June 24, 1952 J. J. HILL 2,601,523

DEVICE FOR USE IN THE STROPPING OF SAFETY RAZOR BLADES

Filed June 13, 1949

Fig. 1.

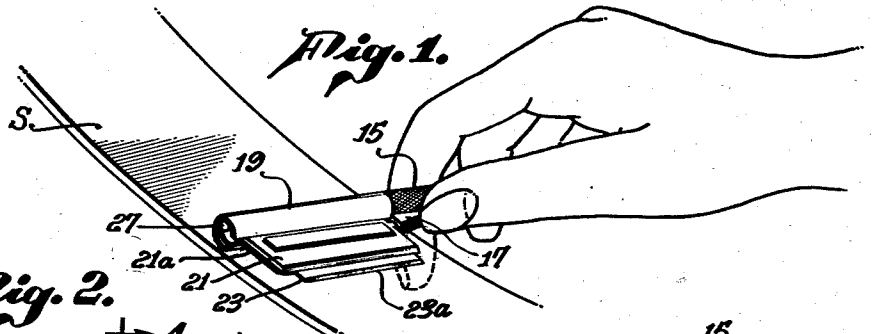


Fig. 2.

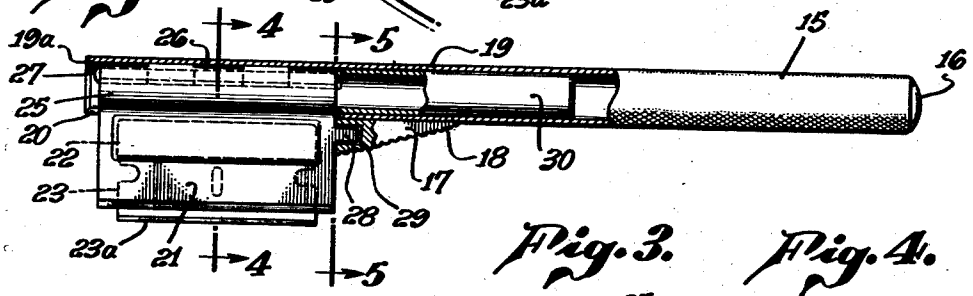


Fig. 3.

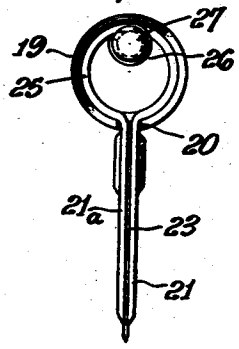


Fig. 4.

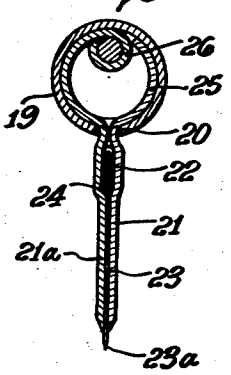
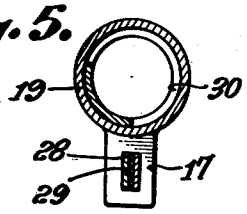


Fig. 5.



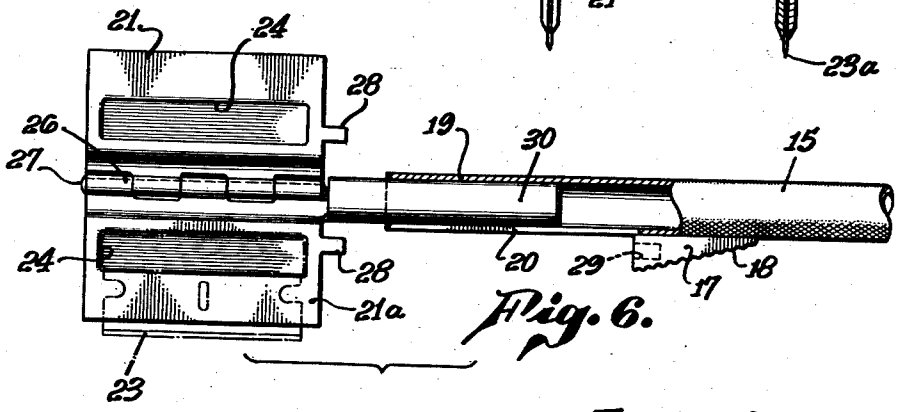


Fig. 6.

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DEVICE FOR USE IN THE STROPPING OF SAFETY RAZOR BLADES

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Application June 13, 1949, Serial No. 98,712

2 Claims. (Cl. 30—330)

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My invention pertains to and has for a purpose the provision of a device by which a safety razor blade can be immovably held therein and manipulated over the surface of a strop in the orthodox manner of an old fashioned razor, to effectively strop the blade and thus restore the original keen edge so that by such stropping when required, the blade can be made to last indefinitely.

It is also a purpose of my invention to provide such a device which is capable of holding and permitting stropping manipulations of either a double edge blade or a single edge blade, and in the instance of the former to allow reversing of the blade therein so that both edges thereof can be stropped.

Structurally my device is characterized by its simplicity and low cost of manufacture, and functionally by the easy manner in which a blade can be inserted and firmly clamped therein for a stropping operation, and with equal ease removed from the device after stropping.

Additionally, my device affords means for so securing a blade therein that the cutting edge is held in a fixed position of uniform projection from the device to prevent shifting thereof during stropping and thus insuring uniform stropping.

The structure of the device is such that when applied to a strop it allows ready turning thereof to present first one side of the blade's cutting edge and then the other to the strop, and yet holds the blade at an angle to the strop such as to insure effective stropping of its cutting edge.

I will describe only one form of device for use in the stropping of safety razor blades embodying my invention and will then point out the novel features thereof in claims.

In the accompanying drawings:

Fig. 1 is a view showing in perspective one form of device embodying my invention in stropping position on a strop.

Fig. 2 is an enlarged elevational view, partly in section, of the device of Fig. 1.

Fig. 3 is an enlarged end elevational view of the device.

Fig. 4 is a vertical sectional view taken on the line 4—4 of Fig. 2.

Fig. 5 is a sectional view taken on the line 5—5 of Fig. 2.

Fig. 6 is a view similar to Fig. 2 showing the blade holding means of the device extended from the handle and in open position to permit the insertion or removal of a safety razor blade.

Having specific reference to the drawings, my device in its present embodiment comprises a handle 15, preferably made of spring steel and of cylindrical form in cross-section, its exterior surface being knurled as shown to provide a secure grip when using the device, and one end

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of the handle closed by a wall 16. Exteriorly the handle is formed with a tapered projection 17 the edge of which is fluted as at 18. This projection provides a thumb rest when the hand of the user is holding the device in a stropping operation, as is illustrated in Fig. 1.

The handle 15 being of cylindrical form, its forward portion provides a barrel 19 in which a blade holder or receiving means is adapted to be received to position a blade laterally on the sleeve so that its cutting edge is exposed for stropping. To receive this holder the barriel is formed with a slot 20 which extends longitudinally thereof at a point aligned with the projection 17, and terminating at its inner end at the wide end of the projection.

The blade holder comprises a pair of plate-like members or jaws 21 and 21*a* which, to accommodate therebetween the reinforced edge 22 of a single edge safety razor blade 23 are outstruck at identical points on their inner faces to form rectangular recesses or depressions 24. Beyond these recesses 24 the members or jaws 21 and 21*a* are curved outwardly in opposite directions to provide semicircular portions which, when the members are in closed position, act to form a sleeve 25 the external diameter of which is such that the sleeve can be extended into the barrel 19 and retained therein by frictional fit.

Portions of the two part sleeve 25 are extended and bent upon themselvs to form interfitting tubular elements 26 through which a pintle 27 is extended for permanently and hingedly connecting the members or jaws 21 and 21*a*. Such connection allows the members to occupy the open position shown in Fig. 6 to permit placing a razor blade therebetween, and the closed position shown in Fig. 4 in which the blade is adapted to be clamped, as will be further described hereinafter.

Tongues 28 are formed on the inner ends of the members 21 and at corresponding points so that when the members are in closed position the two tongues are brought into side to side relation with each other so that they may be extended into a recess 29 formed in the wide end of the projection 17.

Of the two blade holding members the member 21*a* is a fixed member, while the member 21 is a movable one in that it is hingedly connected to the fixed member by the elements 26 and the pintle 27. The member 21*a* is fixed in the sense that it does not rotate in relation to the barrel 19, but only moves axially thereof to move into or out of the barrel.

To prevent disconnection of the member 21*a* from the barrel 19 incident to opening the member 21*a* to insert or remove a blade, it is made integral with a tube 30 which extends from and is actually a continuation of that half of the sleeve 25 on the member 21*a*. In other words,

the member, the tube **30**, and the sleeve half together with the elements **26** can all be made from one piece of metal.

The tube **30** is extendable into the barrel **19** and has a frictional fit therein to be held against accidental withdrawal therefrom, and yet it can be moved longitudinally therein to occupy the extended position shown in Fig. 6 or the retracted position shown in Fig. 2. Preferably the open end of the barrel **19** is beveled as at **19***a* to facilitate the insertion of the tube thereinto.

The tube **30** as initially extended into the barrle **19** is in such a position circumferentially that the ends of the members **21** and **21***a* are aligned with the slot **20** so that the two can be extended into the slot and the tube into the barrel either to the position shown in Fig. 6 or the position shown in Fig. 2. It will be understood that once the tube **30** is inserted it is never completely withdrawn from the barrel when used, nor is its circumferential position disturbed.

To mount a blade in my device incident to stropping thereof, the tube **30** is pulled part way outward of the barrel **19** until the holding members **21** and **21***a* are free of the barrel, and the tongues **28** withdrawn from the recess **29**. This extended position of the blade holder is shown in Fig. 6 wherein the movable member **21** is free to be swung to open position allowing a blade to be placed on the member **21***a* and then the member **21** closed to confine the blade between the two. When mounting a single edge blade between the members the reinforced edge **22** is received in the depressions **24** to position the cutting edge **23***a* uniformly projected from the free longitudinal edges of the members.

The member **21** having been closed on the fixed member **21***a*, as described, the holder with the tube **30** can be pushed to the retracted position shown in Fig. 2, the slot **20** receiving the members and the recess **29** receiving the tongues **28**.

The outside diameter of the sleeve **25** may slightly exceed the normal internal diameter of the barrel **19** so that when the sleeve is inserted the barrel is slightly expanded to exert a pressure on the sleeve thus insuring frictional retention of the sleeve in the barrel and the secure clamping of the blade between the members **21** and **21***a*. The tongues **28** in extending into the recess **29** also secure the member **21** against possible separation, thus providing additional means for securing the blade against movement between the members.

With the parts of the device so assembled the blade **23** is fixedly held between the mmebers **21** and **21***a* and in a plane extending radially or laterally from the barrel **19** so that the cutting edge **23***a* is exposed uniformly along its length from between the members and on a line paralleling the longitudinal axis of the barrel.

In the use of the device the handle is gripped in the manner illustrated in Fig. 1 with the thumb reposing on the projection **17**, and the barrel resting on and extending transversely of a conventional strop S. Due to the diameter of the barrel **19** the cutting edge **23***a* engages the surface of the strop at such an angle as to effect the required stropping of such edge. When the device is moved lengthwise on the strop first in one direction and then the other as when stropping, turning of the blade to present first one side of its cutting edge and then the other to the surface of the strop is facilitated by the round form of the exterior of the barrel **19** and without any injury to the surface of the strop.

To remove the blade after stropping it is only necessary to push the members **21** and **21***a* forwardly until they as well as the tongues **28** clear the barrel **19** when the member **21** can be swung to open position and the blade removed. As illustrated in Fig. 6, in this position of the members **21** and **21***a* the tube **30** still remains within the barrel and in its original circumferential position so that upon placing another blade on the member **21***a* and then closing the member **21** thereon, the holder can be pushed back to the position shown in Fig. 2, to clamp the blade on the handle for a stropping operation.

My device is also useable for the stropping of two edge safety razor blades, and such a blade may be positioned between the members **21** and **21***a* and effectively held against possible shifting in a stropping operation. Once one edge of the blade is stropped the position of the blade between the members can be reversed to expose the other edge for stropping, as will be understood.

Although I have herein shown and described only one form of device embodying my invention for use in the stropping of safety razor blades, it is to be understood that various changes and modifications may be made therein without departing from the spirit of my invention and the spirit and scope of the appended claims.

What I claim is:

1. A device for use in the stropping of safety razor blades, including: a barrel having a slot extending longitudinally therein for a portion of its length leading to one end of the barrel, a tube slidably fitted lengthwise in the barrel, a blade clamp comprising a pair of flat elongated jaws one of which is fixed at one longitudinal edge to and in longitudinal alinement with one end of the tube, and the other jaw being pivotally connected at one of its longitudinal edges to the fixed jaw to occupy open and closed positions with respect to the fixed jaw, said tube and blade clamp, when said jaws are closed and alined endwise with the slot, being slidable in said barrel with said jaws extending through said slot; tongues on the inner ends of the jaws; and a projection on the outer side of the barrel at the inner end of the slot, said projection having a recess therein at the end adjacent the slot to receive the tongues when the jaws are extended fully into the slot.

2. A device as embodied in claim 1, wherein the projection is tapered longitudinally from its recessed end to its other end and transversely fluted.

JOHN J. HILL.

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