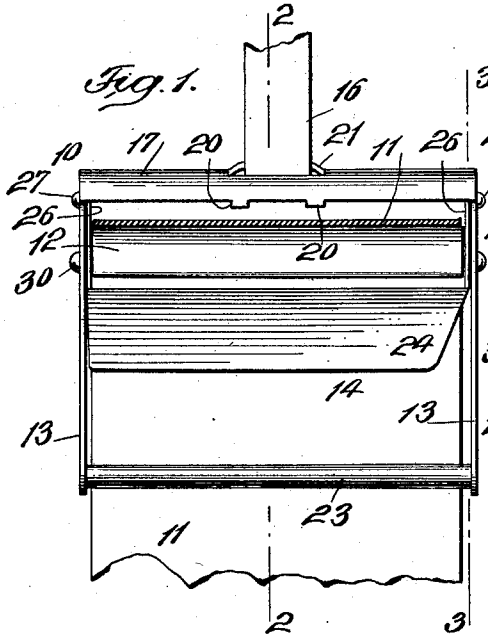
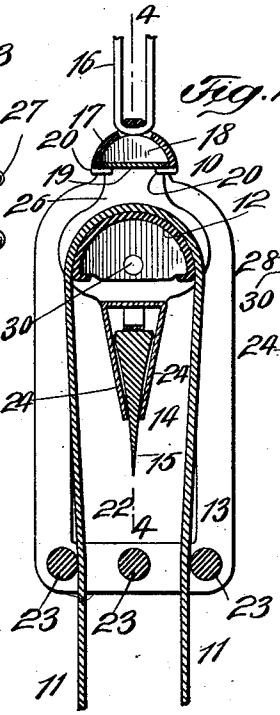
S. KANNER.

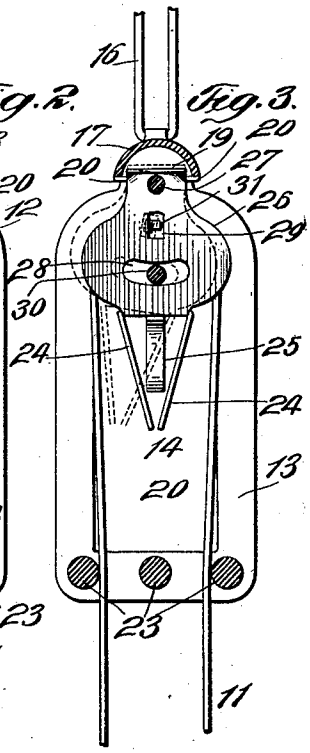
RAZOR STROPPING MACHINE.

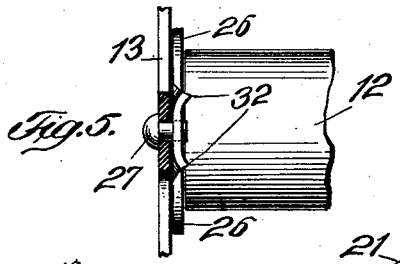
APPLICATION FILED SEPT. 24, 1912.

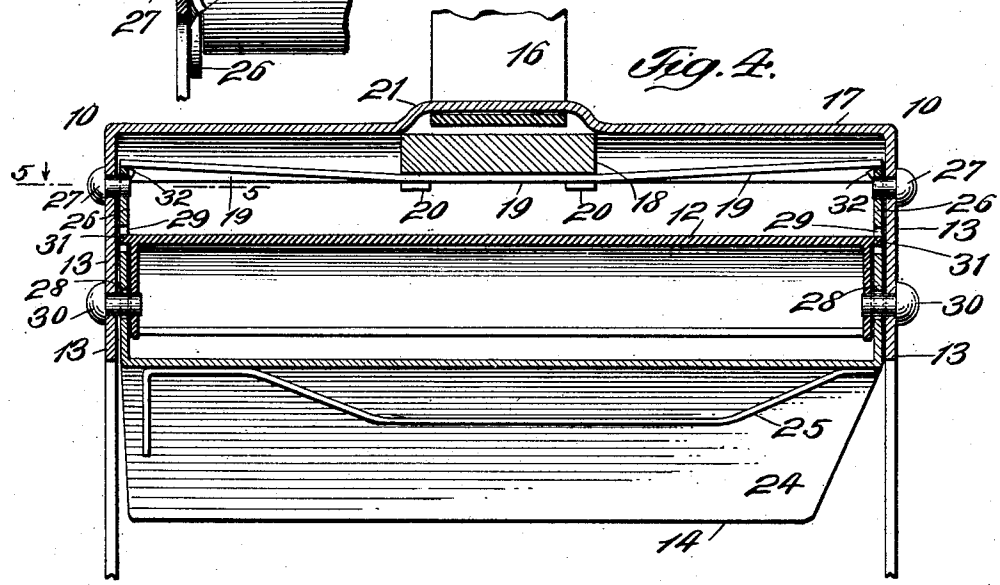
1,097,027. Patented May 19, 1914.











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UNITED STATES PATENT OFFICE.

SAMUEL KANNER, OF NEW YORK, N. Y.

RAZOR-STROPPING MACHINE.

1,097,027. Specification of Letters Patent. Patented May 19, 1914.

Application filed September 24, 1912. Serial No. 722,003.

To all whom it may concern:

Be it known that I, SAMUEL KANNER, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Razor-Stropping Machines, of which the following is a specification.

The invention relates to improvements in razor stropping machines of the class comprising a frame through which a strop is threaded and is to be alternately pulled at its ends, and a blade holder located between the reaches of the strop and adapted to alternately carry the blade thereto as said reaches are alternately pulled outwardly in line with their length, the blade moving to one reach as said reach is pulled outwardly and to the other reach when it is pulled outwardly; and said invention consists in the novel features and structure, hereinafter described, and particularly pointed out in the claims.

The object of the invention is to provide an efficient stropping machine of the class referred to, and more particularly a stropping machine which is durable, simple in construction, efficient in action, and capable of manufacture at minimum expense.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which:

Figure 1 is a side elevation of a stropping machine embodying my invention, the strop being shown in section and partly broken away, and the loop by which the stropping machine may be suspended also being partly broken away; Fig. 2 is a vertical transverse section through the same on the dotted line 2—2 of Fig. 1; Fig. 3 is a vertical transverse section through the same on the dotted line 3—3 of Fig. 1; Fig. 4 is an enlarged vertical longitudinal section, partly broken away, of the machine taken on the dotted line 4—4 of Fig. 2, and Fig. 5 is a detached horizontal section through a portion of the upper part of the machine taken about on the dotted line 5 of Fig. 4.

In the drawings, 10 designates the general frame of the machine, 11 the strop, 12 a rockable friction roller or frame journaled between the sides 13 of the main frame 10 and over which the strop is folded, 14 a pivotally mounted blade holder, 15 a blade shown as held by said holder, and 16 a loop of usual character by which the machine may be suspended from or connected with a restraining hook or the like. The general frame 10 will preferably be formed in one integral piece of sheet metal with the sides 13 and top 17, the latter constituting a reasonably narrow upwardly arched bar connecting the sides 13 and forming within it a chamber of substantially semi-cylindrical outline receiving at its central portion a filler block 18 and a leaf-spring 19, said spring extending transversely between the lower edges of the top 17 and longitudinally between the ends of said top and being at its central portions held against the filler block 18 and secured in position by lips 20 formed on the lower side edges of the top 17 and turned inwardly under said spring. The end portions of the spring 19 are, in the preferred operative condition of the machine, flexed upwardly, as illustrated in Fig. 4, and the purpose of the spring 19 is, as hereinafter more fully explained, to automatically and instantly move the blade 15 from the strop when the pulling strain is relieved therefrom and to automatically retain the blade holder in a central initial position, shown by full lines in Fig. 3, ready to receive or release a razor blade. The top 17 is also preferably integrally formed with an eye 21 to receive the usual loop 16. The sides 13 of the main frame 10 are open at their central portions, as at 22, and at their lower ends said sides 13 are connected by parallel rods 23 of known character.

The blade holder 14 is formed with converging jaws 24 to receive the blade 15, as usual, and within the space formed between the jaws 24 is confined the usual spring 25 for pressing against the back edge of the blade and forcing its sharpened edge firmly through the opening between the lower ends of said jaws. In accordance with my invention the blade holder 14 is formed at its ends with the upwardly extending plates 26 which lie close against the inner faces of the sides 13 of the main frame 10 and are pivotally supported at their upper ends on pins 27 which extend inwardly through the sides 13 adjacent to the top 17 of the main frame, as clearly illustrated in Figs. 3 and 4. The plates 26 are formed with segmental slots 28, and above said slots with openings 29, the latter being centrally below the supporting pins 27. The segmental slots 28 are provided to permit of the oscillatory motion of the blade holder 14 without interfer-

ence by the pivot pins 30 which pass through said slots and support the rockable frame 12, and the openings 29 are provided to receive studs 31 which project from the upper edges of the ends of the said frame 12 and act during the rocking movements of said frame to effect the proper oscillatory movements of the blade holder 14. The plates 26 are rigid with the jaws of the blade holder and constitute in effect a portion of said holder, and hence with every movement imparted to the said plates by the rockable frame 12, such movement will be communicated to the jaws 24 holding the blade 15. The upper ends of the plates 26 are squared off, as shown in Figs. 2, 3, 4 and 5, and at their corners are bent inwardly, as at 32, thereby with the upper surfaces of said ends forming substantial bearing surfaces against which the outer ends of the spring 19 press, as more clearly indicated in Fig. 4. The action of the ends of the spring 19 (each end constituting in effect a separate spring), is normally to hold the blade holder 14 in a central position between the reaches of the strop 11 and to return said blade holder to such position whenever, during the operation of the strop, said holder is moved therefrom. The spring 19 is substantially concealed by the top 17 of the main frame 10, and it is a broad spring extending between the lower edges of the sides of said top, thereby closing the bottom of the latter. The spring 19 being of very durable character is not at all likely to become broken or otherwise impaired during the use of the machine, but on the contrary is well calculated to maintain its efficiency and to properly act against the blade holder. When the blade holder 14 is moved on its pivots 27 to one side or the other, the plates 26 will turn their corresponding corner portions 32 upwardly against the spring and thereby operate to more greatly flex the same, and when the pull on the reach of the strop which effected the movement of the blade holder is released, the spring, acting against said corners of said plates 26, will move the blade holder to its central position. In Fig. 3 I illustrate the blade holder 14 as having been swung to the left, said holder taking this position when the left hand reach of the strop 11 is pulled outwardly. When the right hand reach of the strop 11 is pulled outwardly the blade holder will take a position adjacent to that reach of the strop so that the outwardly moving reach may move along the edge of the blade 15.

The rockable frame 12 is of semi-cylindrical outline and has its rounded surfaces extended upwardly to properly receive the strop 11. The frame 12 is preferably integrally formed at its upper end edges with the studs or fingers 31, hereinbefore referred to, and said frame is pivotally supported upon the pins 30 which extend through the sides 13 of the main frame 10 and through the slots 28 of the plates 26 and into and through the ends of the frame 12, as illustrated in Fig. 4.

In the employment of the device hereinbefore described, the reaches of the strop 11 are alternately pulled, in a manner well known in this art, and as the strop slides under pressure over the rockable frame 12 it turns the latter in the direction of the pull on the strop, said frame 12 turning in one direction when one reach of the strop is pulled and immediately turning in the opposite direction when the other reach of the strop is pulled. In this manner the frame 12 is caused to rock back and forth on its pivots or trunnions 30, and during its movements said frame imparts through the studs or fingers 31 and plates 26, a simultaneous movement to the blade holder 14.

One of the main purposes of the invention is to provide for the efficient movement of the holder 14 and blade 15 toward the reach of a strop pulled outwardly and a like movement of the blade from said reach the moment said reach has concluded its movement and the other reach of the strop is to be pulled outwardly, so that the blade may not cut the strop, and this purpose is efficiently accomplished by the means I have provided for actuating the holder from the rockable frame 12 and the independent spring means 19 provided for automatically moving the holder 14 in a direction from the reach of the strop the moment the pull on said reach has ceased. A further purpose of the invention is to provide a very durable stropping machine or one capable of withstanding continued and rather rough usage without becoming impaired, and this purpose is accomplished by the particular construction and relative arrangement of parts hereinbefore specifically identified. The spring 19 is of durable character and has an efficient bearing action against the solid ends of the plates 26. I prefer that the spring 19 constitute in effect the two springs, one for each of the plates 26, but I do not desire to limit my invention to two springs or to one bar acting as a spring at each end, since if one end of the spring 19 were omitted, the other end thereof pressing down on the upper end of the plate 26 adjacent thereto, would operate on the blade holder 14 and serve to return said holder to its central position after each movement of the same therefrom. I regard it as desirable, however, to apply the spring pressure on the upper ends of both of the plates 26, since thereby a more durable and mechanically desirable operation is secured.

What I claim as my invention and desire to secure by Letters-Patent, is:

1. A stropping machine comprising a

main frame having parallel sides and a top connecting said sides, a rockable frame pivotally mounted between said sides, a strop folded over and adapted when pulled at either end to actuate said frame, a blade-holder having end plates extending upwardly along the ends of and above said rockable frame and between said frame and the sides of said main frame and at their upper ends being pivotally secured to said sides, and spring means at said top bearing on the upper ends of said plates for normally maintaining the blade-holder centrally between the reaches of the strop, said rockable frame and said plates below their upper ends having interengaging means for enabling said frame to actuate the blade-holder.

2. A stropping machine comprising a main frame having parallel sides and a top connecting said sides, a rockabale frame pivotally mounted between said sides, a strop folded over and adapted when pulled at either end to actuate said frame, a blade-holder having end plates extending upwardly along the ends of and above said rockable frame and between said frame and the sides of said main frame and at their upper ends being pivotally secured to said sides, and spring means at said top bearing on the upper ends of said plates for normally maintaining the blade-holder centrally between the reaches of the strop, said rockable frame and said plates below their upper ends having interengaging means for enabling said frame to actuate the blade-holder, and said plates at their upper ends being squared off and bent inwardly at their corners and said spring means being a leaf spring engaging with its flat face said upper ends.

3. A stropping machine comprising a rockable frame, a strop folded over and adapted when pulled at either end to actuate said frame, a pivotally mounted blade-holder having end plates extending upwardly along the ends of said frame and receiving the pins supporting the blade-holder, and spring means engaging the upper ends of said plates for normally maintaining the blade-holder centrally between the reaches of the strop, said rockable frame and said plates respectively having fingers and openings loosely receiving the same for enabling the frame to actuate the blade-holder, and said spring means being a leaf spring secured to the top of the frame of the machine and flexed at its ends to press downwardly on the upper ends of said plates above said pins.

4. A stropping machine comprising a main frame having parallel sides and a top connecting said sides, a rockable frame pivotally mounted between said sides, a strop folded over and adapted when pulled at either end to actuate said frame, a blade-holder having end plates extending upwardly along the ends of and above said rockable frame and between said frame and the sides of said main frame and at their upper ends being pivotally secured to said sides, and spring means at said top bearing on the upper ends of said plates for normally maintaining the blade-holder centrally between the reaches of the strop, said rockable frame and said end plates respectively having, below the pivots at the upper ends of said plates, fingers and openings loosely receiving the same for enabling said frame to actuate the blade-holder.

Signed at New York city, in the county of New York and State of New York, this 23rd day of September, A. D. 1912.

SAMUEL KANNER.

Witnesses:
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CHAS. C. GILL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."