No. 690,780. Patented Jan. 7, 1902.

A. L. SILBERSTEIN.

SAFETY RAZOR.

(Application filed June 6, 1901.)

(No Model.)

Fig. 1.

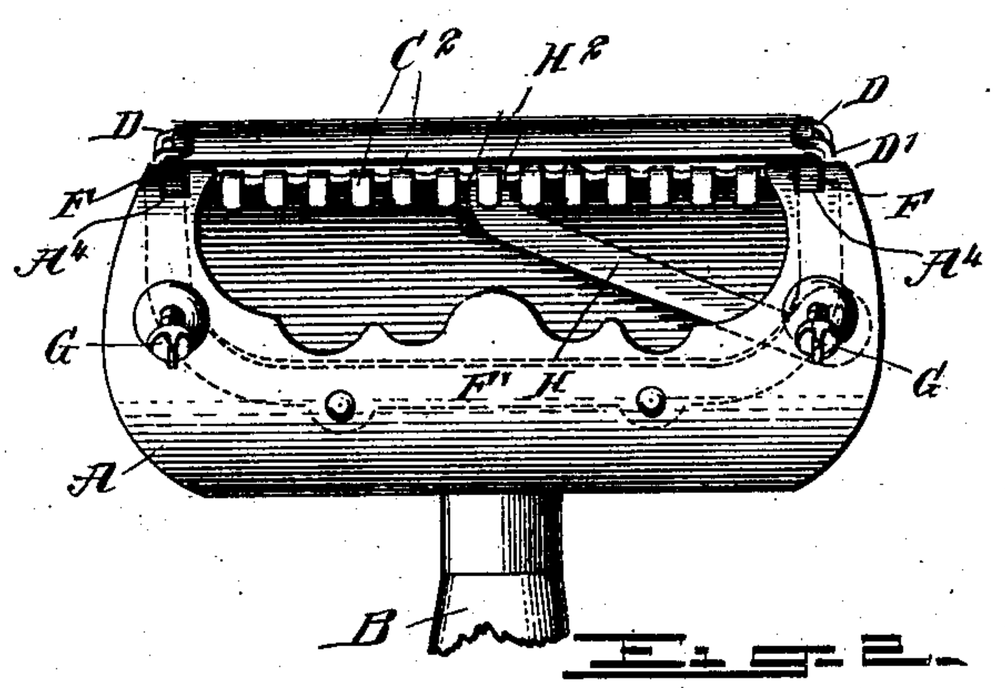


Fig. 2.

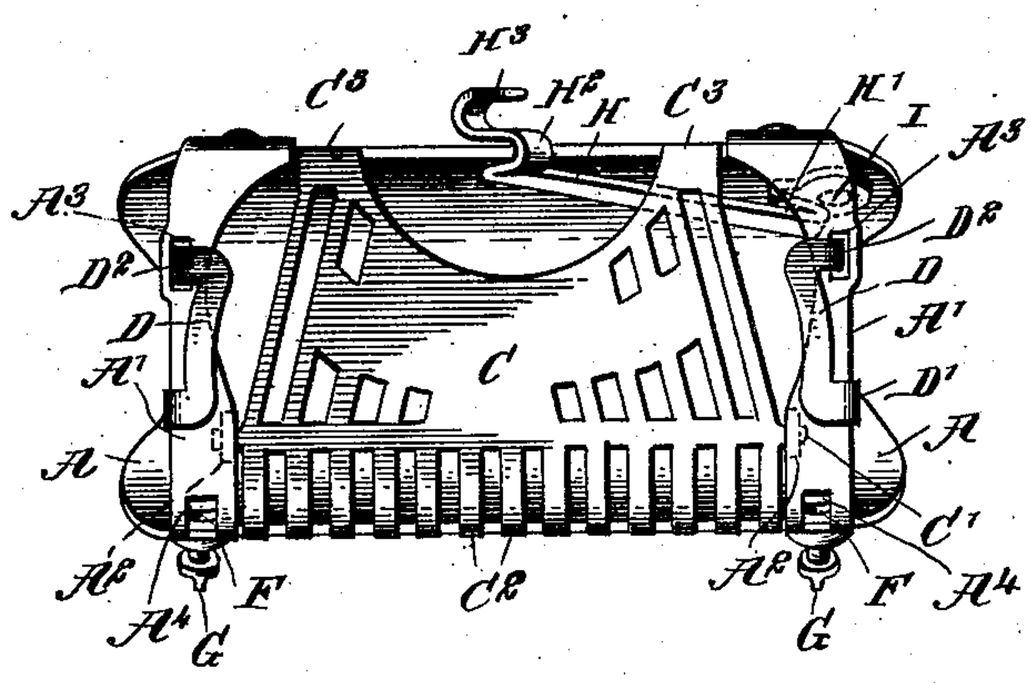
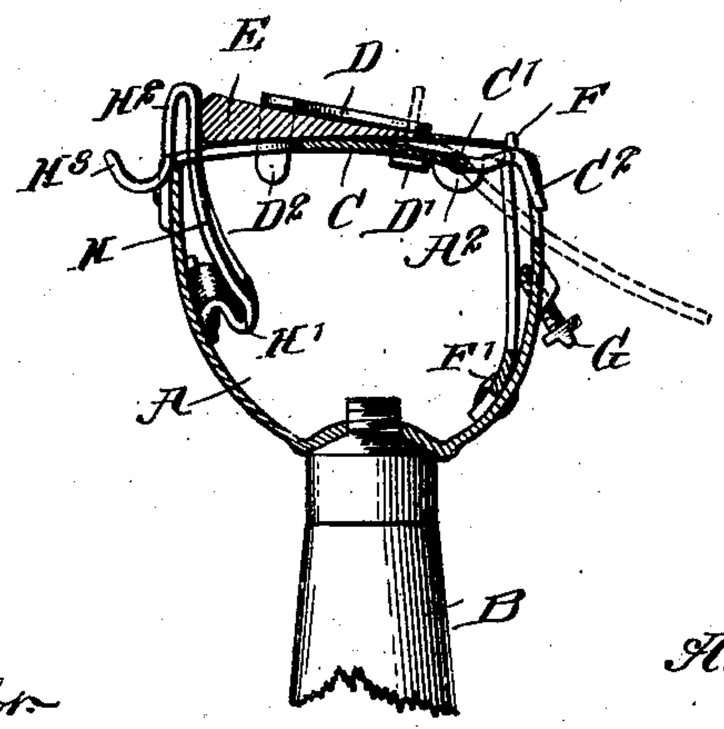


Fig. 3.



WITNESSES:

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ALBERT LYMAN SILBERSTEIN, OF NEW YORK, N. Y.

SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 690,780, dated January 7, 1902.

Application filed June 6, 1901. Serial No. 63,379. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LYMAN SILBERSTEIN, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented certain new and useful Improvements in Safety-Razors, of which the following is a full, clear, and exact description.

The objects of the invention are to provide a new and improved safety-razor arranged to allow ready and accurate insertion of the blade relatively to the guard, to securely hold a thick blade or a thin and worn-out blade in position without requiring adjustment of the parts, and to permit the user to readily and quickly clean the guard and the casing.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the improvement with the blade in position. Fig. 2 is a plan view of the same with the blade removed, and Fig. 3 is a transverse section of the same with the blade in position.

A casing A, preferably made of sheet metal and U-shaped in cross-section, is provided at its bottom with the usual handle B and at its top with end cross-pieces A′, near the front ends of which are depending bearings A^2 for the trunnions C′ of the top C for the casing A, said top being formed at its front end with a guard C^2 and adapted to rest with its rear end C^3 on the top edge of the rear wall of the casing. The top C extends between the cross-pieces A′ and can be readily swung over in a forward direction to the position shown in dotted lines in Fig. 3 to allow of conveniently cleaning the under sides of the teeth of the guard C^2. The front of the casing A is sufficiently cut out to allow a rearward swinging of the guard C^2, as will be readily understood by reference to the drawings. The trunnions C′ are located near the front or guard end of the top C, as is plainly shown in dotted lines, when the casing is almost completely open to allow convenient cleaning thereof.

On the cross-pieces A′ are secured the forward ends D′ of angular retaining-clips D for engagement by a blade E to hold the same against lengthwise movement and to bear down on the blade, so as to hold it in position on the top C and the cross-pieces A′. The retaining-clips D are made of spring metal and their rear free ends are formed with downwardly-extending arms D^2, loosely guided in bearings A^3, formed in the cross-pieces A′, the arrangement being such that the resiliency of the retaining-clips normally presses the same toward the cross-pieces A′; but said clips are free to yield upward upon pushing the blade E forward, the top of the blade then engaging the under sides of said clips. Thus when the blade E is inserted the clips D bear on the top surface of the blade and securely hold the same in contact with the cross-pieces A′ and the top C. By the arrangement described the angular clips readily accommodate thick or thin blades without requiring adjustment of the blade-retaining parts by the user. The forward movement of the blade E is limited by stops F, extending upwardly through slots A^4, formed in the front ends of the cross-pieces A′, said stops F being the upturned ends of a U-shaped spring-bar F′, riveted or otherwise secured to the inside of the casing at the front wall thereof. Set-screws G screw in this front wall and engage the side arms of the spring-bar F′ to adjust the stops F in a transverse direction and bring the stops, and consequently the cutting edge of the blade, in proper relation to the teeth of the guard C^2.

In order to hold the blade E in position on the casing within the clips D and against the stops F, a spring-latch H is provided, fulcrumed at one end on a rivet I, held on the wall of the casing A, said spring-latch being formed near its fulcrum end with an S-shaped bend H′ to allow of laterally swinging the free end H^2 of said latch and cause said free end H^2 to properly press against the back of the blade E, and thereby hold the latter in firm position. The free end H^2 is preferably U-shaped to permit of swinging the latch H downward, said free end H^2 straddling the

rear wall of the casing, the free end terminating in a suitable handle H^3, adapted to be taken hold of by the user of the safety-razor to swing the same up or down in or out of engagement with the back of the blade E.

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

1. A safety-razor having a blade-holding casing, and transversely-extending clips on said casing for engaging and retaining the blade, said clips being secured at their forward ends to the casing and having their other ends working in guides and free to yield upward when the blade is pushed into position, as set forth.

2. A safety-razor having a blade-holding casing, and angular spring-clips on said casing for engaging and retaining the blade, said clips being secured at their forward ends to the casing and being free to yield upward when the blade is pushed into position, said clips having guide-arms engaging bearings on the casing, to guide the clips in their up-and-down movement, as set forth.

3. A safety-razor having a casing provided with end cross-pieces, and a top for the casing and pivoted on said cross-pieces, the rear end of said top being adapted to rest on the rear edge of the casing, as set forth.

4. A safety-razor having a casing provided with end cross-pieces, and a top for the casing and pivoted on said cross-pieces, the front end of said top being provided with a guard, as set forth.

5. A safety-razor having a casing provided with end cross-pieces, and a top for the casing and pivoted to said cross-pieces, the rear end of said top being adapted to rest on the rear of the casing and the front end of said top being provided with a guard, as set forth.

6. A safety-razor having a casing provided with end cross-pieces, said cross-pieces having their front ends slotted, spring-bars secured to the casing and projecting through the slots of the said end pieces, and screws mounted in the casing and engaging the said bars, as set forth.

7. A safety-razor having a casing provided with end cross-pieces, yielding clips carried by the cross-pieces, a top pivoted to the said cross-pieces and provided at its front end with a guard, and a latch for engaging the back of the razor, as set forth.

8. A safety-razor having a casing, and a spring-latch connected at one end with the casing and adapted to engage with its other end the back of the blade, said spring-latch being formed near its fastening end with an S-shaped bend, to allow the free end of the latch to readily yield in a lateral direction, and having a U-shaped free end straddling the rear wall of the casing and a handle at said free end, as set forth.

9. A safety-razor, comprising a U-shaped casing provided with end cross-bars, whose front ends are slotted, a top pivoted to the cross-bars, yielding clips on said cross-bars, adjustable stops secured to the casing and projecting through the slots of the cross-bars, and a pivoted spring-catch for engaging the back of the razor, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT LYMAN SILBERSTEIN.

Witnesses:

GEO. GAUBATZ,

FANNYE KLEIN.