(No Model.)

F., O. & R. KAMPFE.

SAFETY RAZOR.

No. 354,196. Patented Dec. 14, 1886.

Fig. 1.

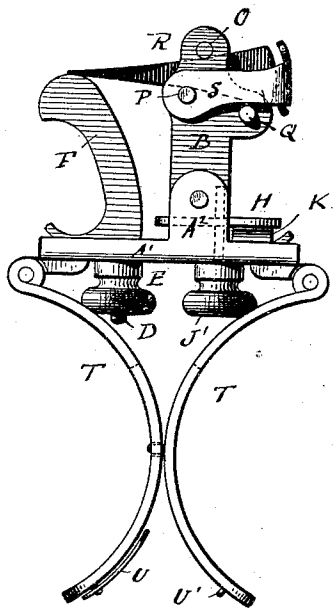


Fig. 2.

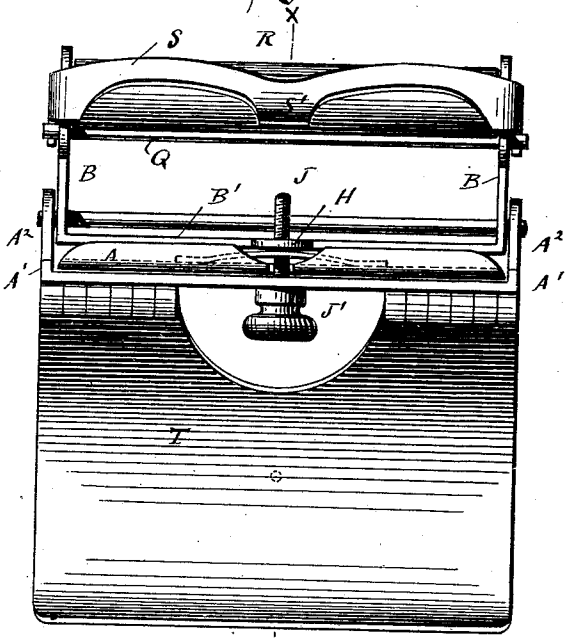


Fig. 3.

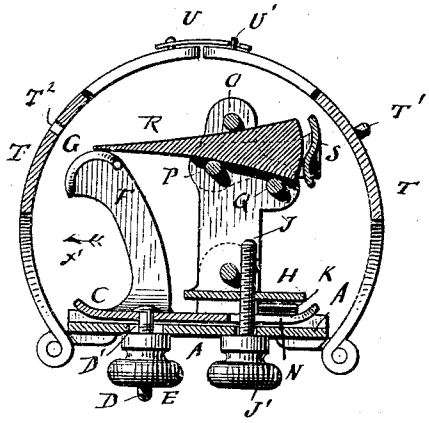


Fig. 4.

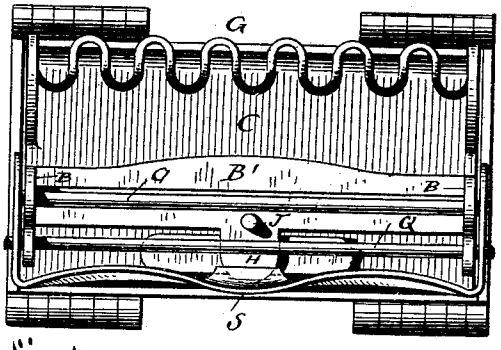


Fig. 5.



Fig. 6.



WITNESSES:

F. W. Rosenbaum.

Carl Kurp

INVENTORS

Frederick Kampfe, Otto Kampfe and Richard Kampfe

Goepel & Raegener

ATTORNEYS.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

FREDERICK KAMPFE, OTTO KAMPFE, AND RICHARD KAMPFE, OF BROOKLYN, NEW YORK.

SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 354,195, dated December 14, 1886.

Application filed October 19, 1886. Serial No. 216,673. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK KAMPFE, OTTO KAMPFE, and RICHARD KAMPFE, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to new and useful improvements in that class of razors known as "safety-razors."

The object of our invention is to provide a safety-razor in which the blade and guard can be easily and rapidly adjusted in relation to each other, and which razor has a handle which can be folded over the guard and holder for the purpose of forming a casing.

The invention consists in the combination, with the blade, of an adjustable guard-holder and two curved handle-sections pivoted to the opposite edges of the plate and adapted to be used as handles, or folded over the guard and blade-holder to form a casing, all as will be fully described hereinafter, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of our improved safety-razor, the same being shown open for use. Fig. 2 is a rear view of the same in the same position. Fig. 3 is a cross-sectional view on the line *x x*, Fig. 2, the razor being closed. Fig. 4 is a plan view of the same, the razor being open. Figs. 5 and 6 are longitudinal sections of the guard.

Similar letters of reference indicate corresponding parts.

The plate A has its ends turned up to form the flanges A′, which flanges are provided with upwardly-projecting extensions or lugs A^2, to which the U-shaped standard B is pivoted, the cross-piece of the standard being a short distance above the plate C, mounted to slide on the plate A transversely to the direction of the length of said plate A, a screw, D, projecting from the plate C through a transverse slot, D′, in the plate A, and on said screw D a nut, preferably having a milled head, is screwed, the said nut resting against the bottom surface of the said plate A. The plate C is provided with upwardly-projecting arms F, on the upper ends of which the guard G is held, which extends in the direction of the length of the plate A, and is above the front edge of the same. The guard G is formed of a serpentine wire, as shown in Fig. 4; or the wire may be bent to form a series of triangles, as shown in Fig. 5, or rectangular figures or meander, as shown in Fig. 6.

The cross-piece B′ of the U-shaped standard B is provided with a lug or wing, H, projecting toward the rear, and through said wing a screw, J, is screwed, which is provided with a head, J′, below the bottom of the plate A, a spring, K, being interposed between the upper surface of the plate C and the under side of the lug H, which spring exerts an upward pressure on the said lug. The plate C is provided with a slot, N, Figs. 2 and 3, through which the screw J passes.

In the upwardly-projecting shanks of the U-shaped standard B three rods, O, P, and Q, are fastened and extend in the direction of the length of the plates A C, and serve to hold the blade R, the cutting-edge of which rests on the guard G, as shown in Figs. 1, 2, and 3.

A U-shaped spring-latch, S, is pivoted to the shanks of the U-shaped standard B, and is provided with a lug, S′, which, when the lug is swung down, rests against the rear edge of the blade and holds the same in place. The ends of the rod Q project beyond the outsides of the standard B and form rests to support the latch S, and to prevent the same from being swung down too far.

To each longitudinal edge of the plate A a plate, T, is hinged, which has approximately the shape of a half-circle. One of said plates T has a pin, T′, on the outer convex surface, and the other has an aperture, T^2, for receiving said pin. A latch, U, is pivoted to one plate T, and a pin, U′, is provided on the other; or any other suitable catch may be provided for keeping the sections closed.

The operation is as follows: When the razor is not in use, the two curved plates T are swung over the guard and blade holders, as shown in Fig. 3, and locked by means of the latch U. When the razor is to be used, the latch U is opened and the two curved plates T swung down into the position shown in Fig. 1, the pin T′ passing into the aperture T^2, and thus holding them together, whereby the two plates serve as a handle for receiving the thumb and first finger. When the edge of the blade pro-

jects too far over the guard, the nut E is loosened and then moved in the direction of the arrow X′, Fig. 3, whereby the plate C and the guard G are moved in the direction of the arrow X′, Fig. 3, and the guard is moved from back toward the edge of the blade. When the edge of the blade does not project sufficiently over the guard, the nut is loosened as before, and the plate C and guard G moved in the inverse direction of the arrow X′. In case the edge of the blade rests too closely upon the guard G the screw J is turned in such a manner as to press the lug H downward, the U-shaped standard B swinging on its pivots, whereby the cutting-edge of the blade is raised from the guard and the spring K compressed. When the edge of the blade is not close enough to the guard, the screw J is loosened, so as to permit the spring K in expanding to press the lug H upward, thereby pressing the edge of the blade down upon the guard. When the blade is to be removed, the latch S is swung up, so as to release the blade.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a safety-razor, the combination, with a plate on which the razor and guard-holder are held, of a cover formed of two curved sections hinged to the edges of the plate, which curved sections also serve as a handle when swung down, substantially as shown and described.

2. In a safety-razor, the combination, with a plate and guard-holders on the same, of two curved plates hinged to the said edges of said plate, one of the curved plates being provided with a pin and the other with an aperture, substantially as shown and described.

3. In a safety-razor, the combination, with a plate, of a blade-holder pivoted on the same, a sliding plate below the pivoted blade-holder, and a guard on said sliding plate, substantially as shown and described.

4. In a safety-razor, the combination, with a plate, of a blade-holder pivoted on the same, a spring acting on the blade-holder, and a screw screwed into the blade-holder, substantially as shown and described.

5. In a safety-razor, the combination, with a plate, of a blade-holder pivoted on the same, a sliding plate below the blade-holder, a guard on the sliding plate, a screw passing through the sliding plate and through the plate on which said plate slides, and a nut on said screw, substantially as shown and described.

6. In a safety-razor, the combination, with a plate, of a blade-holder pivoted on the same, a pivoted latch on the blade-holder, a rod in the blade-holder, the ends of which rod project beyond the sides of the blade-holder and form a support for the latch, substantially as shown and described.

7. A safety-razor provided with a guard composed of wire bent alternately in opposite directions, substantially as shown and described.

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

FREDERICK KAMPFE.
OTTO KAMPFE.
RICHARD KAMPFE.

Witnesses:
OSCAR F. GUNZ,
CARL KARP.