

No. 671,996.

Patented Apr. 16, 1901.

E. J. FUCHS.  
SAFETY RAZOR.

(Application filed Jan. 10, 1901.)

(No Model.)

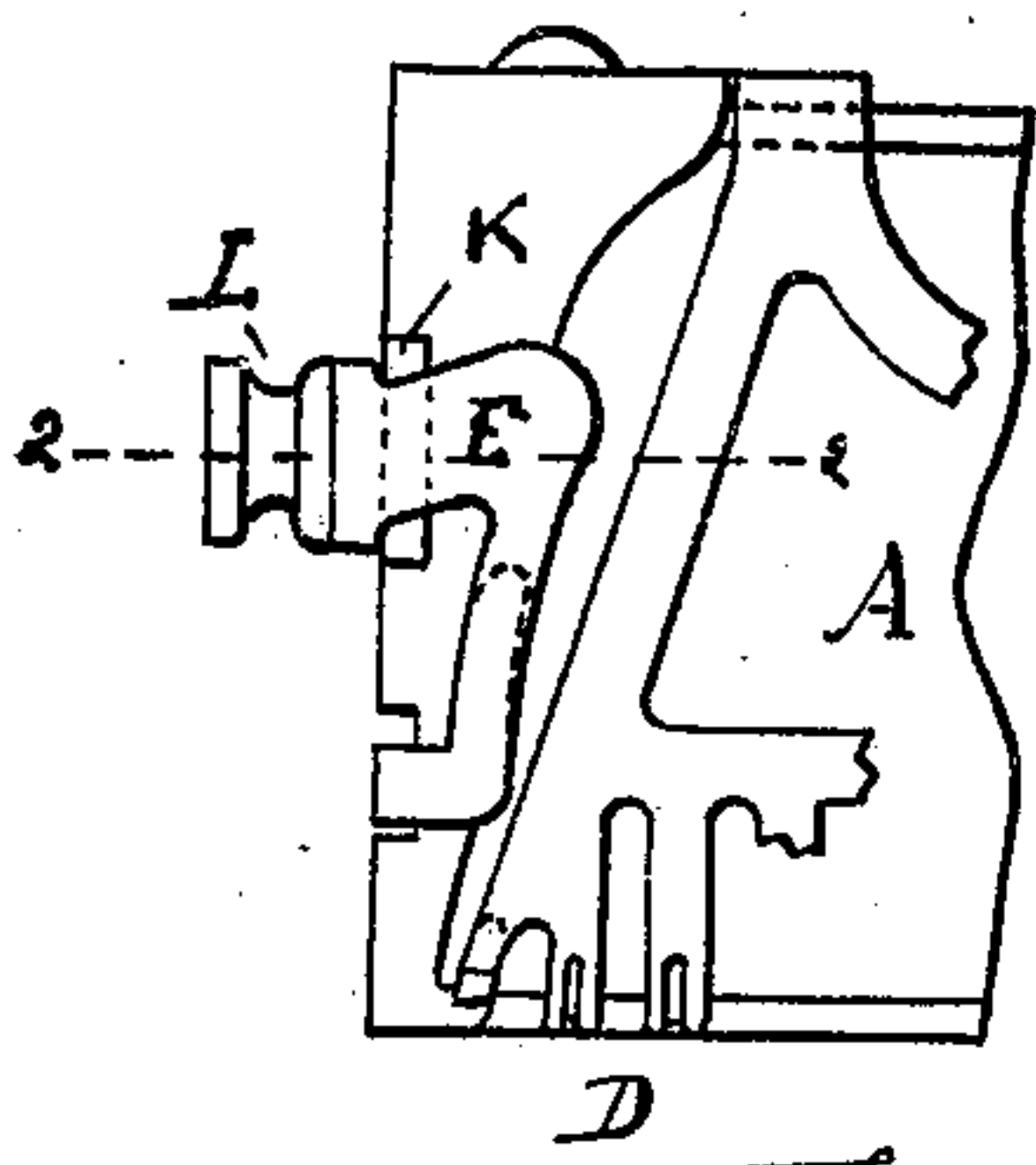


Fig. 1.

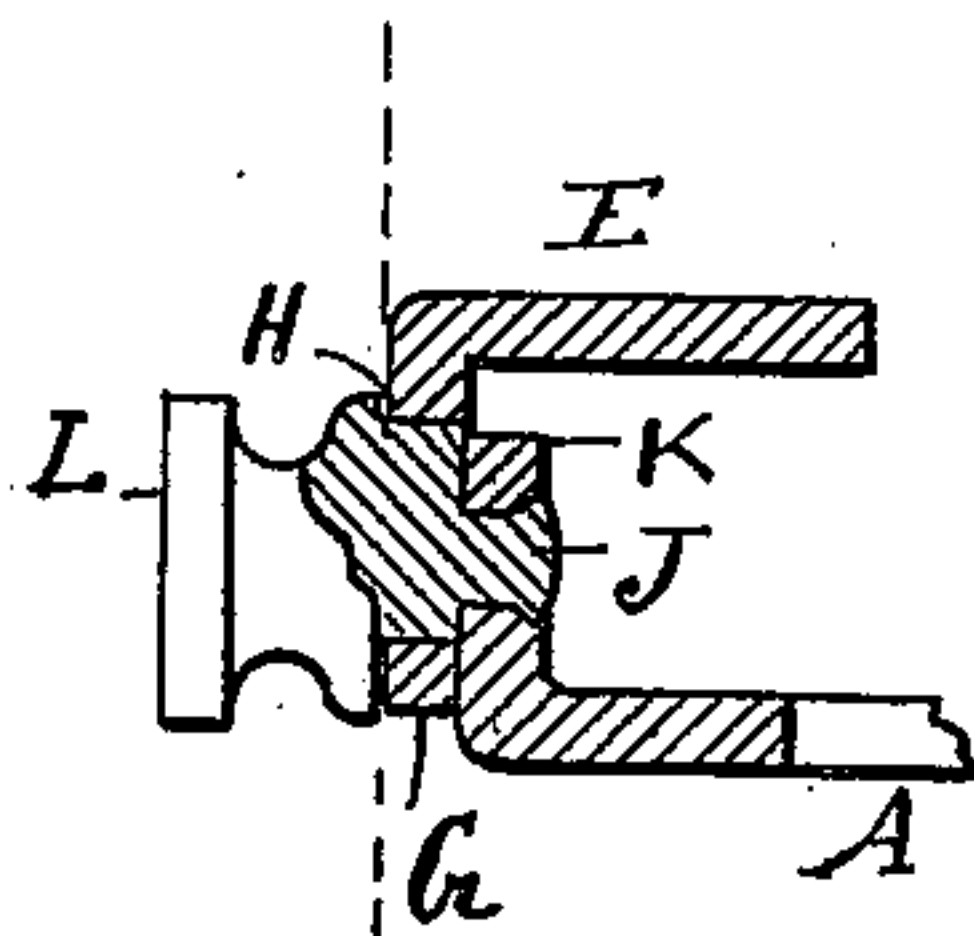


Fig. 2.

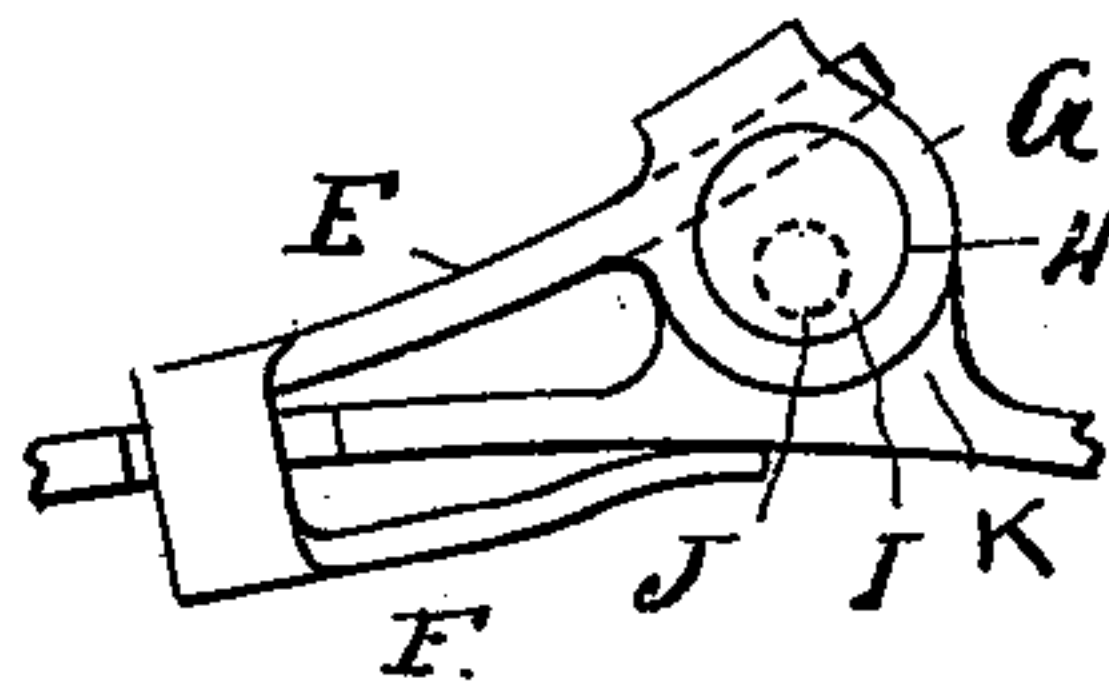


Fig. 3.

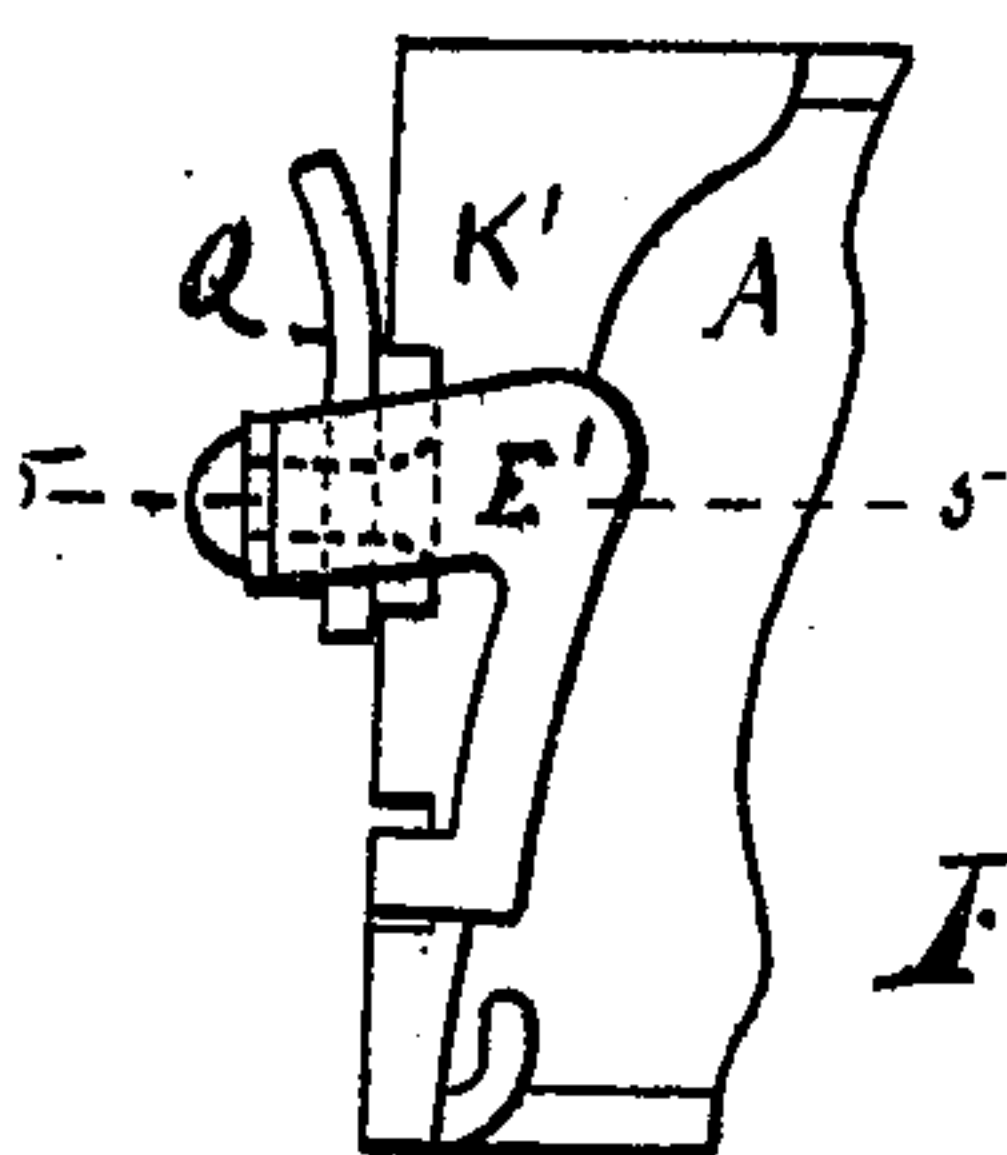


Fig. 4.

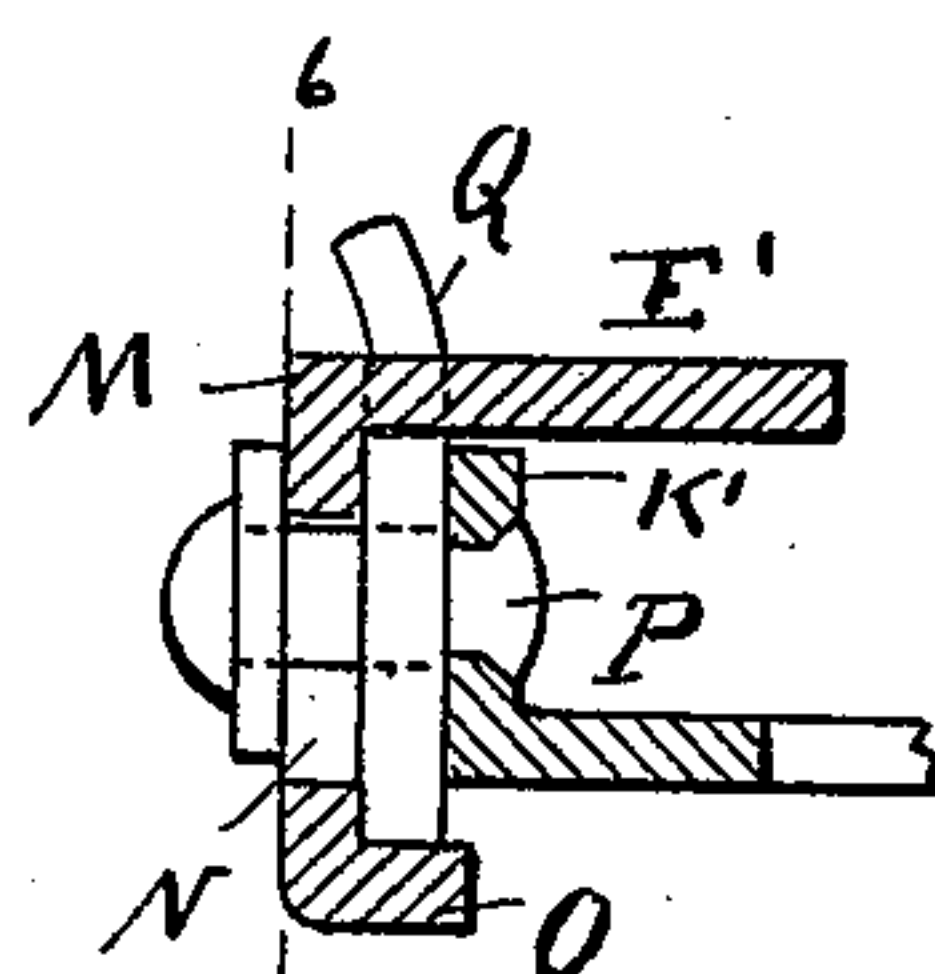


Fig. 5.

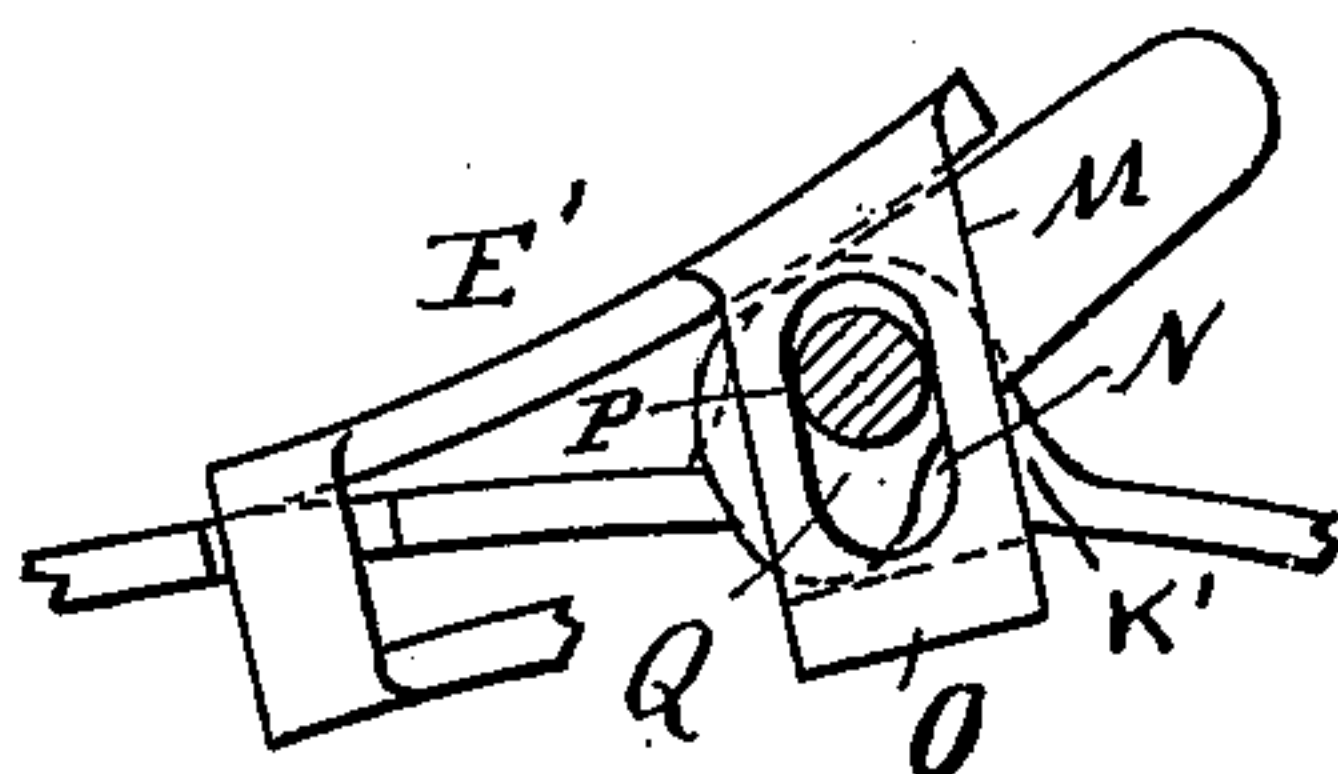


Fig. 6.

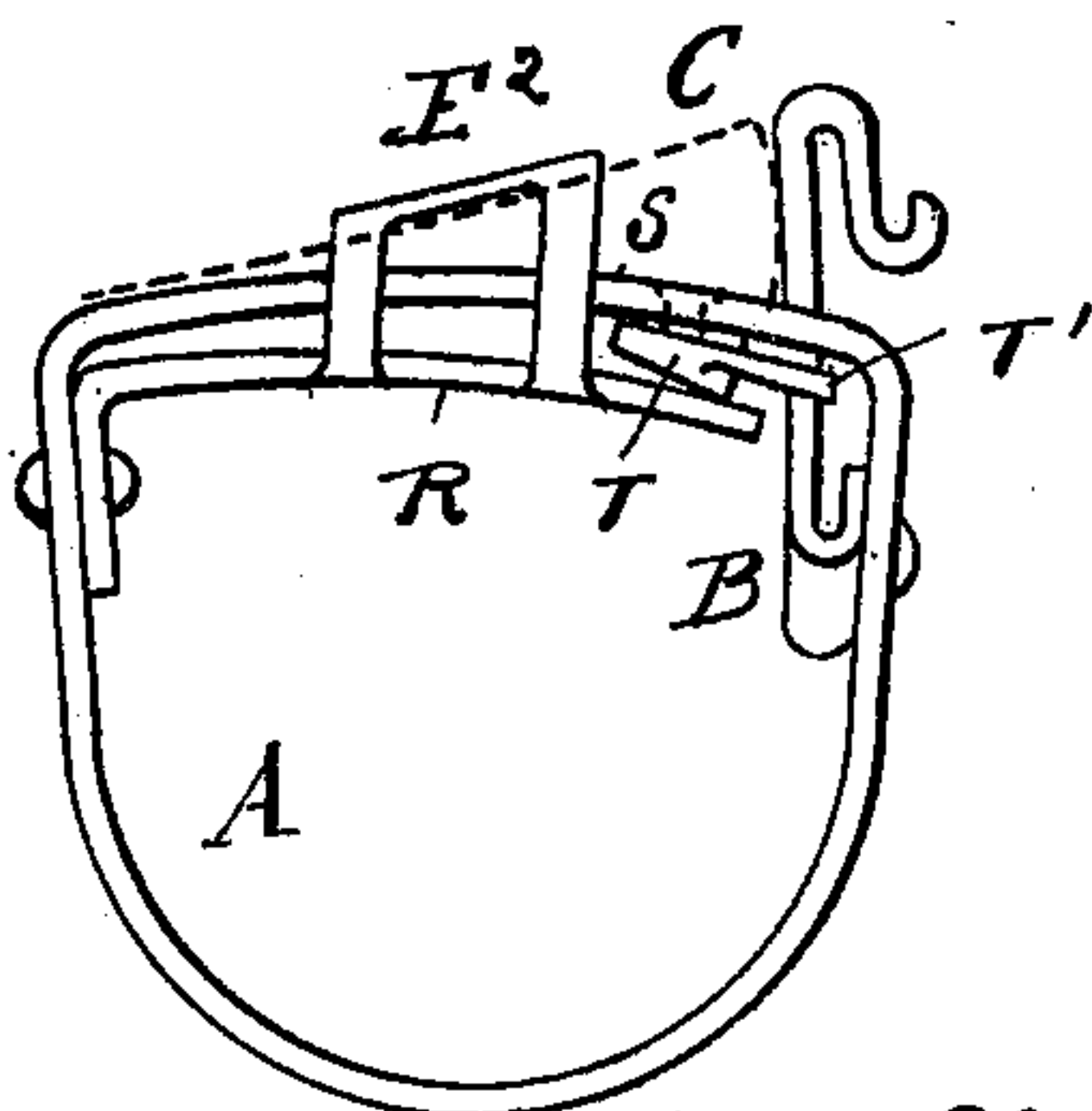


Fig. 7.

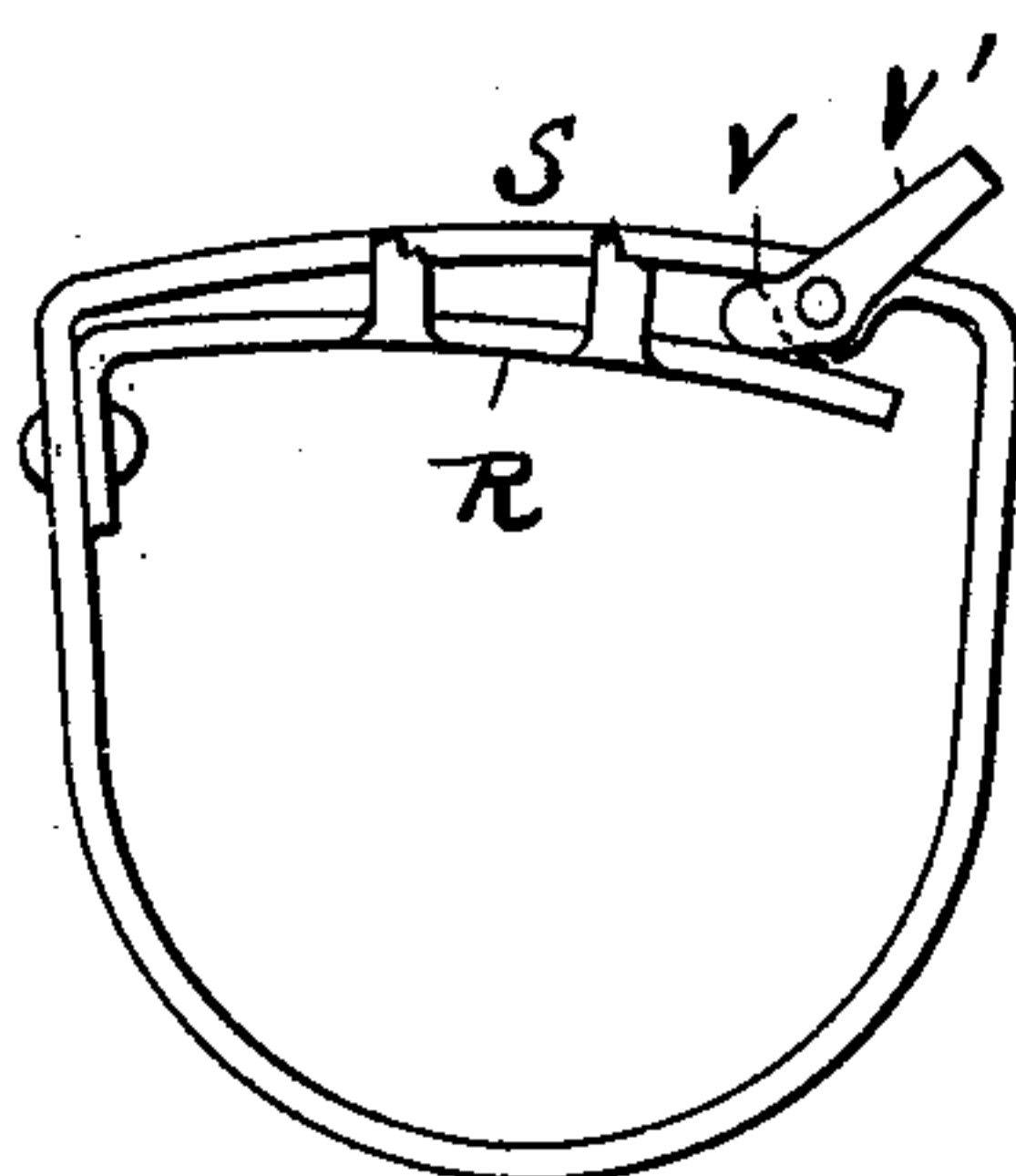


Fig. 9.

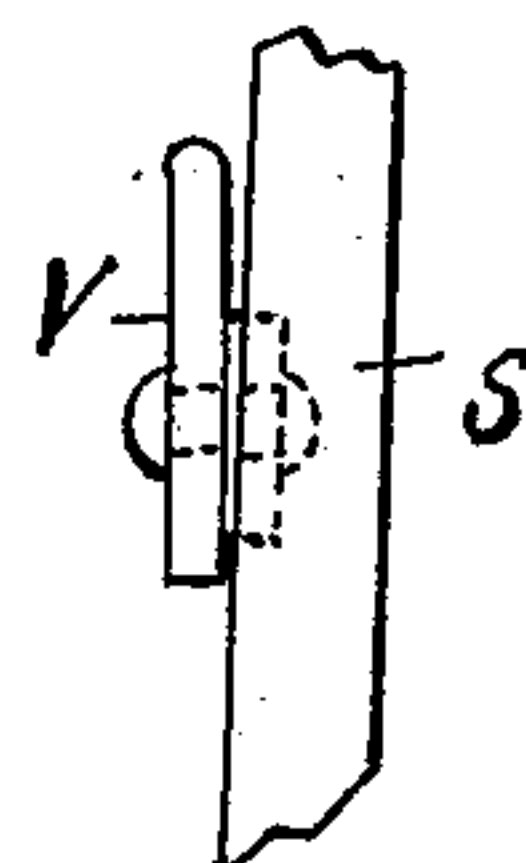


Fig. 10.

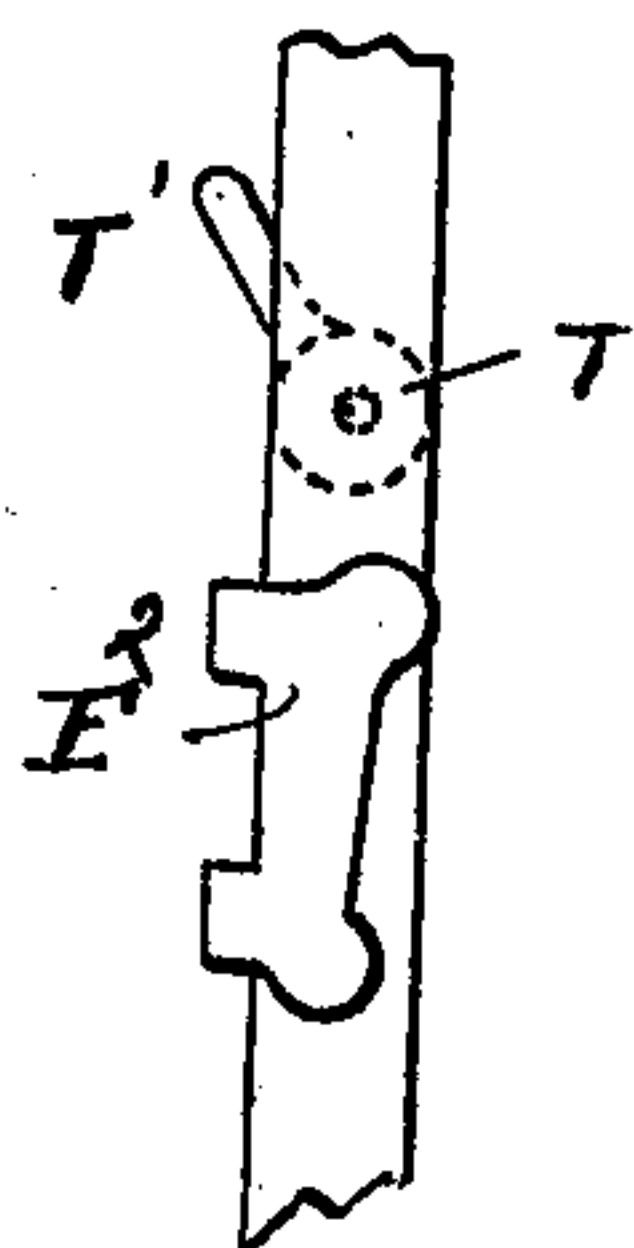


Fig. 8.

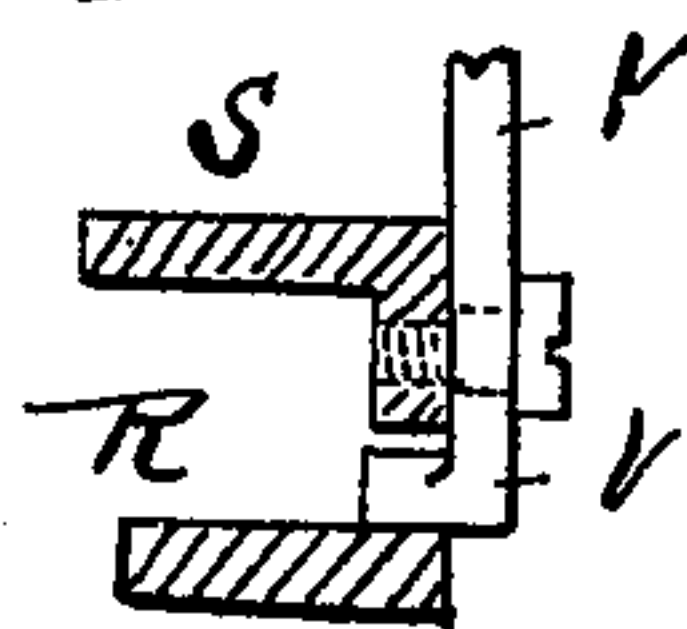


Fig. 11.

WITNESSES:

*J. Stallman*  
*A. Smyth*

INVENTOR

*E. J. Fuchs*

by *Oscar F. Gump*  
his ATTORNEY.

# UNITED STATES PATENT OFFICE.

EUGENE J. FUCHS, OF BROOKLYN, NEW YORK.

## SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 671,996, dated April 16, 1901.

Application filed January 10, 1901. Serial No. 42,725. (No model.)

*To all whom it may concern:*

Be it known that I, EUGENE J. FUCHS, a citizen of the United States, and a resident of the city of New York, borough 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 improvements in safety-razors; and the object of my invention is to facilitate the adjustment of the blade in relation to the guard, and this is accomplished by the use of a cam or eccentric which so decreases or increases the distance between the blade-support and blade-retaining clips that the blade can only be pushed forward by the retaining-spring or its equivalent until the cutting edge is in proper alinement with the guard.

In the accompanying drawings, in which like letters of reference indicate like parts in all the views, Figure 1 is a plan view of parts of my improved safety-razor, showing one construction thereof. Fig. 2 is an enlarged vertical longitudinal sectional view on the line 2 2 of Fig. 1. Fig. 3 is a side view of part of the construction shown in Figs. 1 and 2. Fig. 4 is a plan view of another construction. Fig. 5 is a vertical enlarged longitudinal sectional view on the line 5 5 of Fig. 4. Fig. 6 is a side view, partly in section, on line 6 6 of Fig. 5. Fig. 7 is an end view of the razor, showing another construction. Fig. 8 is a plan view of part of the same. Fig. 9 is an end view of the razor, showing still another construction. Fig. 10 is a plan view of part of the same. Fig. 11 is a sectional view of the same parts.

The casing A of the safety-razor is of conventional shape, as appears from Figs. 7 and 9, and is provided with a spring B on its back for holding the blade C in place and pressing it toward the guard D.

The casing or holder is provided with clips E, between which and the blade-support on the top of the casing the blade is held.

As the razor-blades are not all of the same width, thickness, and taper, some provision must be made for adjusting the effective distance between the top of the clip E and the blade-support, so that the spring B or its equivalent can press the blade C toward the guard only to such an extent that the cut-

ting edge of the blade will be in proper alinement with the guard. For thick or narrow blades the distance between the support and the clip must be increased and for thin and wide blades it must be decreased.

In the construction shown in Figs. 1, 2, and 3 the clip E, which preferably has a spring-arm F bearing against the under side of the top at the casing, has a wing G at its inner end, which wing has a circular hole H for receiving a disk I, fixed eccentrically on a pivot-pin J, mounted to turn in an upwardly-projecting-lug K on the end of the top of the casing, and is provided at its outer end with a handle-knob L for turning it. By turning this eccentric disk the inner end of the clip E is raised or lowered, as the shape or dimensions of the blade may require.

In the construction shown in Figs. 4, 5, and 6 the clip E' is provided at its inner end with a downwardly-extending wing M, provided with a longitudinal slot N, with an inwardly-turned flange O at its lower end. A pivot P extends from the lug K' on the end of the top of the casing through said slot, and on this pivot the eccentric or cam lever Q is pivotally mounted and with its lower end bears on the flange O of the wing M. By bringing this cam or eccentric lever into different positions the inner end of the clip can be readily raised or lowered, as the shape or dimensions of the blade may require.

In the construction shown in Figs. 7 and 8 the clip E<sup>2</sup> is secured on a spring-arm R, attached to the casing and extending under the top end piece S of the casing. A cam T is pivoted to the under side of said end piece and is provided with a handle T'. The spring-arm R rests against this cam, and by turning the cam-piece in one direction or the other the spring-arm R is forced down more or less, and thus the clip E<sup>2</sup> is raised or lowered more or less, as the shape or dimensions of the blade may require.

In the construction shown in Figs. 9, 10, and 11 a cam or eccentric lever V is pivoted to the end of the casing in such a manner that its lower end V' can depress the spring-arm R more or less, as the dimensions or shape of the blade may require.

I am aware that an eccentric has been used for clamping the blade in place as a substi-



tute for a retaining-spring, and that I do not claim.

Having described my invention, what I claim as new, and desire to secure by Letters  
5 Patent, is--

In a safety-razor, the combination with a blade-support, of blade-retaining clips, a guard at the front of the support, a spring mechanism for pressing the blade toward the  
10 guard and an eccentric device for adjusting the distance between the blade-support and the clips, according to the thickness of the

blade, substantially as set forth and whereby the blade-pressing device can press a thick or a thin blade toward the guard only to such  
15 an extent that the cutting edge of the blade will be in proper alinement with the guard.

Signed at New York city, in the county of New York and State of New York, this 8th day of January, A. D. 1901.

EUGENE J. FUCHS.

Witnesses:

OSCAR F. GUNZ,  
H. ADOLPH WINKOPP.