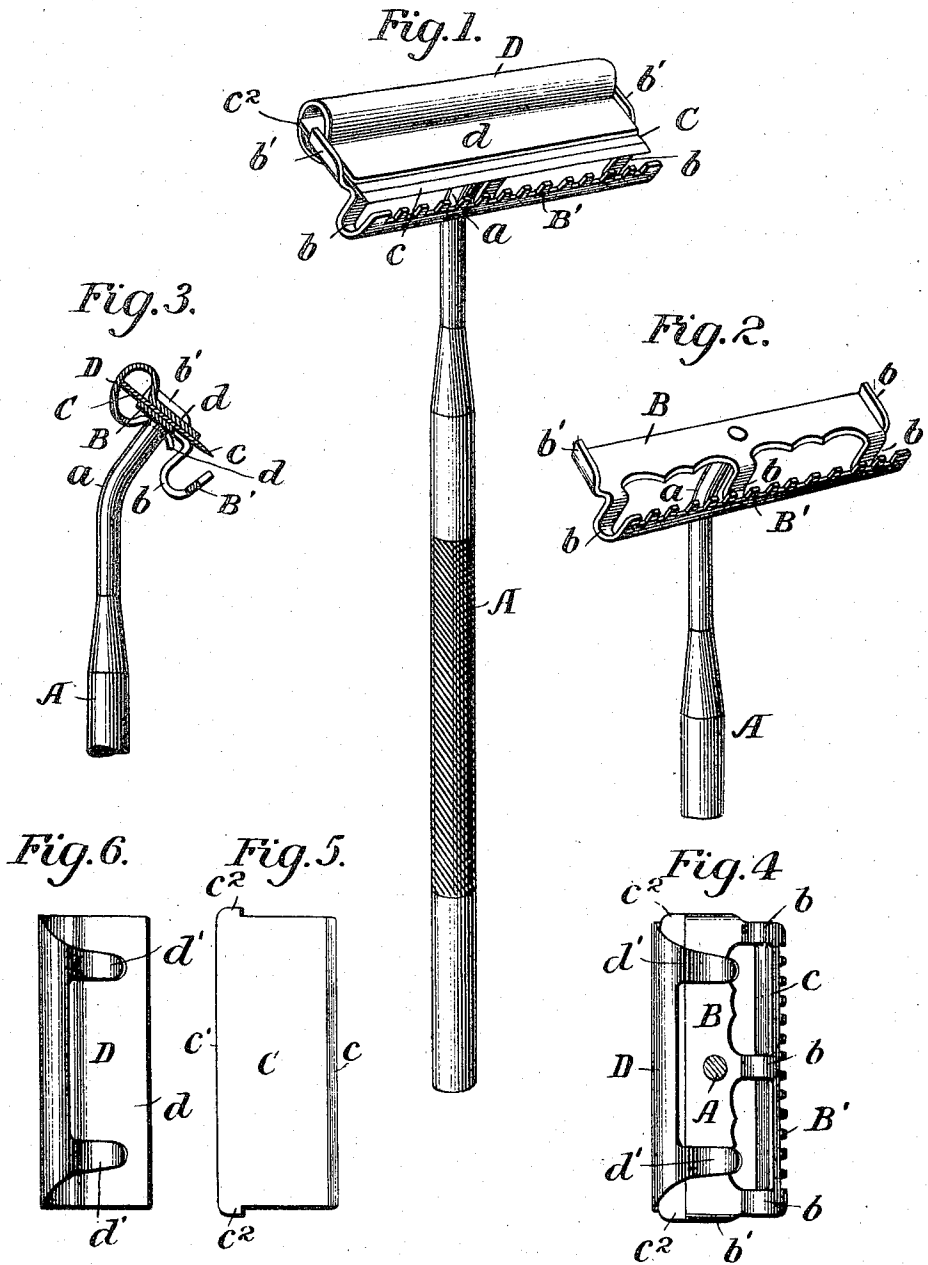


No. 853,960.

PATENTED MAY 21, 1907.

R. J. CHRISTY.  
SAFETY RAZOR.

APPLICATION FILED MAY 3, 1906.



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# UNITED STATES PATENT OFFICE.

RUSS J. CHRISTY, OF FREMONT, OHIO.

## SAFETY-RAZOR.

No. 853,960.

Specification of Letters Patent.

Patented May 21, 1907.

Application filed May 3, 1906. Serial No. 315,102.

*To all whom it may concern:*

Be it known that I, RUSS J. CHRISTY, a citizen of the United States, residing at Fremont, Sandusky county, State of Ohio, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

My invention relates to safety razors, and it has for its object to provide an improved and simplified construction that can be cheaply made and is adapted to produce improved results in practical use.

To these ends my invention consists in the various features of construction and arrangement of parts, and having the general mode of operation substantially as hereinafter more particularly pointed out.

Referring to the accompanying drawings, wherein I have illustrated a preferred embodiment of my invention,—Figure 1 is a perspective elevation of a razor embodying the invention; Fig. 2 is a similar view showing the handle and supporting plate attached thereto; Fig. 3 is a transverse section showing the relations of the parts and the relative angle of the blade to the handle; Fig. 4 is a rear plan of the razor, the handle being shown in section; Fig. 5 is a plan of the blade; and Fig. 6 is a rear plan view of the clamping plate.

My invention relates to the class of safety razors which may be defined under the general term of the "Hoe" type of razors, and it may be said to be an improvement upon the razor forming the subject-matter of my Patent No. 788,820, of May 2, 1905, as it embodies a blade substantially such as shown therein, used in connection with a handle of the general type illustrated therein, and it provides improved means for supporting and holding the blade in its relation to the handle, and has other features of improvement which will appear more particularly hereafter.

One feature of improvement relates to the angle in which the blade is placed with relation to the handle, by means of which the razor is normally held in the best relations so as to be placed upon the face in any position, and to do the easiest cutting and also tending to preserve the cutting edge. Thus the blade is held in a transverse plane approximately  $45^\circ$  to the longitudinal axis of the handle.

The handle A shown herein is quite similar

to that of my prior patent, above referred to, except that the bent portion *a* extends at an angle considerably less and is approximately at an angle of  $45^\circ$  to the main body of the handle. I consider this an important feature of construction and arrangement owing to the improved results following such construction, and especially when the handle is used in connection with the other parts of the razor hereinafter described.

Secured to the bent end *a* of the handle is a supporting plate B, and while this may vary in details of construction, I have shown it as comprising what may be termed a combined comb guard and supporting plate, in that formed with or attached to the body of the plate B is a comb B', the teeth of which project in a plane substantially at right angles to the main body of the supporting plate and approximately parallel to the bent end A of the handle, as shown in Fig. 3. The ends of these teeth extend into position adjacent the edge of the blade but a little in front of the same so that they form a safety guard and also a receptacle for the lather and beard as it is cut by the blade. In the present instance the comb guard B' is shown as an integral part of the supporting plate B and is connected thereto by the bent portions *b b*, the material being cut away between these portions and the body of the plate and guard. This forms an exceedingly simple and cheap combined supporting plate and comb guard, and by attaching the supporting plate directly to the bent end of the handle, in the manner above set forth, the blade is held in a position to accomplish the results indicated above. The supporting plate is also preferably provided with lips or ears *b'* at each end, serving as guides to properly locate the blade with respect to the supporting plate and with relation to the comb guard.

The blade C comprises a flat rigid plate of practically uniform thickness, having a front cutting edge *c* and a rear cutting edge *c'*, while its ends are provided with ears or projections *c''* which bear against the ends of the lips or ears *b'* of the supporting plate and insure the proper location of the blade with relation to the supporting plate and guard.

In order to secure the blade in position upon its supporting plate, I provide a separable or removable spring clamping plate D, and while this may vary in details of con-

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struction, I have shown it as having a bearing face portion *d*, preferably extending practically throughout the length of the blade and with clamping fingers *d'* *d'* adapted to engage the rear portion of the supporting plate.

In assembling the parts of the razor for use, the supporting plate and handle are grasped by the hand and the blade C placed upon the supporting plate so that its lugs or projections *c*<sup>2</sup> impinge upon the ends of the lips or ears *b'*, and then the spring clamping plate is forced into position so as to grasp and hold the blade and supporting plate together, its rear spring portion engaging the rear edge of the blade to hold the lugs *c*<sup>2</sup> of the blade against the lips *b'* of the supporting plate. The edge of the blade is thereby held in correct position relative to the comb B'. In removing the blade the clamping plate and blade are drawn away from the comb guard so that the blade may be said to be removable sidewise with its cutting edge in the rear, and in this way not only can the blade and clamp plate be quickly removed but without danger to the operator.

It will be observed that the razor comprises practically three separable parts, the first of which is the combined supporting plate and comb guard rigidly fixed to the bent handle, the handle being attached near the center of the plate, the second of which is the removable flat blade which is removable sidewise with its cutting edge to the rear, and the separable spring clamping plate which is adapted to hold the parts in operative position. When in operative position, as above intimated, the blade is at an angle approximately 45° to the longitudinal axis of the handle, and I have found that this results in giving what may be termed a sensitive feel and perfect control of the razor which is desirable in actual use.

Such being the general construction and arrangement of the various parts of my improved razor, it will be seen that they are all exceedingly simple to make and at the same time are readily assembled for operation and detached for cleaning or otherwise, and when in position are always adjusted in their proper relations and in the best relative position to produce the results desired.

What I claim is,—

1. The combination with a supporting plate having lips at its ends and a blade having ears at its ends to bear against the ends of the lips, of a removable spring clamping plate adapted to embrace the blade and supporting plate and having its rear spring por-

tion in engagement with the rear edge of said blade.

2. The combination with a handle and rigidly mounted supporting plate and a blade on said plate, of a removable clamping plate having a bearing face portion to engage the blade, clamping fingers to engage the plate, and a spring portion connecting said bearing face portion and said fingers, whereby the blade is held against the supporting plate by spring pressure and is readily removable.

3. The combination with a handle and rigidly mounted supporting plate having lips at its ends and a blade lying on said plate between the lips and having lugs at its ends to engage the lips, of a removable clamping plate shorter than the space between said lips and adapted to slide therebetween, said plate having a bearing face engaging the blade, clamping fingers engaging the plate, and a spring portion connecting said bearing face portion and said fingers.

4. The combination with a handle having a portion thereof bent at an angle of approximately 45°, of a combined supporting plate and comb guard secured to said handle at approximately the center of the supporting portion of said plate, the supporting face of said plate being arranged at a right angle to the bent portion of said handle, and a blade supported on said plate, whereby said blade is held rigidly in a transverse plane approximately 45° to the longitudinal axis of the handle.

5. The combination with a handle having a portion thereof bent at an angle of approximately 45°, of a supporting plate secured to the end of the bent portion of said handle at approximately the center of said plate, the supporting face of said plate being arranged at a right angle to the longitudinal axis of said bent portion, a comb guard on one side of said supporting plate and secured thereto by bent portions, a blade supported on said plate and extending approximately equal distances beyond each side of said plate and the edge arranged adjacent said comb, a spring clamping plate arranged to clamp said blade to said supporting plate and having its rear spring portion in engagement with the rear edge of said blade and curved to correspond in cross section with the comb on the other side of said supporting plate.

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

RUSS J. CHRISTY.

Witnesses:

C. J. CHRISTY,  
H. C. DE RAN.