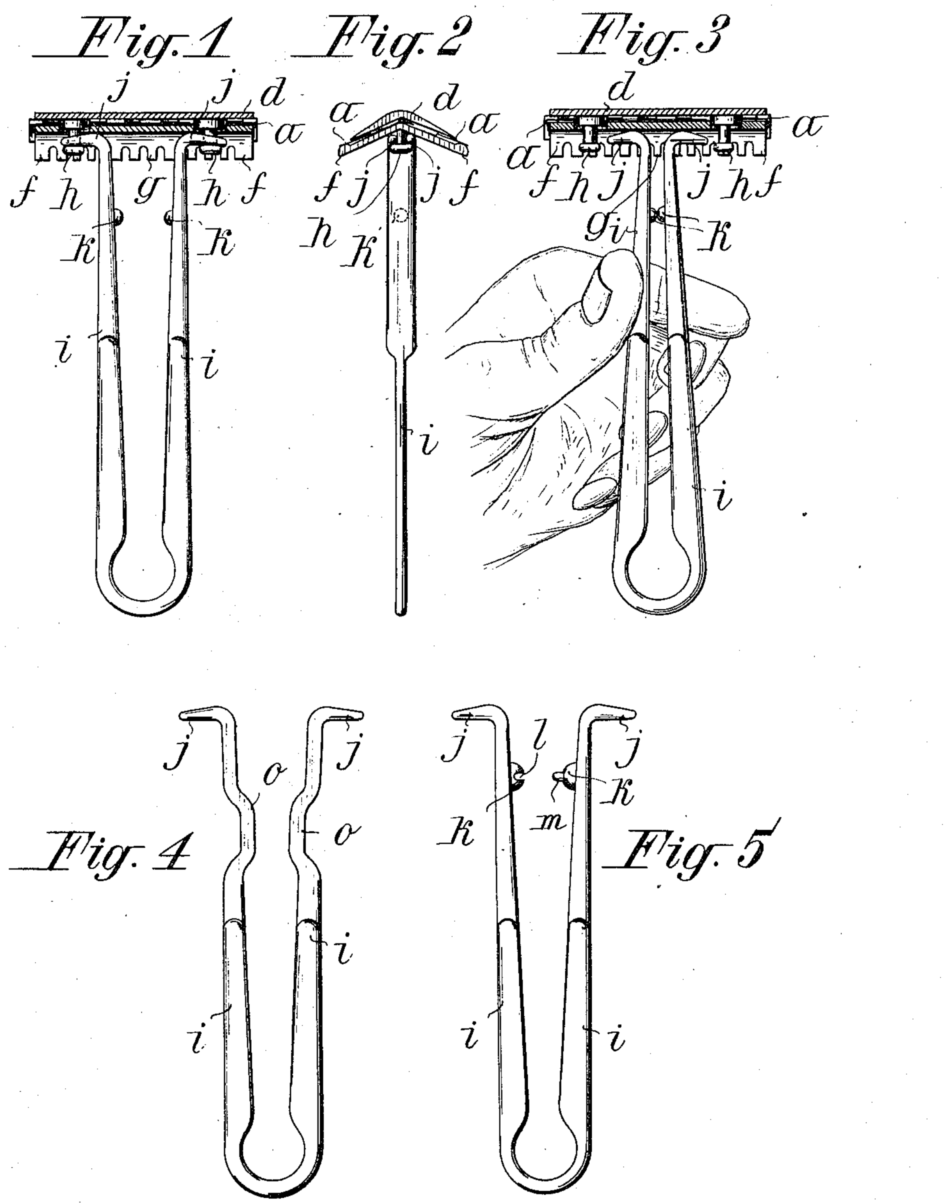
S. ADLER.

SAFETY RAZOR.

APPLICATION FILED MAY 26, 1911.

1,014,431. Patented Jan. 9, 1912.



Witnesses:-

J. S. Giusta

Inventor:-

Samuel Adler

by Wilkinson, Fisher & Witherspoon

his attorneys.

UNITED STATES PATENT OFFICE.

SAMUEL ADLER, OF VIENNA, AUSTRIA-HUNGARY.

SAFETY-RAZOR.

1,014,431. Specification of Letters Patent. Patented Jan. 9, 1912.

Application filed May 25, 1911. Serial No. 629,391.

To all whom it may concern:

Be it known that I, SAMUEL ADLER, a subject of the Emperor of Austria-Hungary, residing at 110 Dresdnerstrasse, in the city of Vienna, Empire of Austria-Hungary, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention relates to a safety razor of the kind in which the razor formed of a thin flexible steel blade is clamped between a support and a protecting plate, which plate is pressed against the support and the blade by means of the handle. The safety razors of this kind already known usually possess handles which are held together by screwing. These handles cannot be quickly removed and fixed again and are also easily choked with dirt, soap, etc., whereby a rapid wear of the threading of the handle occurs. It is true that this drawback is avoided in another construction of safety razors by the arrangement that the handle is formed of two levers pivotally connected, which press the cover plate against the support and the razor, but on the other hand this construction possesses the drawback that the use of a spring and of a cap arranged upon the ends of the levers or the like is necessary, for holding the levers in the position of use in opposition to the action of the spring placed between them. This spring suffers comparatively rapid wear and the cap on the ends of the levers is liable to break off easily with careless handling.

In safety razors which are composed of only a protecting plate and a razor blade without support, there is already a construction in which the handle is formed of a spring loop, the ends of which pass through cavities in the covering plate and the razor, and are provided with slots, which surround the edges of the razor blade and the cover plate, and thus clamp the blade to the cover. In such safety razors it has also been proposed to use a U-shaped auxiliary loop the limbs of which project from the upper side of the blade through the holes in the razor and cover and are provided at the ends with slots, which again inclose the edges of the razor and the cover and thus clamp fast the razor. With the auxiliary loop there is also connected a U-shaped loop serving as a handle, the free ends of which pass through openings in the limbs of the auxiliary loop and in consequence of their spring action press the limbs of the auxiliary loop against the edge of the holes in the razor and protective cover. This construction enables only an imperfect clamping of the razor upon the protective cover and holds the blade of the cover so insecurely that practical utility appears to be excluded because on using the safety razor the razor edges are lifted off from the protecting plate and the razor constantly cuts into the skin.

The present invention has for its purpose to avoid the drawbacks of the hitherto known constructions of safety razors with supports and protective covers by the improvement that the loop shaped handle of the safety razor is utilized without a support and is correspondingly altered in shape. For this purpose the free ends of the spring loop forming the handle are so shaped that they surround when fixed, the guide pivots of the support and form pressure lugs so that they in consequence of the spring action of the loop when it is in the position of use, press the protective cover of the safety razor against the support and the blade and clamp this latter firmly in the cutting position. This method of securing the blade is suitable also for safety razors with roof-shaped support and protective comb, which construction is the most advantageous because it assures from the first the adjustment of the razor blades at the right cutting angle.

In the drawing the invention is illustrated in several modifications as follows:

Figure 1 shows the safety razor in front elevation partially in section. Fig. 2 shows the same in side elevation. Fig. 3 shows a similar position as Fig. 1 but with the handle released from the holder. Figs. 4 and 5 illustrate in side elevation two other modifications of the handle.

The razor blade *a* of the safety razor is clamped fast between a support *d* and a protective cover *f*. The cover *f* is provided with teeth *g* in the well known manner, which teeth after the adjustment of the razor blade press upon its cutting edge and project a little beyond the same (Figs. 1 and 2). For the correct adjustment of the part *f* and the blade *a* in regard to the support *d*, this latter possesses two guiding pins *h* provided with little heads, which project through holes in the razor blade and the protective cover. The handle is composed

of a spring loop *i*, the free ends *j* of which are turned toward the protective cover of the apparatus and are formed forked and engage around the guide pins *h*. Moreover the ends of the loop are so formed that they act as pressure lugs (Fig. 1) and clamp the razor fast. In consequence of the spring pressure of the loop handle, this presses in its position of use the protective cover against the support and blade by means of its lug-shaped ends, and holds the latter in the cutting position. When the two ends of the limb of the handle *i* are pressed together (Fig. 3) then the handle can be removed from the pins *h* and the parts of the safety razor can be taken apart.

In order to prevent an over-stretching of the loop when the limbs thereof are pressed together for the purpose of releasing the apparatus, there is provided a projection on each limb, whereby too great pressing together of the loop is prevented, because the projections on both limbs come in contact with one another when the loop is pressed together. These projections may be arranged in various ways. For instance there can be fixed on each shank a rivet *k* (Fig. 1), the head of which projects. When pressed together these heads strike upon one another and limit the motion of the limbs (Fig. 3). In this case the head of one rivet is preferably provided with a recess *l* and the other with a projection *m* (Fig. 5) so that in the compressed position of the handle the one fits in the cavity of the other and thereby forms at the same time a guide for the approachment of the limbs.

According to a constructional form illustrated in Fig. 4 the projections of the limbs of the handle are formed by bends *o*.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

In a safety razor, the combination of an apertured support, a protector cover, a blade arranged between the support and the cover, guide pins projecting from the support through the cover, heads on the pins, and a looped spring handle having oppositely disposed tapered forked ends, engaging the guide pins and exerting pressure on their heads to clamp said blade in position, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

SAMUEL ADLER.

Witnesses:

GUSTAV WOLFY,

AUGUST FUGGER.