Nov. 13, 1923. 1,474,107

D. J. DALTON ET AL

SAFETY RAZOR BLADE HOLDER

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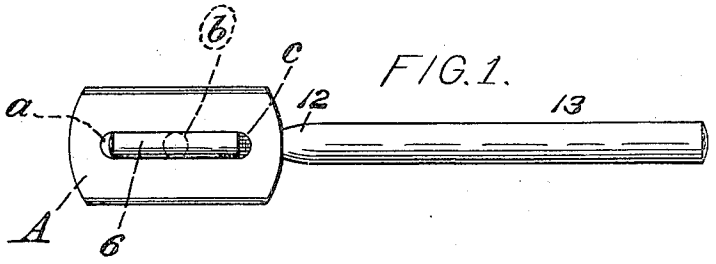


FIG. 1.

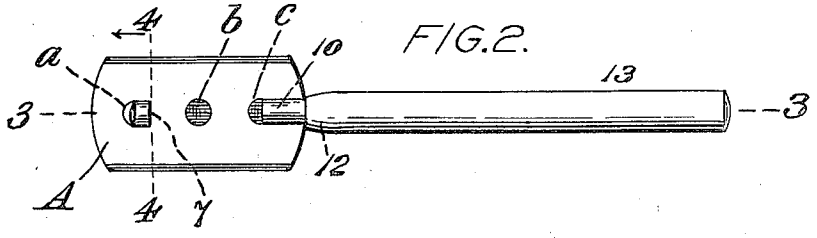


FIG. 2.

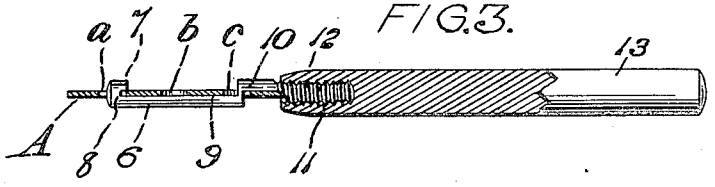


FIG. 3.

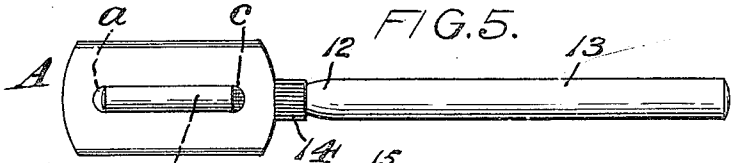


FIG. 5.

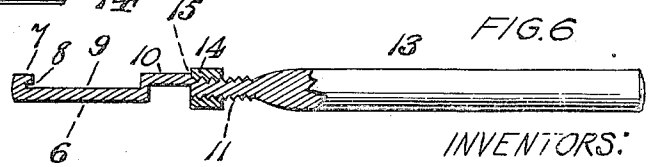


FIG. 6.

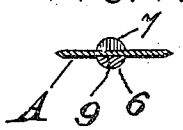


FIG. 4.

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UNITED STATES PATENT OFFICE.

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SAFETY-RAZOR-BLADE HOLDER.

Application filed June 11, 1923. Serial No. 644,603.

To all whom it may concern:

Be it known that we, DANIEL J. DALTON and WILLIAM A. BIONDI, both citizens of the United States of America, and residents of Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Safety-Razor-Blade Holders, of which the following is a specification.

This invention relates to holders or receptacle for safety-razor blades in manipulating them by hand in honing, stropping and otherwise sharpening them for use in shaving, and, more particularly, in the reverse handling of double-edge razor-blades of what are quite universally or commonly known as the "Gillette" or similar type that is flat and thin and that have usually but a very shallow depth of real steel along their cutting edges and need or require a reliable holder in the operation of sharpening them.

Our invention consists of a blade-receptacle composed of a main continuous fulcrum rock-bar of half-round cross-section with its flat side disposed or facing upwardly and having at its outer end a raised rounded projection, a narrow inwardly-open cross slit or kerf at the base of said raised projection, a right-angled half-round rear-extension to said rock-bar with its flat side facing downwardly and having at its extreme rear end a round screw-threaded extension or shank, and a handle having at its fore end an internally-threaded opening or socket for the detachable coupling-engagement of the said threaded rear end or shank of the fulcrum rock-bar, whereby the said flat, thin double-edged razor-blade is held in said receptacle in firmly clamped position on the said upwardly-facing flat side of the rock-bar that has been first inserted through the customary holes in said blade so that the rear edge of the metal in the hole at the fore end of the latter shall lie in engagement with the said cross-slit and with the flat rear end of the blade in contact with the flat underside of the said half-round rear-extension of the rock-bar, with the inner screw-threaded socket end of the handle in detachable-engagement with the threaded rear end of the rock-bar and with its inner edge in bearing-contact with the inner edge or end of the blade that will keep the blade in proper place in the holder-receptacle so that its opposite longitudinal sharp edges can be alternately brought into frictional honing or stropping engagement with their respective hone and strop appliances over whose surfaces the fulcrum rock-bar, on both sides thereof, is reciprocally drawn, back and forth, in the operation of sharpening the blade.

The details of structure of our invention will be fully hereinafter described in connection with the accompanying sheet of drawings, in which—

Figure 1 is a bottom-plan view of our device showing the blade in clamped position or place therein; Fig. 2, a reverse plan of Fig. 1; Fig. 3, a longitudinal axial-section of the assembled device and blade, taken on the dotted-line 3, 3, of Fig. 2, with the detachable-handle partly in elevation; Fig. 4, a transverse section of the said assembled device and blade, taken on the dotted-line 4, 4, of Fig. 2; Fig. 5, a bottom-plan view, similar to Fig. 1, but of a modified form, showing an added or auxiliary nut feature between the detachable-handle and the inner end of the blade on the rock-bar shank; and Fig. 6, a longitudinal section of the holder device but showing the handle as an integral part thereof, instead of being detachable as in the other views, omitting the blade and showing said handle partly in elevation.

A indicates the ordinary double-edge blade of the said well-known "Gillette" type, provided with the usual set or series of openings *a*, *b* and *c* that are adapted to be engaged with the lock pins or stops (not shown) of the safety-razor frame used in shaving.

6 is a continuous, main, fulcrum rock-bar, of half-round cross-section, its round face being disposed downwardly in one phase of the use of the holder-receptacle, as best shown in Figs. 3, 4 and 6. This main fulcrum rock-bar corresponds in length to that between the middle of the fore-opening *a* of the blade and the rear edge of the rear-opening *e* of the blade, as best disclosed in Figs. 3 and 6, and it has at its outer or fore end an angular raised and rounded projection 7 which is provided with a thin cross-slit or undercut 8, (as best seen in Figs. 3 and 6), facing inwardly toward and on a level with the flat upper face 9 of the said main fulcrum rock-bar 6.

At the rear or inner end of the main fulcrum rock-bar 6 we provide an upward angular extension 10 that is of half-round cross-section, the same as that of the main

rock-bar, but with the flat face thereof disposed downwardly and on a level with the upper face of the said cross slit or kerf 8 in the fore end of the main rock-bar 6.

At the extreme rear end of the said extension 10 we provide a screw-threaded shank 11, of round cross-section, to accommodate the inner internally-threaded end 12 of the elongated round-bar handle 13 by the aid of which latter the holder-receptacle and its duly clamped blade are held in the hand and conveniently manipulated, back and forth, along the hone or strop in sharpening said blade, the smooth, main, round-faced rock-bar 6 being used as a support for the blade as it rides along the surface of said hone or strop, for one face of the blade, and, also, as a fulcrum on which to pivot the device at each end of its stroke in reversing the edge to be acted upon.

The blade is set in place in the holder-receptacle, with the handle removed, by first inserting the main rock-bar through the inner or first hole *c*, to the right, until it reaches the round-faced angular extension 10, at which time the rock-bar is tilted toward the bottom face of the blade and thereby bringing the raised angular projection 7 into engagement with the outer or third hole *a* of the blade. The upper flat face 9 of the main rock-bar 6 is now in parallel contact with the said bottom face of the blade and the latter is then drawn outwardly so as to bring its outer end into engagement with the cross-slit or undercut 8 at the foot of the said round-faced angular projection 7, to lock the fore end of the blade in the desired place in the holder-receptacle. At this time, the handle 13 is turned into place at the rear threaded shank-end 11 of the rock-bar until its inner edge rests and contacts easily with the inner end of the blade, and thus the latter is properly clamped, without buckling, for its reciprocal longitudinal and pivotal movements over the surface of the hone, or of the strop in the sharpening of its opposite longitudinal cutting-edges.

The blade-holder, as thus far described, is of but two members or pieces and, therefore, extremely simple, as well as economical, in both its manufacture and its subsequent use, but it is obvious that it can be made of three parts by simply adding an auxiliary-nut 14 that is inserted on the threaded shank 11, between the inner end of the placed razor-blade and the inner end of the detachable-handle, as best shown in Fig. 5, wherein the said auxiliary-nut 14 is first placed on the shank 11 and then adjusted up to clamping-contact position against the inner end of the blade and, finally, the said detachable handle follows on the said shank, the said handle, in such event and instance, acting as both a manipulating means and as an outer nut-detaining means on the shank, for double-clamping effect, but at the expense of an additional member or part over that of the said two-part form. When the handle has been turned in easy contact with the auxiliary-nut 14 the latter is then turned backward against the inner end of the handle, so that the nut is locked free from hard pressure-contact with the blade but not sufficient to allow any looseness of the blade in the holder-receptacle nor its escape therefrom.

The reverse side or face of the blade is sharpened by simply reversing the holder and its blade content, so that they may ride on the spaced round faces 7 and 10 over the hone or the strop surface, the same as with the continuous round fulcrum-face 6.

In Fig. 6, it will be seen that the blade holder-receptacle and the handle 13 are made integral, the threaded shank 11 being a reduced extension of the handle, and no threaded socket is thus required in the inner end of said integral handle that is not then a detachable one in connection with the said blade holder-receptacle. The said blade holder-receptacle is otherwise made as in the other views, but the auxiliary-nut 14 has no real jamb-service as would otherwise be present in the use of a detachable handle as in Fig. 5. Considerable difference in the lesser cost of manufacture results in the use of the form seen in Fig. 6, as against those of the other views, and there is no detachable handle to become loose and astray in handling the device.

The shoulder 15 prevents the auxiliary-nut 14 being turned up too tightly against the inner end of the blade that would otherwise bend and bulge or buckle the latter away from its flat plane seat 9, and thereby seriously affect the sharpening of its opposite longitudinal cutting-edges.

We claim:—

1. A safety-razor blade-holder comprising a fulcrum rock-bar having a body-portion of half-round cross-section, an upturned undercut projection at the fore end of the upper flat face of the said rock-bar, an angular extension at the rear end of the rock-bar the same being of half-round cross-section with its flat face disposed downwardly, a screw-threaded shank of round cross-section extending beyond the said rear-end extension of the rock-bar and a handle having at its inner end an internally-threaded socket adapted to engage the said threaded shank on the rock-bar, the whole being arranged, constructed and adapted to reversely accommodate a flat razor-blade in the confines of the said fulcrum rock-bar and its angulated opposite ends, with the said handle in locking-contact with the rear or inner end of the confined

or positioned blade, substantially as shown and described.

2. A safety-razor blade holder-receptacle for use in the sharpening of the blade and comprising a main fulcrum rock-bar whose body-portion is of half-round cross-section with its flat face disposed upwardly, an upright round-faced projection at the fore or outer end of said flat upper face of the body-portion of the rock-bar and having an undercut kerf or cross-slit in its base, an angular upward round-faced extension at the rear or inner end of said flat face of the body-portion of the rock-bar also of half-round cross-section but with its flat face disposed downwardly, a screw-threaded shank-extension on the said angular extension of the main rock-bar, an integral handle-extension on the said screw shank-extension, and an auxiliary clamp-nut on the said screw shank-extension adapted to engage the rear end of the razor-blade when placed and otherwise positioned in the said holder-receptacle to securely-hold the said blade against displacement, substantially as shown and described.

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