G. McKAY.

Jacks for Boots and Shoes.

No. 199,304. Patented Jan. 15, 1878.

Fig 1.

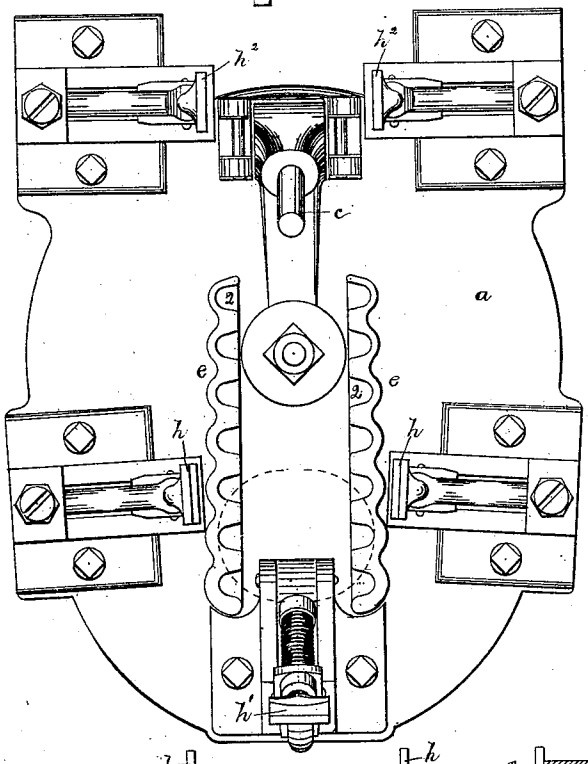


Fig 3.

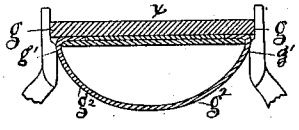


Fig 2.

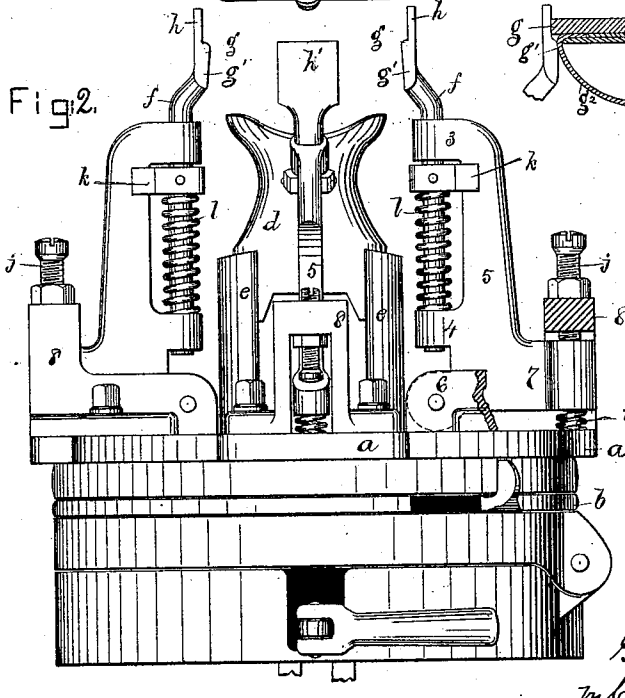
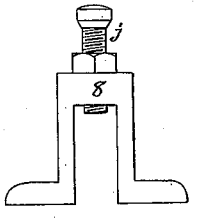


Fig 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

GORDON McKAY, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN JACKS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **199,304**, dated January 15, 1878; application filed December 13, 1877.

To all whom it may concern:

Be it known that I, GORDON McKAY, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improved Jack for Boots and Shoes, of which the following is a specification:

This invention relates to a jack for holding boots and shoes while they are being lasted, or the outer sole applied to be nailed or fastened.

The invention consists, primarily, in a system of gages adapted to the jack, to assist in placing the outer sole in correct position with reference to the upper and inner sole, to permit the proper application of the sole thereto.

Figure 1 represents, in top view, a jack constructed in accordance with this invention; Fig. 2, an end elevation thereof; and Figs. 3 and 4 are details to be referred to.

The parts below the top plate of the jack *a* are and may be of any usual construction. The ring *b* is operated in the usual way to move the heel-pin *c*, and the toe-rest *d* is held in one of the sockets 2 of the toe-rest holder *e*, all as now common.

In a certain class of shoes, described in United States Letters Patent No. 189,834, the sole is filled with partially-driven tacks or headed fastenings, and placed in position on the inner sole of the shoe. The headed fastenings are then driven into the upper and inner sole, as therein described, by means of a hand-hammer.

To aid the operator in placing these soles partially filled with nails in correct position upon the lasted upper and inner sole, I have provided gages *h* h^1 h^2 on rods *f*, preferably made adjustable, such gages receiving between them and bearing upon the edge of the outer sole, thereby determining its position with reference to the upper and inner sole.

The gage-faces are in two planes, to fit, one portion, g^1, against the upper g^2, and the other, *g*, against the edge of the outer sole *x*. The rods *f*, extending down from the gages, are held in ears 3 4 of adjustable holding arms or levers 5, pivoted at 6, such arms having extensions 7, resting on upwardly-pressing springs *i*, adjusting set-screw *j* in yokes 8 (see Fig. 4) working against the upper portions of 7. This set-screw *j*, or gage-adjusting device, determines the position of the face of the gage with reference to the center of the lasted shoe, and the spring *i* permits the gage to be moved backward from such position. Each rod *f* is provided with a guide-block, *k*, to move over the part 5, and maintain the face of the gage at the proper angle with reference to the shoe, and each rod is provided with a spring, *l*, to hold it up. The outer sole, studded with fastenings and placed between the gages, set to place the sole in correct position, has the fastenings driven by a hammer, and as the outer sole approaches the inner sole the gages yield.

The gages *h* are for the side of the sole, the gage h^1 for the toe of the sole, and the gages h^2 for the heel of the sole.

I claim—

1. The combination, with a boot or shoe holding jack, of gages to govern the position of the outer sole with reference to the lasted upper and inner sole, substantially as described.

2. The combination, with last holding and adjusting devices, of gages *h* for the side edges of the outer sole, to operate substantially as described.

3. The combination, with last-holding devices, of gages for the side edges and toe of the outer sole, substantially as described.

4. In an apparatus to attach the outer sole to the upper and inner sole, a gage to bear against the edge of the outer sole, and against the upper below it, to operate substantially as described.

5. The outer-sole gages and their rods, in combination with a spring to permit the movement of the rods and gages in the holding-arm.

6. The combination, with a last holding and adjusting jack, of gages for the edge of the outer sole, and adjusting devices to control the position of such gages as to their distance from a central line drawn longitudinally through the last, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GORDON McKAY.

Witnesses:

G. W. GREGORY,

S. B. KIDDER.