

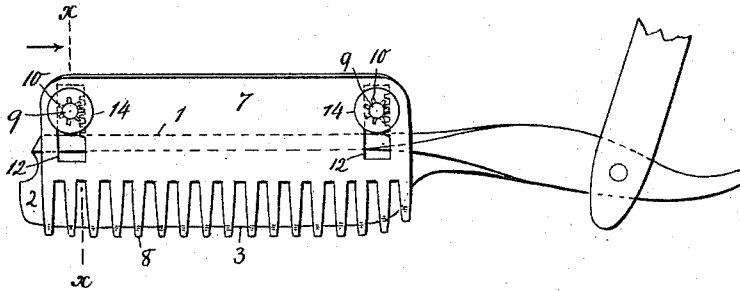
(No Model.)

A. R. WEISZ.  
SAFETY RAZOR.

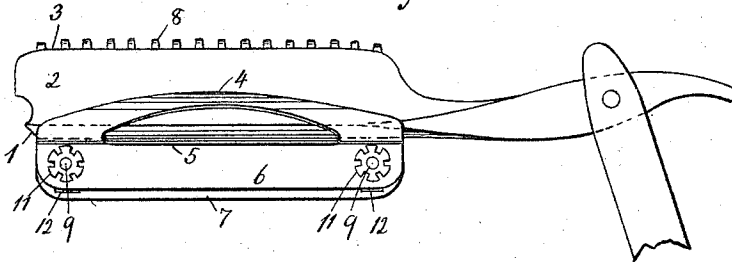
No. 576,489.

Patented Feb. 2, 1897.

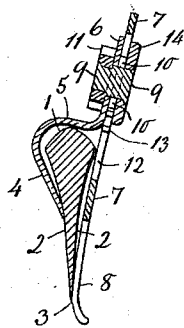
*Fig. 1.*



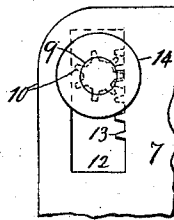
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



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# UNITED STATES PATENT OFFICE.

ALBERT RICHARD WEISZ, OF BROOKLYN, NEW YORK.

## SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 576,489, dated February 2, 1897.

Application filed June 4, 1896. Serial No. 594,298. (No model.)

*To all whom it may concern:*

Be it known that I, ALBERT RICHARD WEISZ, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Safety-Razors, of which the following is a specification.

The object of this invention is to provide a razor-guard which will sit close to the razor edge and which can be readily adjusted to various blades or razors; and the invention resides in the novel features of construction set forth in the following specification and claims, and illustrated in the annexed drawings, in which—

Figure 1 is a view of one side of a razor-blade. Fig. 2 is a view of the other side of a razor-blade. Fig. 3 is a section along  $x x$ , Fig. 1. Fig. 4 is a detail view.

The razor-blade comprises the back 1, sides 2, and edge 3. The sides 2 are generally concave, or somewhat so, but the guard can be made to operate also with a straight or plane side. The guard is carried or supported by a clamp 4 5 6. The clamp part 4 sits against a side 2 and the part 5 engages or extends across the back 1.

The guard 7 8 can be described as comb-shaped, having a base part 7 and inherently elastic teeth 8.

It has been found that if a space or slit is left between edge 3 and the guard or teeth 8 and the blade or edge is drawn longitudinally across the skin the partially free edge will chop or cut more or less into the skin or flesh. If, however, the teeth 8 are made to sit close against the edge 3, so that no space is left between the edge and the guard for the skin to become entrapped, no cutting of the skin occurs. At the same time the hair or whiskers protruding through the spaces between teeth 8 will contact with portions of the edge 3 to be cut or shaved off.

The teeth 8 are springy or elastic and normally tend to spring against the edge 3, or, preferably, somewhat beyond the edge, so that the teeth will contact securely with the edge and no space is left between the edge and the teeth. The teeth 8, by being concaved or made to curve from their free ends toward the edge 3, will be able to firmly contact with the edge. Such curvature of the teeth also con-

forms the teeth more or less to a concave side 2.

The guard is adjustably connected to the clamp or to clamp part 6, so as to be adjustable for blades of various make or width. A rotary stem 9, provided with a gear 10, can be rotated by a head 11, suitably notched or adapted for engagement of a tool or wrench. This stem 9 is adapted to rotate in the clamp or in the guard, as seen fit, but preferably in the clamp.

A rack is formed in the guard or in the clamp, as the case may be, a slot 12, with an edge suitably serrated or dented, as at 13, forming the rack. The gear 10, rotating in slot 12, engages the rack 13. By rotating the gear the guard and clamp are moved or adjusted with respect to one another. An adjuster, such as a gear and rack, is shown near each end portion of the clamp and guard. By rotating or setting the adjuster or gear 10 the teeth 8 can be set until their free end portions project suitably beyond edge 3 and until the teeth sit firmly against the edge. The head 11 of stem 9, with the head 14 of said stem sitting respectively against parts 6 and 7, keep stem 9 in place while allowing it rotation.

The clamp parts 4 and 5, with guard part 7, may be briefly described as straddling the blade. The head 14, if made cup-shaped, so as to spring or sit firmly against part 7, will produce such friction that the guard will not accidentally move or become displaced, while at the same time the gear 10 can be rotated by aid of head 11 when desired.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a safety-razor, the combination with a razor-blade, of a clamp constructed to extend round the back of the blade and bear against one side thereof, a guard formed integral with projecting inherently elastic teeth having curved outer extremities which spring and bear directly against the cutting edge of the blade, a rack forming a part of the guard, a pinion engaging the rack and provided with a head to bear against the guard, and a head connected with the pinion and bearing against the clamp, substantially as and for the purposes described.

2. In a safety-razor, the combination with a razor-blade, of a clamp constructed to ex-

tend round the back of the blade and bear  
against one side thereof, a guard having slots  
with toothed edges, and inherently elastic  
teeth which spring and bear directly against  
5 the cutting edge of the blade, pinions ar-  
ranged in the slots of the guard and engaging  
the teeth thereof, a head connected with the  
pinion and bearing against the guard, and a  
head connected with the pinion and bearing

against the clamp, substantially as and for 10  
the purposes described.

In testimony whereof I have hereunto set  
my hand in the presence of two subscribing  
witnesses.

ALBERT RICHARD WEISZ.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.