T. J. KERN.

STROPPER FOR RAZOR BLADES.

APPLICATION FILED APR. 18, 1918.

1,294,113. Patented Feb. 11, 1919.

Fig. 1.

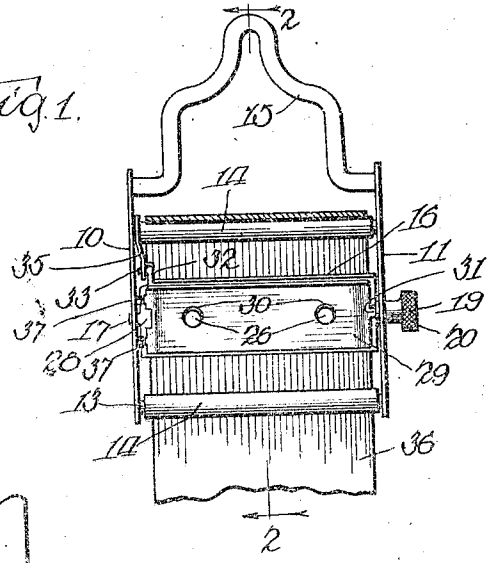


Fig. 2.

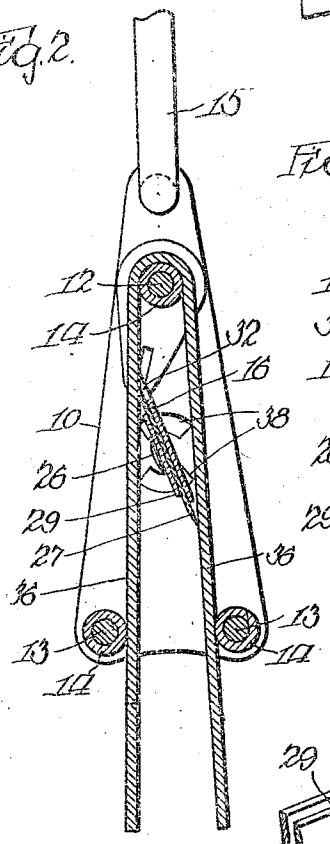


Fig. 3.

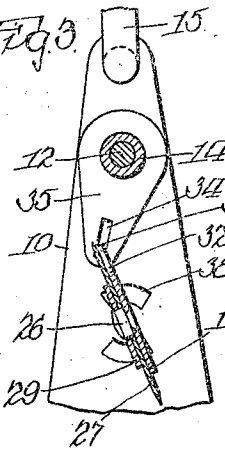


Fig. 4.

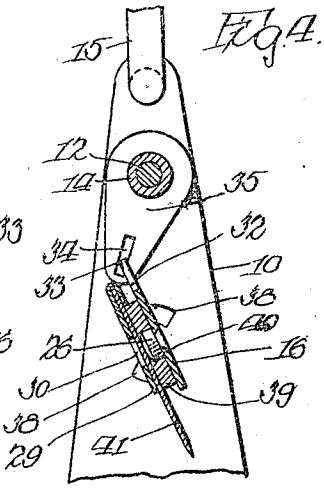


Fig. 5.

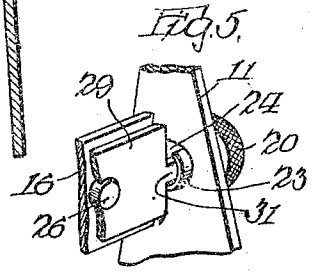
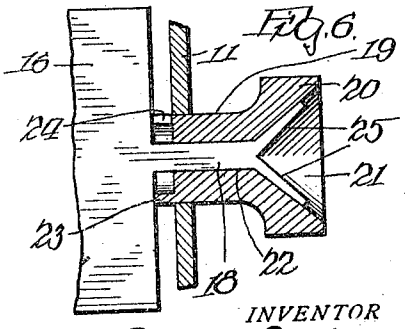


Fig. 6.



WITNESS

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STROPPER FOR RAZOR-BLADES.

1,294,113. Specification of Letters Patent. Patented Feb. 11, 1919.

Application filed April 18, 1918. Serial No. 229,223.

To all whom it may concern:

Be it known that I, THOMAS J. KERN, a citizen of the United States, residing at Antioch, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Stroppers for Razor-Blades, of which the following is a specification.

This invention relates to improvements in devices or machines for stropping or sharpening razor blades, and it consists in certain peculiarities of the construction, novel arrangement and operation of the various parts thereof as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide a stropper or sharpener for razor blades, particularly detachable blades, such as are used in many safety razors, which shall be compact in form, simple and inexpensive in construction, strong, durable, and efficient in operation. Another object of the invention is to provide a stropper of the above mentioned general character, wherein the arrangement and construction of the parts thereof is such as to enable either single or double edged blades, or the blades of different makes of razors, to be stropped with equal facility, proper provision being made for clamping or holding blades of different types, and for swinging the edge or edges of the blades into proper contact with the surface of the runs of the strop without danger of cutting the same as the movement of the latter is reversed or drawn longitudinally through the frame of the device in the operation of stropping. Various other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In the accompanying drawing which serves to illustrate an embodiment of the invention,

Figure 1 is a face view of the device showing the front run or part of the strop removed.

Fig. 2 is a greatly enlarged longitudinal sectional view taken on line 2—2 of Fig. 1 looking in the direction indicated by the arrows.

Fig. 3 is a similar view of a fragment of the stropper taken on the same line and looking in the same direction but showing the strop removed and illustrating a razor blade of the "Gillette" type as being held by the blade holder.

Fig. 4 is a similar view of like parts showing a modification in the construction of the blade holder and a different kind of blade held thereby.

Fig. 5 is a fragmental perspective view of the inner surface of one side of the frame of the device showing a part of the blade holder and the means for locking its parts in operative position, and

Fig. 6 is a greatly enlarged view partly in elevation and partly in section of a part of one side of the frame of the device, a portion of one member of the blade holder and the means employed for locking the other part of the blade holder in clamping or operative position thereon.

Like numerals of reference refer to corresponding parts throughout the different views of the drawing.

The frame of the holder consists of two side pieces 10 and 11 which are held in parallelism with one another yet spaced apart by means of tie rods 12 and 13, which are located as shown, that is, the rod 12 is near the upper ends of the side pieces 10 and 11, while the rods 13 are located near the lower ends there of and in parallelism with one another. On each of these rods a rotary sleeve 14 is by preference, mounted, but I desire it to be understood that said sleeves may be omitted, in which case, said rods, or at least the rod 12 may be rotatably journaled in the sides 10 and 11 of the frame. At its upper end the frame is provided with a loop or bail 15 of wire or other suitable material by means of which the stropper can be fastened to a hook or nail so that the frame 11 will depend therefrom. The ends of the loop or bail 15 are by preference, pivotally connected to the upper ends of the sides 10 and 11 of the frame so that said bail can be folded or turned to lie between said sides. Transversely journaled about midway between the tie rod 12 or sleeve 14 thereon and the tie rods 13 or sleeves 14 thereon is the body plate 16 of the blade holder, which plate is by preference of flat metal and has at one of its ends a stub shaft 17 extended through a suitable opening in the side piece 10 of the frame and at its other

end an extension 18 on which is mounted the neck 19 of a knob or handle 20 which knob or handle is provided with a conical shaped cavity 21 communicating with an opening 22 extended centrally through the neck 19 of the knob. The inner end of the neck 19 is provided with an annular flange 23 which is broken as at 24 for the purpose to be presently explained. The extension 18 of the body plate 16 is extended through the opening 22 in the neck 19 of the knob or handle 20 and has its outer portion split to provide prongs 25 which are deflected against the walls of the cavity 21 so as to hold the knob or handle in position on the plate 16, yet so that the said knob or handle may be turned independently thereof. The body plate 16 is provided with one or more studs 26 which are for the purpose of engaging correspondingly spaced openings in the razor blades 27 of the "Gillette" type so as to more securely hold said blades in position thereon. Secured to the end of the body plate 16 opposite the handle 20 by means of a hinge 28 is a curved resilient clamping member 29 which is provided with openings 30 to register with and receive the studs 26 on the body plate, that is, when blades of the "Gillette" type, or those having openings therein between their ends are being stropped. The opposite end of the clamping member 29 from the hinge 28 is provided with a projection 31 which is adapted to enter the inclosure formed by the flange 23 on the neck 19 of the knob or handle 20, through the cut-away portion 24 of said flange which will engage the projection 31 and hold the member 29 in its operative or closed position, it being understood that the neck 19 of the knob or handle 20 is journaled in a suitable opening in the side 11 of the frame of the device. That end of the body plate 16 adjacent to the hinge 28 is provided at one of its sides with a laterally extended arm 32 which has an outward projection 33 extended into the slot 34 formed in the inner portion of an arm 35 rigidly fixed to one end of the sleeve or rock-shaft 14 over which the strop 36 passes. The same end of the blade holder consisting of the body plate 16 and the clamping member 29 is provided with a pair of projections 37 which are located on opposite sides of the stub shaft 17 of the body plate and extend into segmental slots 38 formed in the side piece 10 on each side of said shaft. By this arrangement it is evident that through the connections 32, 33 and 35 with the sleeve or rock-shaft 14 and the engagement of the projections 37 with the ends of the slots 38 the body plate 16 of the blade holder will be restricted in its movements, yet may be rocked by alternately pulling on the runs of the strop 36, which as before stated passes over the sleeve or rock-shaft 14, and as shown in Fig. 2 of the drawing passes between the tie rods 13 and rollers 14 thereon, when the latter are used.

In Fig. 4 of the drawing a modification in the construction of the blade holder is shown, which holder is of similar construction to that above described, except that a plate or piece of cushioning material 39 having openings 40 for the reception of the studs 26 on the body plate 16 is placed between the said plate and the clamping member 29. By this arrangement it will be understood that if it is desired to strop a razor blade 41 of the "Gem" or other type not having openings therein this can be done by simply placing the blade between the cushion or piece 39 and the clamp 29 and fastening the latter in position by turning the knob 20 as in the other construction, after which it is obvious that by alternately drawing on the ends of the strop 36 the edge of the blade will be caused to contact alternately with the runs of the strop and be sharpened thereby. The same operation is performed in stropping double edged blades or those of the "Gillette" type as shown in Figs. 2 or 3 of the drawing.

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

1. A stropper for razor blades consisting of a frame having parallel sides, one of said sides having a pair of spaced apart segmental slots, a rock shaft transversely journaled in the upper portion of the frame, a blade holder consisting of a body plate and a clamping plate hinged at one of its ends to one end of the body plate, said body plate journaled on the frame near said shaft in parallelism therewith, one of the journals of said body plate being located between said slots of the frame, said body plate having a pair of projections extended into said slots and provided at its opposite end with an extension divided at its outer portion, a slotted arm rigidly mounted on the rock shaft, a projection extended from the blade holder into the slot of said arm, a knob rotatably mounted on said extension and having in its outer portion a conical shaped recess to receive and engage the prongs of said extension, said knob extended through an opening in the frame and having at its inner end a circumferential flange provided with a recess therein, said clamping plate having at its end opposite its hinged portion a projection to enter said recess and engage the flange of said knob, and a strop extended over the rock shaft to operate the same.

2. A stropper for razor blades including in combination, a frame, a blade holder journaled in said frame and consisting of a body plate having at one of its ends an extension provided at its outer portion, a

knob rotatably mounted on said extension and having in its outer portion a conical shaped recess to receive and engage the prongs of said extension, said knob extended through an opening in the frame and having at its inner end a circumferential flange provided with a recess therein, and a clamping member hinged at one of its ends to the opposite end of the body plate and having at its opposite end a projection to enter said recess and engage the flange of said knob.

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GEO. B. BARTLETT.