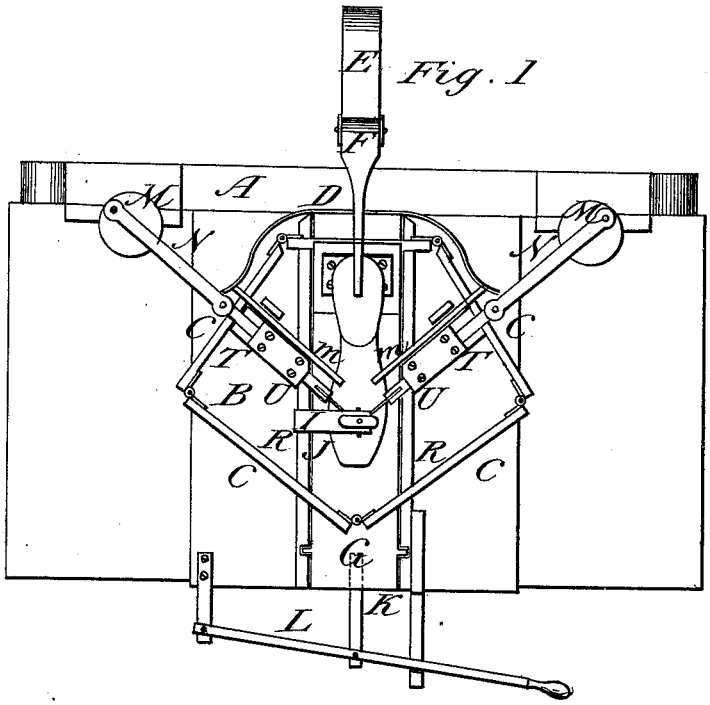
2 Sheets—Sheet 1.

J. McGREGOR & W. H. KEMPER.

Machine for Sawing Last-Blocks.

No. 213,517. Patented Mar. 25, 1879.

Fig. 1



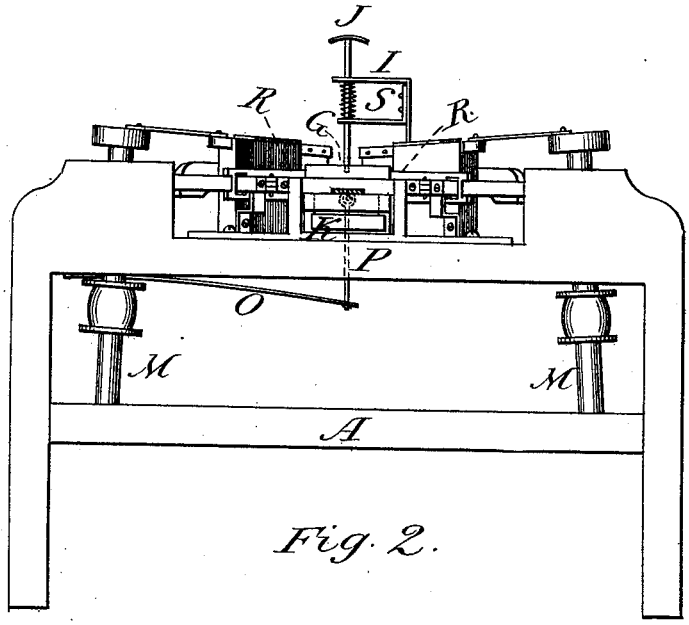


Fig. 2.

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2 Sheets—Sheet 2.

J. McGREGOR & W. H. KEMPER.

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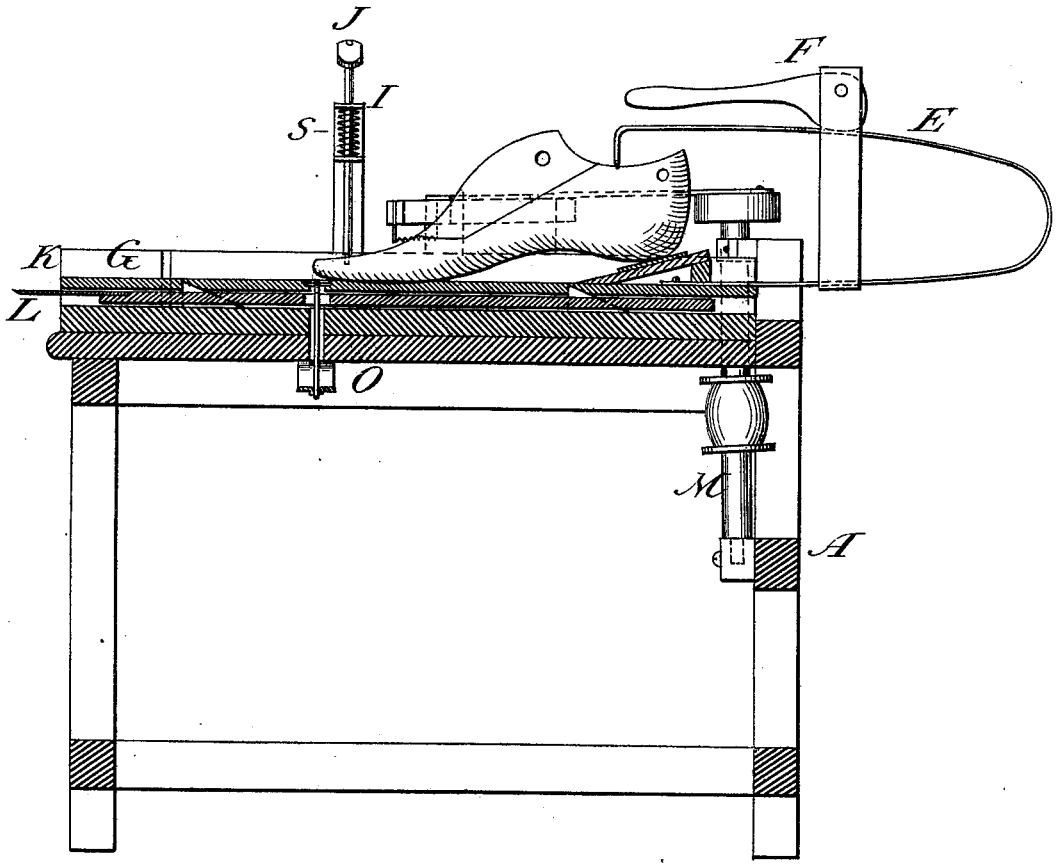
Fig. 3.



Attest:

B. Pickering
J. D. Belville

Inventor

John McGregor
William H. Kemper

UNITED STATES PATENT OFFICE.

JOHN McGREGOR AND WILLIAM H. KEMPER, OF DAYTON, OHIO.

IMPROVEMENT IN MACHINES FOR SAWING LAST-BLOCKS.

Specification forming part of Letters Patent No. **213,517**, dated March 25, 1879; application filed August 5, 1878.

To all whom it may concern:

Be it known that we, JOHN McGREGOR and WILLIAM H. KEMPER, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Machine for Sawing Last-Blocks, of which the following is a specification:

The invention relates to a machine having two saws so arranged that the front end of the last-block is sawed at an obtuse angle, the separation lengthwise being done in the usual manner.

In the accompanying drawings like letters of reference refer to like parts.

Figure 1 is a top view of the last-blocking machine. Fig. 2 is a rear view of the same, omitting some of the parts. Fig. 3 is a central vertical section of the machine.

A represents a quadrangular frame, the top being covered to serve as a table for the lasts, and has rear projections for supporting the shafts. The shafts M are supported within bearings on these projections and on a cross-bar of the frame, as illustrated at Fig. 2.

To the table is attached a base-board, B, and to this are secured two vertical boards, R R. These form a channel, within which are placed two boards, G and K. The lower (see K, Fig. 2) has a longitudinal movement, and is operated by the hand-lever L, to which it is attached by a bar. This board has beveled projections, which enter inclined notches of the board G, and by thrusting the lever backward the effect is to elevate the upper last board or table. When the lever is withdrawn these parts drop down, aided in their descent by the spring O, connected by the rod P to the last-table. (See dotted lines, Fig. 2.)

The last-table has projections entering grooves of the sides, which restrict its movement to a vertical direction. On the rear of the last-table is an elevation, to which is secured a roughened plate, on which the heel of the last rests. To the rear end of the last-table is attached the curved spring D, which rests against the arms *m*, and thereby carries them firmly against the last.

C C are hinged bars, the rear pair passing through slots of the arms *m*, and when these are pressed backward the last is released from the pressure of these arms. The rear bars are hinged to a cross-piece entering slots of the side pieces, and this piece is secured to the last-table. The arms have guides attached to the posts T, and are also guided by notches cut in the side boards.

E is a flat spring attached to the rear of the last-table, and is bent over so that the forward end engages the top face of the last when depressed by the eccentric-lever F. This lever is supported in bars attached to the under side of the spring.

The frame I is attached to the side board, as illustrated at Fig. 2. This frame supports the rod J in square orifices within its arms, and is forced downward by the spiral spring S. This rod terminates in a small point, which enters a hole bored within the last, and is elevated when the last is secured to the last-table.

U U are saw-guides, supported within the posts T T, in which they freely move, and the outer ends are attached to the pitmen N, and these are connected to the crank-plates on the shafts M, to give the requisite movement to the saws.

Belts to drive the saws run from counter-shafts onto the pulleys on the shafts beneath the frame. The saws are fastened centrally within the guides. The saws incline slightly downward and slightly outward in the direction of the toe of the last, and the shafts have an inclination, to accommodate this position of the saws.

The last H is shown in outline in the position in which it is held during the operation of sawing the forward end of the last-block, or effecting its entire separation from the last. To prepare the last for this machine it is sawed longitudinally, in the usual manner, and a hole is bored centrally at the point where the separation is to be made. The last is then placed on the table, and the point of the rod is made to enter the hole. Then the side arms are permitted to engage the last; and, finally, the eccentric-lever is brought forward to compress the spring upon the last, and it is thus secured ready for the sawing. The saws being in motion, by a backward thrust of the elevating-lever the last is carried up against the saws,

thus effecting completely the separation of the block. Thus sawed, the front end has the form of an obtuse angle, the vertical face inclining slightly forward; and as thus formed, the block is held securely to the last by a single tack at the rear end of the block.

Other devices than those herein described may be used to hold the last in position on the table during sawing.

What we claim as our invention is—

1. The frame A, shafts M, pitmen N, saws U, guide-posts T, vertical boards R R of base B, last-table G, and elevating-board K, the whole combined and operated substantially as set forth.

2. The curved spring D of the last-table G, the arms *m*, the guide-posts T, vertical boards R R, to support a last by engaging its sides, and the hinged bars C C, combined therewith for the purpose of releasing the same, substantially as set forth.

JOHN McGREGOR.
WILLIAM H. KEMPER.

Witnesses:
B. PICKERING,
J. J. BELVILLE.