Oct. 28, 1930. J. A. D. WATT 1,780,053

COMBINED CONTAINER AND STROPPING DEVICE FOR RAZORS

Filed March 29, 1921

Fig.1.

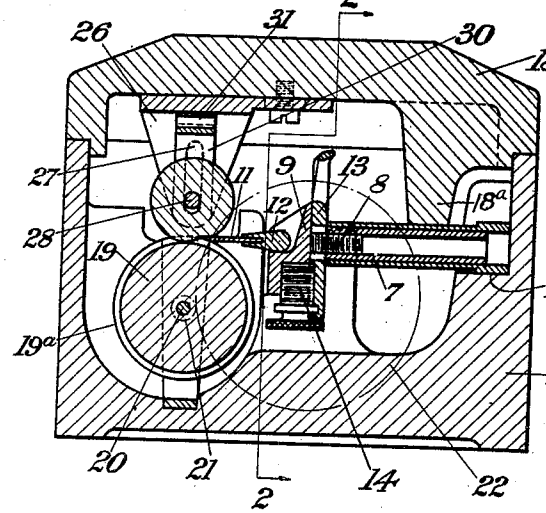


Fig.2

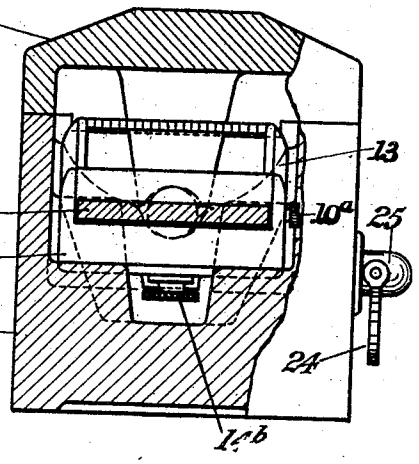
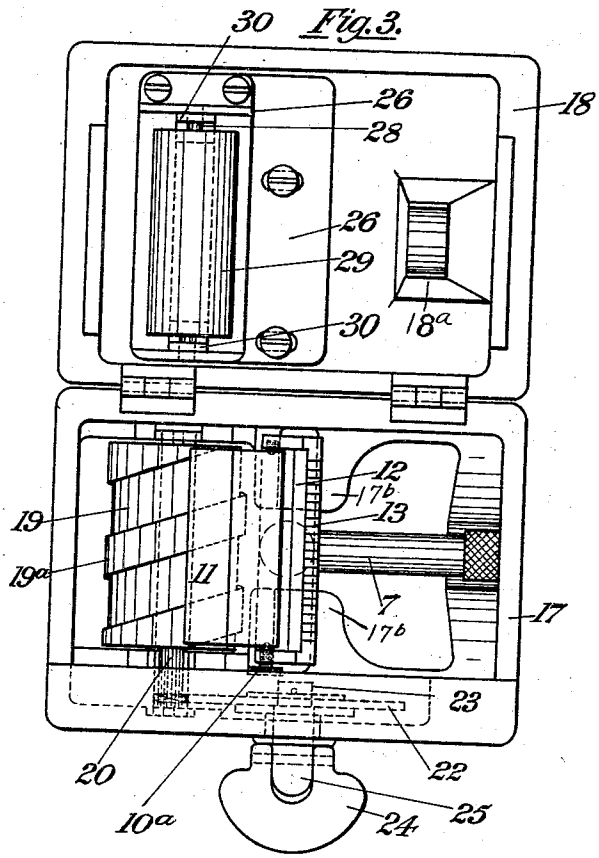


Fig.3.



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UNITED STATES PATENT OFFICE

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COMBINED CONTAINER AND STROPPING DEVICE FOR RAZORS

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(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313)

This invention has reference to an improved safety razor and means for sharpening or stropping the blade thereof.

The invention comprises a safety razor wherein the blade is pivotally connected to a blade carrier which is connected to the razor handle, the blade guard being adjustable relative to the blade and blade carrier in a direction at right angles to the axis of the handle, the adjustment being obtained by means of a screw which connects the guard with the blade carrier, said screw being provided with a scale whereby a visual indication can be observed of the degree of adjustment obtained between the said guard and carrier; the complete razor being adapted to be located within a box which contains a blade sharpening or stropping device, the sharpening or stropping operation being performed while the razor is stored within the box without involving the detachment of the razor blade from the razor frame. Other features of improved construction which comprise part of the present invention will appear from the following description.

My invention will now be described with reference to the accompanying sheet of drawings, in which:—

Fig. 1 is a front sectional elevation through the box stropping device and the razor.

Fig. 2 is an end part sectional elevation taken on line 2—2 of Fig. 1.

Fig. 3 is a plan of the razor located in the box with the lid open, the razor blade being located in the sharpening or stropping position.

Similar reference numerals indicate similar parts in the several views.

The body of the box 17 is formed with an integral shelf 17^a which is adapted to support the rear end of the razor handle, the head of the razor being supported by the projections 17^b also formed integral with the body of the box. The lid 18 of the box is formed with an integral downward projection 18^a, which bears against the razor handle about midway of its length, said member 18^a together with the shelf 17^a and the projections 17^b firmly maintaining the razor in a horizontal position ready for the engagement of the blade with a sharpening or stropping device when incorporated in the razor box.

Describing now the sharpening or stropping device for the razor blade, this is contained within the box 17 within which the razor is normally adapted to be located when out of use. This box is provided with a hinged lid 18 and both the box and the lid are moulded or formed to accurately receive and locate the razor therein. Rotatably mounted in the box is the sharpening or stropping roller 19 which is mounted on a spindle 20 on which is a pinion 21 which meshes with a toothed wheel 22 mounted on a spindle 23 in the front side of the box, said spindle being rotatable in one direction only by means of the winding key 24 which is pivotally mounted on the spindle 25 aligned with the spindle 23 and in ratchet and pawl or similar one-way connection with the spindle 23. The sharpening or stropping roller 19 has its sharpening or stropping surface formed thereon as a helix 19^a and the edge of the blade 11 is adapted to rest on this helix as clearly seen in Figures 1 and 3. Mounted on the underside of the lid 18 is a bracket 26 in the sides of which are elongated vertical slots 27 in which the ends of the spindle 28 on which is mounted a resilient roller 29 engage. The spindle 28 passes through a circular opening formed in a subsidiary bracket 30 which is resiliently and slidably mounted within and relative to the bracket 26, a leaf spring 31 being inserted between the underside of the top face of the bracket 26 and the upper surface of the horizontal top bar of the subsidiary bracket 30. It will be clear that the subsidiary bracket together with the resilient roller moves vertically as one member within the bracket 26. The resilient roller 29 is made of such a material that the normal pressure thereon causes this roller to maintain the edge of the blade in sharpening or stropping contact with the helical surface 19^a while at the same time the surface of the roller 29 is partially pressed into the helical groove of the roller 19 and forms a contact between the rollers which en-

sures the rotation by the improved frictional contact of the top roller 29. In other words the periphery of the resilient roller 29 and the periphery of the stropping helix 19ª intersect, (as viewed from the end of the rollers) and ensure the maintenance of the razor blade at the stropping position as seen in Figure 1 of the drawings in which position the stropping angle is more obtuse than would obtain if the peripheries of the two rollers did not intersect. Preferably the axis of the top roller is set out of vertical alignment with the bottom roller slightly toward the direction from which the blade to be stropped is received by the lower roller, such a position being found in practice to give the most efficient results. It will be observed from the drawings that both the bottom of the box and the lid are formed with the necessary recesses and abutments to ensure the accurate positioning of the razor within the box and that without removing the razor blade from the razor frame it can be stropped within the box without the necessity of any skill.

Claim:—

In a stropper, a casing comprising a pivoted lid, a sharpening roll journalled in the casing, a roller journalled in the lid to cooperate with the sharpening roller, said roller having a smooth, unbroken surface and of relatively softer material than the sharpening roll, means for supporting a razor in the casing, and means for supporting the blade in operative position, and means to drive the sharpening roller.

In testimony whereof, I have signed my name to this specification.

JAMES ALEX DENBY WATT.