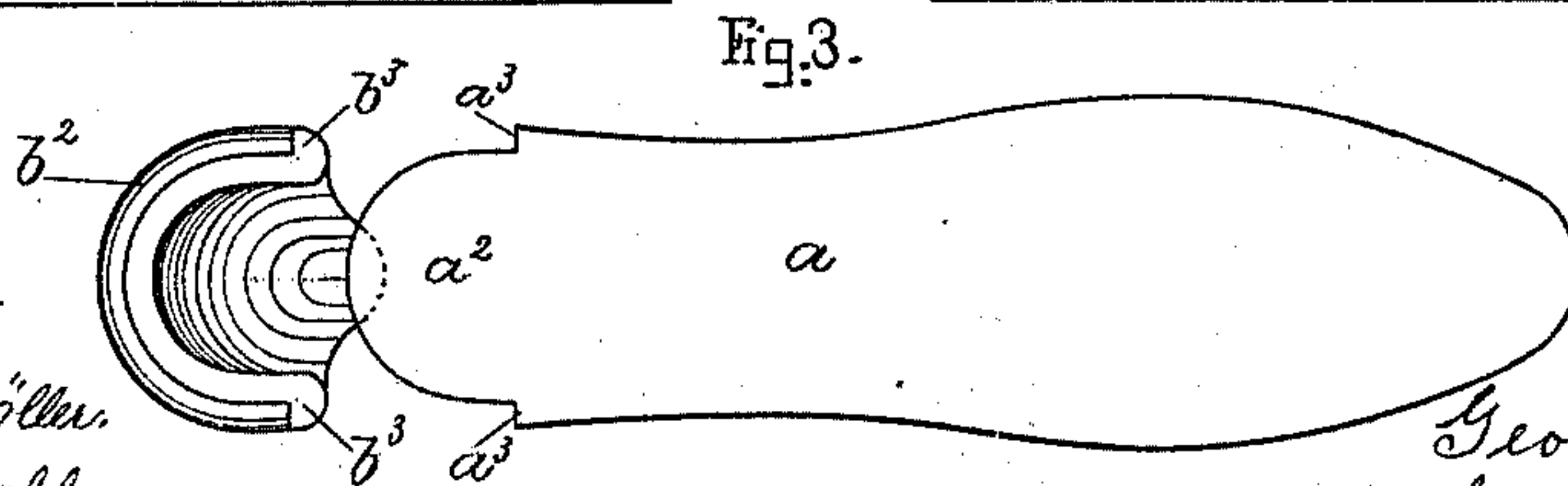


G. SUMNER.
SHOEMAKER'S JACK.

Patented Nov. 28, 1893.



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UNITED STATES PATENT OFFICE.

GEORGE SUMNER, OF SOUTH BRAINTREE, MASSACHUSETTS.

SHOEMAKER'S JACK.

SPECIFICATION forming part of Letters Patent No. 509,497, dated November 28, 1893.

Application filed June 17, 1893. Serial No. 477,921. (No model.)

To all whom it may concern:

Be it known that I, GEORGE SUMNER, a citizen of the United States, residing at South Braintree, in the county of Norfolk and Commonwealth of Massachusetts, have invented a new and useful Improvement in Shoemakers' Jacks, of which the following is a specification, reference being had to the accompanying drawings, which form a part hereof.

10 The object of my invention is a jack to hold shoes while being burnished or for shoemakers' use in hand work and relates to improvements on the jack shown in my Patent No. 497,505, dated May 16, 1893, and consists
15 in the several features which will be more particularly described and claimed.

In the drawings, Figure 1 is a side elevation of a burnishing-jack and standard embodying my invention. Fig. 2 is a vertical
20 section showing the last extended. Fig. 3 is a detail plan view of the two part last. Figs. 4, 5 and 6 are detail plan views.

The last is made in two parts each mounted on a separate standard, the fore-part *a*, being
25 mounted on a fixed standard A, and the heel part *b*, being mounted on a pivoted standard B, whereby the last may be extended to adapt it to shoes of different sizes. Each part of the last is preferably formed with a
30 spindle *a'*, *b'*, respectively which fits into a socket in the end of the standard and can be readily removed and replaced by another. The heel-portion *b*, is hollowed out forming a shell with a narrow rim *b²*, which extends
35 around on each side nearly to the front part of the heel-portion, but stops a little short, leaving the steps or shoulders *b³*. The fore-part forms the toe, ball and shank of the last, and also has a neck *a²*, which extends back
40 into the shell of the heel-part filling it out to the rim *b²*, when the last is not extended. Where the fore-part is cut away to form the neck a shoulder *a³*, is formed on each side which rests on the step *b³*, of the heel-part for
45 support.

The last is thinned down as much as is consistent with strength in order to have it as light as possible, with a strengthening rib *a⁴*. The fore-part standard A, is fixed to the
50 bracket C, and the heel-part standard B, is pivoted to said bracket at C'. This bracket has a spindle D, which enters a socket in the

column E, and can be adjusted to different elevations by means of the set-screw *d*. The column E, has a base E', which is screwed
55 to the floor. Two pairs of toggle-jointed levers *f*, *f'*, connect the two standards some distance below the last. Hinged to the pivot of the toggle-jointed levers is a connecting-rod *l*, which extends downward and is
60 hinged at its lower end to a pintle *h'*, in the forked lever arm *h* fulcrumed on a pin *h²*, passing through the standard A. The link *g*, *g*, connects the outer end of the forked lever *h*, with the treadle-bar G. This link is
65 made extensible by being composed of two over-lapping bars slotted lengthwise and clamped together by clamping screws *g'*, *g'*, which can be so adjusted as to lengthen or
70 shorten the link to correspond with the raising or lowering of the standards A, B. One end of the treadle-bar has a treadle G', and the other end is hinged by the pintle *k*, to the pintle *k'*, journaled to the bracket *m*, so
75 that the treadle can have both a lateral and a vertical movement. When the treadle is depressed, the link *g*, *g*, pulls down the outer end of the forked lever *h*, pushing up the
80 connecting-rod *l*, and opening toggle-levers *f*, *f'*, which thus throw back the pivoted standard B, and extend the last. A spring-pawl *n*, jointed to the side of the treadle-bar engages with the curved ratchet-bar R, and holds the treadle at any desired point of depression with the last extended accordingly.
85 When it is desired to shorten the last by closing the distended heel portion, the pawl is tripped out of engagement with the ratchet by kicking the treadle to one side, as is allowed by the hinged joint at *k*, already de-
90 scribed. A spring P, assists the return movement upward. The flat spring S, pressing up against the heel of the pawl holds the pawl to its engagement with the ratchet when the treadle is depressed, and when the pawl is
95 tripped the stop pin *t* projecting from the side of the treadle-bar G, prevents the pawl from swinging around on its pivot *n'*. The link *g*, *g*, is pivoted at each end with sufficient
100 play to allow its lower end to swing out with the necessary lateral movement of the treadle-bar already described, and its own gravity will carry it back to bring the pawl into line with the ratchet-bar when the foot is re-

moved after the treadle is restored to its elevated position. A guard W, prevents too great lateral movement of the treadle-bar.

The teeth of the ratchet bar are preferably arranged at such intervals that a depression of the treadle one tooth will extend the last one size of shoe.

What I claim as my invention is—

1. In a jack, a fixed standard mounted upon a suitable base, C, and a pivoted standard pivoted at its lower end to said base, supporting column E, a two-part last, one part being mounted on each of said two standards, toggle-levers connecting the two standards, a connecting-rod *l* joined at its upper end to the toggle-joint, arm *h* pivoted to one of the standards and joined at its inner end to the lower end of connecting-rod *l*, link *g g* joined to the outer end of arm *h*, treadle G pivoted at a point intermediate of its two ends to the lower end of said link and hinged at its outer end by pintle *k* to pintle *k'* which is journaled in a bracket attached to the column E in a manner to allow both a vertical and a lateral motion to the treadle, ratchet bar R, and spring-pawl *n* attached to the treadle, substantially as described.

2. In a jack, a fixed standard and a pivoted standard, a two-part last, one part being mounted on each standard, the heel part being formed with a recess on its upper side and a semi-circular rim, the fore-part being formed with a neck which enters the recess of the heel-part and fits inside the rim, and formed with a shoulder α^3 which is adapted to rest on a step b^3 of the heel part, a treadle and connecting rods and toggle-levers by which the pivoted standard may be opened away from the fixed standard, thereby extending the two-part last, and a ratchet to retain the pivoted standard in its adjusted position, substantially as described.

3. In a jack, a fixed standard and a pivoted standard, a two-part last, one part being mounted on each standard, toggle-levers connecting the two standards, a connecting rod *l* joined at its upper end to the joint of the toggle-levers, arm *h* pivoted to one of the standards and joined at its inner end to the lower end of the connecting rod *l*, link *g g* joined to the outer end of arm *h*, treadle-bar G pivoted at a point intermediate of its two ends to the lower end of said link and hinged at its outer end by pintle *k* to pintle *k'* which is journaled in a bracket *m* in a manner to allow a vertical and a lateral movement of the treadle, curved ratchet-bar R, spring-pawl *n* attached to the treadle, and guard W, substantially as described.

4. In a jack, a fixed standard and a pivoted standard, a two-part last, one part being mounted on each standard, a spindled bracket base upon which the two standards are mounted in common, a column with socket to receive the bracket spindle and a clamping device to hold the bracket at different elevations above the column, toggle-levers connecting the two standards, a connecting rod *l*, joined at its upper end to the toggle-levers, arm *h*, pivoted to one of the standards and joined at its inner end to the lower end of the connecting rod *l*, extensible link *g g* composed of two slotted bars overlaying each other and adjustable by clamping screws to different lengths to correspond with the elevation of the standards, said link joining the outer end of arm *h* and treadle G, curved ratchet-bar and pawl to retain the treadle and extended standards at any position desired, substantially as described.

GEORGE SUMNER.

Witnesses:

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ELLIS HOLLINGSWORTH.