Apr. 3, 1923. 1,450,604

F. MOSSBERG

RAZOR

Filed Feb. 20, 1919

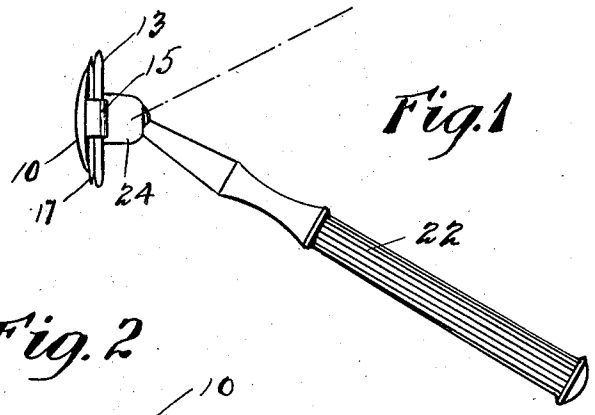


Fig. 1

Fig. 2

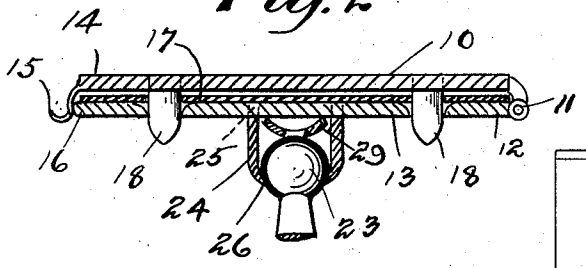


Fig. 3

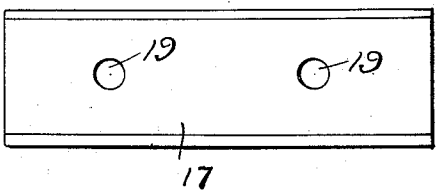


Fig. 4

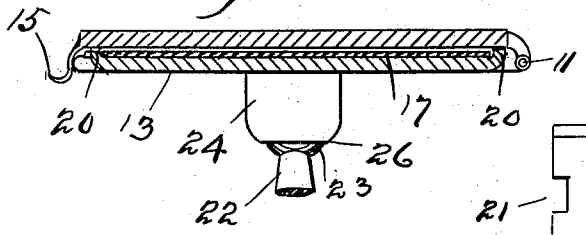


Fig. 5

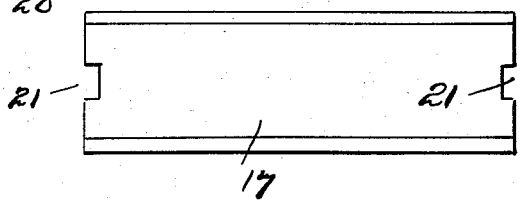


Fig. 6

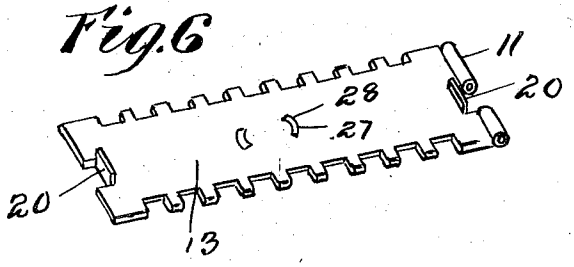


Fig. 7

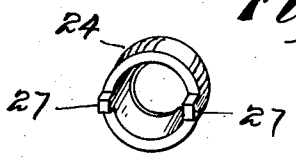
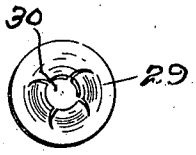


Fig. 8



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UNITED STATES PATENT OFFICE.

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RAZOR.

Application filed February 20, 1919. Serial No. 278,147.

To all whom it may concern:

Be it known that I, FRANK MOSSBERG, a citizen of the United States, and resident of Attleboro, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Razors, of which the following is a specification.

This invention relates to an improvement in the construction of safety razors, and has for its object to provide means whereby a handle may be connected to the back of the razor in such a manner as to permit of ready adjustment relative to the face of the blade to enhance the convenience of handling the razor in shaving.

With these and other objects in view, the invention consists of certain novel features of construction as will be more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings:

Figure 1 is a side elevation illustrating the handle as set on an angle to the face of the razor blade.

Figure 2 is an enlarged longitudinal sectional view illustrating one means by which the razor blade is secured between the front and back plates; also showing the ball and socket joint by which the handle is connected to the back plate of the razor.

Figure 3 is a face view showing the double edge razor blade with holes through its face for receiving the positioning pins illustrated in Figure 2.

Figure 4 is a section similar to that shown in Figure 2 but showing inturned lips for positioning the razor blade instead of pins.

Figure 5 is a face view of the razor blade having notches on its ends for receiving the inturned-positioning lips formed on the back plate.

Figure 6 is a perspective view of the back guard-plate on the razor, showing the positioning lips formed in the ends thereof.

Figure 7 is a perspective view showing the socket member of the joint detached.

Figure 8 is a perspective view showing the spring plate by which the ball is held under a frictional tension in the socket member.

Referring to the drawings, 10 designates the front or suporting plate of the razor, which is preferably hinged at 11 to one end 12 of the rear or guard-plate 13 thereof. The opposite end 14 of the front plate being provided with a snap or spring latch 15 adapted to catch with a spring tension over the end 16 of the rear plate thereby releasably securing the front and back plates together.

Mounted between these two plates is the cutter blade 17 which may be supported between these plates by any suitable means. In Figure 2 I have shown a pair of positioning pins 18 which pass through corresponding holes 19 in the blade 17, see Figure 3. In other cases instead of using the positioning pins 18 I form a pair of inwardly-turned-positioning lips 20 on the back plate, and also form corresponding notches 21 in the ends of the cutter blade as shown in Figure 5, to receive these lips but I do not wish to be restricted to any particular means for connecting the back and front plates together, or any particular means for securing the cutter blade between said plates.

An essential feature of this invention is the provision of means whereby the handle 22 may be adjustably connected to the razor so that it may be set at an acute angle to the face of the blade to better accommodate itself to the hand of the user and render more effective the shaving action of the razor.

One means of accomplishing this result in a simple and practical way, is to provide a ball and socket joint, in the construction of which I form a ball 23 on the end of the handle 24, the outer edge 26 of this tube being rolled inwardly slightly forming a shoulder for the ball and preventing it from being withdrawn from this end of the socket.

One way of securing this tubular socket to the back plate 13 is by providing a pair of riveting lugs 27 on the lower edge of the tube, which are adapted to enter and be riveted into corresponding openings 28 in the back plate 13, but I do not wish to be restricted to this means of securing the socket member to the back plate as this may be done by soldering, or other suitable securing means may be employed.

In order to provide simple and practical means for frictionally holding the ball of this handle in its different adjusted positions, I have formed a cup-shaped tension disk 29 having a central opening 30 in which the bottom of the ball is adapted to set, the inner edge of this disk rests against the back of the back plate whereby the set of this spring disk exerts a suitable frictional ten-

sion upon the ball to retain the handle in any adjusted position.

By the use of my improved adjustable razor handle the same may be set at an acute angle to the face of the blade or any other convenient angle, for operating one edge of the razor and then swung about to be set at an angle on the opposite side of the center to facilitate the use of the other cutting edge of the razor, the hinged or ball and socket joint permitting the handle to be swung to any desired or convenient position to suit the varying requirements of the different users.

By setting the handle on a downward encline the operator draws or pulls the razor in the direction of its cutting stroke, instead of pushing the razor which is the case where the handle is set at right angles to the face of the blade.

It has been demonstrated in practice that by setting the handle both downwardly and also forwardly relative to the stroke of the razor that a shearing cut is obtained which is as is well known the most effective cut that can be made.

It will also be noted that by the use of my improved hinged or pivotally connected handle that the desired angle is obtained while using either edge of a double edged blade.

I have shown and described a ball and socket joint but I do not wish to be restricted to this particular means of connecting the handle to the razor, as any means by which the handle may be set at an angle to the face of the blade, will fall within the spirit of this invention, the scope of which is limited only by the terms of the appended claim.

I claim:

A safety razor comprising a front plate, a back plate, a cutter blade removably clamped between said plates, a tubular socket member having an inturned outer edge and lugs on its inner edge adapted to enter and be riveted into corresponding openings in said back plate, a handle having a ball end adjustably held in said socket, and a spring washer in said socket engaging on said ball to frictionally retain the handle in any relative adjusted position.

In testimony whereof I affix my signature.

FRANK MOSSBERG.