

W. K. BOWERMAN.
 GUARD FOR RAZORS AND SIMILAR IMPLEMENTS.
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988,436.

Patented Apr. 4, 1911.

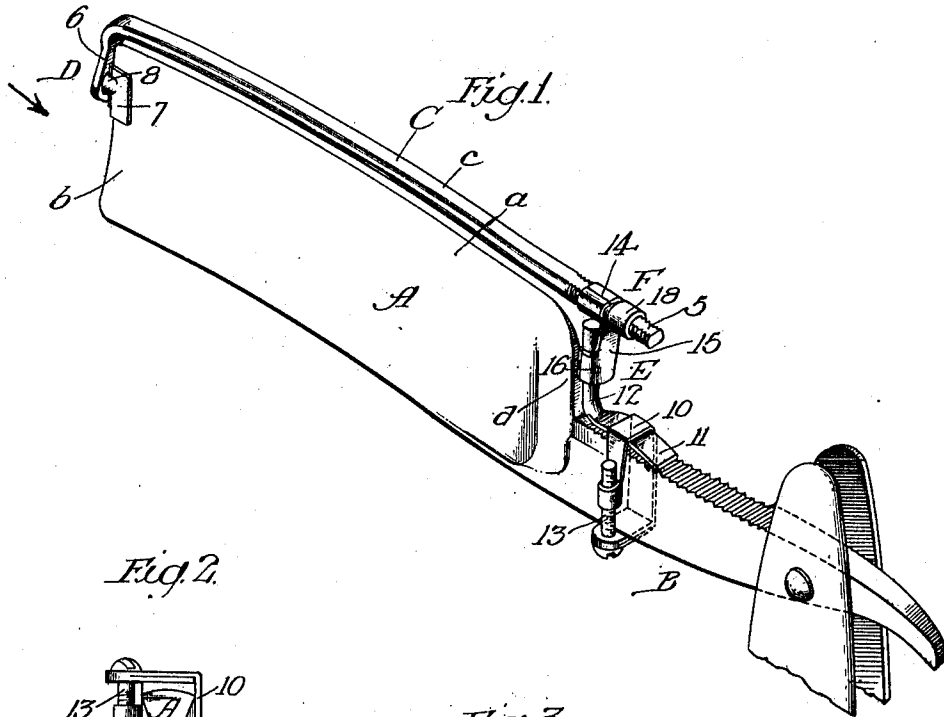


Fig. 2.

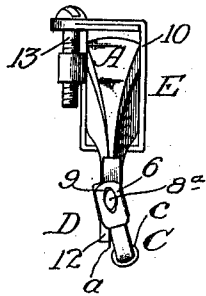


Fig. 3.

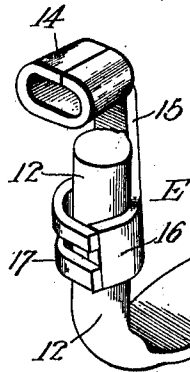


Fig. 4.

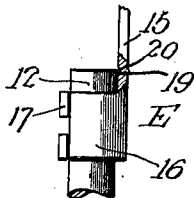
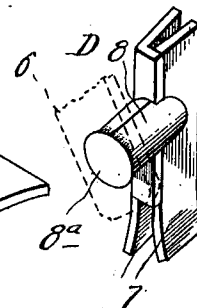


Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM K. BOWERMAN, OF LOS ANGELES, CALIFORNIA.

GUARD FOR RAZORS AND SIMILAR IMPLEMENTS.

988,436.

Specification of Letters Patent.

Patented Apr. 4, 1911.

Application filed June 1, 1909. Serial No. 499,584.

To all whom it may concern:

Be it known that I, WILLIAM KING BOWERMAN, a subject of the King of Great Britain, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Guards for Razors and Similar Implements, of which the following is a specification.

This invention relates to guards for razors and similar implements, and it has for its object to provide an improved guard for razors, which will be superior in point of relative simplicity and inexpensiveness of construction, convenience in use and in attachment to and detachment from the razor, adaptability to varying conditions of use and service, and which will mark a general advance in the art concerned with respect to serviceability and efficiency.

Particular objects of the invention are concerned with the provision of a razor guard which may be accurately fitted to razors of varying shape and size, and which will permit either side of the razor blade to be operatively applied without re-adjustment or detachment and re-attachment of the guard. Likewise, I aim to provide a razor guard which need not be removed from the razor to permit stropping of the latter, but which guard will yieldingly permit the alternate presentation of the sides or faces of the blade to the strop.

With the above and other objects in view, the invention consists in the novel provision, construction, formation, combination, association and relative arrangement of parts, members and features, all as hereinafter described, disclosed in the drawing, and finally pointed out in claims.

In the drawing:—Figure 1 is an isometric view of a razor guard constructed and organized to embody the invention, and of a blade and associated parts of a razor to which the guard is shown as applied in position for use of the entirety; Fig. 2 is an end view of the razor blade and guard in position the reverse of that in Fig. 1, looking in the direction of the appended arrow, the parts being in position for shaving service; Fig. 3 is an enlarged isometric view of features of one clamping and supporting mem-

ber shown in Fig. 1, namely, that connected with the tang of the razor blade; Fig. 4 is a similarly enlarged fragmentary view of a portion of the disclosures in Fig. 3, parts being broken away for clearness of illustration; and Fig. 5 is an enlarged isometric view of another clamping member in detached position.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring with particularity to the drawing, A designates the blade and B the tang of a razor of conventional or standard form or type the operative edge portion *a* of the blade having a longitudinally convex curvature or outwardly bowed formation, clearly shown in Fig. 1.

C designates the guard constructed and applied to the razor, according to the invention, the guard member *c* thereof, which is adapted to contact with the face simultaneously with the blade A, being maintained in position to extend longitudinally of the blade in proximity to the edge portion *a* of the latter, by two clamping and supporting members D and E respectively, which are respectively associated with the outer end or toe *b* and the inner end or heel *d* of the blade. Specifically, the clamping and supporting member E serves to connect the guard member *c* with the tang B of the razor. The clamping and supporting members D and E sustain the guard member *c* adjustably and yieldingly with relation to the edge portion *a* of the blade A.

F designates adjusting means, in part included in the clamping and supporting member E, such adjusting means serving to determine, produce and maintain the requisite and desired length of the guard member *c*, or the dimension of the same between the clamping and supporting members D and E, as well as the bowed or curved condition of the said member *c*, the latter, to the end that the curvature or bowed formation of the edge portion *a* of the blade A and of the member *c*, when present or desired may jointly conform.

A particular preferred form of provision, construction, and combination of parts, members and features embodying the inven-

tion, is as follows: The guard member *c* consists of a strip or bar of flexible metal or other suitable material, having an inherent spring quality, and preferably flat and sharply angled at the edges of its operative or outer face, one end of the same being threaded, as at 5, for incorporation in the adjusting means *F*, and the other end thereof being substantially rectangularly bent as at 6, for union with the clamping and supporting member *D*. The clamping and supporting member *D* comprises a clip 7 which fits slidably over the toe *b* of the blade *A*, adjacent to the edge portion *a* of the latter, and is provided with an outwardly projecting split stud or pin 8, having a solid head 8^a the same being non-circular or elliptical in cross section and slightly bulging toward its base or inner end, the pin 8 enters and is accommodated in an opening 9 in the bent end portion 6 of the guard member *c*, said opening 9 being similar in formation to the described cross section of the stud or pin 8, but enlarged at its ends to permit relative movement of the bent end portion and the pin 8 to a predetermined degree. The pin 8 constitutes a bearing for the end portion 6 of the guard member *c*, permitting the latter to oscillate within limitations of movement determined by the shape and size of the pin and the opening. The head of the pin 8^a is upset or enlarged after its passage through the opening 9, so as to prevent displacement of the pin from the opening. The clamping and supporting member *E* comprises a metallic clamping frame 10 which embraces the tang *B* of the blade *A* and also a plate 11 provided with or integrally formed with a post or pin 12 which extends angularly from one end thereof. The clamping frame 10 and the plate 11 have each, preferably an inherent spring quality, that of the former tending to extend or open the frame, and that of the latter tending to maintain a slightly longitudinal curvature of said plate as shown in Fig. 1. The spaced ends of the frame 10 are provided with means for drawing the same forcibly together, consisting of an adjusting screw 13, whereby the frame 10 may be caused to firmly bind the plate 11 to tang *B*, with the concave face of the former in contact with the latter. The end portion of the guard member *c* having the threads 5 is received within a keeper 14 which snugly embraces but slidably supports the member *c*. From one end of the keeper 14 depends an arm 15 provided at its lower end with curved overlapping fingers 16 and 17 which loosely embrace the post 12, binding tensionally upon the same at opposed points substantially in the longitudinal plane of the blade *A*. The fingers 16 and 17 grip the post 12 slidably, and in such manner as to permit the lateral pivotal play of the arm 15 and guard member *c*, being the play also permitted by the pin 8 at the other end of the said guard member. The contact of the fingers 16 and 17 with the post 12 laterally of the points of tensional grip of the fingers upon the post, limits the lateral play of the guard member *c* within the degree permitted by the pin 8 and the walls of the opening 9 which receives the same. The upper or outer end of the post 12 is provided with a lateral projection 19 taking into a groove or notch 20 in a predetermined portion of the arm 15, serving to limit the movement of the keeper 14 and the corresponding end of the member *c* outwardly from the edge portion *a* of the blade *A*. The adjusting means *F* comprises a nut or internally threaded head 18 which is applied to the threaded end 5 of the guard member *c* and bears against the keeper 14 and arm 15 depending therefrom. By manipulation of the nut 18, more or less of the guard *c* may be caused to project through the keeper 14, in accordance with the desired bowed formation of the member *c* or the length of the operative portion thereof.

The operation, method of use and advantages of the improvements constituting the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawing and the following statement:—The plate 11 and the post 12 having first been secured to the tang *B* of the razor by the clamping frame 10, and the threaded end of the guard member *c* having been passed through the keeper 14 and the nut 18 screwed onto said threaded end, the clip 7 is connected with the toe *b* of the blade, carrying with it the bent end 6 of the guard member *c*. The fingers 16 and 17 of the keeper 15 are then caused to grip the post 12. The nut 18 is properly adjusted to determine the curvature or bowed condition or formation of the guard member *c*, in accordance with the bowed formation of the edge portion *a* of the blade *A*. The strain imposed longitudinally upon the guard member *c* forces the wall of the opening 9 in the bent end portion 6 thereof tightly into engagement with the bulging portion of the split pin 8 effectively binding the clip 7 upon the toe *b* of the blade *A*. With the parts in the position and assemblage shown in Fig. 1, the guard member *c* is free to swing laterally out of the plane of the blade *A* to accommodate the presentation of either side of the blade to the work, preventing the impingement of the edge *a* of the blade upon the skin to an injurious degree, in the manner well understood with regard to devices of the class concerned. The extent of lateral swing of the member *c* is determined by the proportions of the fingers 16 and 17 and post 12, and also by the related proportions of the

pin 8 and opening 9. The proximity of the member *c* to the edge *a* of the blade is determined by the adjustment of the clip 7 along the toe *b* of the blade, and by the adjustment of the fingers 16 and 17 along the post 12. The projection 19 and groove 20 prevent co-actively inadvertent displacement of the fingers 16 and 17 from the post 12. The adjusting means *F* comprising the nut 18 and threaded end 5 of the member *c*, co-acting with the keeper 14, enable the member *c* to be shortened or lengthened between the clamping and supporting members *D* and *E*, and permit of adaptation of the curvature or bowed formation of the member *c* to that of the edge *a* of the blade, to produce a nicety of co-action of the guard and blade. The bowed plate 11 attaches firmly to tangs of varying shape and size under the action of the clamping frame 10.

The guard member *c*, consisting of material having an inherent spring quality, may manifestly constitute a spring arch to effectively hold the clamping and supporting members *D* and *E* in connection with the razor.

The flat and sharply angled outer face of the guard member *c* serves to stretch the skin to which it is applied, just where the edge of the blade is applied, enhancing the shaving action.

The entire guard device is adaptable to varying conditions of use and service, is readily attachable and detachable, and is compact in form and durable and efficient in service, as well as inexpensive in production.

I do not desire to be understood as limiting myself to the specific provision, construction, formation, combination, association and relative arrangement of parts, members and features shown and described, but reserve the right to vary the same, in adapting the improvement to varying conditions of use, without departing from the spirit of the invention or the terms of the following claims.

Having thus described my invention, I claim and desire to secure by Letters Patent:—

1. An improved device of the character described, comprising a guard member, means for clamping each end portion of the guard member to a razor or the like, and means for varying the length of the operative portion of said guard member and for positively maintaining such variation of length.

2. An improved device of the character described, comprising a bowed guard member, means for clamping each end portion of the guard member to a razor or the like, and means for varying the bowed condition of said guard member and for positively maintaining such varied bowed condition.

3. An improved device of the character

described, comprising a guard member, and supporting means therefor at each end, one of said supporting means comprising a post, and fingers connected with said member and tensionally gripping the post to permit play of the member.

4. An improved device of the character described, comprising a guard member, and supporting means therefor at each end, one of said supporting means comprising a non-circular pin entering a non-circular opening in the guard member permitting limited relative oscillation of the pin and guard member.

5. An improved device of the character described, comprising a guard member having a threaded portion, supporting means therefor, and adjusting means for said member comprising a nut fitting said threaded portion thereof and acting against said supporting means.

6. An improved device of the character described, comprising a guard member and supporting means therefor at each end, one of said supporting means comprising a post, means for clamping the post to an implement, a keeper loosely embracing the guard member, and spring fingers connected with the keeper and impinging upon the post, said fingers permitting and limiting play of said guard member.

7. An improved device of the character described, comprising a guard member having a threaded portion and supporting means therefor at each end, one of said supporting means comprising a post, means for clamping the post to an implement, a keeper loosely embracing the guard member, spring fingers connected with the keeper and impinging upon the post, said fingers permitting and limiting play of said guard member, and a nut fitting said threaded portion of said guard member and acting against said keeper.

8. An improved device of the character described, comprising a guard member, and supporting means therefor at each end, one of said supporting means comprising a post, means for clamping the post to the implement, a finger, an arm between the guard member and the finger, said finger impinging upon the post; and a projection and groove for the projection limiting relative movement of the arm and the post.

9. An improved device of the character described, comprising a guard member and supporting means therefor at each end, one of said supporting means comprising a clip carrying a bulging split pin entering a non-circular opening in the guard member.

10. An improved device of the character described, comprising a guard member having an inherent spring quality, and supporting means therefor at each end, one of said

supporting means comprising a clip carrying a bulging split pin entering a non-circular opening in the guard member, and means acting to bind the walls of the opening upon
5 said bulging split pin.

11. An improved device of the character described, comprising a guard member, and supporting means therefor at each end, one of said supporting means comprising a clip
10 carrying an enlarged headed and bulging

split pin entering a non-circular opening in the guard member.

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

WILLIAM K. BOWERMAN.

Witnesses:

RAYMOND I. BLAKESLEE,
FRED A. MANSFIELD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
