

No. 798,129.

PATENTED AUG. 29, 1905.

R. J. CHRISTY.
SAFETY RAZOR.

APPLICATION FILED OCT. 29, 1902.

2 SHEETS—SHEET 1.

Fig. 1.

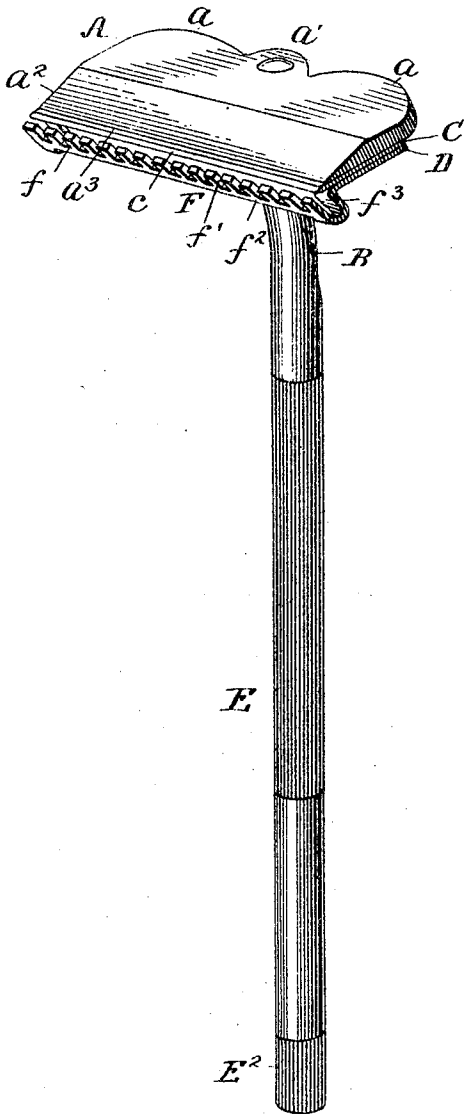
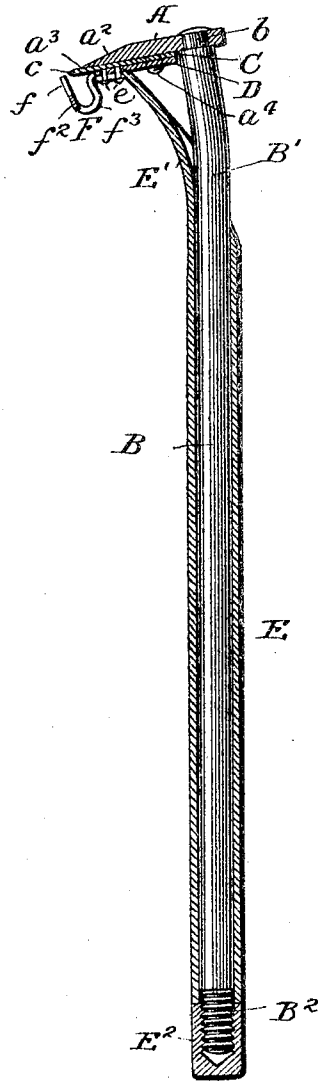


Fig. 2.



Witnesses
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Fig. 3.

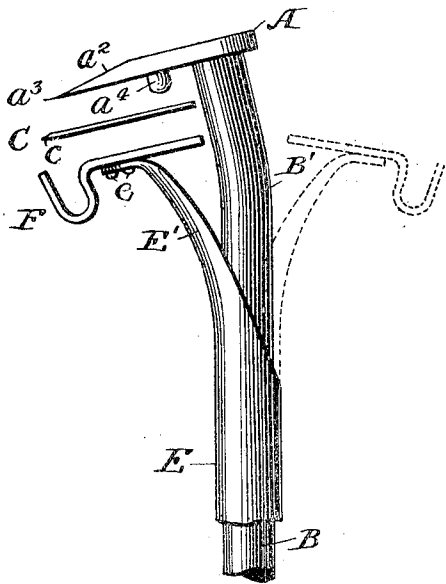


Fig. 5.

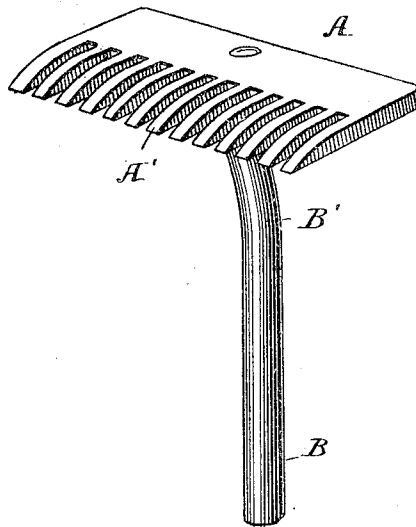


Fig. 4.

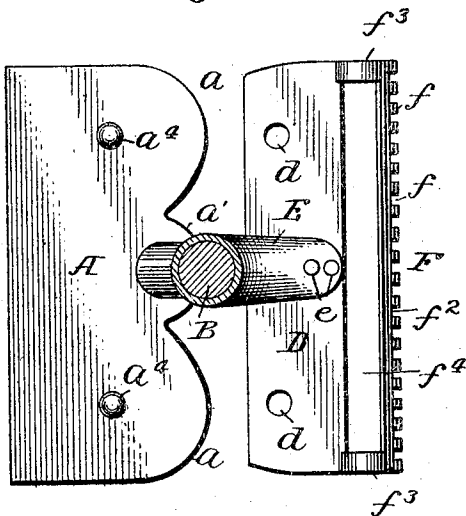
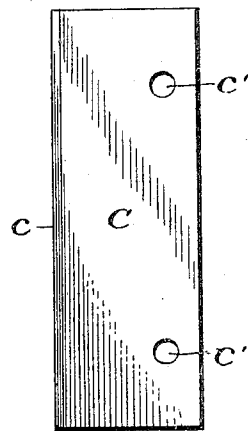


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

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SAFETY-RAZOR.

No. 798,129.

Specification of Letters Patent.

Patented Aug. 29, 1905.

Application filed October 29, 1902. Serial No. 129,290.

To all whom it may concern:

Be it known that I, RUSS J. CHRISTY, a citizen of the United States, residing at Fremont, in the county of Sandusky and 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 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 and is not liable to get out of order or derangement; and to these ends my invention consists in the various features of construction and arrangement of parts, having the general mode of operation substantially as hereinafter more particularly pointed out.

Referring to the accompanying drawings, wherein I have illustrated the preferred embodiment of my invention, Figure 1 is a perspective view of the safety-razor complete. Fig. 2 is a central longitudinal section of the same. Fig. 3 is a detail view showing the parts separated. Fig. 4 is a transverse section looking toward the razor proper, showing the parts displayed. Fig. 5 is a perspective of a modification. Fig. 6 is a plan view of the knife.

Referring to the drawings, A represents what I have termed the "rigid supporting-plate" of the razor, which in the present instance is made in a general outline corresponding to a conventional hoe, in that the upper edge is curved, as at a' , and the lower edge is preferably beveled or tapered, as at a^2 , so as to form a relatively thin edge a^3 . This supporting-plate is provided with a handle which may be of any desired shape or configuration, but which in the present instance is shown in the form of a rod B, its end being reduced, as at b , so as to fit an opening in the supporting-plate and be attached thereto in any suitable way, as by upsetting the end of the rod or being screw-threaded or otherwise securely attached to the supporting-plate. This rod is preferably bent, as at B' , to a greater or less extent, so that the portion adjacent the supporting-plate shall be practically at right angles to the inner face thereof, and the main handle shall be at an acute angle thereto, as this arrangement of the handle is better adapted to bring the cutter, hereinafter described, in proper relation to the face in use. This handle B may be of any desired length to suit, and while I have shown it round

in cross-section it may be of any configuration desired, although there are advantages in making it round, as will hereinafter appear.

The cutting-blade is mounted upon the supporting-plate and may be secured thereto in various ways, and in the present instance I have shown the supporting-plate provided with a plurality of lugs a^4 , the heads of which are preferably rounded and which are either formed integral with the supporting-plate or secured thereto in any desired way. The blade C may be of different shapes and configurations; but I prefer to make the blades of a sheet or plate of steel of substantially uniform cross-section or thickness, so that they can be readily cut, stamped, or otherwise formed from sheet-steel and can therefore be made exceedingly cheap and can be readily sharpened and kept sharpened at other cutting edge. I have shown this cutting edge c as being beveled on both sides, and this is the preferred form of cutting edge; but the blade may be beveled on one side only; but however it is shaped, the blade itself being of substantial uniform thickness, it can be readily maintained in the sharp condition with little or no wear or destruction of its cutting edge. The blade is also so constructed as to be quickly and accurately disposed in proper relation upon the supporting-plate, so as to be in operative condition, and in the present instance the blade is provided with openings c' , adapted to fit accurately over the studs or projections a^4 of the plate, and thus maintain the cutting edge of the blade in proper relation with the other parts of the device. Instead of the studs and holes any other equivalent securing and holding devices may be used; but those described have been found to be most satisfactory.

In order to hold the blade in position, I provide what I term a "securing-plate" D, and this plate is provided with openings d , corresponding to the studs or projections a^4 , and is adapted to fit over the inside face of the blade and to clamp the blade between the supporting-plate and the securing-plate. This securing-plate may be mounted in different ways and held in position by different means; but in the present case I have shown the securing-plate as mounted upon a sleeve E, which is adapted to slide and rotate upon the handle B, and in order that the securing-plate may be readily brought into and out of proper position the forward end of the sleeve is preferably cut away and bent outwardly from the

handle, as at E', and it is connected to the se-
 curing-plate in any suitable way, as by rivets
 e. It is of course desirable to secure the sleeve
 and handle together in proper relation, so as to
 5 perform the function of holding the blade in
 proper position, and it is also desirable to have
 the sleeve arranged so that it can readily be
 moved out of position to permit the removal
 of the blade for the purpose of sterilizing the
 10 same or substituting another blade or for any
 other purpose, and when the securing-plate
 is mounted on the sleeve in the manner de-
 scribed not only can the sleeve slide on the
 handle, but it can be rotated in relation there-
 15 to, so that the securing-plate may be brought
 into the position shown in dotted lines in Fig.
 3 and in full lines in Fig. 4, and then the blade
 can be readily adjusted or removed, as de-
 sired. When, however, the blade is to be
 20 clamped in operative position, the sleeve can
 slide on the handle B and be secured in oper-
 ative position by any suitable means, as by
 the head E², fitting on the screw-threaded por-
 tion B² of the handle.
 25 While the device thus far described makes
 a complete operative razor, it is desirable to
 provide the razor with what I have termed a
 "comb," which not only serves the ordinary
 functions of a comb, but also serves as a
 30 safety-guard for the cutting-blade. While
 this comb may be variously constructed and
 arranged, I prefer to attach it to the secur-
 ing-plate and, in fact, prefer to make it as an
 integral portion of the securing-plate, and I
 35 have shown the plate D as being extended to
 form the comb F, which is provided with the
 teeth f and the intervening spaces f' on its
 edge. While it is not new, broadly speak-
 ing, to provide a safety device for razors, I
 40 have found that it is very material to prop-
 erly locate this safety device with respect
 to the cutting edge, and I have arranged
 the comb or safety device so that it is adja-
 cent the face of the cutting-blade which is
 45 away from the part on which the blade oper-
 ates. In other words, it is on the face of
 the blade and supporting-plate from which
 the handle extends. By thus bringing the
 teeth F so that their ends are in close rela-
 50 tion to the cutting edge c of the blade and a
 little in advance of said edge the teeth serve
 the functions of an ordinary comb in straight-
 ening the hair or beard and leaving it in the
 best condition to be operated upon by the
 55 blade as the hair or beard passes through the
 spaces between the teeth of the comb and are
 in the best position to be operated upon by
 the cutting edge of the blade in contradis-
 tinction to being depressed or pushed down
 60 by the safety devices ordinarily used. This
 is an important and distinguishing character-
 istic of the construction and arrangement of
 the comb or safety device, and while I have
 shown what I consider to be the best manner
 65 of mounting and constructing the same my

invention in this respect is not limited to the
 details described. The teeth of the comb are
 preferably made integral with what may be
 termed the "back" f² of the comb, and this is
 supported on the securing-plate by arms f³, 70
 leaving an opening between the back of the
 comb and the securing-plate, as at f⁴, and this
 not only tends to make the parts light, but
 provides a place for the reception of the lather
 in the cutting operation. The supporting- 75
 plate instead of being made practically solid,
 as shown in Figs. 1 to 4, may also be recessed,
 as indicated in Fig. 5, so that it is practically
 provided with teeth A', and otherwise being
 practically the same as in the first instance. 80

Such being the general description of the
 embodiment of the invention shown, its oper-
 ation will be generally understood from
 what has already been shown, and it will be
 seen that the whole constitutes a simple and 85
 effective device which can be cheaply made and
 which can be readily adjusted in operative
 or inoperative position, permitting thorough
 cleansing of the parts after use or the substi-
 tution of different blades or the removal and 90
 replacement of the blade, as in sharpening the
 same. Thus assuming the parts to be in the
 position indicated in Fig. 4 the blade can be
 readily removed or replaced on the supporting-
 plate and when placed thereon is in proper ad- 95
 justment for operation. Then by turning the
 sleeve and moving it longitudinally on the
 handle the securing-plate is brought into po-
 sition registering with the other parts by
 means of the studs or projections and being 100
 secured and held in position by some suitable
 means, as the head E², and in doing this the
 comb is also adjusted in its proper relation to
 the cutting edge of the blade. As before int- 105
 imated, in use the soap or other material can
 pass freely through the opening f⁴ of the
 comb and will be supported and maintained
 by the comb and the adjacent parts, so that
 it is not liable to drop, and afterward the 110
 parts may be detached for cleaning. Further-
 more, by my construction the blade is rig-
 idly supported practically throughout both
 its sides or surfaces instead of being sup-
 ported by clamps or clips at its ends, as is
 common in this class of devices. This con- 115
 struction is important in that it permits the
 use of very thin blades, whether they are of
 uniform cross-section or otherwise. Further-
 more, it will be seen that my construction pro-
 vides clamping-plates having parallel adja- 120
 cent faces from which the blade is removable
 sidewise with the cutting edge in front and
 that, as shown, the blade is entirely in front of
 the handle.

Having thus fully described one embodi- 125
 ment of my invention, without limiting my-
 self to the precise details shown and described,
 which may be varied by those skilled in the
 art without departing from the principles
 thereof, what I claim is— 130

1. A safety-razor having clamping-plates with parallel adjacent surfaces and a thin blade arranged to be held between them and removable therefrom sidewise with the cutting edge in front, substantially as described.

2. A safety-razor having clamping-plates adjustable with relation to each other and a thin blade arranged to be held between them and removable therefrom sidewise with the cutting edge in front, substantially as described.

3. A safety-razor having clamping-plates with parallel adjacent faces and a thin blade wholly in front of the handle and removable from the plates sidewise with the cutting edge in front, substantially as described.

4. A safety-razor having adjustable clamping-plates and a thin blade of less width than the clamping-plates and removable sidewise with the cutting edge in front, substantially as described.

5. A safety-razor having adjustable clamping-plates with devices for holding the blade in positive relation between the plates, and a thin blade removable sidewise with the cutting edge in front, substantially as described.

6. A safety-razor having adjustable clamping-plates with parallel opposing surfaces and having devices for holding the blade in positive relation between the plates, and a thin blade removable sidewise with the cutting edge in front, substantially as described.

7. A safety-razor comprising a supporting-plate, a handle connected thereto, a blade, devices for determining the relations between the blade and supporting-plate, a securing-plate, a sleeve mounted on the handle and capable of longitudinal and rotative movement thereon, and means for securing the parts in operative position, substantially as described.

8. A safety-razor comprising a supporting-plate, a handle connected thereto, a blade, a securing-plate, a comb connected to the securing-plate, and a sleeve mounted on the handle and supporting the securing-plate and comb, substantially as described.

9. A safety-razor comprising clamping-plates having parallel adjacent surfaces, a han-

dle secured to the upper edge of one of the clamping-plates and extending at substantially right angles therefrom, a thin blade removable sidewise with the cutting edge in front and devices for securing the blade between the plates in front of the handle, substantially as described.

10. A safety-razor comprising a supporting-plate, a handle connected to said plate, a blade, a securing-plate, a sleeve carrying said plate and mounted to move longitudinally and rotatably on the handle, and a head adjustably connected to said handle to secure the parts together, substantially as described.

11. A safety-razor comprising a supporting-plate, a blade mounted thereon, a securing-plate, means for adjusting the securing-plate with relation to the supporting-plate, and a comb, the teeth of which project in front of the cutting edge of the blade, the comb being mounted on the securing-plate, substantially as described.

12. A safety-razor comprising a supporting-plate, a blade, a handle connected to the said plate, a securing-plate, a comb mounted on the securing-plate and providing an opening between the comb-teeth and securing-plate, and means for supporting the securing-plate and comb, substantially as described.

13. A safety-razor having a clamp with separate upper and lower clamping-plates movable toward and from each other, an adjustable clamping device for said plates, and a thin blade arranged to be held between them, said blade being free to slip out sidewise when the clamp is loosened.

14. A safety-razor having upper and lower clamping-plates and a screw-clamp, a cutting-blade of less width than the clamping-plates and wholly in front of the stem of the screw-clamp and removable sidewise.

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

RUSS J. CHRISTY.

Witnesses:

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BIRT S. GARVER.