No. 864,524. PATENTED AUG. 27, 1907.

A. H. FLEMING.

RAZOR STROPPER.

APPLICATION FILED JUNE 14, 1907.

Fig. 1.

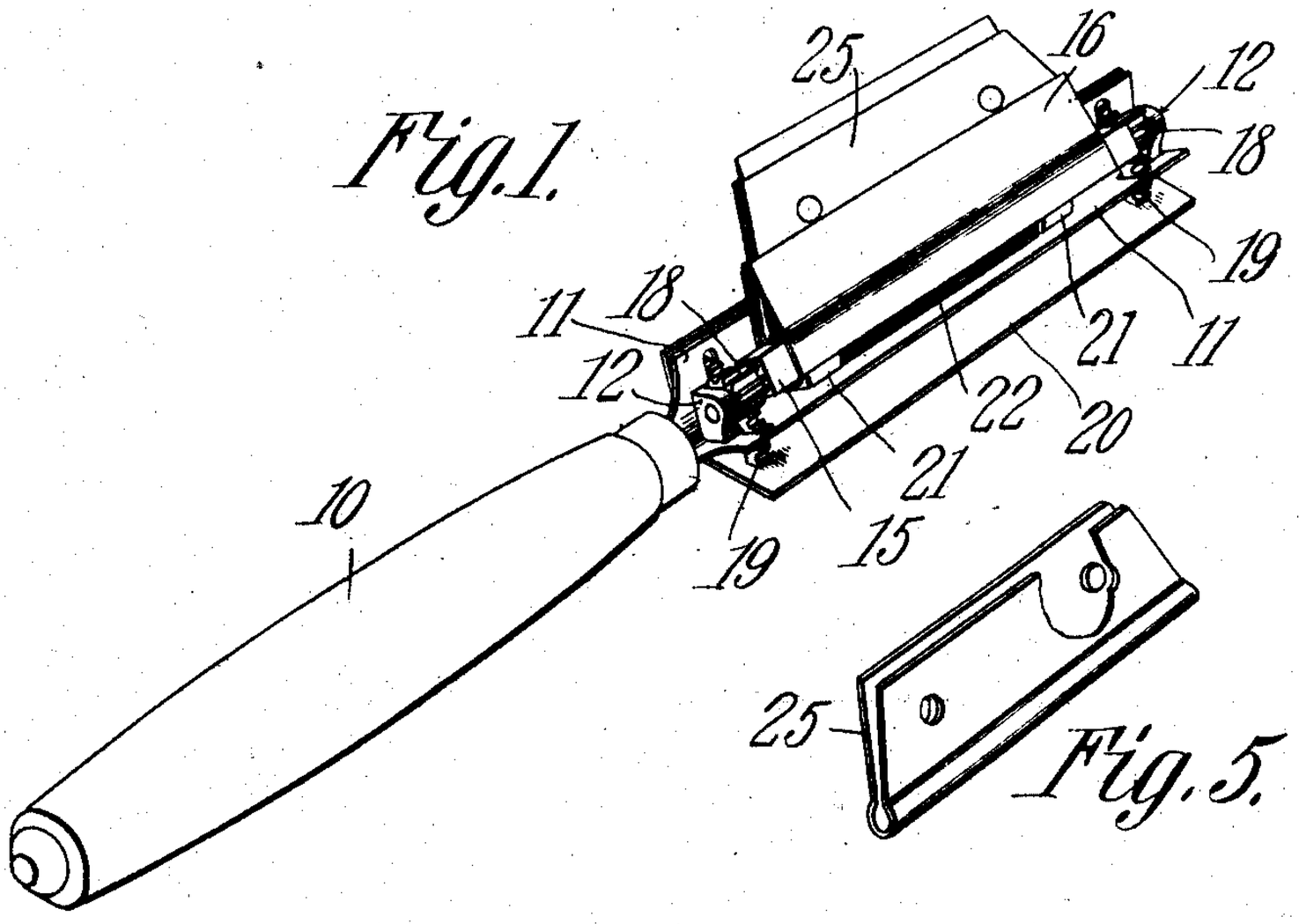


Fig. 5.

Fig. 2.

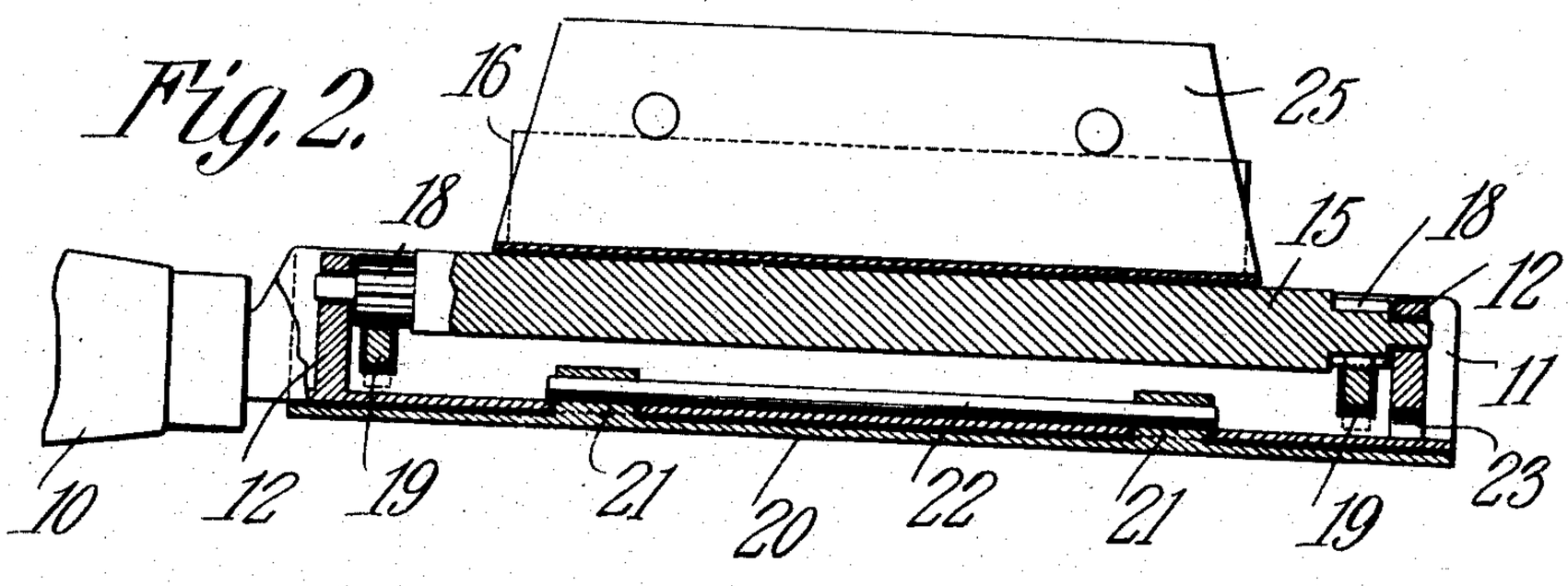


Fig. 3.

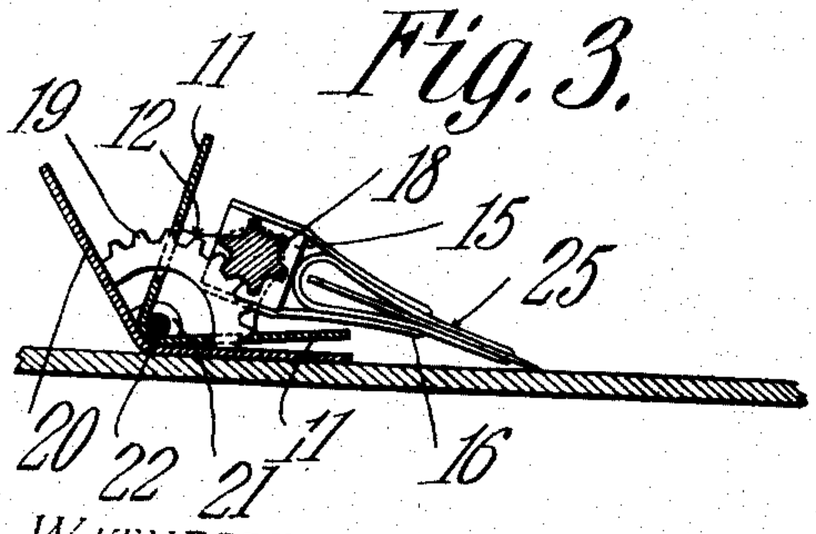
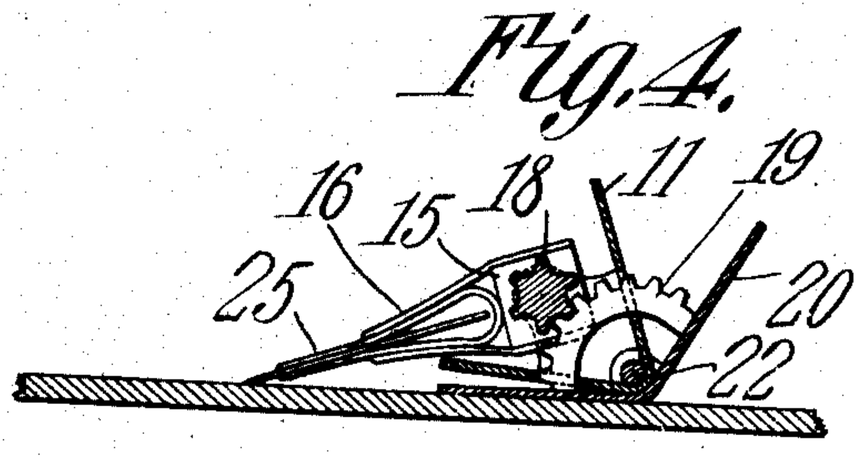


Fig. 4.



WITNESSES:

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RAZOR-STROPPER.

No. 864,524. Specification of Letters Patent. Patented Aug. 27, 1907.

Application filed June 14, 1907. Serial No. 378,996.

To all whom it may concern:

Be it known that I, ALLISON H. FLEMING, a citizen of the United States, residing at Fairmont, in the county of Marion and State of West Virginia, have invented a new and useful Razor-Stropper, of which the following is a specification.

This invention relates to razor stroppers, and has for its principal object to provide a tool of very simple construction, and which may be employed for holding and stropping the blades of practically any form of safety razor now on the market.

A further object of the invention is to provide a stropper in which the pressure exerted on the blade may be increased or decreased by the operator during the stropping operation without change in the mechanism.

A still further object of the invention is to provide a device of this class in which the blade holder is pivotally mounted and is directly connected to the handle of the device, so that it may be turned by hand at the end of each stroke without depending on friction between the stropper and strap for accomplishing this result.

A still further object of the invention is to provide a blade holder which is directly under the control of the hand, and which is turned back and forth by a natural movement of the hand at the end of each stroke.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a perspective view of a razor stropper constructed in accordance with the invention. Fig. 2 is a longitudinal sectional elevation of the same drawn to an enlarged scale. Fig. 3 is a transverse sectional view showing the position of the parts when making a stroke in one direction. Fig. 4 is a similar view when making a stroke in the opposite direction. Fig. 5 is a detail perspective view, partly in section of the auxiliary blade removed.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

To the carrying and operating handle 10 is secured a strip of metal bent into the form of an angle bar 11, the two webs of which are arranged at an acute angle to each other, and these webs are rigidly connected near their opposite ends by V-shaped filling blocks 12. The blocks 12 form bearings for the reception of a rock shaft 15, the reduced end portions of which pass through openings in the blocks, while the major portion of the length of the shaft is of rectangular form in cross section and carries a pair of spring jaws 16 which serve as a holder for any of the single edge razor blades, such, for instance, as the blades used in the Star safety razor. Near the opposite ends of the shaft are small pinions 18 that intermesh with arcuate racks 19.

Pivoted to the angle bar 11 is a second angle bar 20 of approximately the same length as the angle bar 11, and the two webs of which are arranged at an obtuse angle to each other affording sufficient room for the smaller angle bar 11 to play back and forth, as shown in Figs. 3 and 4, without coming into contact therewith during the stropping operation. In pivoting the parts together, the angle bar 20 is provided with a pair of lugs 21 which project upward through openings in the angle of bar 11, and a pivot pin 22 is introduced through openings formed in these lugs, the pin fitting at the juncture of the two webs of the angle bar 11, a suitable opening 23 being formed in one of the blocks 12 to permit the convenient introduction of the pin.

The two racks 19 are approximately in the form of quadrants, and their ends are pivotally secured to the webs of the angle bar 20, the racks being curved on lines struck from the center of the pivot pins 22, so that the pinions 18 may freely mesh therewith without danger of binding.

In order to permit the stropping of two edged blades, such, for instance, as those employed in the Gillette type, a secondary holder 25 is employed, this holder having pins on one jaw arranged to pass through the openings in the blade, and, also, to fit in openings on the opposite jaw. This auxiliary holder may be readily placed in position in the main holder 16.

The angle bar 20 is maintained in contact with the strap, and at the end of each stroke the handle 10 is turned for the purpose of carrying over the angle bar 11 and with it the shaft 15. During this movement the web of the angle bar 20 which was free during the first stroke is moved over into engagement with the strap, and the holder as a whole is swung with the shaft as a center owing to the connection between the pinions and the racks, and the edge of the blade is forced down into contact with the surface of the strap. The edge of the blade comes into contact with the edge of the strap before the angle bar 11 can engage with the angle bar 20, so that the operator is free to exert any desired pressure on the blade during the stropping operation and the stropping may be as light or heavy as the condition of the blade may require.

I claim:—

1. In a razor stropper, a bar or support having a pair of angularly related webs arranged for alternate contact

with the strap, and a pivotally mounted manually operable blade carrier arranged in said support.

2. In a razor stropper, a bar or strip having angularly related strap engaging surfaces, a pivotally mounted blade carrier supported thereby, and an operating handle connected to the blade carrier and through which pressure may be exerted on the carrier and blade.

3. In a razor stropper, a strap engaging supporting member having angularly related faces for contact with the strap, a blade carrier, and an operating handle indirectly connected to said member and to the carrier.

4. In a razor stropper, a strap engaging bar having a pair of angularly related surfaces arranged to be brought alternately into contact with the strap, a pivotally mounted blade carrier, and an operating member forming a support for the pivoted carrier and through which pressure may be exerted on the carrier and blade.

5. In a razor stropper, a pivotally mounted operating member, a strap engaging member pivoted thereto, said strap engaging member having a pair of angularly related surfaces for alternate contact with the strap, a blade carrier pivotally mounted in the operating member, and a gearing connection between the blade carrier and the strap engaging member.

6. In a razor stropper, an operating member, a strap engaging member pivoted thereto, said strap engaging member having a pair of angularly related surfaces for alternate contact with the strap, a rock shaft mounted in the operating member, a gearing connection between the rock shaft and the strap engaging member, and a blade carrier on said rock shaft.

7. In a razor stropper, an operating member, a rock shaft journaled therein, a blade carrier on the rock shaft, a pinion secured to the rock shaft, a strap engaging member pivoted to the operating member, said strap engaging member having a pair of angularly related surfaces for alternate contact with the strap, and a rack carried by said strap engaging member and intermeshing with said pinion.

8. In a stropper, a handled operating member including an angle bar having a pair of webs at an acute angle to each other, a strap engaging bar having a pair of webs at an obtuse angle to each other, the two members being pivotally connected together, a pair of racks carried by the strap engaging member and extending through openings formed in the operating member, a rock shaft journaled in the operating member, a pair of pinions on said rock shaft and intermeshing with the racks, and a blade carrier secured to said rock shaft.

9. In apparatus of the class described, a strap engaging bar comprising a pair of webs arranged at an obtuse angle to each other, said bar having a pair of spaced upwardly extending lugs, a second angle bar having a pair of webs arranged at an acute angle to each other and provided with openings for the passage of the lugs, a pivot pin extending through openings in said lugs and forming a pivotal connection between the two bars, angular blocks arranged at the ends of the operating member, a rock shaft journaled in said blocks, pinions on the rock shaft, a pair of racks carried by the strap engaging bar and intermeshing with the racks, and a blade carrier on said rock shaft.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALLISON H. FLEMING.

Witnesses:
E. HUME TALBERT,
JAS. M. WALKER.