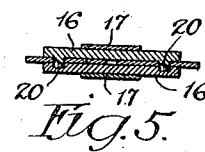
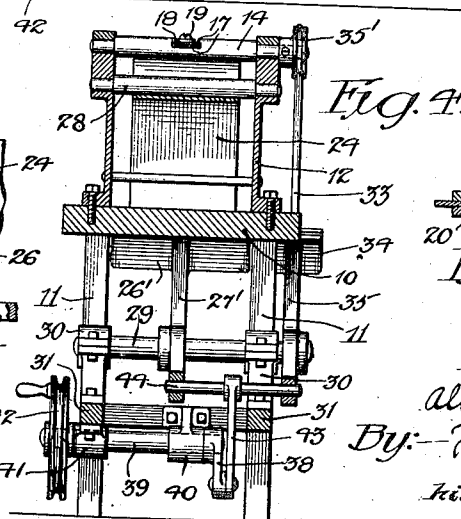
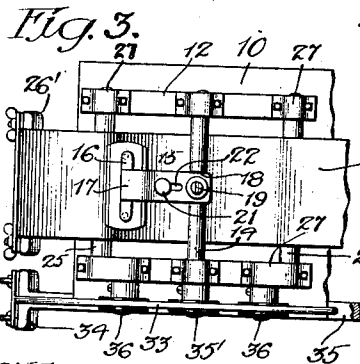
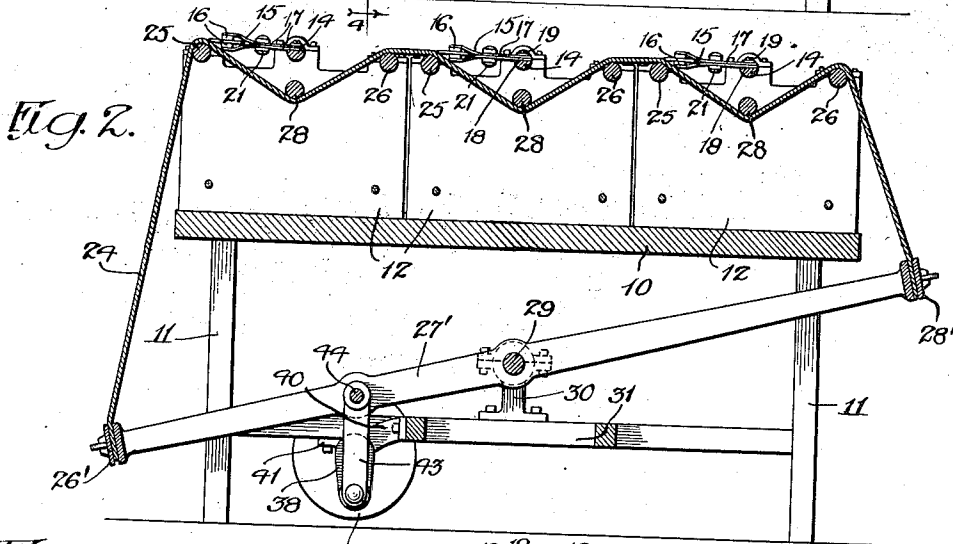
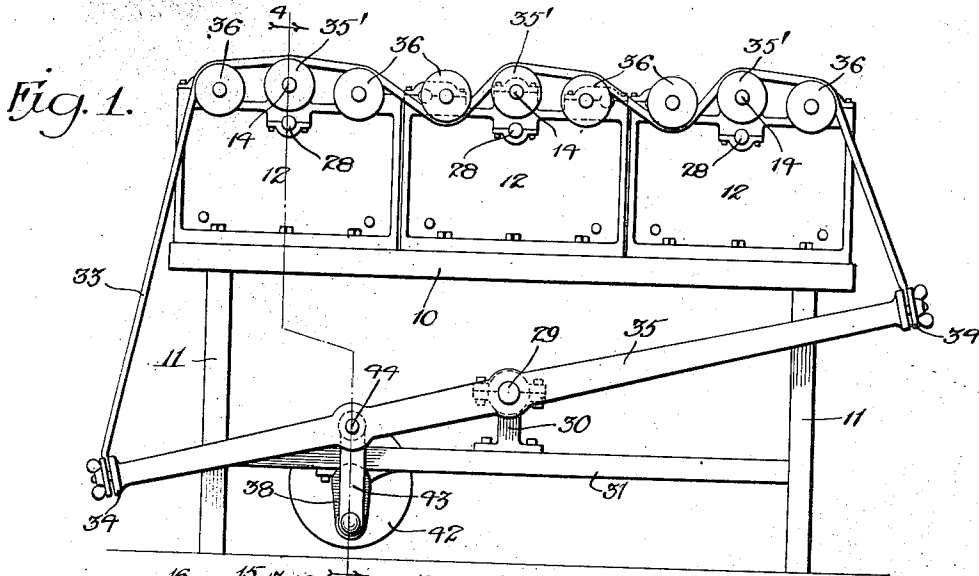


A. A. AYDT.
 RAZOR SHARPENER.
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987,787.

Patented Mar. 28, 1911.



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UNITED STATES PATENT OFFICE.

ALBERT A. AYDT, OF BROOKFIELD, ILLINOIS, ASSIGNOR OF ONE-HALF TO JOSEPH SPINNER, OF BROOKFIELD, ILLINOIS.

RAZOR-SHARPENER.

987,787.

Specification of Letters Patent. Patented Mar. 28, 1911.

Application filed June 13, 1910. Serial No. 566,602.

To all whom it may concern:

Be it known that I, ALBERT A. AYDT, a resident of Brookfield, in the county of Cook and State of Illinois, have invented certain
5 new and useful Improvements in Razor-Sharpener, of which the following is a full, clear, and exact description.

The invention relates to stropping-machines for razors and designs to provide a
10 machine whereby a large number of razors may be quickly stropped or sharpened.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claim at the conclusion
15 hereof.

In the drawings: Figure 1 is a side elevation of a machine embodying the invention. Fig. 2 is a central longitudinal section. Fig. 3 is a plan of a portion of the
20 machine. Fig. 4 is a vertical section taken on line 4—4 of Fig. 1. Fig. 5 is a transverse section through the razor holder.

The improved machine comprises a table
10 supported by legs 11 and upon this table are mounted a number of frames 12, each comprising a pair of sides adapted to carry mechanism for sharpening a razor and it
25 will be understood that any desired number of these frames and mechanisms may be provided to increase the capacity of the machine. A rocker-shaft 14 extends across the central portion of each frame 12 and is provided with a razor-clamp or holder 15,
30 which consists of jaws 16, each of which is secured to an arm 17 which has one of its ends secured in a recess 18 in the rocker-shaft 14, by a screw 19. The outer ends of each jaw are extended laterally, and between them the razor will be clamped. The upper
40 jaw 16 is provided with studs 20, adapted to pass through holes usually formed in safety-razors. The clamp-arms 17 are formed of spring metal and are adapted to be pressed together by a slidable member 21
45 which extends through slots 22 formed in the members respectively, so that as said member is pushed outwardly in the slots, jaws 20 will be forced together to firmly clamp the razor therebetween. This shaft
50 14, when rocked, will cause the clamp to swing from one side to the other to cause the strop to be applied to the opposite sides of each edge-portion of the blade. In sharpening razors having cutting edges at opposite sides, the blades may be reversed in the

clamp so both edges of the blade may be stropped.

A strop 24 is adapted to be reciprocated and applied to the blades held in the holders. For the purpose of guiding the strop so that
60 the razor, when swung to one side of the rock-shaft 14, will have one side applied to the strop and when swung to the opposite side, the opposite side of the same edge will be applied to the strop, a guide-roller 25 is
65 mounted at one end of each frame and a guide-roller 26 at the opposite end. These rollers 25 and 26 are disposed to back up the strop where the razors are applied to it and are mounted in bearings 27 on the
70 frames 12 and 13 respectively. For the purpose of guiding the strop away from the clamp and at a proper angle with respect to the edge of the blade, a guide-roller 28,
75 journaled in frames 12 and 13, is disposed below each rock-shaft 14. Strop 24 extends progressively around the rollers 25, 28 and 26 of each stropping mechanism, so that the different portions of the strop will be simultaneously drawn across the jaws of the different blades in the clamps, as shown in the drawings. One end of the strop 24 is secured, by a clamp 26', to one end of a rocking-lever 27' and the other end of the strop is secured, by a similar clamp 28', to the opposite end of said lever. The latter is pivoted at its center upon a shaft 29, which is mounted in bearings 30 secured to frame-members 31 below the table 10. The oscillation of the lever will cause the strop to be
90 operated back and forth across the edges of the several blades held in the holders. Travel of the strop in one direction causes it to be drawn angularly across one side of the edge of the blade and in order to strop the
95 other side of the same edge, it is necessary that the clamp should be swung to the opposite side so that the edge-portion will be applied to the strop. This oscillation of the rock-shafts 14, clamps 15 and the blades
100 therein, is effected by a belt 33, which has each of its ends secured by a clamp 34, to a lever 35 respectively, which is similar to the strop-operating lever 27 and is pivotally mounted on the shaft 29. Each rock-shaft
105 14 has secured to one of its ends a pulley 35', which is frictionally operated by a belt 33 and at each side of pulley 35', the belt is guided by sheaves 36, the belt being trained around the several pulleys 35' and sheaves
110

36 of the several stropping mechanisms, so that all of the shafts 14 will be oscillated simultaneously in the same direction. Levers 27' and 35 for operating belt 33 and strop 24 respectively, are oscillated by a crank 38 on a driven-shaft 39 which is mounted in suitable bearings 40 and 41 on the frame below the table and may be driven by a pulley 42 which is adapted to be driven by an electric motor or manually. Crank 38 is operatively connected to levers 35 and 27' by a link 43 and a pin 44, which is connected to both of said levers.

In operation, assuming each of the holders 15 to have a razor therein and power to be applied to the crank-shaft 39 and further assuming the parts to be in the position shown in Figs. 1 and 2, crank 38 will lift the left hand-ends of the levers 27' and 35. The initial movement of lever 35 will operate belt 33, which, by reason of its engagement with each of the rollers 35 on rock-shafts 14, will immediately operate said shafts to swing the razors to the opposite sides of the rock-shafts, so that one side of the edge-portion of each blade will be applied to the strop adjacent rollers 26, the strop being drawn angularly across the edge and outwardly from the razor. After the razors have been brought into engaging relation with the strop, belt 33 will slip over pulleys 35', the frictional engagement serving to hold the blades in contact with the strop. The travel of the strop will continue in the same direction until levers 27' and 35 travel in the opposite direction and the initial movement in such direction will immediately cause belt 33 to rock shafts 14 and reversely apply the razors. In practice, the belt 33 is trained rather tightly around pulleys 35' and shafts 36, so as to cause the rock-shafts 14 and the clamps to immediately respond to the reverse movement of lever 35, while the strop is not so tightly drawn between the ends of lever 27' and therefore the razors will be shifted out of contact with the strop before reverse movement of the latter commences.

Each frame 12 constitutes a support for all of the devices for manipulating one razor and guiding the strop for such razor and any number of these devices may be added to give the machine the desired capacity. Furthermore, it is not necessary to stop the machine to change the blades in the holders because the operator can catch any of the holders as they are moving from one side of their rock-shafts to the other and hold such holder in an upright position, the belt 33 slipping over its roller 35' and while the clamp is so held, the razor may be removed or may be turned around to bring its other cutting edge into position to be stropped.

The invention is not to be understood as restricted to the details shown and described,

since these may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a stropping-machine, the combination of a frame, an oscillatory blade holder, a strop, means for guiding the strop in position to be engaged by a blade in the holder at the opposite sides of the holder, a shaft, means whereby the shaft may be continuously rotated in one direction, means operated by said continuously rotating shaft and connected to the strop for translating the rotary movement of the shaft to operate the strop back and forth, while the shaft is being continuously rotated, and means for oscillating the holder also operated by said shaft.

2. In a stropping-machine, the combination of a frame, an oscillatory blade-holder, a strop, means for guiding the strop in position to be engaged by a blade in the holder at opposite sides of the holder, a pivoted lever to the opposite ends of which the strop is connected for operating it back and forth, and means for oscillating the holder.

3. In a stropping-machine, the combination of a frame, an oscillatory blade-holder, a strop, means for guiding the strop in position to be engaged by a blade in the holder at the opposite sides of the holder, mechanism for operating the strop back and forth, and means for oscillating the holder comprising a belt and a lever to which the opposite ends of the belt are connected.

4. In a stropping-machine, the combination of a frame, an oscillatory blade-holder, a strop, means for guiding the strop in position to be engaged by a blade in the holder at the opposite sides of the holder, mechanism for operating the strop back and forth, and means for oscillating the holder comprising a belt, a lever to which the opposite ends of the belt are connected, and a pulley connected to the holder and frictionally engaged by the belt.

5. In a stropping-machine, the combination of a frame, an oscillatory blade-holder, a strop, means for guiding the strop in position to be engaged by a blade in the holder at opposite sides of the holder, a pivoted lever to which the ends of the strop are connected, for operating the strop back and forth, a crank-shaft and link for operating the lever, and means operated by said shaft for oscillating the holder.

6. In a stropping-machine, the combination of a frame, a rock-shaft mounted in the frame, a blade-holder secured to said rock-shaft, a strop, a guide-roller below said shaft for the strop, mechanism for operating the strop back and forth, and means for oscillating the holder comprising a pulley on

the end of said rock-shaft, a belt engaging said pulley, guide-rollers for the belt, and a tilting lever to which said belt is connected.

7. In a stropping-machine, the combination of a frame, an oscillatory blade holder, a strop, means for guiding the strop in position to be engaged by a blade in the holder at the opposite sides of the holder, mechanism for operating the strop back and forth comprising a shaft, means whereby said shaft may be continuously rotated in one

direction, means for oscillating the holder comprising a pulley and belt, and translating mechanism between the shaft and said belt for operating the pulley back and forth in opposite directions while the shaft is rotated continuously in one direction.

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