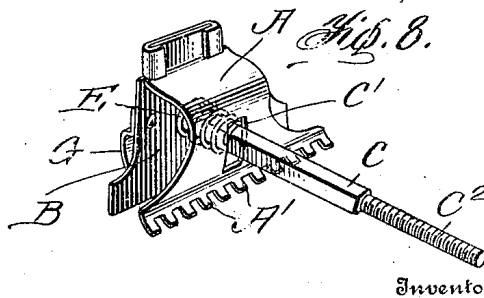
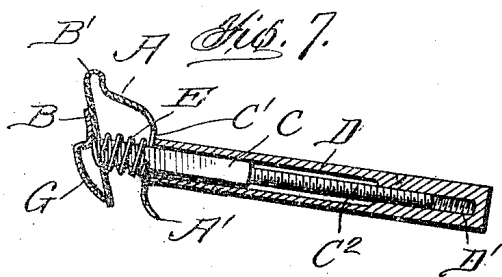
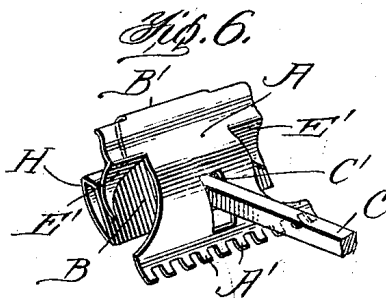
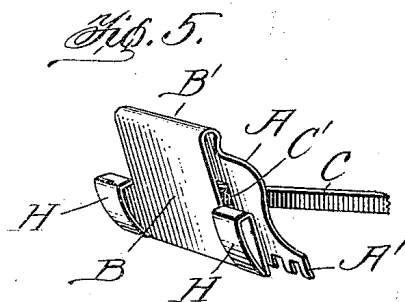
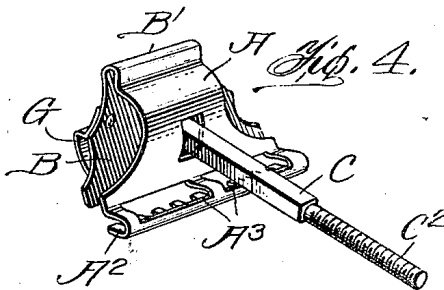
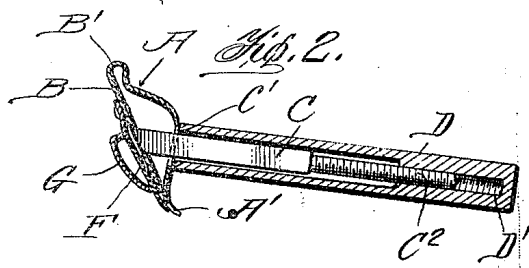
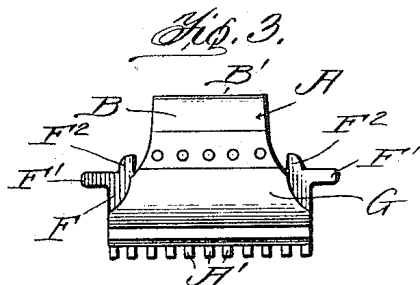
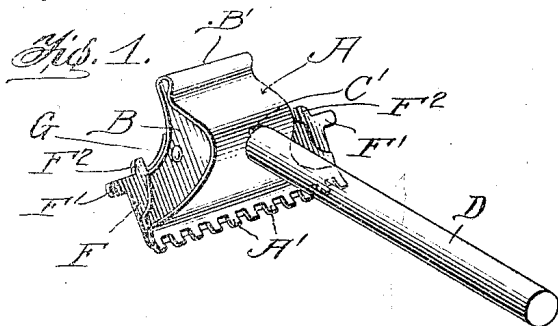


W. C. FINNEY.  
SAFETY RAZOR.  
APPLICATION FILED MAR. 20, 1908.

1,051,094.

Patented Jan. 21, 1913.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## SAFETY-RAZOR.

1,051,094.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed March 20, 1908. Serial No. 422,264.

To all whom it may concern:

Be it known that I, WILLIAM C. FINNEY, a citizen of the United States, residing in Washington, District of Columbia, have invented a new and useful Improvement in Safety-Razors, of which the following is a specification.

This invention covers a novel construction of safety razor, the object being to provide an exceedingly simple and inexpensive construction of safety razor, in which the guard is adjustable so that a close shave can be obtained when desired, and also the reverse.

The object of the invention is to provide a safety razor embodying these characteristics and in which the guard is adjustable with reference to the blade through the medium of the handle adjustment.

Another object of the invention is to provide a safety razor in which a thin flat blade can be employed and which can be quickly and easily inserted and when once in place will remain fixed and will not require any further adjustment, all adjustments being had upon the guard.

With these various objects in view, my invention consists in providing a novel construction of blade holder and also in arranging in connection with said blade holder a guard which is adjustable toward and away from the blade by means of a handle.

The invention consists also in the novel construction and arrangement of said guard and still further in the various details of construction and novelties of combination, hereinafter fully described and pointed out in the claims.

In the drawings forming a part of this specification:—Figure 1 is a perspective view of a safety razor constructed in accordance with my invention. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a rear face view. Fig. 4 is a detail perspective view showing a slightly modified form of guard, and Figs. 5, 6, 7, and 8 show modifications of various details.

In carrying out my invention, I preferably construct the guard A and the blade carrying plate B from a single piece of metal which is bent upon itself as shown at B'.

Spring metal is employed for these parts, and as before stated I preferably make them from a single piece, but it will be understood that the guard can be connected in any suitable manner. The free end of the guard is constructed with comb-like teeth A', and in the construction shown in Figs. 1 and 2, these teeth curve away from the edge of the blade whereas the teeth A<sup>2</sup> shown in Fig. 4, curve toward the edge of the blade, and it will also be noted by reference to Fig. 4, that the lower end of the guard is provided with elongated openings A<sup>3</sup>, in order to permit the comb end of the guard to be readily cleaned.

A post C is rigidly connected to the blade plate B and passes through an elongated opening C' produced in the guard-plate and at its free end is threaded as shown at C<sup>2</sup>, and fitting upon said post is the handle D, tubular in form and having a nut D' arranged therein for engagement with the threaded end C<sup>2</sup> of the post, and by means of which the handle can be screwed upon the post and held at any desired point of adjustment, and inasmuch as the opposite end of the tubular handle bears upon the guard, it will be readily understood that by turning the handle down, the guard can be made to approach the blade and by loosening up the guard by its elasticity will automatically spring away from the said blade. In case the guard is not integral with the blade carrier and has no inherent elasticity, a coiled spring E may be arranged between the plates and around the post. Furthermore, the guard-plate can be constructed with spring fingers E' which bear upon the blade plate and serve to force the guard and blade apart as soon as the handle is loosened up. The blade F is essentially rectangular in shape and rests upon the rear or underside of the blade-plate B and is securely held there by means of a spring-clamping plate or strip G secured upon the rear of the plate B, being fast along its upper edge and free at its lower edge, the blade being inserted between the said plate B and G, as most clearly shown and its cutting edge will project just beyond the lower edges of said plates.

In practice I prefer to have the blade constructed with the laterally projecting extensions  $F'$  at each end to facilitate the handling of the blade and also with upwardly projecting lugs  $F^2$  for the purpose of embracing the ends of the spring clamping plate  $G$  and thereby hold the said blade against lateral movement. When it is desired to remove the blade pressure is exerted by the thumb and forefinger upon the extensions  $F'$  and the blade can then be easily drawn out from between the plates  $B$  and  $G$ , and can be as easily inserted. After the blade has once been inserted, no further adjustments are necessary so far as the blade is concerned, and whenever it is desired to adjust the guard so as to move it toward or away from the edge of the blade, it is only necessary to turn the handle in the proper direction, and the desired adjustment can be immediately obtained.

In making the guard and blade holder, I of course take away as much metal as possible and if desired a portion of the metal which would otherwise be removed may be turned back as shown at  $H$  for the purpose of holding the blade, this construction doing away with the extra plate  $G$ , shown in Fig. 1.

In Fig. 8 I have shown the guard and blade plates of separate pieces united by folding the ends of the blade plate over the guard-plate and a coiled spring before referred to, will be employed for holding these plates normally under tension, and the post can be made much shorter if desired and the handle can be connected with, but turn upon, the guard-plate. Further modifications can also be had without departing from the broad principle of my invention.

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

1. A safety razor comprising a blade holder, and an adjustable resilient guard connected with the blade holder, a post carried by the blade holder and a handle adjustable upon said post and adapted to act upon the guard for the purpose specified.

2. A safety razor comprising a spring plate bent upon itself, a blade holder carried by one member of said plate, a guard formed on the other member, a post secured to the first mentioned member, and passing through the second, and means movable along said post for adjusting the second mentioned member with respect to the first.

3. A safety razor comprising a plate bent upon itself and providing a blade carrying member and a guard member, said guard member having an opening, a post connected to the blade member and projecting through the guard and a handle adjustable upon the post and adapted to bear upon the guard member, as set forth.

4. In a safety razor, in combination, a blade holder comprising a plate having a spring clip to clamp a blade on and about parallel with the outer face of the plate with its edge projecting below the plate edge, a guard plate below said holder, and having a guard for the blade edge, a shank projecting laterally from said holder, a handle projecting laterally from said guard plate and receiving said shank in longitudinal adjustment, and means for relatively and longitudinally adjusting the shank and handle to cause movement of the holder and guard plate in opposite directions to vary the lateral distance between the blade and guard.

5. A safety razor comprising an approximately U-shaped spring body comprising two members, one of said members constituting a blade carrying and positioning holder and the other a guard for the blade carried by said holder, said members tending to spring apart to separate the guard laterally from the blade edge, and a handle connected with and arranged approximately at right angles to said members and comprising means for varying the lateral position of the guard with respect to the blade.

6. A safety razor comprising, in combination, a pair of connected members arranged side by side and having adjacent free edges, said members being relatively movable to vary the lateral distance between said free edges, one member provided with means for securing and positioning a blade thereon with its edge projecting beyond the free edge of said member, the other member having a guard at its free edge adjacent the side face of said blade edge, and adjusting means for said members.

7. A safety razor comprising, in combination, a member having a blade edge guard, a blade positioning and carrying holder arranged beside and adapted to carry a blade with the edge of the blade projecting beyond the holder and having its under side face arranged adjacent said guard, said guard being resilient whereby said holder and member constantly tend to laterally separate said guard from the under side face of the blade, and means for moving said member and holder toward each other to decrease the lateral distance between said edge and the guard, substantially as described.

8. A safety razor, in combination, a plate having a guard for a blade edge, means for carrying and positioning a blade and adapted to hold a blade approximately parallel with said plate with the inner side face of the blade edge adjacent said guard, and means for varying the relative lateral position of the holder and plate to determine the lateral distance between said guard and the inner side of the blade edge comprising a handle extending approximately at right

angles from said plate and a spring member tending to separate the plate laterally from the holder.

5 9. A safety razor comprising a blade holder, a spring guard joined to said holder, and means carried by said holder for positively forcing said spring guard toward

said holder and maintaining the guard in its adjusted position relative to the holder.

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L. H. FINNEY.