Oct. 20, 1925. 1,558,152

B. O. FANSLOW

RAZOR BLADE STROPPER

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FIG. 1.

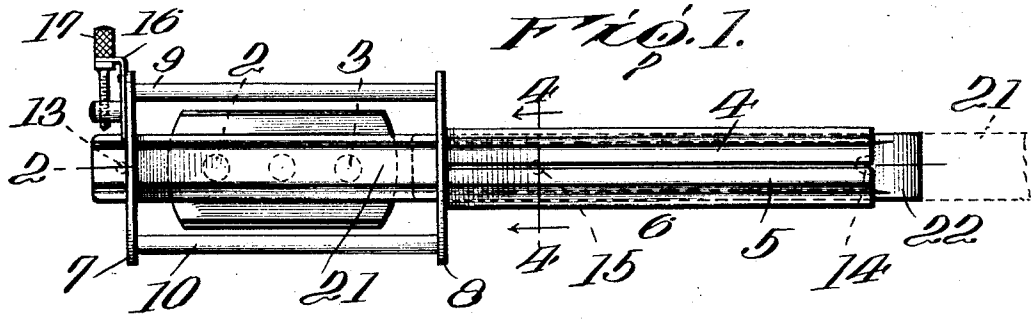


FIG. 2.

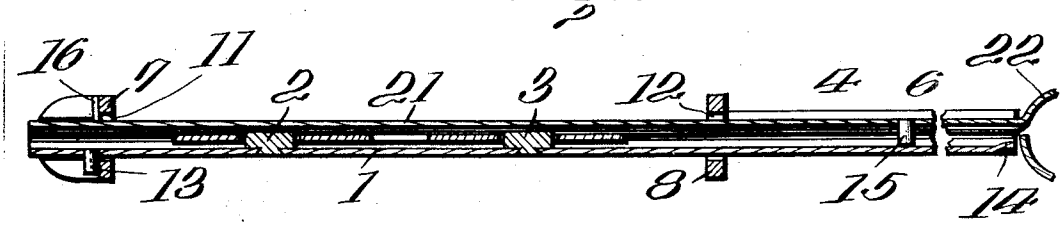


FIG. 3.

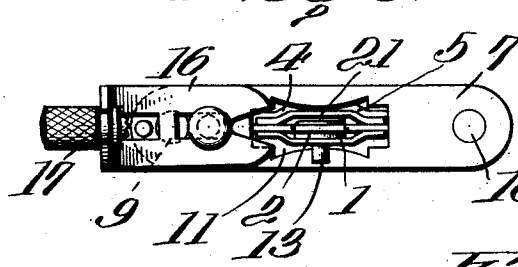


FIG. 4.

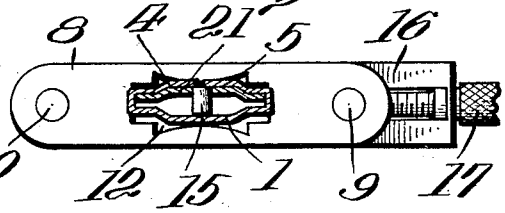
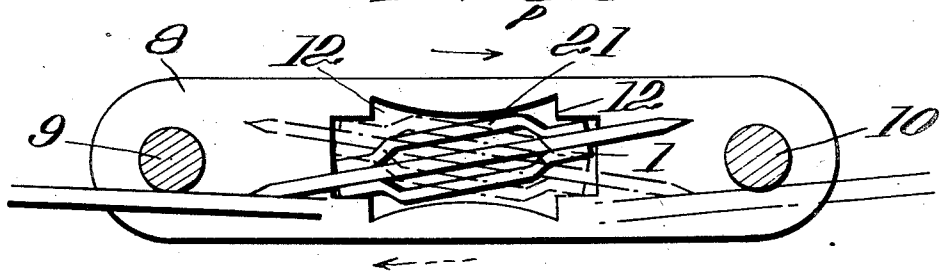


FIG. 5.



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FIG. 6.

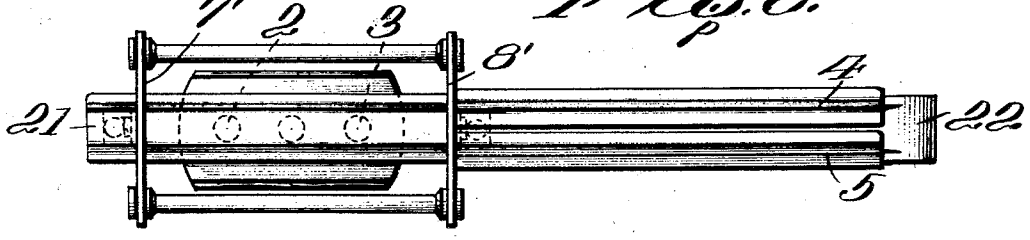


FIG. 7.

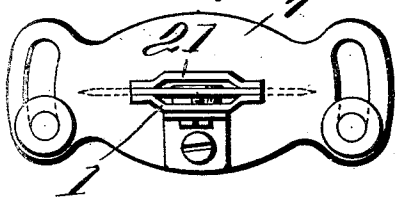


FIG. 9.

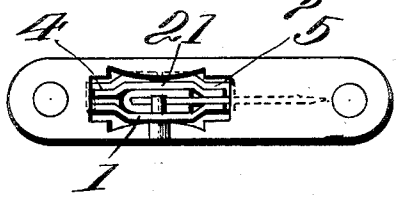


FIG. 8.

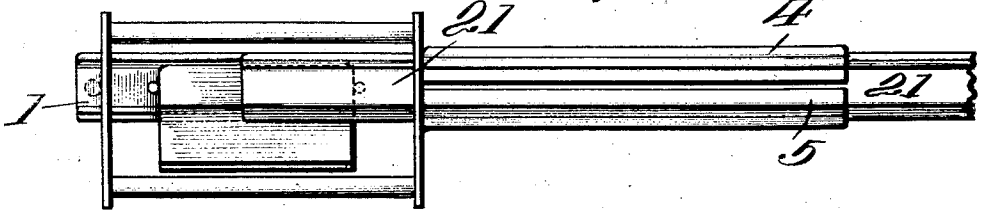


FIG. 10.

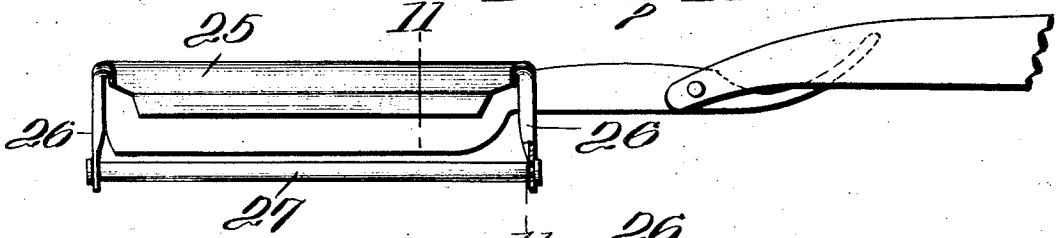
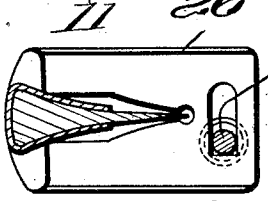


FIG. 11.



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UNITED STATES PATENT OFFICE.

BENJAMIN O. FANSLOW, OF NEW YORK, N. Y.

RAZOR-BLADE STROPPER.

Application filed July 30, 1923. Serial No. 654,663.

To all whom it may concern:

Be it known that I, BENJAMIN O. FANSLOW, a citizen of the United States, residing at New York city, State of New York, have invented certain new and useful Improvements in Razor-Blade Stroppers, of which the following is a description, reference being had to the accompanying drawing and to the figures of reference marked thereon.

This invention relates to stropping and honing devices for razor blades, and more particularly to the hand held type of device in which a blade is held in a specially constructed holder adapted for use with the customary flexible strop or with a razor hone.

In hand devices of this type, great difficulty has been experienced by the laymen in stropping or honing razors, in maintaining the desired angle of the blade edge during the honing or stropping operation, and further at the reversal of the stropping or honing stroke when the device was turned over to bring the opposite edge of the blade into contact with the strop or hone, no effective means has been provided for preventing the blade edge from scraping or contacting with the hone or strop.

The main object of the present invention is to provide a blade holder with a blade edge guard adapted to position the blade edge at the proper angle when the blade is passed along the strop or hone during the sharpening operation.

Another feature of the invention resides in constructing the holder and guard so that the blade edge is maintained out of contact with the strop during the reversal of the holder and blade.

A further phase of the invention resides in the adjustability of the guard whereby the stropping angle of the blade may be varied as desired.

Yet another object of the invention resides in the novel arrangement of guards in connection with the holder for a double-edged safety razor blade whereby the desired stropping angular relation of either edge of the blade relatively to the holder is secured.

A further object of the invention resides in the novel type of blade holder, handle and guard and the means for releasing the blade.

These and other objects will be apparent from a perusal of the following specification when taken in connection with the accompanying drawings, wherein—

Figure 1 is a perspective view of the preferred form of holder for a double-edged blade;

Fig. 2 is a section on line 2—2 of Fig. 1;

Fig. 3 is a section on line 3—3 of Fig. 1;

Fig. 4 is a section on line 4—4 of Fig. 1;

Fig. 5 is an enlarged detail view showing the functioning of the blade holding member in the slot;

Fig. 6 is a modified form;

Fig. 7 is an end view thereof;

Fig. 8 is a further modification for a single edge blade.

Fig. 9 is an end view thereof;

Fig. 10 is still another embodiment; and

Fig. 11 is an end view thereof.

Referring now to the invention in detail, the device illustrated in Fig. 1 shows the invention as adapted for holding a safety razor blade of the double-edged or Gillette type. In this form of the invention, there is provided a blade holding bar 1 having at one end blade positioning means in the form of spaced lugs 2 and 3 which are adapted to pass through the spaced perforations in the Gillette blade. At the other end, this bar 1 is provided with lateral extensions 4 and 5 which are folded over to form a convenient handle 6 and also a guideway for the cooperative blade clamping bar.

This second blade holder comprises a substantially flat, preferably sheet metal member 21 having a cross section substantially similar to the cross section of the first blade holder, so that the two members when in registering position permit the blade to lie therebetween with the edges of the blade projecting beyond the edges of the cooperative bars. This second blade holding member is adapted to snugly fit and slide through the folded over portions of the first blade member. Preferably it is provided at its extreme end with a curled portion 22 which may permit the device to be hung on a nail or hook. As illustrated in the drawings, this second blade holder slides along and relatively to the first blade holding member so that in its outer position, the blade is free. In the reverse position, the slidable blade holding member clamps the blade firmly in position.

Mounted on the first blade holding bar are spaced guard supports 7 and 8 which in the present embodiment of the invention, extend

laterally on each side of the bar. These supports are spaced the width of the cutting edge of the blade and have mounted in their ends on opposite sides of the holder bar, the blade guards 9 and 10. By thus mounting these blade guards with their opposite ends in the spaced supports, the blade guards are held in spaced parallel relation to the blade holder. Preferably, the blade guards are in the form of round bars mounted either loosely or fixedly therein.

It is desirable to have the blade guards movable relatively to the blade holder so that the guards can shift angularly with respect thereto to opposite sides of the blade edge. In certain aspects of the invention, this is accomplished by mounting the spaced supports movably on the bar blade holder, and in other aspects of the invention, this is accomplished by mounting the spaced supports stationarily on the blade holder and permitting the guards to shift relatively to the supports to the desired positions on the blade holder. In the form shown in Fig. 2, the supports are provided with registering apertures 11 and 12 substantially rectangular in cross section, except that the middle of the longer side of the rectangle is convex so that the blade holder and supports will rock relatively to the blade holding members. It is to be noted that these apertures permit the slidable blade holding member to pass therethrough in its inward or blade clamping position. The extreme inner end of the first blade holder member 1 is provided with a pin 13 to prevent the detachment of the supports from the blade holding bar. The corresponding end of this blade holding bar 1 is slightly crimped as at 14 to provide a stop to engage a pin 15 on the inner side of the slidable blade holding bar 21.

If desired, means may be provided for adjusting the angular movement of the supports relatively to the blade holding members. Such a means is disclosed in connection with the form illustrated in Fig. 1, and comprises a plate 16 having a substantially V-shaped cut in its lower side. This plate is riveted to the end of the support 7 so that the V-shaped slot is adapted to register with the aperture in the end of the support. A set screw 17 passes through the rivet and through a lateral extension of the sliding plate so that by adjustment of the set screw, the plate is adjusted toward and from the blade holding bar. By means of this adjustment, the V of the slot in the sliding plate will be brought closer to or further from the movable edge of the blade holding bar 1 and will regulate its extent of angular movement. It is obvious that other means may be utilized for accomplishing this function.

In the operation of this type of device, when a double-edge blade is clamped in position, as the holder is wiped along the strop, the guard will rock relatively to the blade holder to present and maintain the cutting edge of the blade at the correct stropping angle. On reversal of the device, as on the return stroke along the strop, the guard and blade holder will again rock relatively in the reverse direction so that the guard is shifted to the other side of the cutting edge, thereby maintaining the cutting edge out of contact with the strop during this period of reversal. Furthermore, during this reverse stroke, the opposite edge of the blade is likewise maintained at the correct stropping angle. While the above invention has been more or less illustrated and described in connection with a strop of the flexible type, it is obvious that the principle of the invention is equally applied to honing devices.

In the type of invention where the supports 7′ and 8′ are mounted stationarily on the blade holding bar 1, the guards are shiftably mounted relatively to the blade holding bar 1 by means of arcuate slots formed in the extensions or lateral ends of the spaced supports. In this instance, the guards are mounted for lateral movement in these slots so that they can assume positions on each side of the cutting edge of the blade. Otherwise, the construction is the same as in Fig. 1.

Fig. 10 of the drawing discloses this adaptation of the invention to a holder for the ordinary type of straight edge razor. In this instance, the blade holder comprises a sheet metal casing 25 adapted to slip over the back of the blade edge leaving the blade edge exposed. This casing is provided with supports 26 which in turn are formed with suitable slots in which the guard 27 is carried so that it can move arcuately into a position on either side of the blade edge.

Still another embodiment of the invention as illustrated in the drawings, shows a holder adapted for single edge blades. In this instance, one of the guards if desired may be brought a little closer to the corresponding edge of the blade holding bar 1. So also in this instance, the blade positioning means is slightly altered to hold the desired type of blade. For instance, instead of the spaced studs illustrated in the Gillette type of holder, there are provided the smaller studs which are spaced apart to accommodate the reinforce backing of the Gem or Ever Ready type of blade. The cross section of the spaced bar 1 being channeled out so that the depressed portion of the channel bar exactly fits in thickness the width of the reinforce backing of the blade. All of these blade positioning features are matters of design.

It is evident that by constructing the

blade holder as described, there is provided a very sturdy and effective stropping device. Particular attention is called to the spaced guard supports which hold the opposite ends of the guards firmly and prevent their tendency to twist during the stropping action. This is absolutely necessary, inasmuch as considerable pressure is brought to bear upon these guards during this operation. Furthermore, in the present construction, when the razor blade is being stropped, the blade is pressed heavily on the strop or hone by the operator's hand and is caused to yield until it comes to the proper angle, at which angle it is protected by the guard. In the type of device adapted for the double-edged or Gillette blade, it is to be noted that both sides of the blade can be stropped without changing or shifting any part of the structure. That is, there need be no shifting of the guard or removal and reversal of the blade in order to sharpen both cutting edges. At the same time, a very proper rigid structure is provided which allows of the necessary yielding relation of the blade edge against the strop.

It is obvious that minor changes in the details of construction and the arrangement of the parts may be made without departing from the spirit of the invention as set forth in the appended claims.

Having thus described the invention, what I claim as new and desire to secure by Letters-Patent, is—

1. A device for stropping razor blades comprising a pair of bars, one of said bars slidable within the other, said bars adapted in one position to grip a razor blade between them and in another position to release the same, the outer bar forming a handle grip, a guard support carried by said bars, a guard carried by said support and arranged parallel to and spaced from said bars, said support being constructed and arranged to oscillate relatively to said bars and to present said guard a limited distance to opposite sides of the edge of the blade to protect the same when presented to the strop either side up.

2. A device for stropping razor blades comprising a pair of bars, one of said bars slidable within the other, said bars adapted in one position to grip a razor blade between them and in another position to release the same, the outer bar forming a handle grip, a guard support carried by said bars, a guard carried by said support and arranged parallel to and spaced from said bars, said support being constructed and arranged to oscillate relatively to said bars and to present said guard a limited distance to opposite sides of the edge of the blade to protect the same when presented to the strop either side up, and means for adjusting the movement of said guard relatively to said bars.

3. A device for stropping razor blades comprising a pair of bars, one of said bars slidable within the other, said bars adapted in one position to grip a double-edged razor blade between them and in another position to release the same, the outer bar forming a handle grip, a guard support carried by said bars and extending laterally on opposite sides of said bars, a pair of guards carried at the ends of said support and arranged parallel to and spaced from said bars, said support being constructed and arranged to oscillate relatively to said bars and to present each of said guards a limited distance to opposite sides of the respective edge of the blade to protect the same when presented to the strop either side up.

4. A device for sharpening razor blades comprising a bar having integral portions at one end folded over to form a combined guide and handle, said bar having blade positioning means thereon, a second bar arranged to be slidable through the folded portion of said first bar, said bars being transversely arched to clamp the blade adjacent its edges, and adapted in one position to clamp said blade between the bars and in another position to release said blade.

5. A device for stropping razor blades comprising a blade holder having a portion oblong in cross-section, a guard support pivoted about the said holder, a guard carried by said support and disposed in spaced parallel relation to said blade holder, and an adjusting member on said support cooperating with said portion to limit the relative rotative displacement of said holder and said support.

6. A device for alternately stropping the two faces of a razor blade, comprising a holder for the blade having a portion of oblong cross-section, a guard having an oblong aperture embracing said portion and being thereby pivotally mounted on said holder and in spaced relation to the blade, said portion cooperating with said aperture to limit the pivotal movement of said guard about said holder.

7. A device for stropping razor blades comprising a blade holder of two elements receiving the blade therebetween, a guard in spaced relation to said holder, supports for said guard pivotally mounted on said elements, and means on said supports to limit movement of the guard relative to said holder, and in such limiting position to clamp the elements against the blade while the latter is in operative position on a strop.

8. A device for sharpening razor blades comprising a bar having portions folded over to form a combined guide and handle, said bar having blade positioning means thereon, a second bar arranged parallel with and slidable through the folded portions, a support mounted transversely on

said first bar, and a guard thereon, said support having an opening to permit the passage of the second bar therethrough.

9. A device for holding razor blades during sharpening comprising a blade holder formed of four pieces of metal including a member formed as a hollow handle portion at one end and having its other end formed to receive a razor blade, a second member slidable within said hollow handle portion and having one end formed to engage the blade in conjunction with said first member, and a pair of pivoting and clamping elements about said members to hold the same upon the blade and having a limited pivotal movement with regard thereto, and a guard connecting said clamping elements and rigidly assembled therewith, whereby said pivoting elements may move said guard to expose said blade to a strop at either side of said guard and by such limited movement, the elements compress and clamp said members upon said blade.

10. In a device for stropping razors, a handle, means for rigidly securing the blade to be stropped to said handle, a guard rod associated with said handle and lying in front of the edge of the blade and spaced therefrom, means whereby said guard rod is supported by said handle so that said handle and rod may have a relative movement whereby either face of the edge of the blade is brought into contact with the strop while the rod is in engagement therewith, and positive means for limiting the relative movement of the rod and the handle located at each end of said blade, whereby said rod is maintained in parallelism with the edge of said blade.

In testimony whereof, I affix my signature.

BENJAMIN O. FANSLOW.