

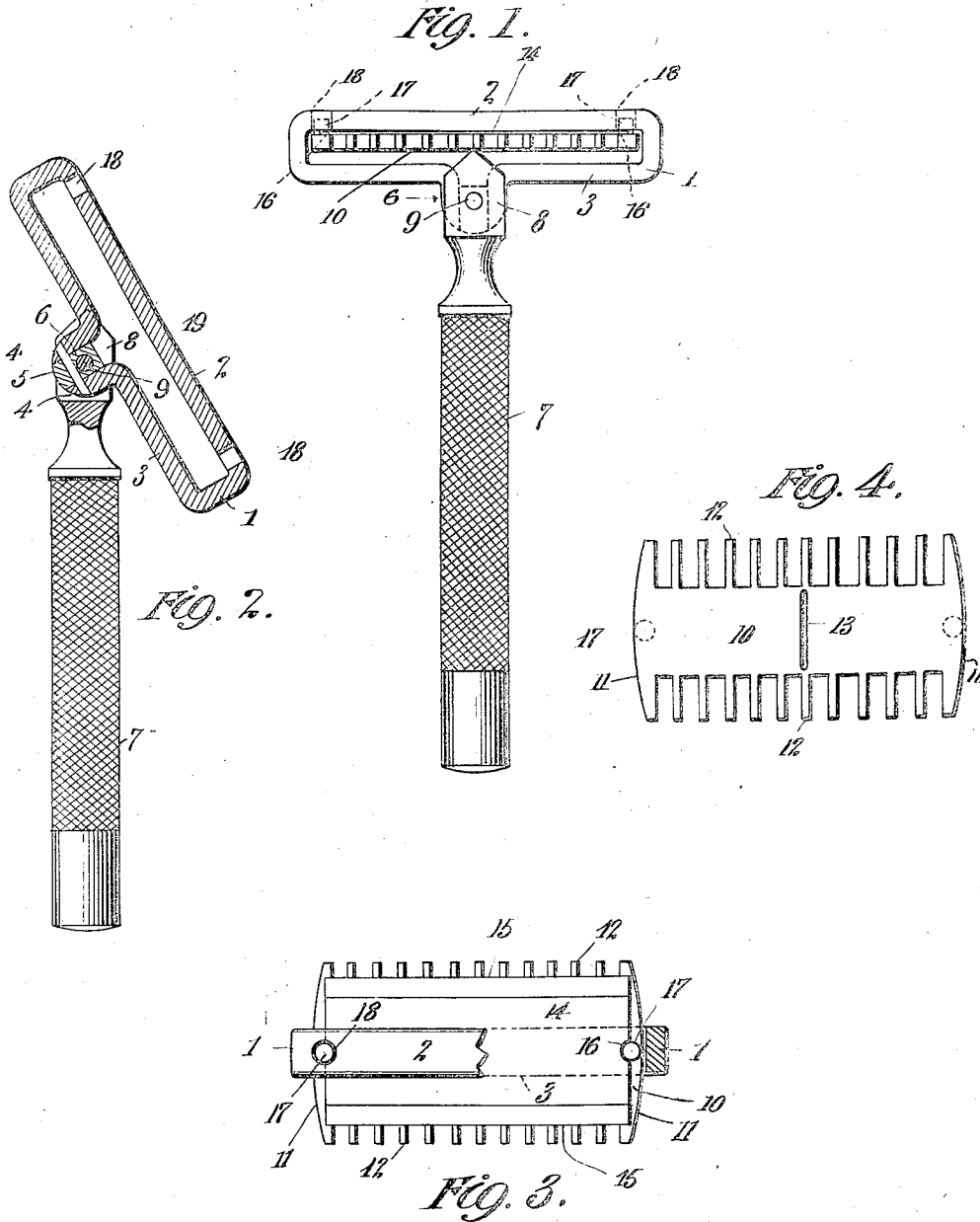
J. H. WOODS.

SAFETY RAZOR.

APPLICATION FILED MAR. 13, 1909.

947,010.

Patented Jan. 18, 1910.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SAFETY-RAZOR.

947,010.

Specification of Letters Patent. Patented Jan. 18, 1910.

Application filed March 13, 1909. Serial No. 483,256.

To all whom it may concern:

Be it known that I, JOHN H. WOODS, a citizen of the United States, residing at the city of New York, in the borough of Queens and State of New York, have invented certain new and useful Improvements in Safety-Razors, of which the following is a full, clear, and exact description.

My invention relates to safety razors.

The principal object is to provide a simple and quick clamping means for engaging the guard on the razor blade, whereby the latter is held against its support with its cutting edges properly exposed adjacent to the sides of the guard.

In a safety razor, the most important requisites are first, proper positioning and clamping of the razor blade in use, and second, easy removal and replacement of the blade. These features are attained in the present invention by the use of a frame having a removable guard and a handle which swings laterally to bind and release the guard in its engagement within the frame.

As will later appear the construction of the parts is very simple, but the action is positive and the adjustment of the blade in its frame is easy and accurate.

In the drawings: Figure 1 is a front view of a safety razor embodying the principles of my invention; Fig. 2 is a similar view partly in section showing the guard removed; Fig. 3 is a top view partly broken away, and Fig. 4 is an underside view of the guard.

Referring to the drawings in which like parts are designated by the same reference sign, 1 denotes a frame in the form of a rectangular loop, one side 2 of which constitutes a support for the razor blade. The other side 3 of the loop has a pivot by which the handle is attached. The loop or frame 1 may be constructed in any desired manner, but I prefer to simply bend a strip or bar of metal into the elongated rectangular form shown, with the two extremities 4 deflected laterally so as to lie alongside one another slightly spaced apart. Between these extremities or ears 4 there is soldered, riveted or otherwise fastened a block 5 which together with the ears 4 establishes a solid enlargement or journal 6 for the pivot bearing.

7 denotes a handle of the usual knurled form, with bifurcations or arms 8 at its up-

per end which embrace the enlargement 6 of the frame 1.

9 denotes a pin passed through the arms 8 and through the enlargement 6, and through which the handle is pivoted to the frame 1. The upper ends of the arms or bifurcations 8 are pointed or V-shaped and are adapted to move into contact with the guard 10 to impel the latter toward the support 2 by a cam action. It is obvious that the arms 8 may be rounded instead of V-shaped if desired. The guard 10 may be simply made of stamped sheet metal with rounded ends 11 and serrated or toothed edges 12.

13 denotes a notch on the underside of the guard in which the V-shaped upper ends of the arms 8 may be received.

14 denotes a razor blade with sharpened edges 15 and holes or notches 16 at its ends. These holes or notches 16 cooperate with corresponding teats or protuberances 17 on the upper surface of the guard.

18 denotes holes in the support 2 into which the teats 17 of the guard enter when the latter is in its clamped position as shown in Fig. 1.

The use and operation will be obvious from the foregoing description.

The guard 10 is freely removable from the frame 1 and when removed is adapted to receive the razor blade over the teats 17 in a very convenient manner. The razor blade is accurately centered and positioned on the guard in this way. The guard with its associated blade is then slipped into the frame 1 and the handle is swung into its normal operating position, as shown in Fig. 1. In so doing the ends of the arms 8 engage the underside of the guard 10 and this action presses or crowds the guard and blade against the support 2, and when the handle is centered with its prongs in the notch 13, everything is clamped up and ready for use. In the foregoing action the resiliency of the frame 1 has an important effect. This is particularly true if the support 2 is very slightly bent inward toward its middle point 19. With this construction the blade and guard are engaged upon the member 2 of the supporting frame 1 somewhat before the handle has moved into its central position, so that the latter part of the swinging or clamping movement of the handle is effect-

ive to straighten or bend out the parts of the frame 1 and impose the tension thereof on the guard and blade to insure a firm clamping of the latter. The arms 3 may also exert the spring action.

What I claim is:—

1. A safety razor comprising a frame in the form of an elongated loop, a guard removable from said frame and having teats or protuberances on its upper face, a blade 10 receivable on said guard and having notches centered by said teats, and a pivoted handle for engaging said guard and clamping said blade in said frame.

2. A safety razor comprising a frame in the form of a rectangular loop, a guard removable from said frame and having teats or protuberances, a blade receivable on said guard and centered thereon by said protuberances, and a pivoted swinging handle having 20 extremities operating to slide diagonally against and crowd said guard and blade into clamped relation in said frame.

3. In a safety razor, a rectangular frame, 25 a handle pivoted thereon, a guard removable from said frame and clamped therein by said handle, a blade, and means for centering said blade on said guard, said handle

being pivoted to swing out of its clamping relation to the guard.

4. A safety razor comprising a resilient frame, a handle, a guard removable from said frame, and clamped therein by said handle, a blade, and means for centering said blade on said guard, said handle being 35 pivoted to swing out of its clamping relation to the guard.

5. In a safety razor, a frame comprising a bar bent into generally rectangular form with deflected extremities and a block secured therebetween to constitute an enlargement of said frame, a handle pivoted to said enlargement and having a portion extending 40 beyond the pivot point, a guard removable in said frame and located in proximity to the projecting portion of said handle, a blade, and means for centering said blade on the guard, said handle being adapted to engage said guard for moving the latter and clamping the blade in said frame.

In witness whereof, I subscribe my signature, in the presence of two witnesses.

JOHN H. WOODS.

Witnesses:

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