

A. J. POSTANS.
SAFETY RAZOR.
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Fig. 1

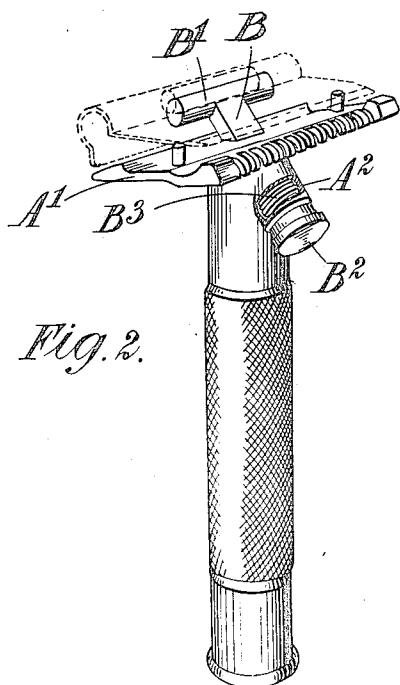
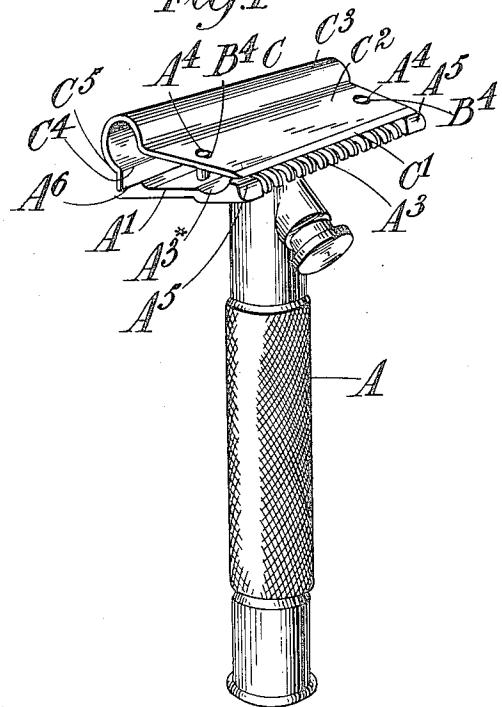
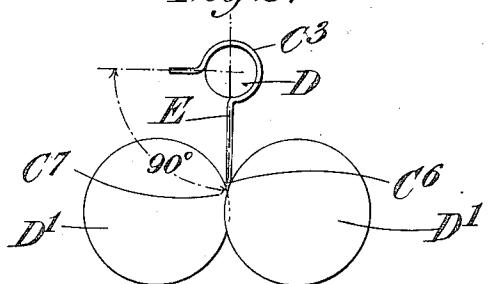


Fig. 2.

Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

ARTHUR JAMES POSTANS, OF BRENTFORD, ENGLAND.

SAFETY-RAZOR.

1,069,465.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ARTHUR JAMES POSTANS, a subject of the King of England, residing at Brentford, in the county of Middlesex, England, have invented certain new and useful Improvements in Safety-Razors, of which the following is a specification.

This invention is for improvements in or relating to safety razors and has for its object to provide a razor whereof the parts can be easily separated and put together for cleaning and use, and the blade can be readily mounted on a suitable support for stropping or grinding.

It has heretofore been proposed to construct safety razors having grooved blades which are entered longitudinally into a slot formed in a cylinder. The cylindrical joints thus formed are then drawn together by a screw stem engaging one and screwing into a socket in the other to hold the blade in position. According to the present invention however, there is employed with a holder provided with a headed draw-down stem, a blade having on it a socket so disposed that in securing the blade to the holder the head of the stem can be entered in the socket by moving one engaging part relatively to the other along a line that is parallel with the edge of the blade.

Conveniently the blade has one socket only and this takes the form of a sleeve disposed with its longitudinal axis parallel to the edge of the blade the sleeve being open on that side which is toward the holder, such opening being of sufficient width to permit the neck of the draw-down stem to pass, but narrow enough to hold the head.

In a preferred construction of blade, the socket is placed near the rear portion and the blade has a flat edge-carrying portion extending to some distance from and formed integral with the sleeve and the cutting edge of the blade is beveled on each side and so positioned relatively to the socket that a line bisecting the angle made between the two bevels will lie within the flat edge-carrying portion of the blade and will be radial to the central axis of the socket. This permits the socket to be used for positioning

the blade on a grinding or stropping machine as well as securing it on the holder, thereby both lessening the cost of manufacture and adding to the convenience of stropping.

In the accompanying drawings which illustrate one method of carrying out this invention:—Figure 1 is a perspective view of a razor with the blade attached. Fig. 2 is a perspective view of a razor with the blade shown in dotted lines in the raised position assumed when it is being removed from or placed on the holder, and Fig. 3 is an end view of the blade showing its position on a grinding or stropping machine.

Like letters indicate like parts throughout the drawings.

The holder for the blade comprises a handle A that carries at one end a table A¹. A stem B having a head B¹ is mounted obliquely in the holder, the head and part of the stem projecting above the table and the remainder of the stem being accommodated in a socket A². The socket projects obliquely from the handle A and the stem extends through it at B². A spiral spring B³ surrounds that portion of the stem which is in the socket A² and tends always to draw the stem down so that the head B¹ is pulled toward the table A¹, but the stem can be pushed in the opposite direction by pressure applied at B².

The blade C has a cutting edge C¹ that is carried by a flat edge-carrying portion forming an integral extension C² from a socket or sleeve C³. The sleeve is split or open at C⁴ on that side which is toward the table A¹ when the blade is in use and the extension C² projects from one edge of the sleeve and a second extension C⁵ projects from the other edge of the sleeve in such direction that it projects beyond the plane of the under surface of the main extension C² which constitutes the cutting portion of the blade. The socket or sleeve C³ is sufficiently large to accommodate the head B¹ of the stem B, but the open portion C⁴ is too narrow to permit the head to pass through it. The neck of the stem B, however, can pass this opening and thus, to secure the blade on the holder

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the head of the stem can be entered in the socket or sleeve C^3 by moving one engaging part relatively to the other along a line that is parallel with the edge of the blade as the 5 longitudinal axis of the sleeve C^3 is parallel with the edge C^1 .

The front edge of the table A^1 is provided with teeth A^3 constituting the usual safety device and at the back of the teeth a 10 clearance A^{3*} is provided to prevent the accumulation of soap-suds.

Pins A^4 project from the table and engage oval orifices B^4 in the blade.

The two end teeth A^5 at the front of the 15 table are higher than the others so that the edge of the blade is thereby maintained free of all the teeth except these two to give the necessary cutting clearance.

The rear extension C^5 of the blade rests 20 upon a beveled portion A^6 at the back of the table A^1 and it will be seen that when the blade is brought into place the headed stem pulls it down swinging the blade on the part A^6 as a fulcrum so that the edge 25 of the blade is brought firmly down upon the front portion of the holder. The pins A^4 entering the orifices B^4 prevent the blade from being displaced sidewise when on the holder but the blade can be raised clear of 30 them.

To release the blade the user holds the handle A and with the thumb pushes upon the part B^2 of the stem B so that the whole stem is displaced upwardly lifting the blade 35 from the holder. The blade thus clears the pins A^4 and can then be slid sidewise off the head B^1 of the stem. The orifices B^4 are oval because the stem B moves backwardly as well as upwardly when pushed to 40 release the blade and therefore the pins must allow the blade to move backwardly relatively to them before it is lifted sufficiently high to clear them.

The plane in which the main body of the 45 blade, that is the flat edge-carrying portion C^2 , lies, conveniently forms approximately a right angle with the plane in which the extension or stop portion C^5 of the blade lies.

50 The socket C^3 in addition to constituting a means whereby the blade can be mounted on the holder, provides a convenient device for mounting it on a grinding or stropping machine. This is an important feature as 55 the easy handling of the blade for manufacture as well as use affects the cheapness of production.

In Fig. 3 the blade is shown upon a support D that may constitute part of a grinding or stropping machine whereof the grinding or stropping disks are shown at D^1 . To give the best results the blade needs to be beveled on both sides as shown at C^6 C^7 and a line E bisecting the angle made by 65 these two bevels should lie within the flat

edge-carrying portion C^2 and be radial to the socket C^3 as shown in this figure. When the blade is thus shaped it can be easily ground or stropped and also serves its purpose on the holder to the best advantage. 70

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

1. In a safety razor, a blade provided with an open sleeve disposed with its longitudinal axis parallel to the edge of the blade, the 75 edge-carrying portion of the blade extending from one side of the open sleeve and the blade having an extension from the other side of the open sleeve, such extension projecting beyond the plane of the edge-carrying portion of the blade at an angle thereto and the opening in the sleeve being of reduced width as compared with the internal diameter of the sleeve.

2. In a safety razor the combination of 80 a blade, a holder for the blade, and a draw-down stem mounted therein and having a head that operates by the draw-down movement of the stem to clamp the blade against the holder, the blade being provided with 85 a socket for the said head in the form of an open sleeve disposed with its longitudinal axis parallel to the edge of the blade and with its opening toward the holder the said opening being of sufficient width to permit 90 the stem to slide therein in a direction parallel to the edge of the blade, but also sufficiently narrow to retain the head within the said socket, substantially as set forth.

3. In a safety razor, the combination of a 95 blade provided with an open sleeve disposed with its longitudinal axis parallel to the edge of the blade, the edge-carrying portion of the blade extending from one side of the open sleeve and the blade having an extension from the other side of the open sleeve, a holder for the blade, and a draw-down stem mounted therein and having a head 100 engaging in the sleeve, the opening in the sleeve being of sufficient width to permit the entrance of the stem but also being sufficiently narrow to retain the head in the sleeve, so that the head can be inserted in the sleeve by relative sliding movement between the head and the blade parallel to the 105 edge of the blade, the said blade extension projecting beyond the plane of the edge-carrying portion of the blade and engaging the surface of the back of the holder, so that the draw-down action of the draw-down 110 stem will turn the blade on this surface as a fulcrum and will bring the edge portion of the blade down firmly on the front portion of the holder.

4. In a safety razor a blade provided with 115 a sleeve disposed with its longitudinal axis parallel to the edge of the blade and having an opening on one side of the sleeve of less width than the internal diameter of the sleeve, the blade having a flat edge-carrying 120

portion integral with and extending a distance from the sleeve and having its free edge beveled from both sides and so positioned relatively to the sleeve that a plane 5 bisecting the two bevels will lie within the flat edge-carrying portion of the blade and be radial to the central axis of the sleeve.

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

ARTHUR JAMES POSTANS.

Witnesses:

HAROLD H. SIMMONS,
A. M. HAYWARD.