H. WESSON.

RAZOR BLADE STROPPER.

APPLICATION FILED JULY 29, 1920.

1,436,740. Patented Nov. 28, 1922.

Fig. 1.

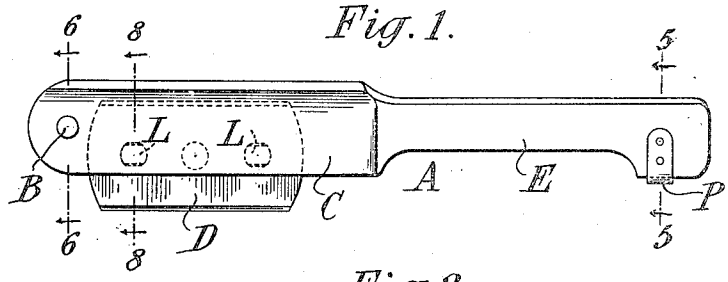


Fig. 6.

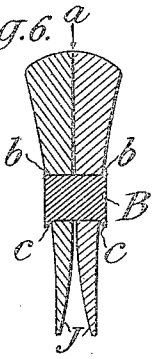


Fig. 2.

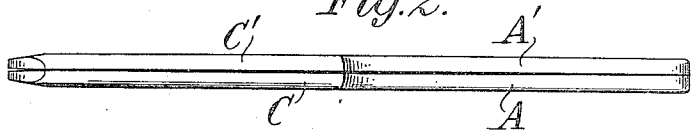


Fig. 7.

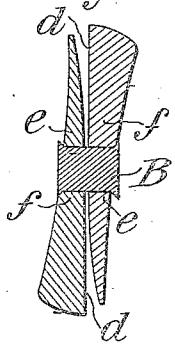


Fig. 3

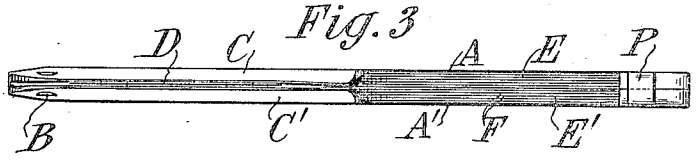


Fig. 5.

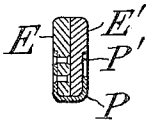
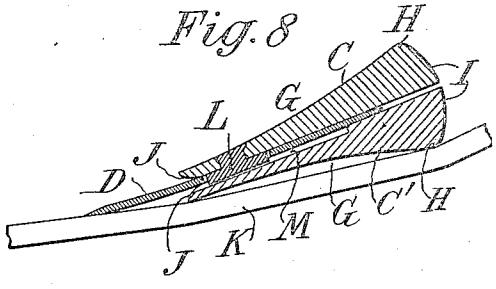


Fig. 4.

Fig. 8



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UNITED STATES PATENT OFFICE.

HAROLD WESSON, OF SPRINGFIELD, MASSACHUSETTS.

RAZOR-BLADE STROPPER.

Application filed July 29, 1920. Serial No. 399,823.

To all whom it may concern:

Be it known that I, HAROLD WESSON, a citizen of the United States of America, residing in Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Razor-Blade Stroppers, of which the following is a specification.

This invention provides a convenient handle by which to clamp and hold the blade of a safety razor while stropping it. The invention provides a very simple, convenient and effective construction for this purpose.

The preferred embodiment of the invention is shown in the accompanying drawings, wherein,

Figure 1 is a side view of the holder;

Fig. 2 is a back edge view thereof;

Fig. 3 is a front edge view thereof;

Fig. 4 is a face view with the parts of the holder opened.

Fig. 5 is a transverse section on the line 5—5 in Fig. 1;

Fig. 6 is an enlarged transverse section on the line 6—6 in Fig. 1;

Fig. 7 is a section in the same plane as Fig. 6 but with the members open;

Fig. 8 is an enlarged section on the line 8—8 in Fig. 1 showing the holder in the act of stropping the blade.

The new stropper comprises a blade holder consisting of two members pivoted together at one end, the portion nearest such pivot serving as a clamp for the razor blade while the remote portion serves as a handle by which to grasp the holder while stropping the blade. The novel features will be made apparent as the description proceeds.

In the drawings A and A′ are the two members of the holder, being united at one end by a pivot B. The respective members are formed with blade holding or clamping portions C and C′ respectively, between which is clamped the blade D to be stropped. The outer portions of the respective members lettered E and E′ respectively constitute the handle of the holder. The handle portion is reduced in width to be conveniently grasped by the hand and easily turned while stropping. To give a firmer hold the face of each handle portion on one side is roughened by grooving or otherwise, as shown by F in Fig. 3. The clamping portions C and C′ are of sufficient width to cover and guard one edge of the blade while leaving the other edge to be sharpened protruding sufficiently to enable it to engage the strop as shown in Fig. 1. The outer faces of these clamping portions are tapered, being preferably concaved as shown at G, G. in Fig. 8, being thus given a shape similar to that of an ordinary non-safety razor blade so as to provide a thick shoulder H to serve as a guide in stropping and having a rounded back portion I on which the holder may be turned at the end of each stroke as in the stropping of an ordinary razor. On their inner faces the clamping members C. C′ are flat for the greater portion of their width so as to afford a firm clamping seat for the opposite faces of the flat razor blade. That portion of the inner faces adjacent the protruding edge of the blade is bevelled outwardly as shown at J in Figs. 4 and 8 and also at J in Fig. 6. The purpose of this bevelling is to permit a limited flexure of the blade when it receives the pressure against the strop as indicated in Fig. 8 where the strop is lettered K. This inner bevelling has been found practically essential to the successful stropping of thin safety razor blades. The shape of the rounded bevel is such as to support the blade to a varying extent under varying flexure, an extreme flexure under the maximum stropping pressure bringing the blade into supporting contact with nearly the extreme edge of the bevelled portion, while a less flexure giving it a line of support more or less removed backwardly from such edge.

The razor blade is located and held firmly in position between the clamping members by means of pins L L, projecting from one clamping member and entering the conventional holes in the blade and being preferably long enough to enter slightly beyond the face of the other member which for this purpose is formed with shallow grooves M, shown in dotted lines in Fig. 4 and one of them being shown in section in Fig. 8. The pins L are conveniently made as separate pieces and riveted into holes in the clamping member C as shown in the cross section Fig. 8.

It is desirable for convenient insertion of the blades and for their tight engagement during stropping that the clamping members should separate somewhat in turning open to or beyond the position shown in Fig. 4 and that they should be drawn or forced tightly together after the blade is inserted

and as they are brought back to their closed position. This result may be easily accomplished by forming the blade members with relatively engaging wedge faces at their pivotal ends, as will be apparent on examination of Figs. 6 and 7, which are sections through the pivotal ends. Fig. 6 shows the blades in their clamping position as shown in Fig. 1 where their wedging faces have tightened together, bringing them into close bearing contact at the point *a* and bearing forcibly against the headed ends of the pivot B on the sides *b*, while leaving a somewhat free engagement on the opposite sides *c*. In Fig. 7 the clamping jaws are shown in their extreme opened position so that they are aligned with each other and projecting in contrary directions; here it is seen that the inner faces *d* are not pressing against each other and may even be out of contact, and by reason of the fact that on each side of the pin B there exists a thin portion *e* opposing a thick portion *f* of the clamping jaws, the pivotal engagement is loosened so that the clamping members are separated so that it is easy to introduce the razor blade between them. As they are swung together into the holding position the respective wedging faces slide together into continually tighter engagement so that the clamping members are caused to close together and embrace the blade between them. To hold the opposite ends of the handle members A, A′ closely together during use a fastener P is provided by which the handle ends are united. This fastener may be variously constructed, but is most easily and cheaply formed as a clasp of sheeet metal riveted or otherwise united to one member and carried around so as to embrace the opposite side of the other member in the manner clearly shown on Fig. 5. To avoid an uncomfortable projection which would be unpleasant for the hand, the other member is formed with a groove P′ which receives the hooked end of the clasp P. The clasp should be made of yielding metal and the parts should be fitted so tightly that the clasp will enter the groove under friction so that in bringing the two members together they will tightly bind by the engagement of the clasp and cannot be separated except by a forcible movement.

The holder provided by this invention enables the safety razor blade to be stropped or honed in the same manner as the blade of a non-safety razor and with equal convenience and facility. The removal of the razor blade and the insertion of another blade to be sharpened are operations performed with great ease and almost instantaneously. The blade when inserted is tightly clamped and its clamping engagement is securely retained during the sharpening operation. There are no loose parts and nothing to be lost or misplaced.

In the practical construction of the device the important features to be observed are the correct external shape of the clamping portions of the members whereby they approximate externally in cross section to the shape of an ordinary razor blade; the internal bevelling of the clamping faces at the edge where the razor blade projects; the narrowing and preferably roughening of the handle portion at the side so that it may be easily turned in the hand and readily grasped without risk of slipping; and the secure fastening of the two members in their closed position.

The invention is not limited to the precise construction shown, but is capable of some variation of construction within the scope of the appended claims.

I claim as my invention:—

1. A safety razor stropper comprising a holder of two members pivotally united at one end and having a clasping engagement at the opposite end, said members having clamping portions between which the razor blade is held, and a handle portion, the clamping portions shaped to cover one edge of the blade and permit the opposite edge to protrude for sharpening, and internally bevelled at the edges from which the blade protrudes the internal clamping faces beyond such bevelled edges adapted to flatly engage the major portion of the surface of the blade and hold it flat.

2. A razor stropper comprising holder members pivoted together at one end, having clamping portions between which the blade is held and a narrower handle portion, a clasp for uniting the members at their opposite ends, and the clamping portions adapted to enclose one edge of the blade to be sharpened and leave the other edge protruding, and formed tapering in transverse section with concave external faces, the thicker portions at the back being adjacent to the covered blade edge and being the portion of greatest projection, and the thinner portion being at the edge from which the blade protrudes and such thinner portion internally bevelled, the thicker and thinner portions adapted to bear against the strop, and the bevelled portion adapted to permit flexure of the blade to prolong its contact with the strop.

3. A safety razor stropper comprising clamping members and a handle portion, the clamping members having internal projections interlocking with the blade, and shaped to cover the major portion of the blade and one edge thereof, and permit the opposite edge to protrude for sharpening, and internally bevelled at the edges from which the blade protrudes, the internal clamping faces beyond such bevelled edges adapted to flatly clamp the major portion of the width of the blade and hold it flat.

4. A razor stropper comprising holder members having near one end clamping portions between which the blade is held and at the other end handle portions, said members pivoted together at the end beyond the clamping portions on an axis transverse to the clamping faces, and having fastening means for uniting the members at the opposite ends of their handle portions, and the clamping portions adapted to enclose one edge of the blade to be sharpened and leave the other edge protruding, and formed tapering in transverse section with concave external faces, the thicker portions at the back being adjacent to the covered blade edge and being the portion of greatest projection, and the thinner portions being at the edge from which the blade protrudes, the thicker and thinner portions adapted to bear against the strop, and the handle portions materially narrower than the clamping portions to enable the handle to be readily held and turned during stropping.

In witness whereof, I have hereunto signed my name.

HAROLD WESSON.