March 10, 1931. H. J. GAISMAN 1,796,261

SAFETY RAZOR

Filed Sept. 19, 1928

Fig. 1

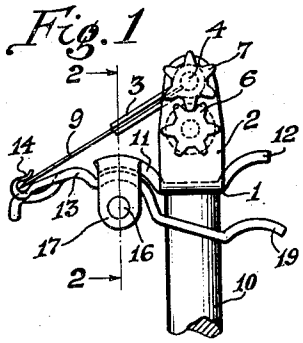


Fig. 2

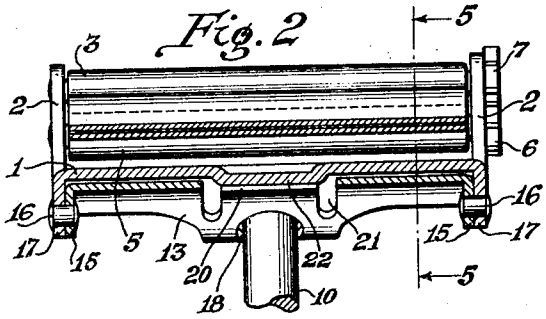


Fig. 6

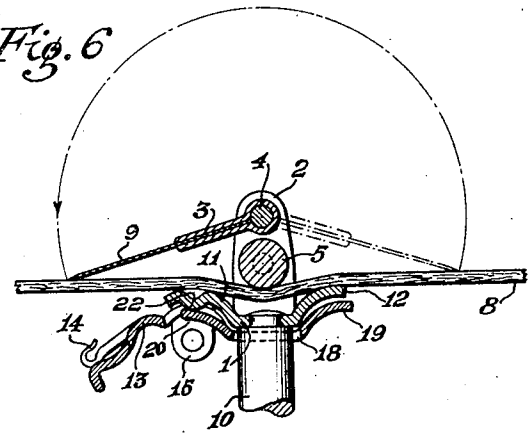


Fig. 3

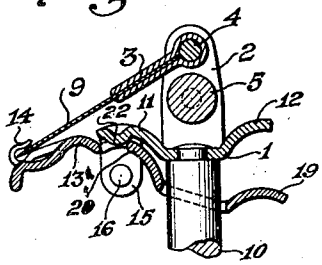


Fig. 4

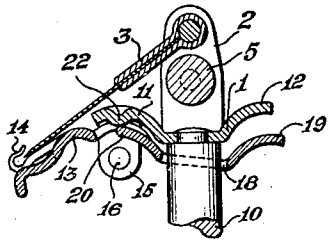


Fig. 7

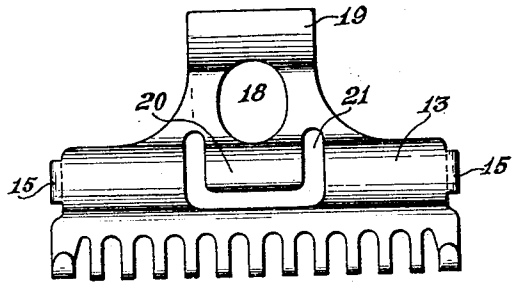
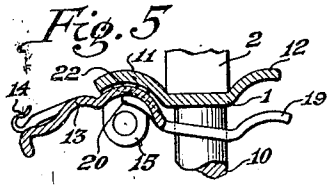


Fig. 5



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Patented Mar. 10, 1931

1,796,261

UNITED STATES PATENT OFFICE

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SAFETY RAZOR

Application filed September 19, 1928. Serial No. 306,926.

The object of my invention is to provide a safety razor in which a pivotal guard having stops to engage a blade edge will be retained by spring pressure in shaving position with the stops engaging the blade, and in which the guard will be held positively out of shaving relation to the guard when the latter is released from the blade, as for stropping the blade edge.

In carrying out my invention I provide a frame having a pivotally supported blade holder and also having a pivotally supported guard provided with stops to engage a blade that is carried by the holder, the said frame being provided with an abutment and the guard being provided with a complemental spring-like projection to engage the abutment to retain the guard stops in co-operation with the blade edge in a resilient manner for shaving, said projection being adapted to engage the abutment to positively retain the guard away from the blade when the guard is out of shaving relation to the blade.

My invention also comprises 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 a part hereof, wherein Fig. 1 is a side view of a safety razor embodying my invention; Fig. 2 is a section on line 2, 2 in Fig. 1; Figs. 3, 4, 5 and 6 are sectional views showing the parts in different positions, Fig. 5 being a section on line 5, 5 in Fig. 2, and Fig. 7 is a plan view of the guard.

Similar numerals of reference indicate corresponding parts in the several views.

The numeral 1 indicates a main frame of the razor shown provided with spaced uprights 2 in which a blade-holder 3 (of any desired or well known construction) is carried by a shaft 4 journaled in said uprights, all in a well known way. A roller 5 is also shown journaled in said uprights and provided with a gear 6 in mesh with a gear 7 carried by said shaft 4 for rocking the blade holder when reciprocated along a strop 8 to sharpen the edge of blade 9. The frame 1 is shown provided with a handle 10, and with spaced strop-tensioning members 11 and 12. A guard 13 is provided with stops 14 (shown in hook-like form) for retaining the blade by engagement therewith at its edge portion. The guard is pivotally supported on frame 1, at one side of the handle, being shown provided with laterally extending ears or lugs 15 pivotally attached by rivets 16 to laterally extending ears or lugs 17 carried by frame 1, the ears 17 being shown extending from the strop-tensioning member 11. The guard member is shown provided with an opening 18 freely receiving the handle 10, whereby the guard may be manipulated by engagement of a finger with the extending portion of the guard member at 19, on the side of the handle opposite the stops 14.

The guard member 13 is shown provided with a spring-like projection or finger 20, which may be formed by cutting away the metal of the guard member at 21, (Fig. 7). The projection 20 is adapted to engage an abutment 22 on frame 1 for retaining the guard member in different positions. The abutment 22 is shown on the strop-tensioning member 11, and said projection may be formed by pressing out or embossing the metal of member 1, said abutment being shown provided with a curved outer surface to be engaged by the projection 20. Said projection engages the abutment 22 in a spring-like manner.

When the guard and the blade are in co-operative relation for shaving the projection 20 will engage the abutment 22 with spring action, at a point behind the centre of the abutment, and the abutment will enter the cutaway portion or opening 21 at the free end of the projection to permit the engagement of the abutment and the projection as shown in Fig. 3, and thereby the projection will retain the blade edge in engagement with the stops or hooks 14 to retain the guard resiliently pressed with respect to the blade edge. When the guard member is tilted or turned on its pivot 16 from the position shown in Fig. 3 to the position shown in Figs. 4 and 5 the projection 20 will flex and slide along the abutment 22, so that when the guard is moved sufficiently to assume the position shown in

Fig. 6 the projection 20 will lie against the abutment 22, as at a point without its course and thereby the guard will be positively retained away from the blade retaining position, and in a position for stropping the blade edge, as indicated in Fig. 6. The said positive retaining of the guard out of blade retaining position assures that the guard will not engage the strop when the razor is reciprocated along the latter for stropping, since during such reciprocations along the strop the engagement of roller 5 therewith causes the blade holder and blade to be rocked for alternate engagement of opposite sides of the blade edge with the strop for sharpening the blade edge, in a well known way. When the guard is to be returned to retain the blade the guard will be tilted or turned from the position shown in Fig. 6 to the position shown in Fig. 3, during which action the projection 20 will travel along the curved surface of the abutment 22 to engage behind the latter to retain the stops 14 in engagement with the blade edge for shaving, as in Fig. 3.

An advantage of my improvement is that the stops or hooks 14 will be held in resilient engagement with the blade in the shaving position of the latter and the guard, and the guard will be positively held out of relation to the blade when moved therefrom, and the guard will not spontaneously return to blade retaining position during stropping of the blade or otherwise.

I have illustrated my improvement in connection with a well known form of auto strop safety razor, but my invention is not limited to the details of construction set forth, since the same may be varied, within the scope of the appended claims, without departing from the spirit of my invention.

Having now described my invention what I claim is:

1. A safety razor comprising a frame, a blade holder carried thereby, a guard member pivotally carried by the frame at one side thereof, a laterally extending abutment carried by the frame and extending toward the guard member, and a spring-acting projection carried by the guard member at one side of the frame, the guard member having an opening to receive the abutment, whereby the projection will engage behind the abutment with the latter in said opening when the guard is in blade retaining position and the projection will bear against the abutment when the guard is out of blade retaining position to hold the guard in the last named position.

2. A safety razor as set forth in claim 1 in which the abutment has a curved surface to be engaged by the projection to permit the latter to slide freely along said abutment.

3. A safety razor comprising a frame provided with strop tensioning members, one of said members having a laterally extending abutment, a blade holder carried at one side of the frame by the frame, a guard pivotally carried by the frame and provided with a projection at one side of the frame to engage the abutment, said projection being of spring-like character adapted to engage the abutment to retain the guard resiliently pressed toward shaving position and to retain the guard out of shaving position.

4. A safety razor as set forth in claim 3 in which the abutment has a curved outer surface to be engaged slidably by the projection.

5. A safety razor as set forth in claim 3 in which the abutment is pressed out of the metal of the strop-tensioning member.

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