H. J. GAISMAN.

SAFETY RAZOR.

APPLICATION FILED JAN. 25, 1906.

1,121,914. Patented Dec. 22, 1914.

Fig. 1

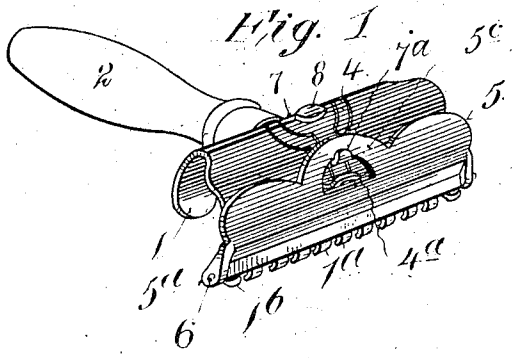


Fig. 2

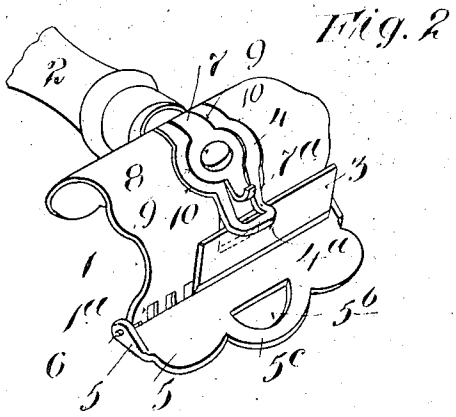


Fig. 3

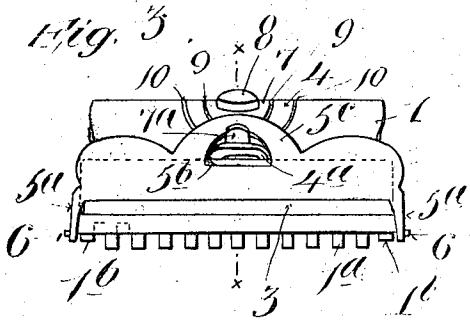


Fig. 4

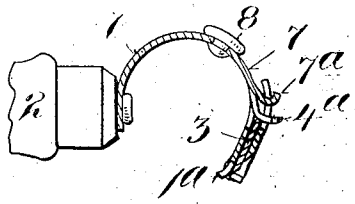


Fig. 5

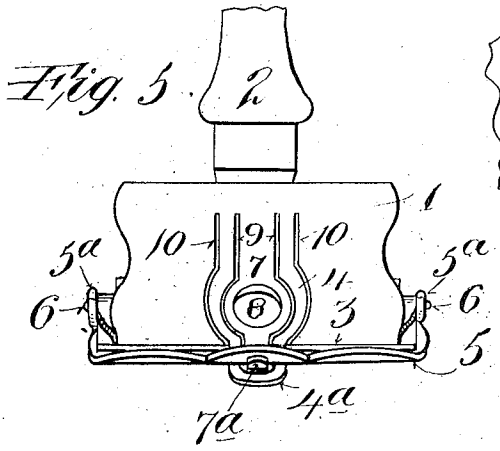


Fig. 6

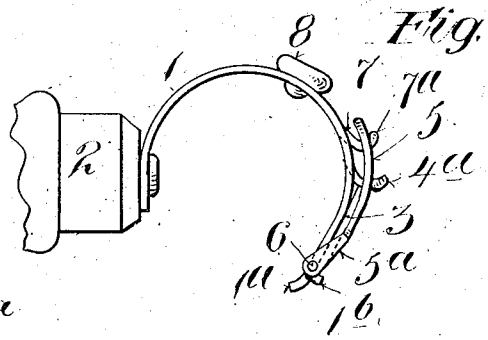
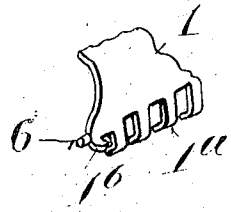


Fig. 7



Witnesses

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SAFETY-RAZOR.

1,121,914. Specification of Letters Patent. Patented Dec. 22, 1914.

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To all whom it may concern:

Be it known that I, HENRY J. GAISMAN, a citizen of the United States, residing in New York city, borough of Manhattan, New York, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

The object of this invention is to provide a simple, cheap and efficient razor whereby the blade can be readily removed and replaced to enable it to be sharpened and to permit ready cleaning of the device.

The invention comprises a frame provided with a guard, a blade, a movable member to swing over the blade, and means to hold the movable member over the blade and for releasing said member.

The invention also comprises the novel details of improvement that will be more fully hereinafter set forth and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming part hereof, wherein, Figure 1 is a perspective view of a safety razor embodying my improvements; Fig. 2 is a detail view thereof, showing the parts in position for removing the blade; Fig. 3 is a front view of Fig. 1; Fig. 4 is a section on the line x x in Fig. 3; Fig. 5 is a plan view of Fig. 1; Fig. 6 is an edge view of the razor, and Fig. 7 is a detail of part of the guard portion of the frame.

In the drawings, in which similar numerals indicate like parts in the several views, the numeral 1 indicates a frame which may be of any suitable construction, but which is shown in the form of curved sheet metal, and at 2 is a handle which may be suitably connected with said frame. At the forward edge opposite handle 2 the frame 1 is provided with a guard 1^a, shown in the form of teeth which may be formed integral with the frame, and at opposite sides of the guard the frame 1 is provided with lugs or rests 1^b against which the corners of the cutting edge of blade 3 may rest when the blade is placed along the front of the frame with the cutting edge adjacent the guard, (see Fig. 2). The frame 1 carries a spring 4 which bears against the back part of blade 3 to hold the latter in cutting position (see Fig. 2). For convenience in manufacture the spring 4 may be stamped out of the material of frame 1, and may substantially follow the shape of said frame for symmetrical finish and appearance, and at its forward portion spring 4 is shown bent outwardly at 4^a to ride over the back edge of blade 3, and to permit convenient lifting of said spring by the finger.

At 5 is indicated a movable member or blade retainer which is pivotally supported upon frame 1 so as to lie in front of or over the blade during use and thereby protect the blade and prevent displacement of the same. The movable member is shown provided at its ends or lower corners with lugs or hinge-pieces 5^a that have apertures which receive pivots 6 projecting from frame 1 at the sides of the guard, which lugs also prevent the blade from sliding lengthwise from the frame. By this means the member 5 may be swung up in front of blade 3 to confine the latter upon the frame, and may be swung down, as in Fig. 2, to permit removal and adjustment of the blade and to permit cleaning. To hold the member 5 in operative position against the blade, I provide a spring 7 that is carried by frame 1 and adapted to engage member 5. Spring 7 may be stamped out of the metal of frame 1, and at its free end said spring has a catch or hook 7^a adapted to engage member 5, as by entering an opening 5^b therein to engage part of the metal at said opening. As shown, the hook or catch 7^a projects upwardly to engage the bar 5^c of member 5, and the latter may be released by depressing spring 7. For convenience in use, the spring 7 may have a knob or button 8 which may be struck from the metal or separately attached thereto. The opening 5^b in member 5 is shown sufficiently wide to permit the passage therethrough of part 4^a of spring 4 so that bar 5^c will pass over or above part 4^a to engage spring 7.

As a convenience in manufacturing the device the spring 7 may be stamped out of the metal of frame 1 from within spring 4, as by the cut at 9, and the spring 4 may be stamped out free, as by the outer cut 10; the part 7^a of spring 7 may be bent up or outwardly from within the inner opening of spring 4, and the part 4^a of spring 4 may be suitably bent to engage blade 3, the springs 4 and 7 thus operating independently of each other and yet being integral with the frame 1. With the arrangement shown spring 4 will be lifted outwardly to

permit the insertion or release of blade 3, while spring 7 will be pushed inwardly to permit its engagement with or disengagement from member 5.

In using my improvements the blade is applied by swinging member 5 outwardly, then placing the blade in front of the frame with the corners of the blade resting upon the lugs 1^b, and then member 5 is swung against the blade and engaged with the spring 7 and at the same time presses the blade into engagement with spring 4. The razor may then be used for shaving in the ordinary way. To release the blade, spring 7 is first displaced to release member 5 which is then swung down, and the blade is then moved out from spring 4, and thus the blade can be readily removed for cleaning or sharpening, and all parts of the device are thus free and open to be cleaned. By having the member 5 hinged near its edge that is adjacent the cutting edge of the blade the swinging of said member toward the blade causes the member to confine the blade firmly against the frame near the cutting edge of the blade. By placing the pivotal point below the lower edge of the member 5 the action of closing the member against the blade causes it to press firmly against and at a desired location on the blade.

Changes may be made in the arrangements shown and described without departing from the spirit of my invention.

Having now described my invention what I claim is:—

1. A safety razor comprising a frame provided with a guard, a blade, devices on the guard to engage the blade, a spring forming a part of the guard and having a portion engaging the back of the blade, a member for engaging the side of the blade, means for pivoting said member to the guard near the cutting edge of the blade, said member having an aperture therein, and an element projecting from and constituting a portion of the guard extending into the aperture and engaging said member to hold it in engagement with the blade.

2. A safety razor comprising a frame provided with a guard, a blade, lugs on the guard to engage the blade, a spring engaging the rear edge of the blade to hold the cutting edge of the blade in engagement with the lugs, a second spring having a lug, a blade engaging member pivotally connected on the frame adjacent the guard and having an aperture to receive the blade engaging spring and the lug of the second mentioned spring whereby the blade engaging spring, the blade engaging member and the spring for holding the blade retaining member are held in operative relation.

3. A safety razor comprising a frame having a guard, a spring integral with the frame to engage a blade to hold it adjacent the guard, a movable member independent of the guard hinged upon the frame on a line adjacent the line of the cutting edge of the blade to hold the blade between the movable member and the frame, and a spring integral with the frame to engage said member.

4. A safety razor comprising a frame having a guard, a movable member hinged to the frame to lie over a blade, a spring integral with the frame to engage the blade, and a spring cut from the material within the first named spring to engage said member.

5. In a safety razor, a frame of curved formation, members carried by the said frame lying concentric with the curved frame, a guard constituting a part of the frame, means on the guard for engaging a blade, a blade having its back edge engaged by one of the said members whereby it is held on the blade support of the guard, and a blade engaging member pivotally connected to the guard and overlying the side of the blade, and means on one of the first mentioned members for holding the last mentioned blade engaging member in operative position.

6. In a safety razor, a frame of curved formation having a guard, lugs on the guard for supporting a blade, spring members integral with the frame and extending approximately concentric therewith, one of said spring members being in engagement with the blade, a pivoted blade engaging member associated with the frame, and means whereby one of the said springs retains the blade engaging member in operative relation to the blade and frame.

7. In a safety razor, a frame of curved formation, springs struck therefrom and extending approximately concentric with the curve of the frame, one of said springs having a lug thereon, a blade engaged by one of the springs, a blade engaging member pivoted to the frame and having an aperture to receive the blade engaging spring, a lug on the other spring for securing the blade engaging member in operative position.

8. In a safety razor, a frame of curved formation, a guard thereon, lugs on the guard, a blade having its cutting edge resting on the lugs, springs struck from the frame and lying approximately concentric with said frame, one of said springs engaging the back of the razor blade and holding it against the lugs, and a blade engaging member for pressing against the side of the blade, and means on the other spring for retaining said blade engaging member in operative position.

9. In a safety razor, a frame of curved formation, a guard thereon, lugs on the guard, a blade having its cutting edge resting on the lugs, springs struck from the

frame and lying approximately concentric with said frame, one of said springs engaging the back of the razor blade and holding it against the lugs, a blade engaging member, means for pivotally connecting the blade engaging member to the frame near the cutting edge of the blade, and means on the other spring for retaining the said blade engaging member in operative position.

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