No. 774,063. PATENTED NOV. 1, 1904.

E. B. GIBFORD.

SAFETY RAZOR.

APPLICATION FILED APR. 25, 1904.

NO MODEL.

Fig. 1

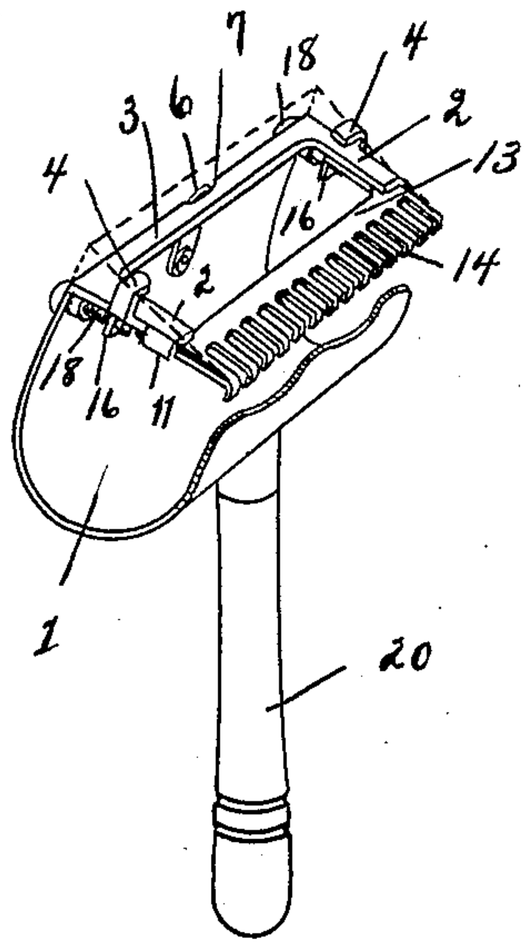


Fig. 3

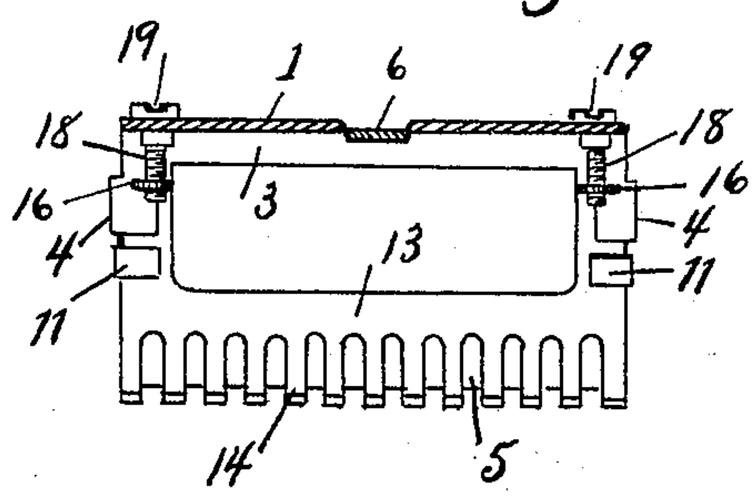


Fig. 5

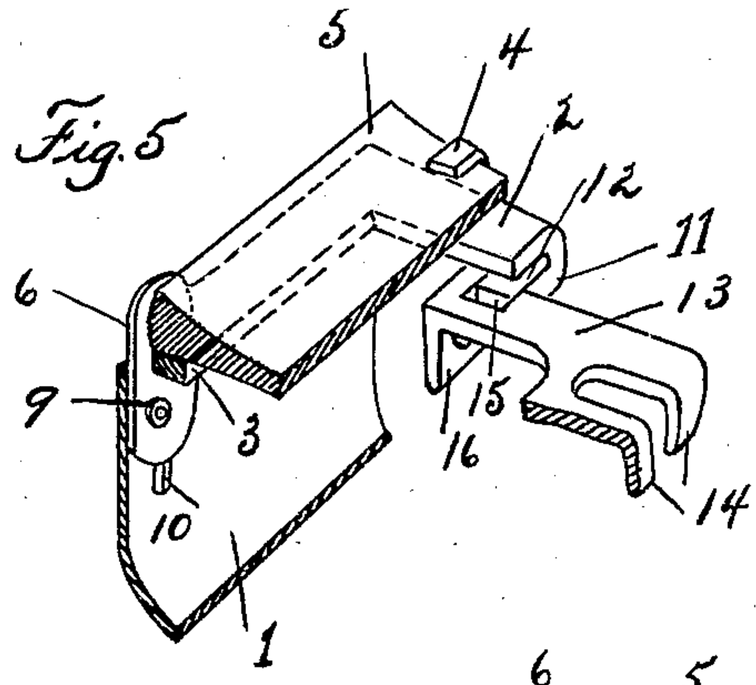
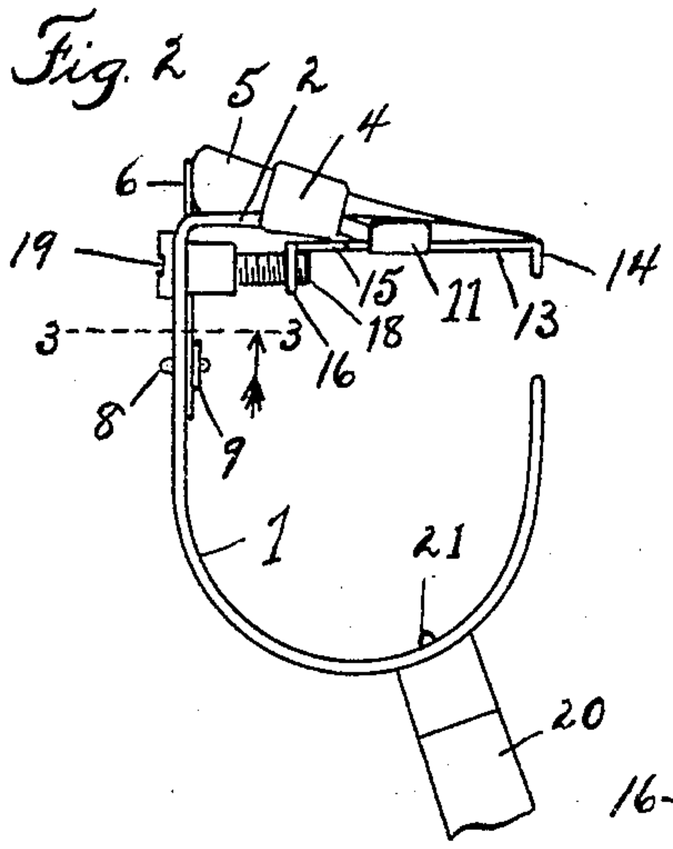


Fig. 2



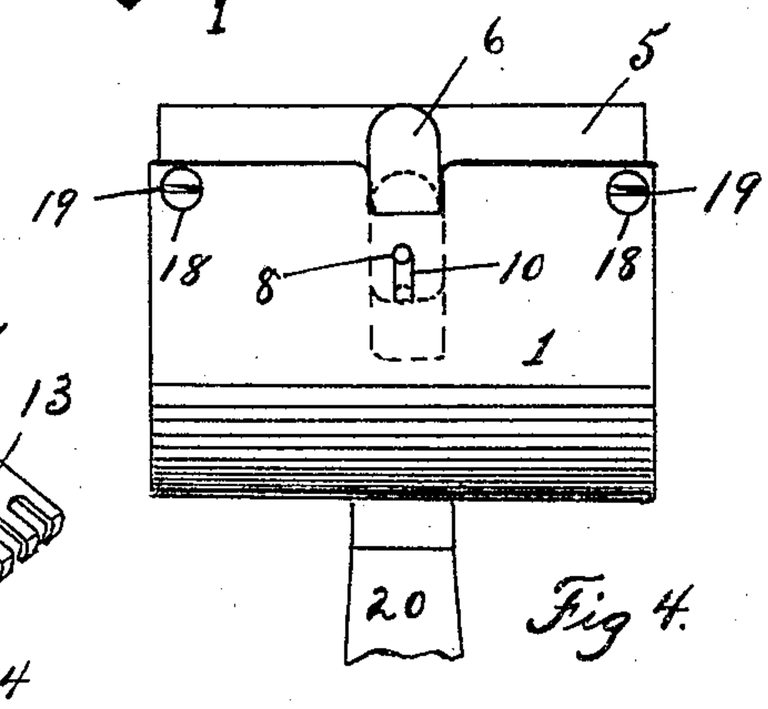


Fig. 4.

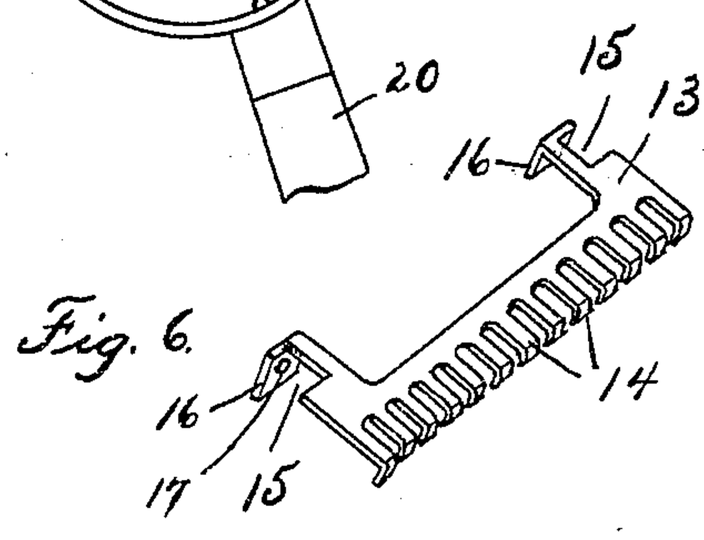


Fig. 6.

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No. 774,063. Patented November 1, 1904.

UNITED STATES PATENT OFFICE.

EDWARD B. GIBFORD, OF ADRIAN, MICHIGAN.

SAFETY-RAZOR.

SPECIFICATION forming part of Letters Patent No. 774,063, dated November 1, 1904.

Application filed April 25, 1904. Serial No. 204,680. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. GIBFORD, a citizen of the United States, residing at Adrian, in the county of Lenawee, State of Michigan, have invented certain new and useful Improvements in Safety-Razors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a safety-razor; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The objects of the invention are to provide a safety-razor of simple and inexpensive construction in which the arrangement is such as to enable it to be readily cleaned and dried; to enable the blade to be securely retained in place in a manner to enable it to be readily removed; to provide for an adjustment of the guard with respect to the blade, enabling the razor to be quickly and perfectly set for any character of work.

The above objects are attained by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved safety-razor, the blade being indicated by dotted lines. Fig. 2 is an end elevation thereof. Fig. 3 is a transverse section through the back of the casing, as on line 3 3 of Fig. 2. Fig. 4 is a rear elevation. Fig. 5 is a fragmentary view in perspective, showing the manner of detachably mounting the guard-plate in the casing. Fig. 6 is a perspective view of the guard-plate detached.

Referring to the characters of reference, 1 designates the casing, which is substantially U-shaped in cross-section and which is provided at the top with the laterally-extending blade-supporting arms 2, which project forward from the back of the casing, there being along the rear edge of the casing an inwardly-turned flange 3, which assists in supporting the back of the blade. Projecting upwardly from the arms 2 are the hooked members 4, whose inwardly-turned ends are adapted to engage the top of the blade 5 and clamp said blade to the supporting-arms 2, so that when the blade is in position its ends are supported by the arms 2 and its rear edge by the lateral flange 3. To confine the blade in position upon the supporting-arms, a vertically-movable locking-plate 6 is employed, which is adapted to pass upwardly through an opening 7 (see Fig. 1) in the flange 3 and is held in place by a pin 8, which is secured in the plate by the nut 9 and which passes through the vertical slot 10 in the back of the casing. By engaging the projecting end of the pin 8 the locking-plate may be raised after the blade is in position, so as to engage the back thereof, as shown in Figs. 2 and 5, whereby the blade is securely retained in place. When it is desired to remove the blade for cleaning or drying, the locking-plate is moved downwardly, enabling the blade to be withdrawn from under the hooked member 4.

At the outer ends of the supporting-arms are the downwardly and inwardly bent fingers 11, which form ways 12 between their upper faces and the under faces of said arms for the reception and support of the guard-plate 13, which is adapted to slide in said ways. Said guard-plate is provided at its outer edge with the teeth 14, having downwardly-turned ends. When the blade is in position upon the supporting-arms, the edge thereof rests upon said teeth, as shown in Fig. 2. It will be noted that the rearwardly-extending ends of the guard-plate are notched, as at 15, the purpose of which is to permit said plate to be entered in the ways 12 upon the under side of the supporting-arms. Said guard-plate cannot be shoved directly into said ways, owing to the downwardly-turned end portions 16. It is therefore necessary to enter one side of said plate in one of said ways and shift it laterally to enable the other side to be entered in the opposite way, the notches 15 providing for this lateral movement, as one notch allows the curved finger 11 on one side to enter therein as the plate is shifted, and the notch on the opposite side allows the inner end of the curved finger to pass therethrough as the plate is brought upwardly into position, when by

shoving the plate inwardly the margins thereof which are not cut away to form the notches 15 engage in said ways and confine the plate against lateral movement. The downwardly-turned end portions 16 of the guard-plate are provided with tapped apertures 17 to receive the inner ends of the screws 18, which are swiveled in the back of the casing and are provided with a carfe 19 to enable them to be turned. By turning said screws the guard-plate may be adjusted with respect to the edge of the blade to enable the razor to be set for a smooth or a close shave, as desired. Because of the fact that the opposite ends of the guard-plate are adjustable independently the guard-plate may be made to conform to the edge of the blade should it be ground off more at one end than the other, enabling the guard to be maintained in perfect alinement with the blade and providing for a quick and perfect adjustment of the guard.

To enable the razor to be manipulated, a suitable handle 20 is employed, which may be removably attached to the casing, if desired, and provided with a screw-driver bit 21 on its inner end for the purpose of adjusting the screws 18.

It will be observed that the casing is formed integral without hinged parts and that its interior is free from projections, enabling it to be readily cleaned and dried. It will also be observed that by means of the locking-plate the razor-blade may be locked securely in place and the guard adjusted thereto and that because of the opening at the front of the casing, which extends entirely across the front thereof, the guard may be readily entered or withdrawn through said opening, thereby facilitating the removal or replacement thereof.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A safety-razor comprising a casing, having an opening extending entirely across the front, supporting-arms for the blade extending forward from the casing at the top, hooked members projecting upwardly from said arms to engage the blade, inwardly-bent integral fingers projecting downwardly from the edges of said arms, to form, between their upper faces and the under faces of the supporting-arms ways for the guard, a blade lying upon said supporting-arms and engaged by said hooked members, a guard-plate slidably mounted in the ways formed by said bent fingers and supporting-arms, said plate having teeth at its forward edge upon which the edge of the blade is supported, and means for adjusting said guard.

2. A safety-razor comprising a casing, open at the front and having forwardly-projecting supporting-arms extending from the back, said supporting-arms having the integral upwardly-extending members adapted to engage the blade and downwardly-extending bent fingers adapted to support the guard, a tri-lateral guard-plate adapted to be introduced through said front opening and supported by said bent fingers to slide thereon, having teeth at its forward edge adapted to support the edge of the blade and having at the inner terminal of its ends angular portions provided with tapped apertures and the adjusting-screws passing through the back of the casing and engaging in said apertures in said angular end portions.

3. A safety-razor comprising a casing, having short supporting-arms extending forwardly from the back thereof, adapted to support the blade, said arms having integral hooked members adapted to engage the top of the blade and the integral downwardly-extending bent fingers forming ways for the support of the guard-plate, a guard-plate adapted to slide in said ways, said plate having the downwardly-turned end portions, and the opposed notches adjacent to said end portions adapted to receive the bent supporting-fingers when placing the guard-plate in said ways, there being tapped apertures in the downwardly-bent end portions of said plate and adjusting-screws engaging in said apertures.

4. A safety-razor comprising a casing open at the front and provided with forwardly-extending supporting-arms projecting from the back at the top thereof, and having a forwardly-projecting flange at the back, a vertically-movable spring-bolt mounted on the back of the casing and passing through an opening in said rear flange to engage the back of the blade, hooked members upon the supporting-arms to engage the top of the blade, inwardly-bent fingers upon the supporting-arms to engage the guard-plate, a guard-plate adjustably supported upon said fingers and projecting beyond the supporting-arms to sustain the edge of the blade and means for adjusting said plate.

In testimony whereof I sign this specification in the presence of two witnesses.

EDWARD B. GIBFORD.

Witnesses:
CLARKE E. BALDWIN,
MAYME CUMMENS.