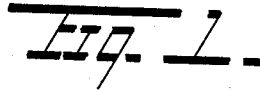


1,039,544.

2 SHEETS—SHEET 1.



D. M. Stewart  
Caleb J. Preber

Y. H. Hwang

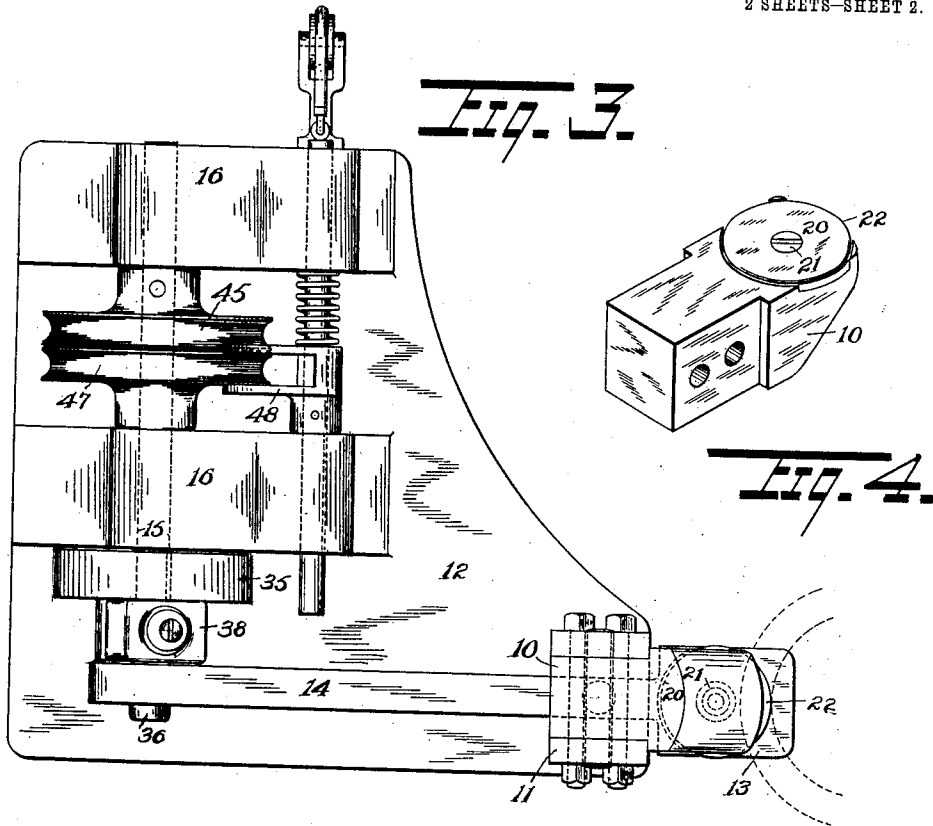
Attorney

A. H. KLINE.  
SHOE LASTING PINCER MECHANISM.  
APPLICATION FILED FEB. 15, 1911.

1,039,544.

Patented Sept. 24, 1912.

2 SHEETS—SHEET 2.



Witnesses  
*D. M. Stewart*  
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By

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Attorney

# UNITED STATES PATENT OFFICE.

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## SHOE-LASTING-PINCER MECHANISM.

1,039,544.

Specification of Letters Patent.

Patented Sept. 24, 1912.

Application filed February 15, 1911. Serial No. 608,742.

*To all whom it may concern:*

Be it known that I, ALBERT H. KLINE, a citizen of the United States, and a resident of the city of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Shoe-Lasting-Pincer Mechanism, of which the following is a specification.

The purpose of my invention is to provide improved means for effecting the connection of shoe uppers to soles by pinching the out-turned edges of the uppers into close contact with the cemented marginal portions of the soles in the so-called stitch-down process of bottoming shoes; and it consists in the improved mechanism hereafter described in connection with the accompanying drawings, the novel features of which are particularly pointed out in the subjoined claims.

Figure 1 is a side elevation of a machine embodying my invention in preferred form; the toe portion of a lasted shoe upper and sole blank being indicated in position between the pinching jaws. Fig. 2 is a front elevation of the same, the movable jaw being broken away to more clearly show the pivotal connection thereof. Fig. 3 is a plan view corresponding with Fig. 1. Fig. 4 is a perspective view of the fixed jaw, detached.

The particular operation for which my improved machine is adapted, is indicated in Fig. 1, where the pinching jaws are represented as operating on a shoe upper 2, shaped upon a last 4, to closely press together the out-turned edge portion 3 of the upper and the connected marginal portion 5 of the sole blank 6 so as to properly attach the latter to the upper; the lasted shoe upper being pressed against the roller end of the fixed jaw with the sole blank resting upon the projecting movable jaw, and being turned by the operator so as to progressively subject the same to the pinching action of the automatically operated jaws.

As shown the fixed jaw 10 is detachably secured to the top of a standard 11, rising from a bed plate 12; and the movable jaw 13 is adjustably pivoted to said standard and provided with a rearwardly extending operating arm 14 to which a reciprocating movement is imparted from an operating shaft 15 mounted in bearings 16 provided on the bed plate.

The fixed jaw 10 is preferably provided with an end roller 20, rotatably mounted in

the forward portion of the jaw so as to rotate upon an axis 21, with its periphery 22 in contact with the rising portion 23 of the shoe upper, and with its lower face 24 bearing upon the out-turned edge portion 3 thereof, as the lasted shoe is intermittently turned and subjected to the pinching action of the jaws.

The movable jaw 13, as shown, is pivoted at 25 to a vertically adjustable bearing block 26 slidable in a guide way 27 and slots 28 of the standard; said bearing block being readily set to suit varying thicknesses of upper and sole by means of an adjusting screw 29 and nut 30. The jaw 13 is arranged to project beyond the end of the opposing jaw 10 so as to furnish proper support to the lasted shoe operated upon.

As shown in Figs. 1 and 2, the operating shaft 15 carries a disk 35 having a crank pin 36, upon which is pivoted a connecting rod 37. The opposite end 38 of this rod is provided with a slot 39 in which is mounted a spring 40 serving as a yielding backing for a sliding bearing 41 to which the jaw arm 14 is operatively connected; the purpose of such yielding connection being to insure a proper pinching action of the jaws upon the lasted shoe as each portion of the latter is successively presented to the closing jaws. The shaft 15 is driven as shown, by means of a suitable pulley 45 and belt or cord 46, which latter is adapted to be shifted from a loose pulley 47 by a shifter 48.

My improved mechanism enables the operation of properly presenting the lasted shoes to each quickly recurring pinching action of the jaws to be readily effected in such manner as to insure uniform treatment and a maximum output.

The rolling action of the roller 20 employed in connection with the jaw 10 as shown, facilitates easy and accurate turning and pressing forward of the shoe to the successive closing movements of the jaws, and at the same time prevents or greatly reduces an objectionable crimping tendency of the upper adjacent the band.

The preferred construction specifically described and shown may be modified in detail without departing from the invention.

What I claim is:—

1. A shoe-lasting pincer mechanism comprising a pair of jaws, one of which is provided with a roller having one face thereof

opposed to the other jaw and its periphery extending beyond the extremity of one jaw but lying within the extremity of the other jaw.

5 2. In a shoe-lasting pincer mechanism the combination with a fixed jaw and a pivoted jaw, said jaws being relatively adjustable and said pivoted jaw having an operating extension, of a crank shaft and a slotted connecting rod connected at one end to said  
10 crank shaft and provided with a spring pressed pivot connection to said extension.

3. A shoe-lasting pincer mechanism com-

prising a fixed jaw, a cooperating movable jaw adjustably pivoted relative to the fixed jaw and having an operating extension, a crank shaft, and a slotted connecting rod connected at one end to said crank shaft and provided with a spring-pressed pivot connection to said extension. 15

In testimony whereof, I affix my signature, in the presence of two witnesses. 20

ALBERT H. KLINE.

Witnesses:

D. M. STEWART,

W. G. STEWART.

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

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