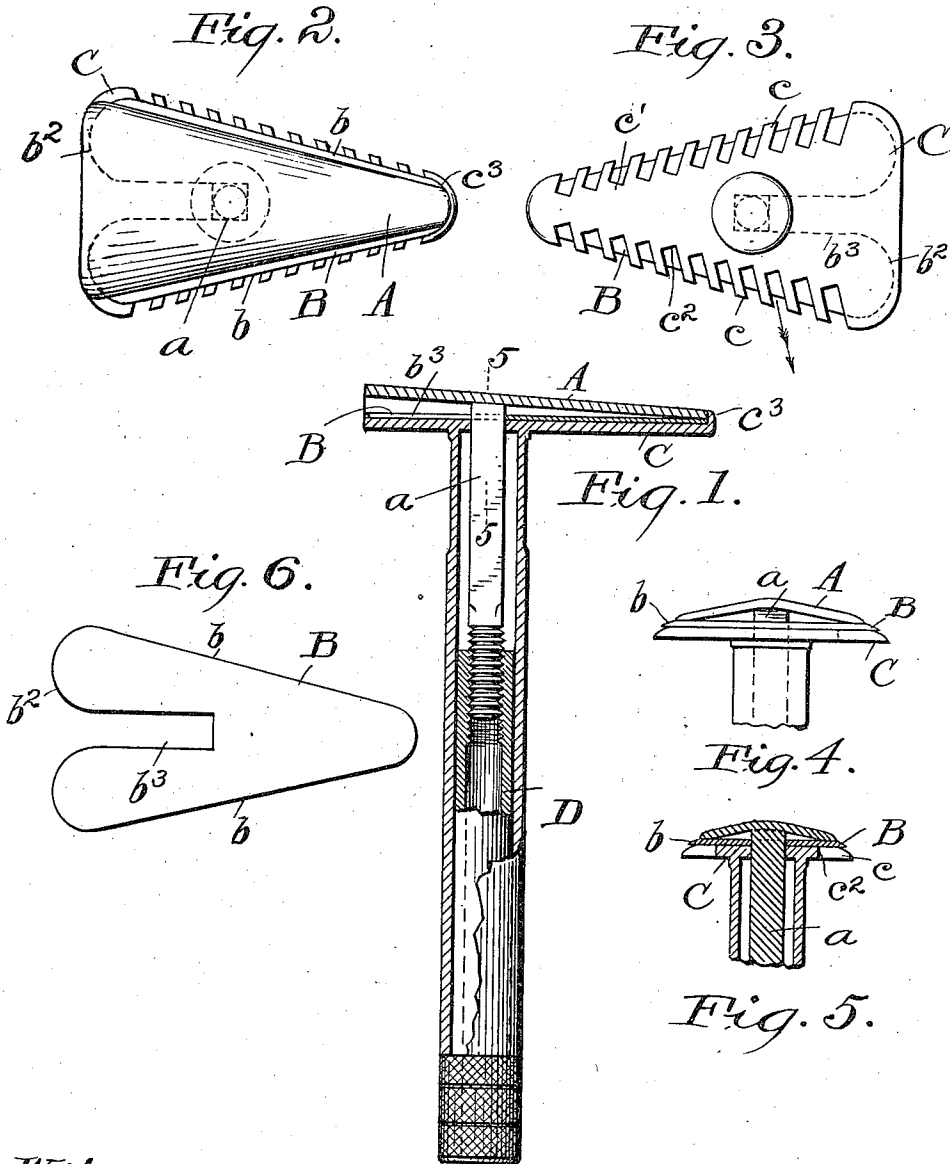


H. C. SHANNON.
SAFETY RAZOR.
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1,030,023.

Patented June 18, 1912.



Witnesses.
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UNITED STATES PATENT OFFICE.

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SAFETY-RAZOR.

1,030,023.

Specification of Letters Patent. Patented June 18, 1912.

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To all whom it may concern:

Be it known that I, HARRIS C. SHANNON, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Safety-Razors, of which the following is a full, clear, and exact description.

This invention has for its primary object the provision of a safety razor which will cut shearingly, and therefore most efficiently.

The invention consists of the combination in a safety razor of a guard plate having converging sides with projecting teeth in said sides, which are inclined relatively thereto, respectively, and away from the converging point of the sides; a razor blade having cutting edges which converge at similar angles to the sides of said guard plate; a clamping plate; means for drawing the guard plate and clamping plate together upon the interposed blade which is formed to permit of its adjustment for wear between said plates in the direction of a line which bisects the angle between the cutting edges and to prevent it from moving therebetween otherwise; with such other characteristics of construction as are shown in the drawing and are hereinafter described and defined by the claims.

In the drawing, Figure 1 is a central longitudinal section of a safety razor embodying the invention. Fig. 2 is a plan view of the razor as shown in Fig. 1. Fig. 3 is a bottom view thereof. Fig. 4 is a view from the left side of Fig. 1. Fig. 5 is a central sectional view in the plane indicated by line 5-5 on Fig. 1. Fig. 6 is a plan view of the razor blade.

The clamping plate A, the razor blade B, and the guard plate C are quite similar in shape,—that is to say, they are substantially triangular, each having two operative edges which lie at an acute angle to each other,—and a third edge which has no function.

The clamping plate has connected with it a square shank *a*; the guard plate has the usual tubular handle; and a shouldered thumb nut D goes down into said handle and screws onto the threaded end of the shank, so that when the razor blade is put between the clamping plate and guard plate it may be clamped thereby. This is the conventional clamping mechanism; and any other

suitable clamping mechanism may be substituted.

The razor blade has a blunt dull point at the convergence of its two cutting edges *b b*. It has also, extending inward from the intermediate side *b*², a slot *b*³ which is flaring at its outer end. The width of the inner end of this slot is such that it will nicely embrace the squared shank *a*; and the depth of the slot may be such that the blunt corner or apex of said blade may engage behind a flange *c*³ on the corresponding corner of the guard plate. The acute corner of the clamping plate is also adapted to go behind and engage this same flange *c*³.

With the construction described, it is not necessary to entirely disconnect the guard plate and clamping plate in order to remove or put in a razor blade. The thumb nut D need only be unscrewed far enough to allow the blade to be moved between said clamping plate and guard plate and over the flange *c*³. In assembling, the blade may be dropped between them so that the slot will take over the square shank. When or before the end of the slot strikes the shank the end of the blade will fall behind the flange *c*³. Then when the nut D is tightened the parts will be clamped together in the proper relation to each other.

The teeth *c* on the two operative edges *c'* *c*² of the guard plate may be of the usual form; but instead of projecting from said edges at right angles thereto, they project at a different angle,—preferably an angle of about 75–105 degrees, although the precise angle is not material. These teeth incline away from the point of convergence of the sides of the guard and obviously will lie at the same angle to the edge of the razor blade. Therefore, if one using the razor draws it over his face in the direction it will be most easily moved, *i. e.* parallel with the direction in which the teeth extend,—indicated by the arrow on Fig. 3, the razor blade will be drawn shearingly across the face. These obliquely disposed teeth act as guides when in contact with the face, and help to govern the direction of movement of the razor. Moreover, the described construction is such that both cutting edges of the razor blade may be sharpened many times and ground away a great deal without rendering it unfit for use with the described clamping and holding devices. For

if, as the cutting edges are ground away, the blunt point is also ground down, then the razor blade may be moved lengthwise to carry this blunt edge against the flange
 5 or close to it; and then the cutting edges will be restored to their proper relation to the corresponding edges of the guard plate.

Having described my invention, I claim:—

1. In a safety razor, the combination of
 10 a clamping plate having a flat sided shank, and a blunt corner at which is a flange, a razor blade having a slot extended into the same from one side, and having a blunt end for engagement with said flange, a toothed
 15 guard plate having a blunt corner for engagement with said flange, and means engaging said shank for drawing the clamping plate and guard plate together upon said blade.

2. In a safety razor, the combination of a guard plate having converging sides; projecting teeth on said sides, inclined relatively thereto, respectively, and away from the converging point of the sides; a razor
 25 blade having cutting edges which converge at a similar angle; a clamping plate; means for drawing the guard plate and clamping plate together upon the interposed blade; said blade being formed to permit of its adjustment for wear, between said plates, in
 30 the direction of a line which bisects the angle between the cutting edges and to prevent it from moving therebetween otherwise.

3. In a safety razor, the combination of
 35 a guard plate having converging sides on which are projecting teeth inclining rela-

tively to their respective sides and away from the converging point of the sides, a razor blade having cutting edges which converge at a similar angle, a clamping plate, means for drawing the guard plate and clamping plate together upon the interposed blade, said clamping plate being provided with the flat-sided shank, and the blade having a slot cut in from the base end toward
 4 the angle at which the cutting edges converge said slot being of such width as to nicely embrace the flat shank.

4. In a safety razor, the combination of a toothed guard-plate the sides of which converge toward a blunt point, an integral flange on said point projecting outwardly, an aperture in the guard plate, a clamping plate with converging sides and a blunt point adapted to lie behind said flange, and provided with a flat sided shank adapted to pass into the aperture of the guard plate, a razor blade having converging edges and a blunt end adapted to lie behind said flange and provided with a longitudinal slot extending into the broad end of the blade with its sides embracing the flat sides of the clamping-plate shank, with means for clamping the guard plate and the clamping plate together upon said blade.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

HARRIS C. SHANNON.

Witnesses:

E. L. THURSTON,
 H. R. SULLIVAN.