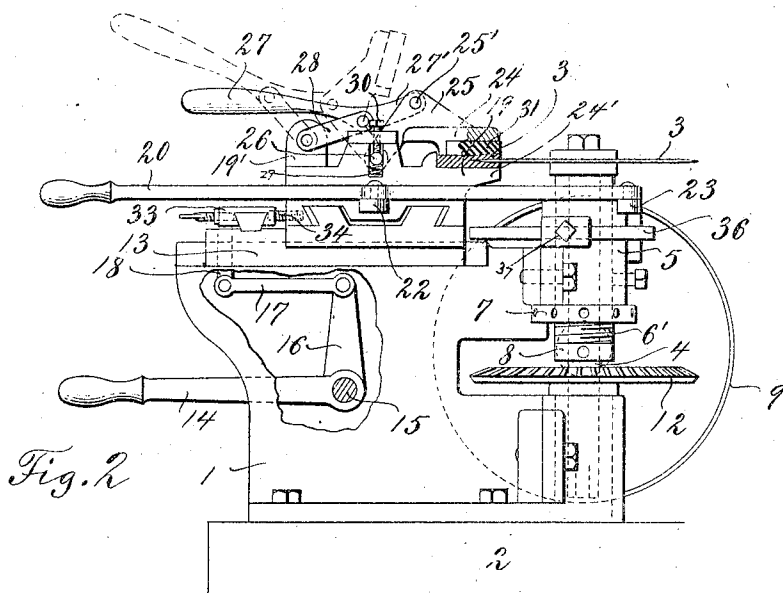
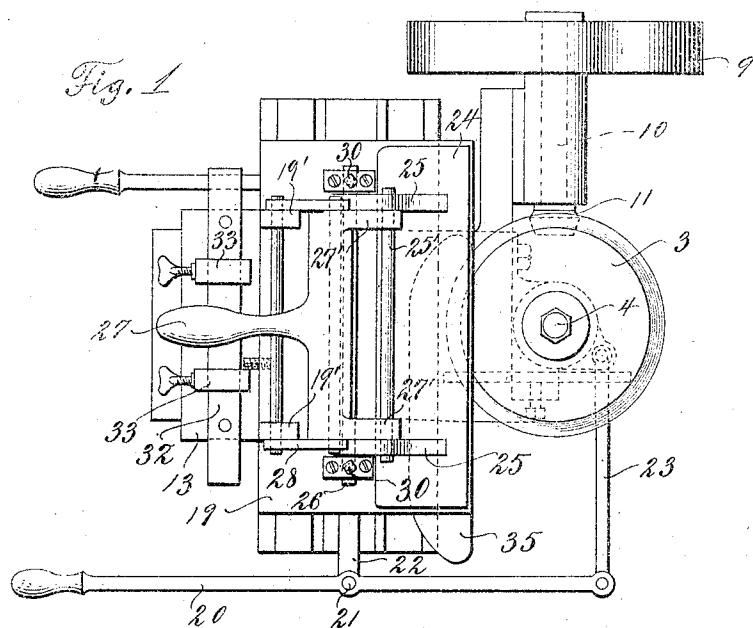


M. A. REILLY & T. J. ALDRIDGE.
SPLITTING MACHINE.

APPLICATION FILED JAN. 18, 1911.

1,013,897.

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UNITED STATES PATENT OFFICE.

MATTHEW A. REILLY AND THOMAS J. ALDRIDGE, OF ROCHESTER, NEW YORK.

SPLITTING-MACHINE.

1,013,897.

Specification of Letters Patent.

Patented Jan. 9, 1912.

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To all whom it may concern:

Be it known that we, MATTHEW A. REILLY and THOMAS J. ALDRIDGE, citizens of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Splitting-Machines, of which the following is a specification.

The present invention consists of a special machine designed particularly for the purpose of splitting pieces of leather used in the construction of shoes, the mechanisms provided being adapted to cut a recess of a depth substantially equal to the diameter of a cutter employed, or for making a straight slit in a piece of leather or similar material, by movement of the work past the cutter.

With the above and other objects in view, this invention consists in the construction, combination, and arrangement of parts, all as hereinafter more fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a top plan view of a machine made in accordance with the invention; Fig. 2 is a side elevation, a side of the frame being partly broken away to show certain parts, and the clamp being shown partly in section.

Describing the invention specifically and referring particularly to the drawings, 1 denotes the frame of the machine which will be supported by a suitable base 2. At one end of the frame 1 is mounted a rotating cutter 3 supported on a shaft 4, the latter being mounted in a suitable bearing 5 on the frame. A sleeve 6 surrounds the cutter shaft 4 and is threaded at its lower end, as shown at 6', to receive a ring nut 7, a collar 8 being secured to the shaft 4 by a suitable screw or fastening, and holding the sleeve 6 in place on the shaft, as shown most clearly in Fig. 2. The cutter 3 is operated from a pulley 9 mounted on a shaft 10, the latter having a beveled gear 11 meshing with a larger beveled gear 12 on the shaft 4. At the top of the frame, adjacent to the cutter 3 is arranged a longitudinally movable slide 13 adapted to be moved toward and from the cutter shaft by means of a lever 14 secured to a horizontal shaft 15, the latter being mounted in suitable bearings in the sides of the frame 1, there being an arm 16 projecting upwardly from the shaft 15 and connected by a link 17 with a pro-

jection 18 extending downwardly from the slide 13. On the slide 13 is mounted a transversely movable slide 19 which carries suitable clamping mechanism for holding the material which is to be operated upon by the cutter 3. The slide 19 is adapted to be operated by movement at right angles to the movement of the slide 13 by means of a lever 20 pivotally connected at 21 to an arm 22 on the slide 19, one end of the lever having a handle to be grasped by the operator and the opposite end being connected by a link 23 to the upper portion of the bearing 5 supporting the cutter shaft 4.

The clamping mechanism on the slide 19 consists of a clamp member 24 for direct co-operation with the material, said clamping member having at its upper portion downwardly extending arms 25 connected to the slide 19 by a horizontal pivot pin 26. An operating handle 27 has spaced arms 27' pivotally connected with a rod 25' carried by the arms 25 of the clamp member 24, and said operating handle 27 is connected with lugs 19' on the slide 19, by means of toggle-links 28. The pivot pin 26 is resiliently supported in its bearings on the slide 19 by means of springs 29, adjusting screws 30 engaging the opposite ends of the pivot pin, whereby the latter may be adjusted by raising and lowering the same slightly, to afford an adjustable gripping force for the clamp member 24, the latter coöperating with a relatively stationary clamp member 24' constituting an integral portion of the slide 19. The clamp member 24' has a suitable seat in its upper side to receive the material to be operated upon by the cutter 3, while the clamp member 24 is provided upon its engaging or clamping side with a yielding, gripping pad 31 made of rubber or similar material, and which affords a yielding, gripping device to engage the material held between the clamp members 24 and 24', holding the work downwardly with sufficient pressure, but allowing for the expansion of the material operated upon as the cutter sinks deeper into the same.

Adjustable means are provided for limiting the transverse movement of the slide 19, and include a transverse bar 32 secured to the upper side of the slide 13, and adjustable stops 33 mounted on said bar, the stops 33 coacting with a pin 34 rigidly secured to the outer side of the slide 19, thereby limiting the movement of the slide when

the latter is actuated by its operating lever 20. A piece of leather, such as a counter for a shoe, is shown at 35 in the drawings as when being slit by the use of the machine embodying this invention. By moving the slide 13 toward the cutter 3, a recess may be cut in the material 35, and by subsequent movement of the slide 19 transversely on the frame of the machine, the material may be slit in an obvious manner. The clamp mechanism involving the toggle-links 28 affords a means for locking the clamp member 24 in clamping position after the handle 27 has been pushed upwardly and forwardly to throw the clamp member 24 downwardly into engagement with the work. Adjacent to the cutter 3 is mounted the adjustable stop 36 held in place upon the bearing 5 by a set screw 37, and adapted to engage with the adjacent portion of the slide 13 to limit the movement of the latter toward the cutter, and control the depth of the cutting action of the cutter in operating upon the work. The cutter 3 is adjustable vertically to a slight extent by turning the ring nut 7 to raise or lower the sleeve 6 upon which the nut 7 is screwed.

Having thus fully described our invention, what is claimed as new is:—

1. In a splitting machine, the combination of a supporting frame, a cutter mounted thereon, a slide movable on the frame toward and from said cutter, a shaft mounted on said frame beneath said slide, an arm projecting upwardly from said shaft, a link connecting said arm with the slide, a lever arranged adjacent to one side of the machine and connected with said shaft to rock the arm thereof and effect movement of the slide toward and from the cutter, a second slide supported on the first mentioned slide and movable at a right angle

to the movement of the latter for carrying the work past the cutter, work clamping mechanism mounted on the second mentioned slide, stop means carried by the respective slides to limit the movement of the second mentioned slide upon the first mentioned slide, an arm projecting from the second mentioned slide at the side of the machine opposite the aforesaid lever, an auxiliary lever pivoted between its ends to said arm, and a link connection between one end of the auxiliary lever and the frame whereby on movement of the auxiliary lever, the second mentioned slide will be shifted with respect to that slide first mentioned.

2. In a machine of the class described, work clamping means comprising a relatively stationary member and a movable clamp member coacting therewith, a supporting frame to which the movable clamp member is pivotally connected, a handle pivotally connected with the movable clamp member for operation thereof, and toggle links connecting said handle with the frame.

3. In a machine of the class described, the combination of a relatively stationary clamping member, a movable clamping member coacting therewith, a support, an adjustable pivot connecting the movable clamp member with said support, a handle pivotally connected with the movable clamp member intermediate its ends, and spaced toggle links connecting the movable clamp member with the support.

In testimony whereof we affix our signatures in presence of two witnesses.

MATTHEW A. REILLY.
THOMAS J. ALDRIDGE.

Witnesses:

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