

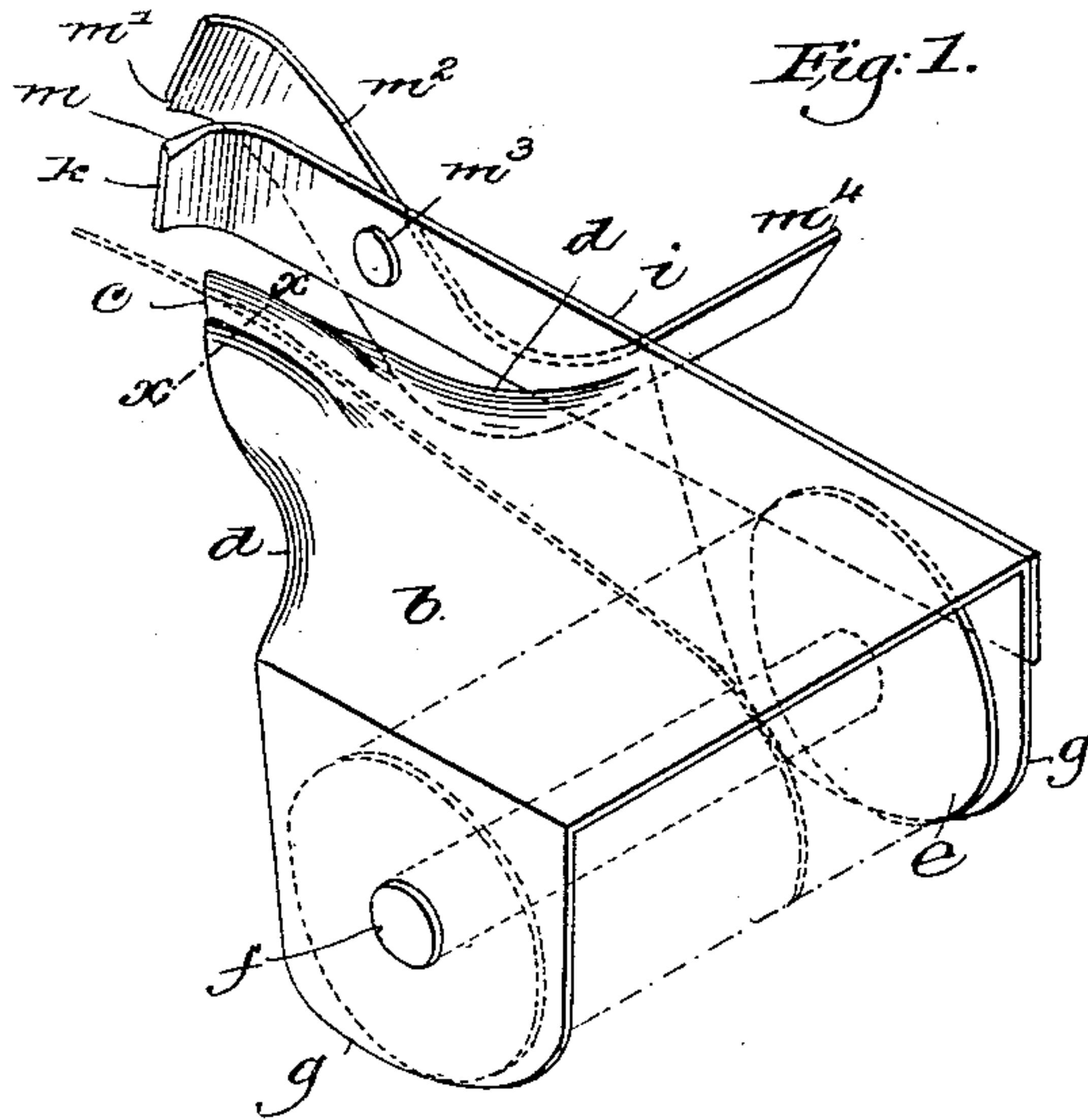
No. 711,073.

Patented Oct. 14, 1902.

B. W. PUTNAM.
STRINGING TOOL.

(Application filed Feb. 23, 1900.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

BENJAMIN W. PUTNAM, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

STRINGING-TOOL.

SPECIFICATION forming part of Letters Patent No. 711,073, dated October 14, 1902.

Application filed February 23, 1900. Serial No. 6,167. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN W. PUTNAM, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Stringing-Tools; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to "stringing-tools," so called, designed particularly to apply tension or strain on a cord or wire in stringing such wires.

It is now customary in lasting boots and shoes to omit the lasting-tacks from the upper around the toe of the last and to secure the gathered edge of the upper against the shoulder of the sole around the toe by a cord or wire secured to a lasting-tack at one side of the upper near the toe, then drawn around the toe under strain or tension and secured to a lasting-tack at the opposite side, which operation is known in the trade as "stringing the toes." It is necessary in performing this operation in order to properly gather in and secure the edge of the upper around the toe of the last to apply considerable strain and tension to the cord or wire, and where this is done by the hand of the operator quite frequently causes considerable damage to the operator's hand.

The object of the present invention is to produce a tool whereby the stringing of cords or wires under tension may be quickly performed, and particularly to provide such tool with means whereby the wire as it passes through the tool will be held in such a manner as to be readily wrapped around a tack or other securing device, and, furthermore, to provide such tool with a cutting device whereby after the wire has been secured as described it may be cut off.

To the above end the present invention consists of the devices and combinations of devices which are hereinafter set forth and claimed.

The present invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of my improved stringing-tool; and Fig. 2 shows a sectional view taken on the line *x x*, Fig. 1.

Similar letters of reference will be used throughout the specification and drawings to designate corresponding parts.

My improved stringing-tool, as illustrated in the drawings, comprises a suitable frame arranged to be grasped by the hand of the operator, which frame may be of any usual or convenient form and arrangement, and as illustrated in the drawings it comprises a top *b*, provided at its forward edge with a projecting wire guide or nose *c*, and is so shaped as to form seats or rests *d* upon each side of the guide-nose *c*, against which the fingers of the operator are arranged to bear when the tool is grasped by the hand and a pull or strain applied to the wire, the guide or nose *c* being of such a length as to project forwardly between the fingers of the operator when the tool is grasped by the hand.

In the illustrated embodiment of my invention I have provided a reel *e*, which is supported upon a shaft *f*, mounted in depending flanges *g*, and the free end of the wire leads from the reel *e* through a passage *h*, extending through the nose or guide *c*, as shown clearly in the drawings.

It will be observed that when the tool is grasped by the hand the operator may by applying sufficient pressure to the coil of wire on the reel *e* prevent the reel from turning and by pulling backward on the wire may exert considerable strain or tension thereon, and after the wire has been secured as hereinbefore described, as in stringing the toes of shoes in lasting, the pressure may be relieved, permitting the wire to be drawn from the passage *h* for another operation of the device. It will be noted in this connection that the reel or wire *e* constitutes a friction device whereby pressure may be applied to the wire by the thumb of the operator to retard and restrain the turning of the reel and prevent the drawing of the wire from the tool. If desired, however, the reel may be dispensed with, and any suitable friction-clamp may be substituted therefor to clamp the wire in the tool. It will be noted that the projecting

nose or guide *c* enables the operator to wrap the wire as it emerges therefrom closely around a lasting-tack close to the upper of the shoe.

5 The device is provided with a suitable cutting mechanism whereby after the wire has been secured as described it may be cut off, which cutting mechanism may be constructed and arranged in any suitable manner; but,
10 as shown in the drawings, it is preferably so arranged as to be operated by the finger of the hand of the operator in which the tool is gripped, and this cutting mechanism consists of an arm *i*, secured to the frame of the tool
15 and projecting forwardly therefrom to one side of and in front of the nose or guide *c*, the forward end of which is preferably curved inward toward the nose or guide *c*, as shown at *k*, and the upper edge of the inturned end
20 sharpened, forming a cutter *m*. Coöperating with the cutter *m* is a cutter *m'*, formed on the outer end of a lever *m²*, fulcrumed to the arm at *m³*, the lever *m²* extending backwardly and being preferably outwardly curved, as
25 shown at *m⁴*, whereby it may be engaged and operated by a finger of the hand of the operator in which the tool is held.

It will be observed that with the tool held as described after the strain has been applied to the cord or wire in stringing the
30 same the operator, still grasping the tool, by simply turning his hand so as to cause the wire as it leads from the tack or other securing means to enter between the cutters *m* and
35 *m'* may rock the lever *m²* and cut off the wire, leaving a sufficient portion thereof extended from the nose or guide *c* to enable another section of wire to be drawn from the tool.

Having described the construction and
40 mode of operation of my invention, I desire to state that it is not limited to the details of construction shown in the drawings, as I believe that I am the first to provide a tool to be held in the hand of an operator provided
45 with a wire-guide *c* or nose through which the wire leads in applying strain thereto and to provide such tool with rests or bearings for the fingers of the operator, whereby to relieve the hand of the operator from strain in applying tension to the cord or wire, or to combine with the above-stated elements a cutter
50 to cut off the wire.

I therefore claim as new and desire to secure by Letters Patent of the United States—

55 1. A stringing-tool comprising a frame, a guide or nose extended therefrom provided with a wire-passage, and finger-rests upon opposite sides of the guide or nose, substantially as described.

60 2. A stringing-tool comprising a frame, a

guide or nose extended therefrom, a wire-passage in the guide or nose, and a cutter carried by the frame adjacent to and in front of the guide or nose in position to engage the wire as it leads from the guide or nose, substantially as described. 65

3. A stringing-tool comprising a frame, a guide or nose extended therefrom, a wire-passage in the guide or nose, a stationary cutter carried by the frame adjacent to and in front
70 of the guide or nose in position to engage the wire as it leads from the guide or nose, and a movable cutter coöperating with the stationary cutter, substantially as described.

4. A stringing-tool comprising a frame, a
75 guide or nose extended therefrom provided with a wire-passage, a reel mounted in the frame arranged to be braked by the hand of the operator, and a cutter carried by the frame to cut the wire, substantially as described. 80

5. A stringing-tool comprising a frame, having a wire-passage therein and a cutter carried by the frame in front of the end of the passage in position to engage the wire as it leads from the passage, substantially as described. 85

6. A stringing-tool comprising a frame, a guide or nose extended therefrom provided with a wire-passage, finger-rests upon opposite sides of the guide or nose, and a cutter
90 carried by the frame adjacent to and in front of the guide or nose in position to engage the wire as it leads from the guide or nose, substantially as described.

7. A stringing-tool comprising a frame, a
95 guide or nose extended therefrom provided with a wire-passage, finger-rests upon opposite sides of the guide or nose, and a cutter carried by the frame to cut the wire, substantially as described. 100

8. A stringing-tool comprising a frame, a guide or nose extended therefrom provided with a wire-passage, finger-rests upon opposite sides of the guide or nose, a reel mounted in the frame arranged to be braked by the
105 hand of the operator and a cutter carried by the frame to cut the wire, substantially as described.

9. A stringing-tool comprising a frame, a guide or nose extended therefrom, and a reel
110 mounted in the frame arranged to be braked by the hand of the operator, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

BENJAMIN W. PUTNAM.

Witnesses:

T. HART ANDERSON,
BENJAMIN PHILLIPS.