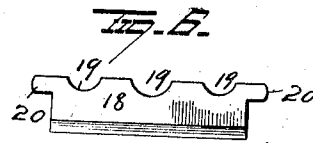
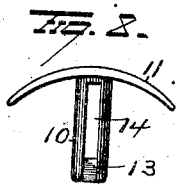
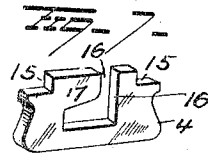
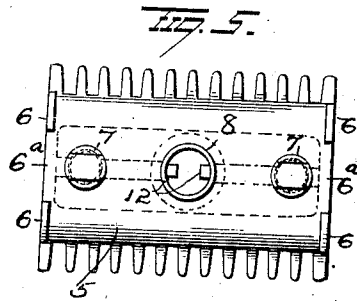
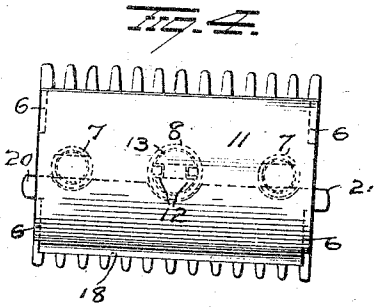
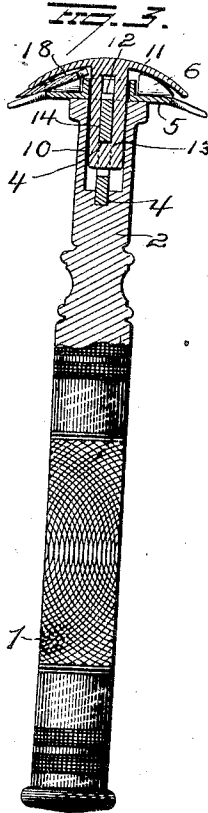
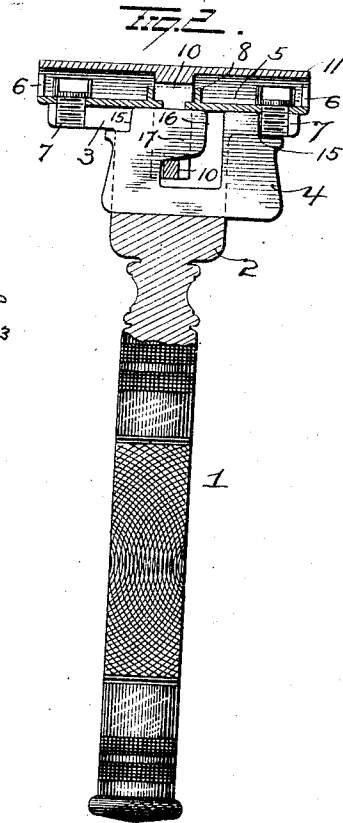
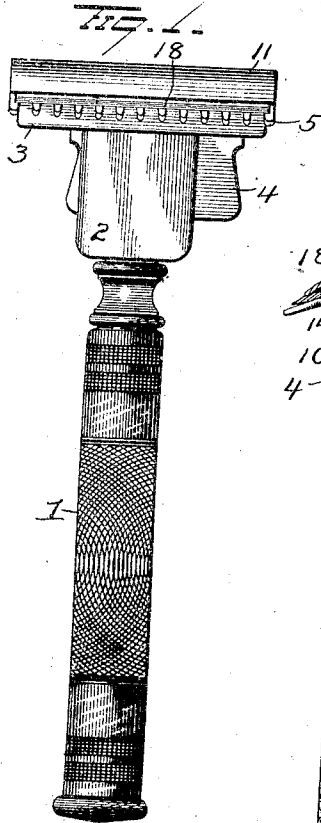


No. 845,784.

PATENTED MAR. 5, 1907.

W. C. HEIMERDINGER.
SAFETY RAZOR.
APPLICATION FILED OCT. 8, 1906.



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UNITED STATES PATENT OFFICE.

WILLIAM C. HEIMERDINGER, OF LOUISVILLE, KENTUCKY.

SAFETY-RAZOR.

No. 845,784.

Specification of Letters Patent.

Patented March 5, 1907.

Application filed October 8, 1906. Serial No. 337,978.

To all whom it may concern:

Be it known that I, WILLIAM C. HEIMERDINGER, a resident of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Safety-Razors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in safety-razors, the object of the invention being to provide improved means for quickly, accurately, and securely locking the parts together with the blade or blades in place.

A further object is to provide an improved blade for safety-razors.

Heretofore safety-razors have been uniformly secured in assembled formation by means of screw-threaded parts, which may be adjusted too tightly to the injury of the razor or may be left too loose and fail to work properly.

My improved connecting or locking mechanism leaves nothing to the judgment of the user and always insures a perfect assemblage of parts and is strong and durable in use.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in elevation illustrating my improvements. Fig. 2 is a view in longitudinal section. Fig. 3 is a view in vertical cross-section. Fig. 4 is a top plan view of the guard. Fig. 5 is a top plan view with the back and blades removed. Fig. 6 is a view of one of the blades removed. Fig. 7 is a detail view of the locking-slide. Fig. 8 is a detached view of the back 11 and the stud 10, depending therefrom.

1 represents the handle, having a guide-block 2 permanently fixed to one end thereof in any approved manner, and this guide-block 2 is made with a cross-head 3 at its end, the guide-block 2 and cross-head 3 both being made with a slot to accommodate my improved locking-slide 4, which will be more fully hereinafter described.

5 represents the guard, which is made flat and provided with downwardly-inclined guard-fingers at opposite side edges. The guard is provided at each end with two upturned flanges 6, which are spaced apart to form central notches or recesses 6^a at respective ends of the guard, and said upturned flanges are beveled or inclined toward the side edges of the guard.

The guard 5 is secured to the cross-head 3 by means of screws 7, the latter screwed into threaded openings in the slotted portion of the cross-head and serving as stops to limit the movement of the locking-slide 4. The upper ends of the screws above guard 5 are made with enlarged heads, which, together with a central collar 8 on the guard, serve to guide the blades 18 to proper position. This central collar registers with openings in the guard, cross-head 3, and guide-block 2 to receive a central stud 10 on the curved backing 11, and the collar is preferably made with internal guide pins or lugs 12 to enter longitudinal grooves 13 in stud 10 to insure the backing being properly placed. The stud 10 is also made with a slot 14 to receive the locking-slide 4 when the latter is slid to locking position, as will now be explained.

The locking-slide 4 comprises a metal plate mounted to slide in the slot in guide-block 2 and cross-head 3 and is notched at its upper corners, providing shoulders 15 to strike screws 7 and limit the movement of the slide. The plate is also made with a slot 16 extending from its upper edge downward to near its lower edge and then extending longitudinally of the plate, providing a locking-tongue 17 to enter the slot 14 in stud 10. The lower edge of this tongue 17 is made on an incline to exert cam action on the stud 10 to draw the backing to its proper place to firmly clamp the blades 18 in position. When the slide 4 is moved to one extreme position, the slot 16 will permit the stud 10 to be readily removed or inserted, and when the slide is moved to its other extreme position the tongue 17 will be in the slot 14 of stud 10 and securely lock the parts together.

Two blades 18 may be employed at a time to provide cutting edges at both edges of the guard, or a single blade can be used, if preferred. Each blade comprises a strip of

thin steel having a sharp longitudinal cutting edge, the opposite longitudinal edge being provided with three notches 19 to receive the screws 7 and collar 8, and the blade is notched at its ends to fit between the up-turned ends 6 of the guard and provide lugs 20 to project out through the notches 6^a. These lugs afford an easy and safe finger-hold to handle the blade, and they, together with the notches 19 against the screws 7 and collar 8, insure the blades being properly placed on the guard, as it is quite impossible to place the blades in any other position.

When the blades are in position, the backing-stud 10 is inserted through collar 8 into guide-block 2, and the locking-slide is moved longitudinally to lock the parts, as above explained, and the blades will be tilted by the edge of the curved backing so as to lie flat against the guard-fingers in correct position for shaving with perfect safety.

A great many slight changes might be made in the general form and arrangement of the parts described without departing from my invention, and hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In a razor, the combination with a guard and a backing, of a stud on the backing to enter an opening in the guard said stud having a slot therein, and a locking device constructed to pass through said slot and lock the parts together.

2. In a razor, the combination with a guard and a backing, of a stud on the backing to enter an opening in the guard said stud having a transverse slot between its ends, and a sliding locking plate or bar constructed to pass through the transverse slot in the stud and lock the parts together.

3. In a razor, the combination with a handle having a slot therein, a guard secured thereon, a backing, and a slotted stud on the backing to enter the handle, of a sliding locking-plate in the slotted handle and a tongue on the locking-plate to enter the slotted stud and lock the parts together.

4. In a razor, the combination with a slotted guide-block, and a guard secured thereon and having an opening alining with an opening in the guide-block, of a backing, a slotted stud thereon to enter the openings in the guard and guide-block, a slide in the slotted guide-block, and a tongue on said slide to enter the slotted stud and secure the parts together.

5. In a razor, the combination with a handle, a slotted guide-block fixed to one end of the handle, a cross-head on the block, and a

guard secured to the cross-head and having a central opening alining with openings in the cross-head and guide-block, of a backing, a central stud on the backing to enter the openings in the guard, cross-head and guide-block, and having a slot therein, a sliding plate in the slotted block having a slot to receive the stud, and a tongue on the plate to enter the slot in the stud when the plate is slid longitudinally, and lock the parts together.

6. In a razor, the combination with a handle, of a slotted guide-block thereon, a slotted cross-head on the block, a guard, screws projected through the guard and into threaded openings in the slotted portion of the cross-head, a backing, a stud on the backing to enter openings in the guard, cross-head and guide-block, and having a slot therein, a sliding plate in the guide-block and cross-head having a slot to receive the stud when the plate is in one extreme position, a tongue on the plate to enter the slot in the stud and lock the parts together when the plate is in its other extreme position, and shoulders on the plate to engage the screws and limit the movement of the plate in both directions.

7. In a razor, the combination with a handle, a guard thereon, of a collar centrally on the guard and alining with openings in the guard and handle, pins or lugs in the collar, a backing, a central stud on the backing to enter the collar and handle, said stud having longitudinal grooves to receive the lugs or pins in the collar and guide the backing into place and said stud also having a slot or opening, and a locking device in the handle to enter the slot in the stud and secure the parts together.

8. In a razor, the combination with a handle, of a guard secured to the handle and having a central opening alining with an opening in the handle, a collar around the opening in the guard, screws at opposite sides of the collar securing the guard to the handle and having heads or enlarged ends above the guard, blades having notches in their edges to receive the collar and screw-heads to position the blade on the guard, a backing, a stud thereon to enter the collar and handle, and a locking device in the handle to engage the stud and secure the parts together.

9. In a razor, the combination with a guard, of two flanges at each end of the guard, the flanges of each pair spaced apart to form notches, a plurality of enlargements on the guard, a blade having notches to receive the enlargements, lugs at the ends of the blades to pass through the notches between the flanges at the ends of the guard, and a backing to clamp the blade against the guard.

10. In a razor the combination with a rigid guard and fingers projecting from an edge of

said guard and disposed at an angle thereto, of a blade having a pivotal bearing on the guard at the juncture of the fingers therewith, a backing, and means for operating the backing to turn the blade on its pivotal bearing and clamp it in position.

In testimony whereof I have signed this

specification in the presence of two subscribing witnesses.

WILLIAM C. HEIMERDINGER.

Witnesses:

S. W. FOSTER,

A. W. BRIGHT.