to make the curve of the clamping plate 7 of slightly shorter radius than the curve of the holder 1 to facilitate a gripping of the blade at the edge portions only thereof. The clamping plate 7 has a stem 8 projecting centrally from its inner side and of suitable size to be inserted into the passage 6 of the handle, said stem being of sufficient length to project through said passage and into the inner end portion of the chamber 5. The free end of the stem 8, or the portion of such stem which projects into the chamber 5, is threaded, as at 9, to adapt it to thread into the adjacent end of a plug 10, which has a loose turning fit in the chamber 5 of the holder handle. The outer end of the plug 10 is provided with a head or enlargement 11 which shoulders against the outer end of the handle 4 to limit the movement of the plug therein, and is preferably knurled on its peripheral surfaces to facilitate a hand turning thereof. The clamping plate 7, in the present instance, has two studs 12 projecting from its inner side in position to enter registering apertures 13 in the blade and holder when the plate is in clamping relation to the holder.

The construction so far described is the same as that of the "Gillette" safety razor, and the plug 10 is hollow throughout its length with its inner end restricted and threaded to engage the stem 9 the same as with the "Gillette" construction.

In carrying out the feature of my inven-

tion the stem 9 is made of such a length that it will extend only partly through the threaded portion of the plug 10 when the clamping plate 7 and plug are in assembled position, as shown in Fig. 3, and a stem or stop member 14 is inserted into the outer end of the plug 10, said stem having its inner end reduced and threaded, as at 15, to adapt it to thread into the threaded inner end portion of the plug 10, and having its other portion of a size to have a turning fit in the outer end portion of the plug 10. The outer end of the stem 14 is provided with a head or enlargement 16 that is preferably knurled on its peripheral surface to facilitate a hand turning thereof.

In the use of my invention, the parts being in assembled relation, the plug 11 is turned relative to the handle 4 to cause a threading of the same on the clamping plate stem 9 and a consequent drawing of the plate into position to clamp the blade 7 to the holder 1. When the stem 8 has been drawn in sufficiently to obtain the desired adjustment of the blade edges with respect to the holder the stem 14 is turned into the plug 10 until its inner threaded end comes into contact with the threaded end of the clamping plate stem 8, thereby preventing a further turning of the plug 10 in a direction to effect a drawing in of the clamping plate. The plug 10 and stem or stop member 14 may now be turned together as a unit in a direction to effect a releasing of the clamping plate 7 for the purpose of cleaning or replacing of the blade 3 without losing the adjustment of the parts 10 and 14. Upon a replacement of the blade the parts are drawn into previously adjusted position by turning the plug 11 into threaded engagement with the clamping plate stem 8 until such stem moves into contact with the stem or stop member 14, which causes a stopping of the inward movement of the clamping plate at the position of adjustment previously obtained. In case both a light and close shave are desired the stop member 14 may be set for the light shave and the plug 10 then turned a predetermined extent, as for instance, a quarter turn, half turn, or the like, to obtain the close shaving adjustment.

I wish it understood that my invention is not limited to any specific construction, arrangement or form of the parts, as it is capable of numerous modifications without departing from the spirit of the claims.

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

1. In a safety razor, a blade holder having a hollow handle projecting therefrom, a member for coöperating with said holder to clamp a blade thereto, said member having a stem projecting into the handle and threaded at its end, a plug rotatably projected into the outer end of the handle and threaded to said stem, and a stop member adjustably threaded into said plug in position to have stop contact at its inner end with said stem.

2. In a safety razor, blade holding means comprising two members having their meeting surfaces curved in cross-section, one of said members having a hollow handle projecting therefrom and the other having a stem projecting therefrom into the handle, a plug rotatably projected into the outer end of said handle and threaded at its inner end to said stem end, and a stop member rotatably carried by said plug and threaded therein with its inner end in position to have stop contact with said stem end.

3. In a safety razor, a blade opening part comprising two clamping members having their meeting faces transversely curved to adapt them when drawn together against an interposed blade to cause more or less flexing of the blade, one of said members having a hollow handle projecting therefrom and the other having a stem which removably projects into said handle, a plug inserted into the outer end of the handle and having a turning fit therein, said plug having its inner end threaded to the stem end and having its outer end shouldered against the handle end to limit its movement into the handle and to facilitate a hand turning of the plug, and a stop member projected into said plug axially thereof for turning movements therein and having its inner end threaded into the plug in position to have adjustable stop contact with the stem end and having its outer end exposed without the outer end of the plug to facilitate a turning of one relative to the other.

4. In a safety razor, a holder, a member for coacting with said holder to clamp a blade thereto and having a stem projected through the holder, means threaded onto said stem and coöperating with the holder to adjustably clamp said member to the holder, and a stop-member threaded into said means in position to have stop contact at its inner end with said stem end to limit the extent of threading of said means into the stem.

In testimony whereof I have hereunto signed my name to this specification.

PAUL E. GLEASON.