

No. 866,856.

PATENTED SEPT. 24, 1907.

E. B. GIBFORD.  
SAFETY RAZOR.

APPLICATION FILED APR. 24, 1905.

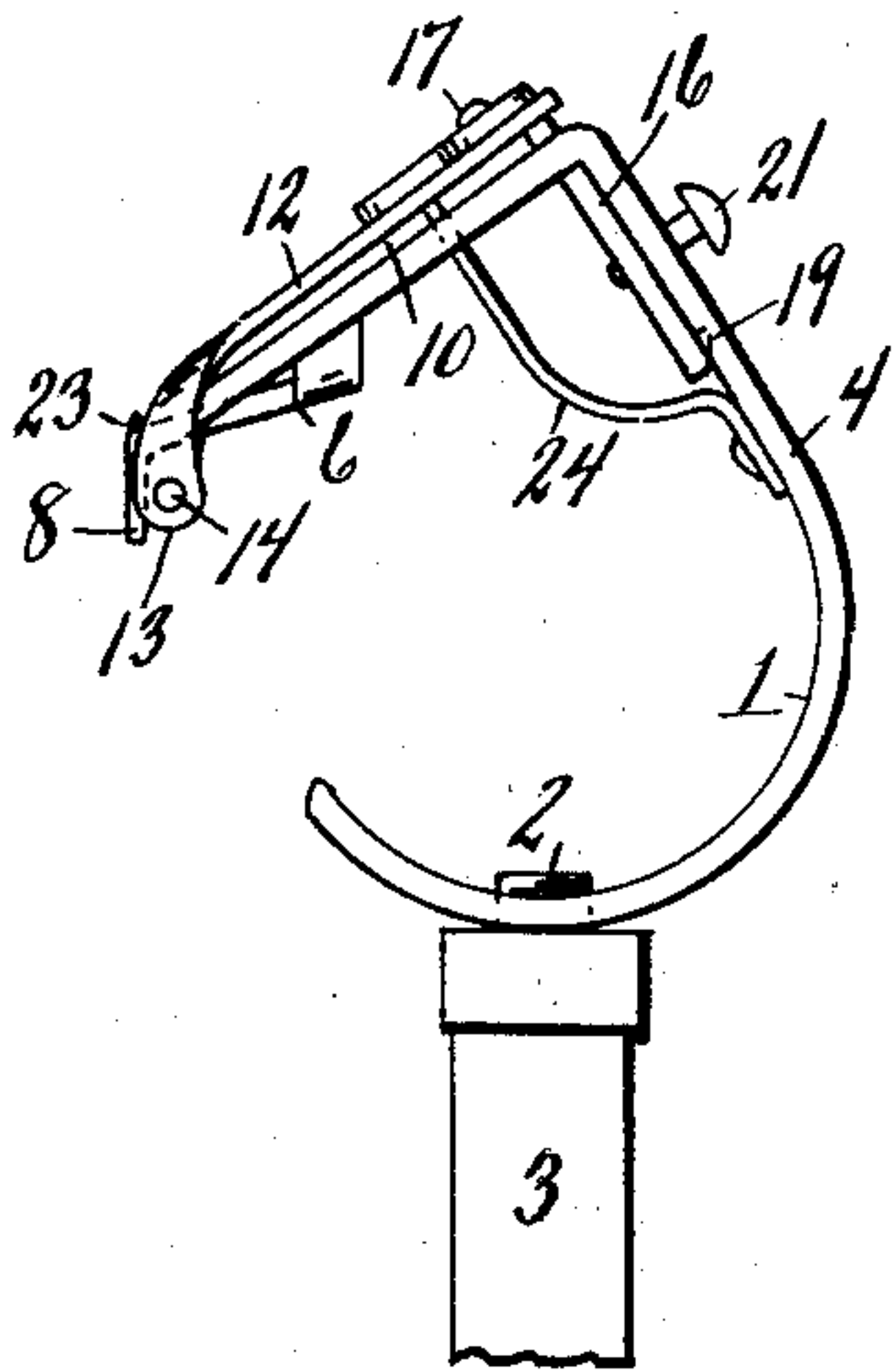


Fig. 1.

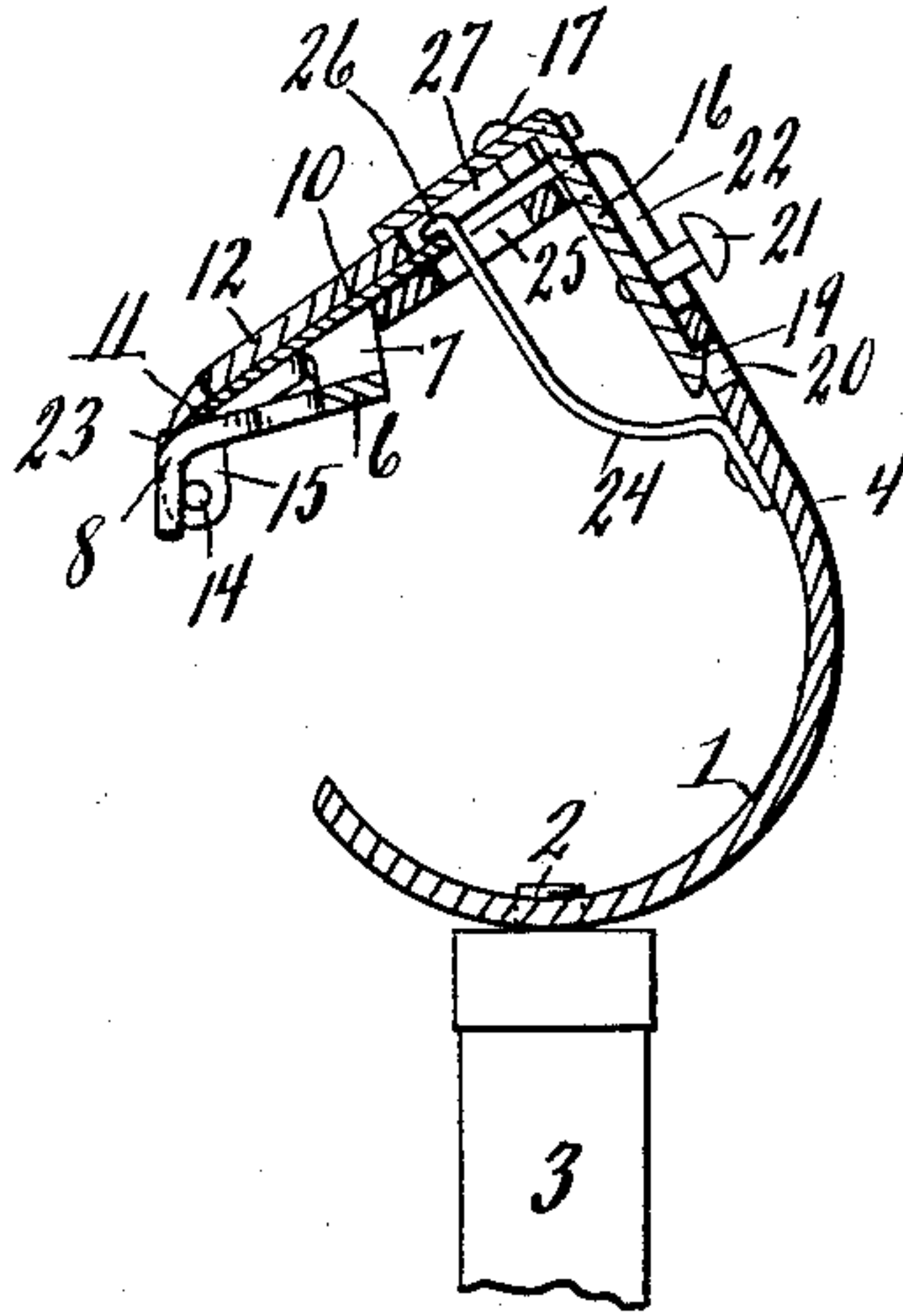


Fig. 2.

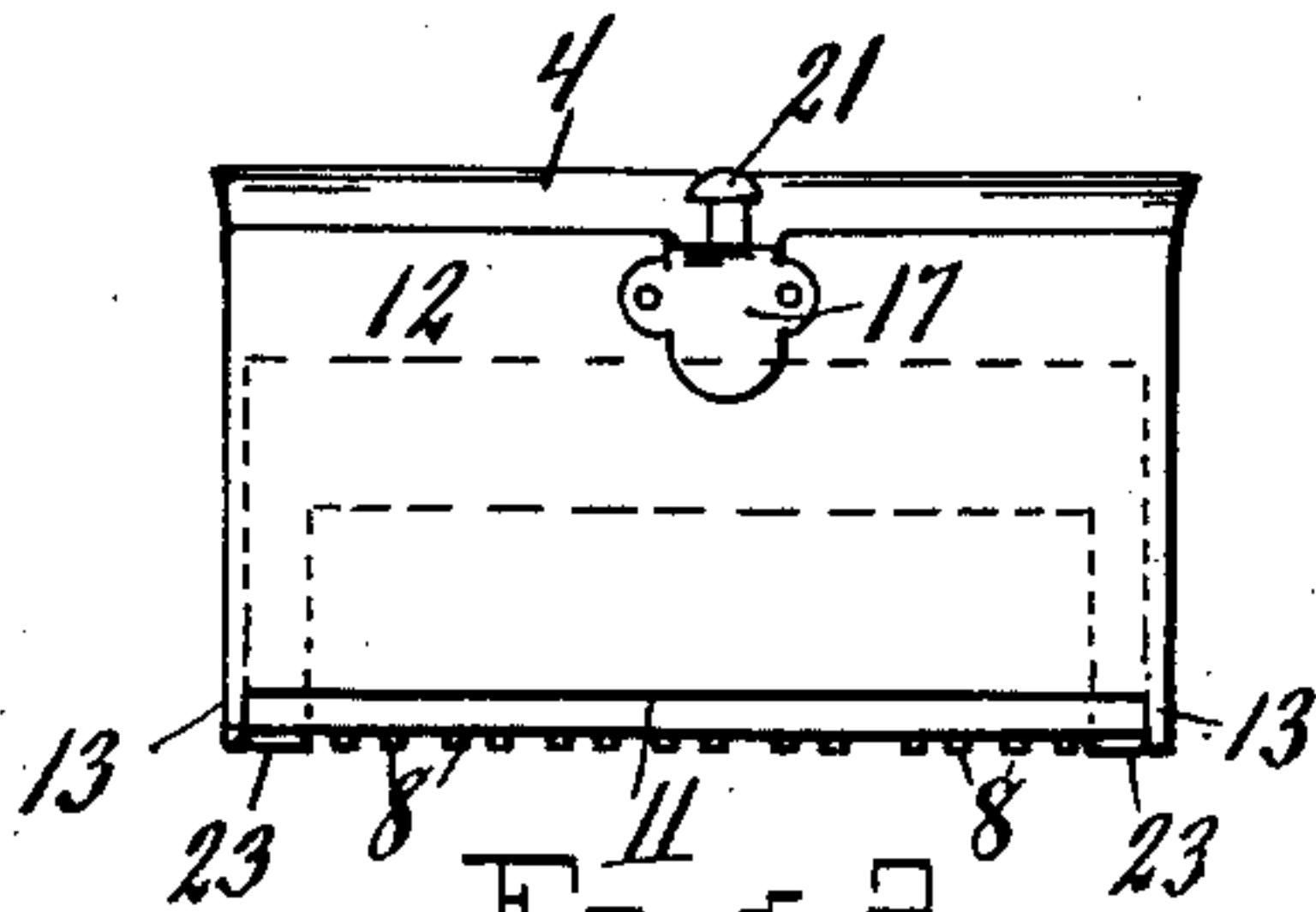


Fig. 3.

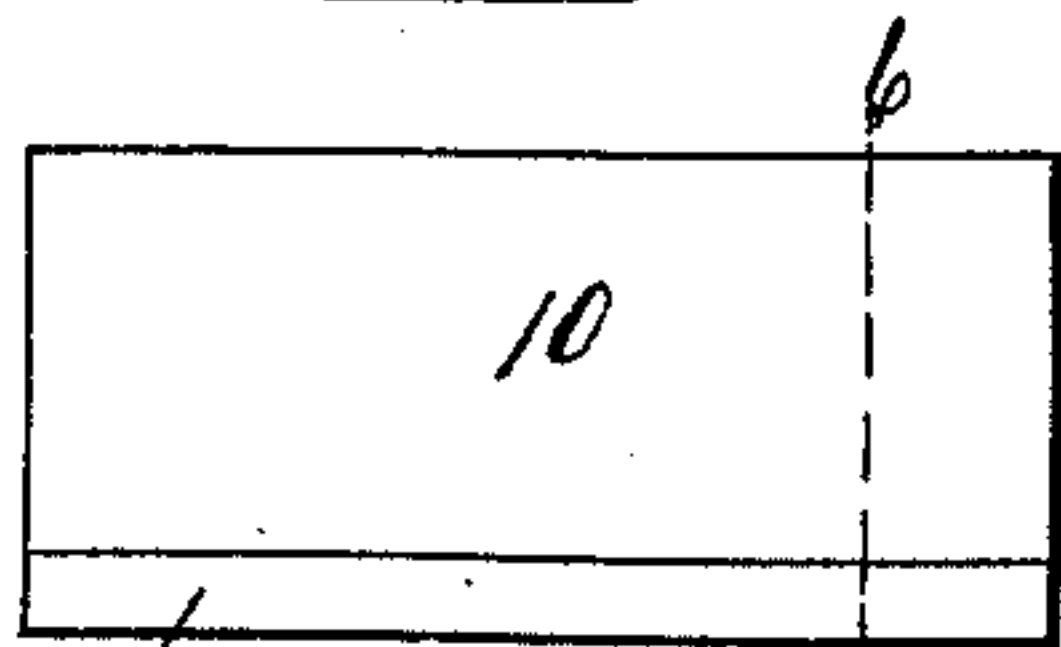


Fig. 4.

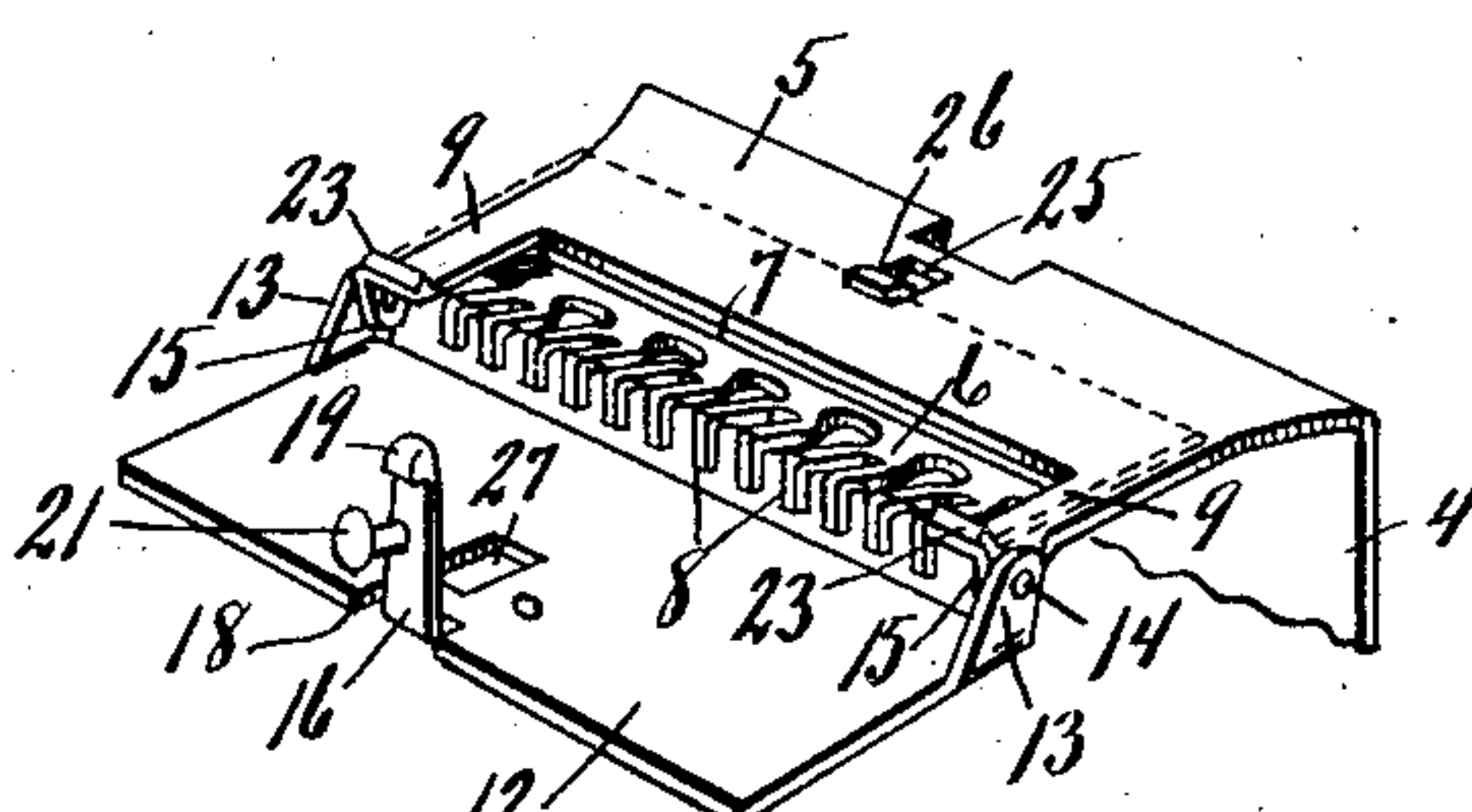


Fig. 5.

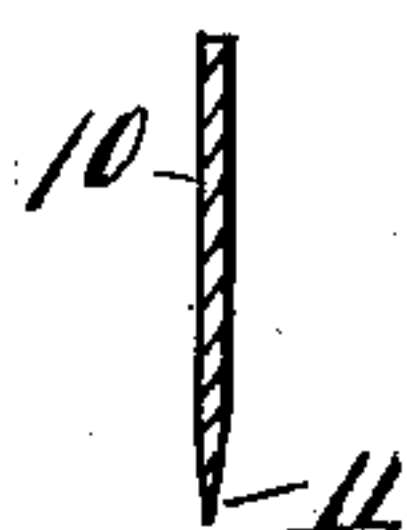


Fig. 6.

Witnesses:  
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# UNITED STATES PATENT OFFICE.

EDWARD B. GIBFORD, OF ADRIAN, MICHIGAN, ASSIGNOR TO AMERICAN SAFETY RAZOR CO.,  
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## SAFETY-RAZOR.

No. 866,856.

Specification of Letters Patent.

Patented Sept. 24, 1907.

Application filed April 24, 1905. Serial No. 257,039.

*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 letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to safety razors, and consists in the construction and arrangement of parts hereinafter fully set forth and pointed out particularly in the claims.

The object of the invention is to provide a blade holder of such construction as to securely hold a thin, flat blade and so brace and support said blade at its cutting edge as to prevent it from springing, because of its thinness, producing a safety razor possessing all of the requisite qualities that may be cheaply made, owing to the lightness of the blade, and allowing the use of a blade that may be formed out of flat steel of uniform quality, enabling it to be ground, honed and successfully used until materially reduced in width.

The above object is attained by the structure illustrated in the accompanying drawing, in which:—

Figure 1 is an end elevation of my improved safety razor. Fig. 2 is a plan view thereof. Fig. 3 is a central transverse section through the holder and blade. Fig. 4 is a fragmentary view in perspective, showing the top blade-supporting plate, and the hinged clamping plate swung outwardly. Fig. 5 is a plan view of the blade. Fig. 6 is a transverse section as on line 6—6 of Fig. 5.

Referring to the characters of reference, 1 designates the casing to the bottom of which is attached by a threaded stem 2; the ordinary handle 3. The back 4 of the casing inclines forwardly and from the upper edge of the back projects forwardly and downwardly at right angles the blade-supporting plate 5. The central forward portion of the blade-supporting plate is struck downwardly, producing a depressed plate 6 separated at its rear edge from the supporting-plate by the longitudinally extending slotted opening 7, and having upon its forward edge the downwardly turned guard teeth 8 whose upper surfaces are on a plane with the upper surfaces of the end portions 9 of the bearing-plate 5. The blade 10 is made of comparatively thin, flat steel of uniform thickness and is ground upon one edge only, as shown at 11. This blade is supported at its rear edge upon the face of the plate 5 and at its ends upon the end portions 9 of said plate, while its forward edge rests upon the teeth 8 of the guard plate 6. The

blade is clamped in position upon the supporting plate 55 by means of the hinged clamping plate 12, having the short, downwardly extending arms 13 at its ends adjacent its forward edge which are hinged at 14 to the depending ears 15 on the end portions 9 of the plate 5. By thus hinging the clamping plate to the blade-supporting plate, the clamping plate is permitted to swing over onto the blade and securely clamp it in position, said clamping plate being locked in place by means of the spring tongue 16 which is secured thereto at 17 and is bent downwardly so as to lie in the notch 18 formed in the rear edge of said plate 12, having upon the free end thereof a catch 19 adapted to engage in an aperture 20 in the back of the casing, as clearly shown in Fig. 3. For the purpose of releasing said spring tongue, it is provided with a button 21 projecting therefrom, having a stem which lies in the slot 22 formed in the back of the casing. By pressing inwardly upon said button the spring tongue may be disengaged to allow the clamping plate to be swung upwardly, thereby releasing the blade, enabling it to be removed and a new blade to be replaced in the holder if desired.

Upon the extreme forward parts of the end portions 9 of the supporting-plate are the stop lugs 23 which engage the extreme ends of the edge of the blade and arrest it in proper position with respect to the guard teeth. The blade is held in place against said lugs by means of the spring arm 24 which is secured at its lower end to the back of the casing and whose upper end projects through a slot 25 in the supporting-plate 5 and is provided with a hook 26 which engages over the back of the blade while the tension of said arm pushes the blade forward against the stop lugs 23, thereby securely holding the blade in position until the clamping plate 12 can be closed thereon. The recess 27 formed in the clamping plate allows the hook end 26 of the spring arm to lie therein when the clamping plate is closed upon the blade.

Because of the fact that the blade is supported at its ends, back and cutting edge, and is securely clamped in position by the hinged plate in the manner described, a comparatively thin flat blade may be employed which, because of the manner in which it is supported, is given such a degree of rigidity as to enable it to be used as readily as blades of greater weight and thickness.

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

1. In a safety razor, the combination with a suitable casing having a blade supporting plate provided with a flat surface adapted to support a flat blade, projecting end portions at the front edge thereof, and a guard at the front edge of said plate for supporting the cutting edge of the blade interposed between said projecting end portions, a clamping plate hinged at its front edge to the projecting



end portions of the supporting plate and adapted to swing into clamping relation therewith to engage the blade and clamp it in position upon said supporting plate.

2. In a safety razor, the combination of a flat supporting plate adapted to support a flat blade, a clamping plate hinged to one margin of the supporting plate to swing into parallel relation thereto and forcibly engage the blade to clamp it in place upon the supporting plate, the area of the clamping plate being such as to cover the entire surface of the blade excepting its cutting edge, and means for retaining the clamping plate in position.

3. A safety razor, comprising a flat blade supporting plate adapted to support a flat blade, stop lugs on the forward margin of said plate to engage the blade, a clamping plate hinged to the front of the supporting plate to swing into parallel relation therewith, and to engage the blade to hold it in position upon said supporting plate and a spring arm adapted to engage the back of the blade to temporarily maintain it in place in advance of the engagement of the blade by said clamping plate.

4. In a safety razor, the combination of a suitable casing having stop lugs to engage the edge of the blade, a flat supporting plate, a flat blade lying upon said plate, a guard

supporting the edge of said blade, a clamping plate hinged to the forward edge of the supporting plate to swing into parallel relation therewith and engage the upper face of the blade to clamp it onto said supporting plate, and a catch for locking the clamping plate when swung into engagement with the blade.

5. In a safety razor, the combination of the supporting plate having projecting end portions which extend beyond the body of the plate, a thin, flat blade adapted to lie upon said plate and upon said end portions, a guard for supporting the edge of the blade interposed between the extended end portions of the supporting plate, a clamping plate hinged to the projecting end portions of the supporting plate to swing onto the blade lying thereon, and a catch for locking the clamping plate to hold the blade in position.

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

EDWARD B. GIBFORD.

Witnesses:

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