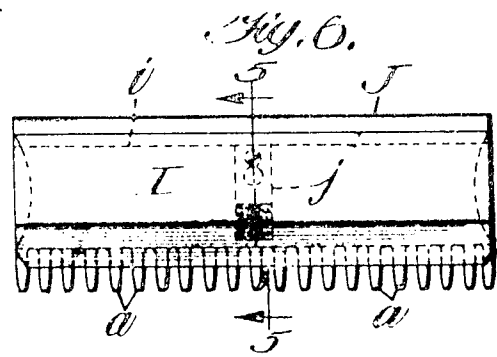
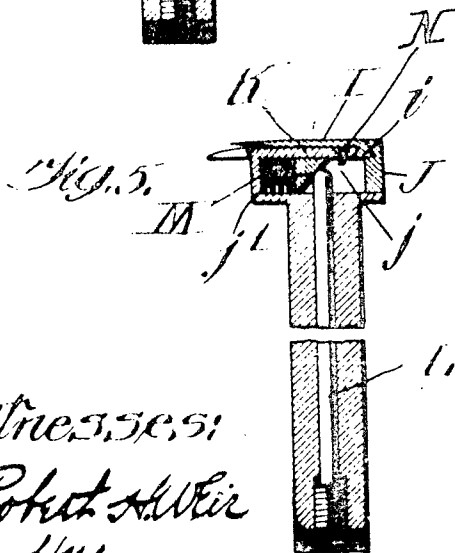
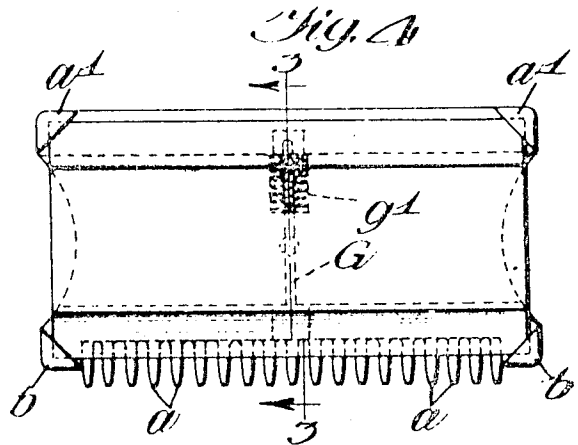
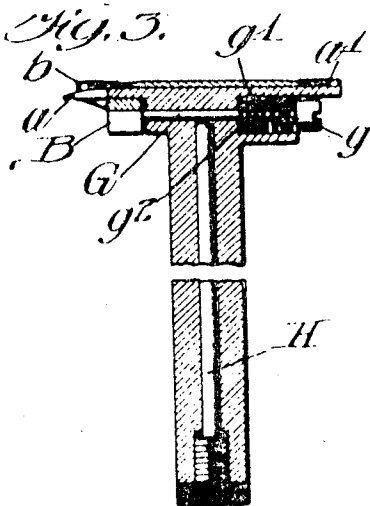
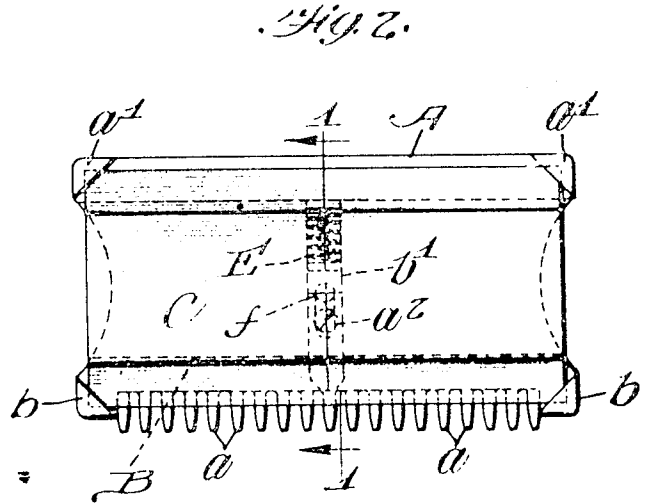
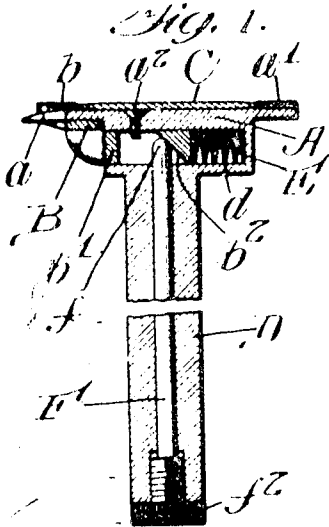


A. F. DURAND.
SAFETY RAZOR.

APPLICATION FILED MAY 23, 1908.

958,699.

Patented May 17, 1910.



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UNITED STATES PATENT OFFICE.

ARTHUR F. DURAND, OF CHICAGO, ILLINOIS.

SAFETY-RAZOR.

958,099.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed May 23, 1906. Serial No. 318,312.

To all whom it may concern:

Be it known that I, ARTHUR F. DURAND, a citizen of the United States of America, and resident of Chicago, Cook county, Illinois, have invented a certain new and useful Improvement in Safety-Razors, of which the following is a specification.

My invention contemplates certain improvements which are directed more especially to the idea of having the upper or top surface of a safety razor blade uncovered or left fully exposed and thus adapted to be held flat-wise upon the cheek of the user.

To the foregoing and other useful ends my invention consists in matters hereinafter set forth and claimed.

In the accompanying drawings Figure 1 is a sectional view of a razor embodying the principles of my invention; Fig. 2 a plan of the same; Fig. 3 is a view similar to Fig. 1, showing another form of my invention; Fig. 4 is a plan of the same; Fig. 5 is a view similar to Fig. 1, showing another form of my invention; and Fig. 6 is a plan of the same.

In Figs. 1 and 2 the plate A has guard teeth *a* and rear holding lugs *a'*. The clamping jaw B has holding lugs *b* and a stem *b'*. Said jaw is adapted for movement in the plane of the blade C, and has a bevel *b''* in its stem. The handle D is rigid with the plate A and provided with a socket *d* for said stem. A spring E presses the stem outward and tends to move the jaw B away from the blade. Said holding lugs each engage and overhang a corner of the blade. A screw *a''* acts on a stop to prevent the stem from falling out of its socket. The handle is hollow and provided with an operating screw F. Said operating screw has an upper end portion *f* adapted to engage the bevel *b''*. A thumb piece *f'* is secured to the screw for operating the same. When the screw F is rotated one way the end *f* moves downward and allows the jaw B to disengage its lugs from the blade. The blade can then be lifted from the plate A. When the screw is rotated the other way the end *f* then moves up and causes the jaw to engage and hold the blade.

In Figs. 3 and 4 the stem G of the movable jaw is provided with a nut *g*. A spring *g'* is interposed between this nut and the shoulder *g''*. The screw H has its upper end adapted to engage the said stem G. With this arrangement the blade can be removed

by loosening the screw H and then pushing on the nut *g*.

In Figs. 5 and 6 the rear edge of the blade I is not sharpened and is provided with a downwardly depending lip or ridge *i*. The movable jaw J is at the rear instead of at the front. This jaw is adapted to clamp the lip or ridge *i* against the rear edge of the plate K upon which the blade rests. Said jaw has a stem *j* provided with a bevel *j'*. It will be understood of course that said bevel is formed at the end of a slot in said stem, as shown in Fig. 5. The upper end of the screw L engages said bevel. A spring M moves the jaw outwardly. With this arrangement the entire upper surface of the blade is exposed, and there are no projections rising above the same.

In the forms shown in Figs. 1 to 4 the upper surface of the blade is fully exposed, and the lugs do not rise but slightly above such surface. In these forms, however, the blade is double edged.

In Fig. 5 the screw N prevents the jaw J from being disconnected from the blade holder or plate K.

In each form of my invention, the cavity for the spring is located midway between the ends of the blade. Thus the stem and spring are, in each case, located centrally of the holder. In this way the ends of the holder are alike and the razor is balanced.

What I claim as my invention is:—

1. In a safety razor, the combination of a blade, a plate provided with a guard, a clamping jaw movable in the plane of said blade, means for supporting said jaw for movement in the plane of the blade, and a handle, a screw operable at the lower end of said handle, and means engaged by said screw for locking said jaw.

2. In a safety razor, the combination of a double edged blade, a guard, a movable jaw provided with a pair of lugs engaging and overhanging the two forward corners of said blade, a plate provided with two lugs engaging and overhanging the two rear corners of said blade, a stem on said jaw extending toward the rear of said plate, a spring holding the jaw in one direction, and a screw extending upwardly and engaging said stem, said plate provided with a handle at the lower end of which said screw is operable.

3. In a safety razor, the combination of a double edged blade, a holder provided with

a seat for the blade and holding lugs for the corner portions thereof, each lug recessed to receive and overhang a corner portion of the blade, the two front lugs being connected to form a pair, the two rear lugs being connected to form another pair, means for supporting one pair of lugs for movement toward and away from the other pair, means including a screw extending lengthwise of the handle for locking the lugs against relative movement when the blade is in place, a guard for the blade, a handle rigid with one pair of lugs, and a sliding connection between the handle and movable pair of lugs, engaged by said screw, said lugs preventing edgewise displacement of the blade in all directions.

4. In a safety razor, the combination of a reversible double edged blade, a holder provided with front and rear holding lugs, each lug holding the blade against endwise and sidewise displacement, means integral with the said lugs for engaging the top of the blade to hold the same flatwise in place on said holder, a guard for the cutting edge of the blade, a handle for the holder, and means including a sliding connection in the holder engaged by the upper end of a rotary screw extending lengthwise of the handle for locking one of said lugs relatively to the others to grip the blade.

5. In a safety razor, the combination of a flat rectangular blade having one or more cutting edges, a blade holding device therefor comprising a pair of relatively movable clamping jaws, a spring normally actuating one of them in the plane of the blade, a blade seat on one clamping jaw, a guard for the cutting edge or edges, means on said jaws receiving and overhanging opposite edges of the blade and holding it flatwise on the blade seat and fixed from displacement in any direction, a centrally disposed handle rigid with one of said jaws on the under side of the blade seat, and means on

said blade holding device arranged lengthwise of the handle, and means cooperating therewith whereby the normal action of the spring is opposed and overcome to effect the insertion and removal of the blade.

6. In a safety razor, the combination of a flat rectangular blade having one or more cutting edges, a blade holding device therefor comprising a pair of clamping jaws, one fixed and one movable thereon, a spring normally actuating the movable clamping jaw in the plane of the blade, a blade seat on said fixed clamping jaw and a guard for the cutting edge or edges, means on said jaws receiving and overhanging opposite edges of the blade and holding it flatwise on the blade seat and fixed from displacement in any direction, a centrally disposed handle on the under side of the blade seat, means on said blade holding device arranged lengthwise of the handle, and means cooperating therewith whereby the normal action of the spring is opposed and overcome to effect the insertion and removal of the blade.

7. In a razor, a rectangular blade, a holder for said blade, comprising two plates extending longitudinally of the blade, means for moving one plate transversely of the blade, to grip and release the blade, the top of the blade being exposed, said means comprising a stem extending transversely of the blade, below the latter, and a spring acting on said stem, said holder having a cavity for said spring, which cavity is disposed midway between the two ends of the blade, whereby the said stem and spring are disposed centrally of the holder, and the opposite ends of the latter are of like formation, for the purpose set forth.

Signed by me at Chicago, Illinois, this 21st day of May, 1906.

ARTHUR F. DURAND.

Witnesses:

SARAH LEWIS,
JENNIE NORBY.