No. 753,036. PATENTED FEB. 23, 1904.

J. BIGGIN.

SAFETY RAZOR.

APPLICATION FILED NOV. 6, 1903.

NO MODEL.

Fig. 1.

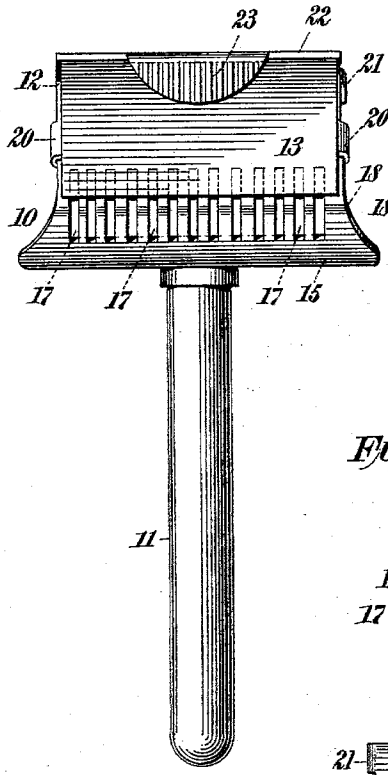


Fig. 2.

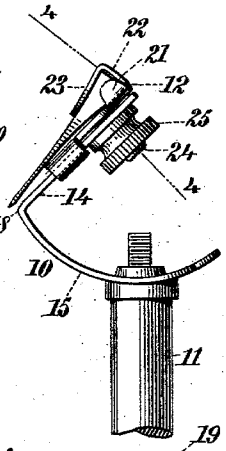


Fig. 3.

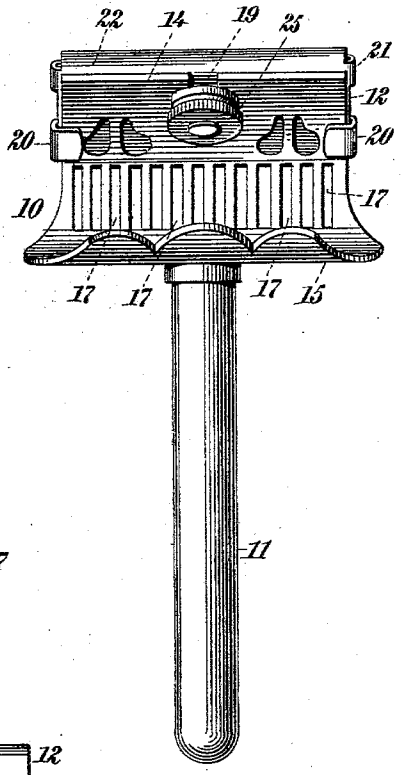


Fig. 5.

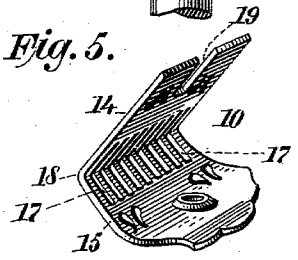


Fig. 6.



Fig. 4.

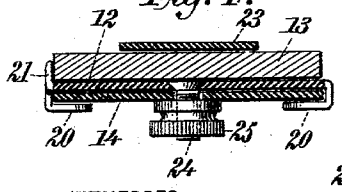


Fig. 7.

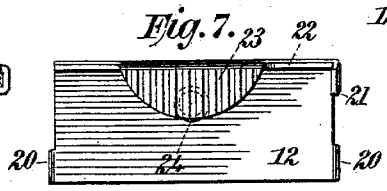
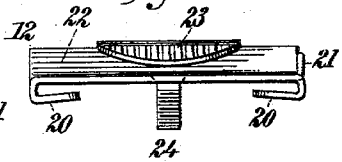


Fig. 8.



WITNESSES:

Gustave Dietrich.

Arthur Marion.

INVENTOR

John Biggin

BY

Chas. C. Gill

ATTORNEY

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 753,036. Patented February 23, 1904.

UNITED STATES PATENT OFFICE.

JOHN BIGGIN, OF SHEFFIELD, ENGLAND.

SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 753,036, dated February 23, 1904.

Application filed November 6, 1903. Serial No. 180,010. (No model.)

To all whom it may concern:

Be it known that I, JOHN BIGGIN, a subject of His Majesty the King of Great Britain, and a resident of Sheffield, in the county of York, England, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

The invention relates to improvements in safety-razors; and it consists in the novel features and combinations of parts hereinafter described, and particularly pointed out in the claims.

The object of my invention is to simplify the construction of safety-razors and render the same less expensive of manufacture and more efficient and conventent in use, and the razor of my invention comprises but few parts capable of ready adjustment and of being easily cleansed.

In accordance with my invention the general supporting-frame is in one integral piece of metal properly slotted and of substantially triangular shape, one member of the triangle being curved and receiving the handle, while the other member of the triangle frame affords a support for a clip which carries the razor-blade and which is adjustable and may be fastened in any set position by means of a nut and screw. The clip for the razor-blade also constitutes a part of my invention, and it is in one integral piece having at its ends backwardly-turned lips to engage and slide upon the opposite edges of the general frame and also having at its central upper edge a frontwardly and downwardly turned lip to closely engage the upper face of the razor-blade, which is to be slid endwise below said lip. At its upper edge the said clip is provided with a flange covering the extreme upper edge of the razor-blade, and at one end adjacent to its upper edge the said clip is provided with a small flange constituting a stop against which one edge of the razor-blade will abut when said blade is in position upon said clip. The clip carries at its back a screw, which may be moved upwardly and downwardly in a slot formed in the general frame, a nut being provided upon this screw for fastening said clip in position upon said frame.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a front view of a safety-razor constructed in accordance with and embodying the invention. Fig. 2 is an edge view of same. Fig. 3 is a back view of same. Fig. 4 is a sectional view through a portion of same on the dotted line 4 4 of Fig. 2. Fig. 5 is a detached perspective view of the triangle frame for supporting the razor-blade and its clip. Fig. 6 is a detached elevation looking at the rear side of the clip. Fig. 7 is a front elevation of same, and Fig. 8 is a bottom edge view of the clip.

In the drawings, 10 designates the main frame; 11, the handle applied thereto; 12, the clip adjustably secured to said frame, and 13 the blade held by said clip.

The frame 10 is in one integral piece of sheet metal bent into substantially a triangular outline, the member 14 thereof being flat to receive the clip 12 and the member 15 of said triangular frame being curved or bowed outwardly and provided with a threaded aperture to receive the upper threaded end of the handle 11, which may be of any suitable configuration. The sheet of metal from which the frame 10 is formed has the series of slots 17 cut in it, and said sheet is then bent rather abruptly on the line 18, crossing said slots to form the members 14 15, said slots thus being extended partly along both of said members. The member 14 is provided with the central slot 19, extending downwardly from its upper edge, for the purpose hereinafter explained. The clip 12 is also formed in one integral piece from a piece of sheet metal and has the backwardly-turned end lips 20, the small upper end stop, lip, or flange 21, the frontwardly-turned flange 22 along its upper edge, and the downwardly and somewhat inwardly extending lip 23, projecting from the central portion of the front edge of the flange 22. Upon the back of the clip 12 is secured a screw 24, and upon this screw is applied a binding-nut 25.

The blade 13 is of about the same length as the clip 12 and is very firmly, although removably, held by said clip, and in applying the blade to the clip the said blade is slid end-

wise into the clip against the front face thereof and behind the lip 23 until the advancing end of the blade becomes arrested by the stop 21, the said blade being then home and its upper broad edge being covered by the flange 22. The lip 23 at its lower edge presses with a firm spring action against the face of the blade below the upper broad edge of the latter.

The clip 12 is applied to the member 14 of the frame 10 by sliding the same downwardly upon the front face of the said member, with the end lips 20 passing upon and engaging the end edges of said member and the screw 24 descending into the slot 19 and projecting backwardly. After the clip 12 has been adjusted to the desired position upon the member 14 it may be firmly fixed by screwing the nut 25 against the rear surface of the member 14, said nut 25 having a diameter greater than the width of the slot 19. The main frame 10 and clip 12 are thus each in one integral piece of metal, and said clip is adapted to conveniently receive the blade and to be readily adjusted upon and removed from the said frame. The frame 10 and clip 12 are also of such form that they may be readily cleaned, and the outline of the frame 10 is such that the handle 11 is thrown out at an angle to the blade, and the whole is so shaped and disposed as to secure great convenience and efficiency in the use of the razor and enable its manufacture at the minimum expense.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a safety-razor, the main frame 10 of substantially triangular form, one member 15 of the triangle being adapted to receive the handle, and said frame 10 being provided with the series of slots 17 which extend partly through both members thereof, combined with an independent clip for holding and carrying the razor-blade and adapted to be removably applied to the member 14 of said frame, and means for adjusting and securing said clip on said member 14; substantially as set forth.

2. In a safety-razor, the main frame 10 of substantially triangular form, one member 15 of the triangle being adapted to receive the handle, and said frame 10 being provided with the series of slots 17 which extend partly through both members thereof, combined with an independent clip for holding and carrying the razor-blade and adapted to be removably applied to the member 14 of said frame, and means carried by said clip for adjustably securing the clip on said member 14; substantially as set forth.

3. In a safety-razor, the clip 12 for holding the blade, said clip having the backwardly-turned end lips 20 and the downwardly and inwardly turned upper front lip 23 to engage and firmly hold the blade, combined with a main frame adapted to receive the handle and having a member 14 to receive said clip and blade, and means for fastening said clip upon said member, said member at its end edges being between the back of said clip and said end lips; substantially as set forth.

4. In a safety-razor, the clip for holding the blade, said clip having the backwardly-turned end lips 20, the frontwardly-projecting flange 22 at its upper edge, and the lip 23 extending downwardly and inwardly from the front edge of said flange 22 to bind against the outer face of said blade, combined with a main frame adapted to receive the handle and having a member 14 to receive said clip and blade, and means for fastening said clip upon said member, said member at its end edges being between the back of said clip and said end lips; substantially as set forth.

5. In a safety-razor, the clip for holding the blade, said clip having the backwardly-turned end lips 20, the frontwardly-projecting flange 22 at its upper edge, and the lip 23 extending downwardly and inwardly from the front edge of said flange 22 to bind against the outer face of said blade, combined with the screw 24 and nut 25 carried by said clip, and a main frame having a member 14 to receive said clip and blade, said member 14 having the slot 19 for the passage of said screw and at its end edges passing between the back of said clip and said end lips; substantially as set forth.

6. In a safety-razor, the clip for holding the blade, said clip having the backwardly-turned end lips 20, the small flange 21 to form a stop for the end of the blade, the frontwardly-projecting flange 22 at its upper edge, and the lip 23 extending downwardly and inwardly from the front edge of said flange to bind against the outer face of said blade, combined with the screw 24 and nut 25 carried by said clip, and a main frame having a member 14 to receive said clip and blade, said member 14 having the slot 19 for the passage of said screw and at its end edges passing between the back of said clip and said end lips; substantially as set forth.

Signed at Sheffield, England, this 27th day of October, 1903.

JOHN BIGGIN.

Witnesses:
ALBERT SPENCER KEETON,
FREDERICK COUSINS.