

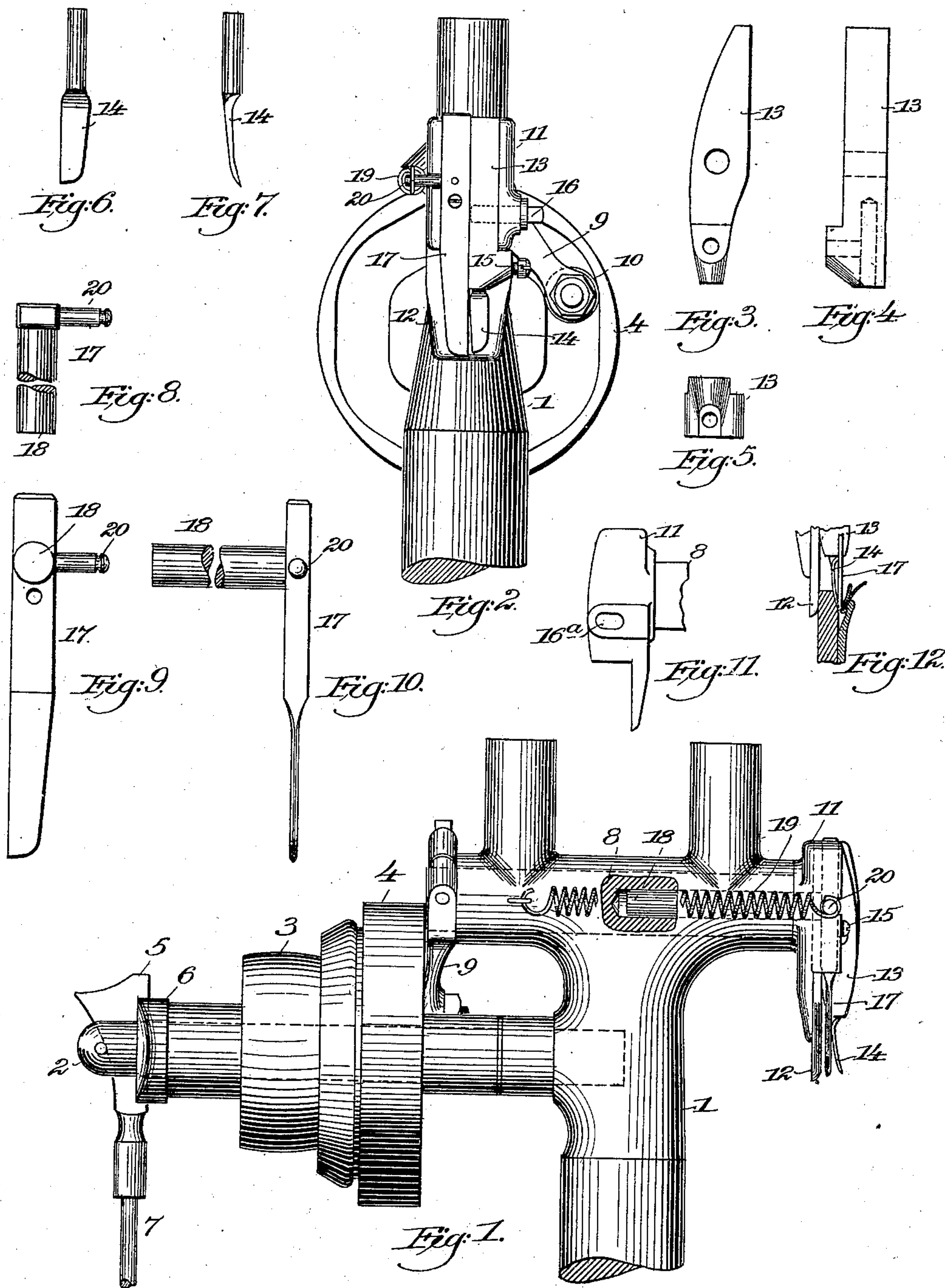
No. 662,415.

Patented Nov. 27, 1900.

L. GODDU.
SOLE TRIMMING MACHINE.

(Application filed Aug. 31, 1900.)

(No Model.)



witnesses.

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UNITED STATES PATENT OFFICE.

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SOLE-TRIMMING MACHINE.

SPECIFICATION forming part of Letters Patent No. 662,415, dated November 27, 1900.

Application filed August 31, 1900. Serial No. 28,627. (No model.)

To all whom it may concern:

Be it known that I, LOUIS GODDU, a citizen of the United States, residing at Winchester, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Sole-Trimming Machines; 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 sole-trimming machines, and more particularly to that class of such machines familiarly known in the art as "shanking-out" machines and which are employed for trimming the edges of a sole at the shank portion after the sole has been laid on the shoe and prior to the sole-sewing operation.

The object of the invention is to provide a sole-trimming machine of improved construction particularly adapted for shanking out, but not necessarily limited to such use.

With the above object in view the invention consists of the devices and combinations of devices hereinafter described and claimed.

In the accompanying drawings, illustrating a preferred form of my invention, Figure 1 is a view in side elevation of a machine embodying the same. Fig. 2 is a view in end elevation of the machine shown in Fig. 1. Figs. 3, 4, and 5 are detail views of the knife-holder detached. Figs. 6 and 7 are detail views of the knife. Figs. 8, 9, and 10 are detail views of the automatically-adjustable gage. Fig. 11 is a view in side elevation of the block to which the sole-support, the gage, and the knife are attached; and Fig. 12 is a detail view showing the position the parts assume during the operation of the machine.

The machine herein illustrated and described as embodying my invention comprises a sole-support, an automatically-adjustable gage for entering between the sole and the welt, and a knife for cutting a bevel-shaving from the edge of the sole beneath the welt. The sole-support, the gage, and the knife are mounted to vibrate or oscillate in the line of the feed of the work.

Referring to the drawings, in which like

characters of reference indicate like parts, 1 represents the frame of the machine, of any suitable construction, and 2 a fixed stud having loosely mounted thereon a driving-pulley 3 and an actuating-cam 4. The driving-pulley 3 and the cam 4 are provided with frictional engaging surfaces, and the pulley can be forced endwise on the stud 2 to bring said surfaces into engagement, and thereby clutch the cam to the pulley by means of the sliding wedge 5 working in a slot in the outer end of the stud 2 and pressing against a cap 6, loosely surrounding the extended hub of the pulley. A rod 7, secured to the wedge and connecting with a treadle or other suitable mechanism, serves as a means for actuating the wedge.

8 designates a horizontal shaft journaled in the upper part of the frame, having secured thereto at one end the arm 9, carrying a friction-roll 10, engaging a cam-groove of the cam 4 and at the other end the block 11, to which the sole-support, the gage, and the knife are attached.

The sole-support 12 consists of a flat plate, as shown, and may be formed integral with the block 11 or made as a separate piece and attached thereto.

13 indicates the knife-support, and 14 the knife carried thereby. The shank of the knife is cylindrical and is received in a cylindrical socket in the lower end of the knife-support and secured therein by means of a set-screw 15. The knife-support is rigidly held in the block 11 by means of the screw-bolt 16, passing through a slot 16^a in the side of the block and engaging a screw-threaded hole in the support. The front face of the block is slotted to form a seat for receiving the support. By loosening the bolt 16 the support 13 may be turned on the bolt as a pivot to change the angle of the knife with relation to the work. The support can also be moved bodily to adjust the knife for different thicknesses of work or to vary the depth of the cut by virtue of the slot in the block 11, through which the bolt 16 passes. By loosening the set-screw 15 the knife 14 can be rotated to present the edge of the knife to the work at the proper angle.

17 represents the automatically-adjustable gage, comprising a flat blade portion and a rectangular shank portion, as shown in Figs. 8, 9, and 10. The gage is carried at the end of a cylindrical bar 18, seated in a socket bored in the block 11 and shaft 8, the rectangular shank portion being received in the slotted front face of the block 11. As a matter of convenience and as shown in the drawings, these seats for the knife-support 13 and the gage 17 are formed by a single slot, in which they are placed side by side. The blade portion of the gage 17 is arranged parallel with the sole-support 12, and as a means for allowing the gage to move toward or from the sole-support to accommodate different thicknesses of work the gage is yieldingly held to its seat by means of a coiled spring 19, one end of which is secured to the frame of the machine and the other end of which is secured to a pin 20, projecting from the shank of the gage through a slot in the side of the block 11.

The operation upon a welted shoe of the machine above described is as follows: The cutting-knife having been adjusted by the means above described at the desired angle and distance from the sole-support the work is positioned as shown in Fig. 12, the bottom of the sole resting on the sole-support 12 and the gage 17 entering between the sole and the welt. The machine is now thrown into operation, and as the cam 4 revolves rapid oscillating or vibrating movements in the line of the feed of the work are given to the sole-support, the knife, and the gage through the arm 4, shaft 8, and block 11. The gage 17 presses the sole against the support 12 to hold it in position to be acted upon by the knife and at the same time serves as a guard for the welt by holding the welt away from contact with the knife. A constant pressure is exerted upon the work in the direction of the feed by the operator. This pressure is sufficient to hold the work stationary during the cutting stroke of the knife, the support 12 and gage 17 sliding over the work. During the return stroke of the knife the work is fed forward by the support and gage.

By giving a rapid vibratory movement to the knife it is found that the work offers comparatively little resistance to its action, and

the operator can easily hold the work in position during the action of the knife.

By mounting the sole-support and gage to move with the knife a simple and efficient feeding device is provided, and the operator is relieved from the care incident to performing the feeding operation manually.

It will be evident that the machine above described while particularly adapted for shanking out a sole which has been laid on a shoe is not limited to such use, but is adapted to trim the edges of a sole before being applied to the shoe. In such case the gage 17 engages the upper surface of the sole and the support 12 the bottom of the sole, and the operation is the same as described above.

While I have illustrated and described in this application a machine which embodies my invention in the best form at present known to me, it is to be understood that my invention is not limited to the precise construction illustrated and described, but that various constructions and arrangements of parts may be employed for accomplishing the functions of the machine herein disclosed without departing from the spirit of my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent of the United States—

1. A sole-trimming machine, having, in combination, a knife vibrating in the line of feed acting to cut a bevel shaving from the edge of a shoe-sole, a support for engaging the bottom of the sole, and means for actuating the knife, substantially as described.

2. A sole-trimming machine, having, in combination, a knife acting to cut a bevel shaving from the edge of a shoe-sole, a support for engaging the bottom of the sole, a spring-pressed gage for entering between the sole and welt, and means for vibrating the knife, support and gage in the line of feed, substantially as described.

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

LOUIS GODDU.

Witnesses:

HORACE VAN EVEREN,
ALFRED H. HILDRETH.