

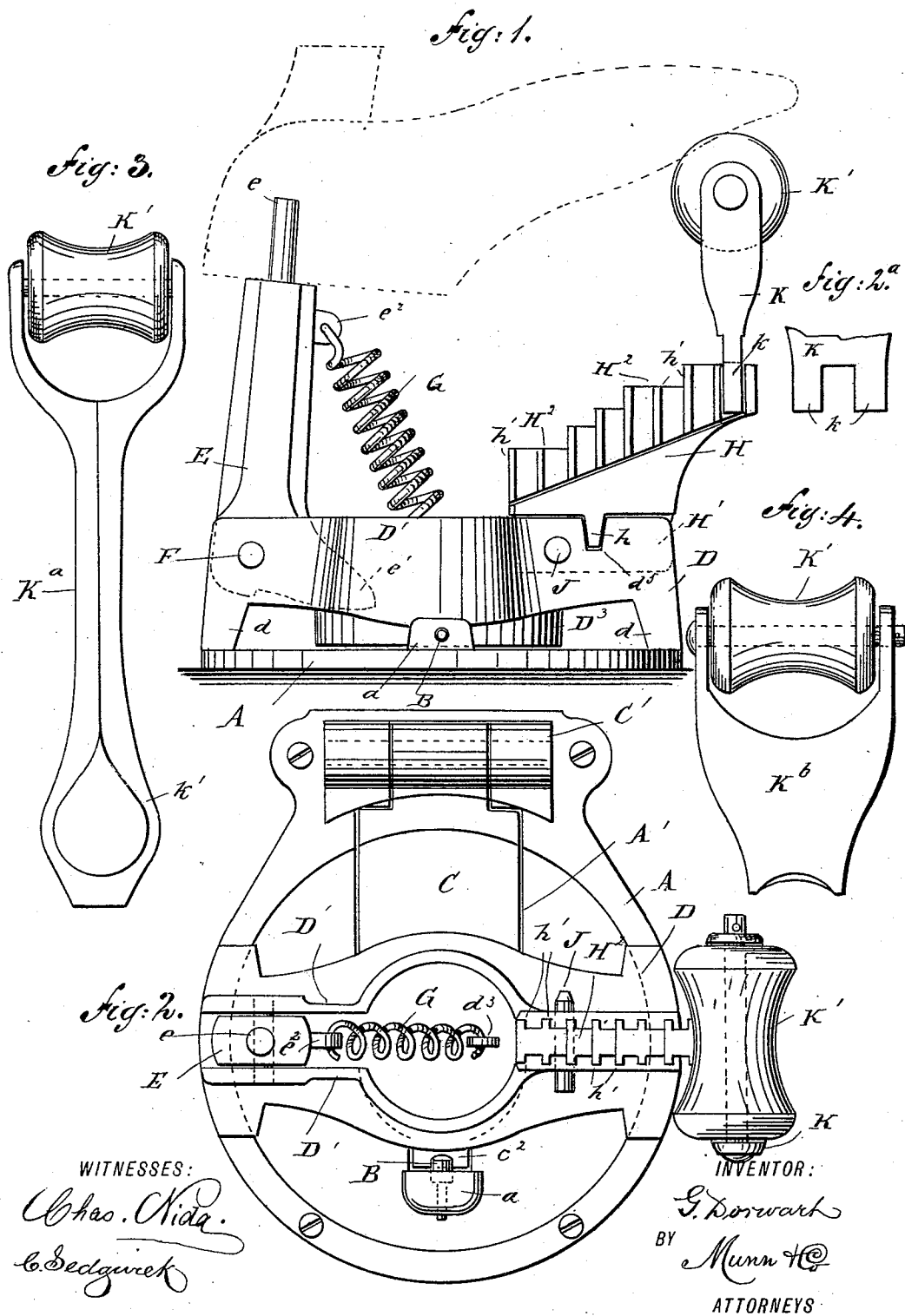
(No Model.)

2 Sheets—Sheet 1.

G. DORWART.  
PEGGING JACK.

No. 461,328.

Patented Oct. 13, 1891.



(No Model.)

2 Sheets—Sheet 2.

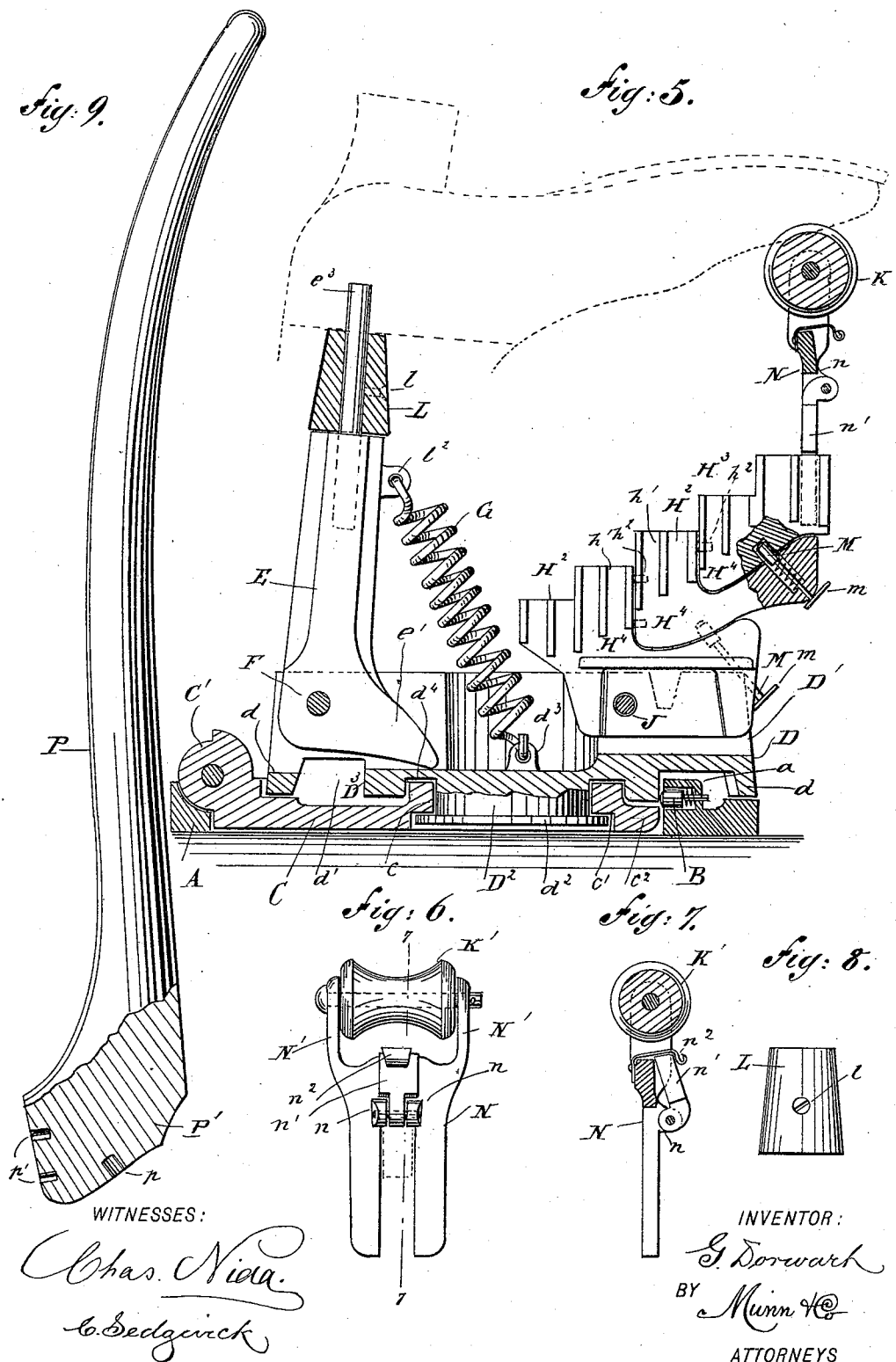
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Fig. 9.

Fig. 5.



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# UNITED STATES PATENT OFFICE

GEORGE DORWART, OF PHILADELPHIA, PENNSYLVANIA.

## PEGGING-JACK.

SPECIFICATION forming part of Letters Patent No. 461,328, dated October 13, 1891.

Application filed January 23, 1891. Serial No. 378,748. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE DORWART, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Shoe-Jack, of which the following is a full, clear, and exact description.

My invention relates to an improvement in that class of jacks which are used for holding boots or shoes in position, so that the various operations of making may be conveniently performed on them; and the objects of my invention are to produce a jack on which the shoes or boots may be quickly and easily fastened and which may be easily brought into a position for the shoes to be conveniently operated upon, and also to produce a toe-piece which will enable the shoes to be clamped firmly in position without injuring them, and which will also adjust itself to the various movements of the shoes while they are being operated on, and will thus prevent the shoe-uppers from being scraped or otherwise injured.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the jack embodying my invention, the position of a shoe thereon being indicated by dotted lines. Fig. 2 is a plan view of the jack. Fig. 2<sup>a</sup> is a broken detail view showing the bifurcated lower end of a toe-piece which is adapted to rest upon the jack. Fig. 3 is a detail view of a form of toe-piece adapted to be used in an old-style jack, but which is provided with a roll forming a part of my invention. Fig. 4 is a detail view of another form of toe-piece which is also provided with my improved roll. Fig. 5 is a side elevation, partly in section, of the jack provided with a sectional toe-rest and an extensible toe-piece. Fig. 6 is a detail front elevation of the extensible toe-piece. Fig. 7 is a vertical section of the same on the line 7 7 of Fig. 6. Fig. 8 is a detail front elevation of a sleeve used to change the height

of the heel-post; and Fig. 9 is a detail view partly in section, of a frog adapted for use in the jack.

The jack is provided with a flat base A, which is nearly circular in shape and which is adapted to be screwed to the top of a post or to a bench, and the plate is cut away through its central portion, the cut extending nearly to the rear thereof, and projecting from the plate in front of the slot therein is a boss *a*, in which is mounted a spring-pressed pin B, which normally extends rearward from the boss.

A plate C is shaped to fit the cut-away portion of the base A, the plate being of substantially the same thickness as the base, and the plate and base are hinged together at the rear of the base, as shown at C', so that the plate may swing vertically from the base. The plate C has a circular opening *c* in the central part thereof, and an annular recess extends around the under side of the opening, forming around the upper side thereof an annular shoulder *c'*. The plate has also at its front end a projecting lip *c*<sup>2</sup>, over which the spring-pressed pin B extends to lock the plate in place; but the under side of the lip *c*<sup>2</sup> is rounded slightly, as best shown Fig. 5, so that when the plate is dropped it will crowd the spring-pressed pin forward, thus allowing the plate to assume its normal position within the cut-away portion of the base.

Pivoted on the top of the base A and plate C is a frame D, which extends longitudinally across the base, the frame having on its upper side the vertical flanges D', which are parallel at the ends, but which are curved outwardly at the center, as best shown in Figs. 2 and 5, thus strengthening the flanges. The frame has also at each end a depending flange *d*, which rests upon the base A, thus serving as a guide for the frame, and also strengthening the same. The frame is cut away between the flanges *d* and the central part thereof, so as to lighten the frame, and in one end of the frame is an opening *d'* through the bottom to allow of the tilting movement of the heel-post. The frame D has a central trunnion D<sup>2</sup>, which extends downward through the opening in the center of the plate C, and around the lower end of the

trunnion is an annular flange  $d^2$ , which extends beneath the shoulder  $c'$  of the plate C, thus preventing the removal of the frame from the plate. The frame D is also provided 5 on its under side with an eccentric  $D^3$ , between which and the trunnion is an annular recess  $d^4$  to receive the central shoulder of the plate C, and thus guide the frame, and the eccentric  $D^3$  is thickest on the opposite 10 sides, which align with the frame D, so that when the frame D is brought into alignment with the plate C the eccentric  $D^3$  will crowd the pin B forward from above the lip  $c^2$ ; so that the plate and the frame thereon 15 may be swung vertically; but as soon as the frame D is swung out of alignment with the plate C the pin B is pressed into its normal position, thus locking the plate to the base. The heel-post E extends vertically from be- 20 tween the flanges  $D'$  near one end of the frame D, the heel-post E being pivoted at the lower end near the back portion on a pin F, and the heel-post has at the top a projecting pin  $e$ , which is adapted to enter the hole in a 25 shoe-last. The heel-post E has also at its lower end an elongated toe  $e'$ , which rests upon the bottom of the frame D and which prevents the post from being tipped forward. The post has also near its upper portion a 30 projecting ear  $f^2$ , into which is hooked a spiral spring G, the lower end of the spring being hooked to an ear  $d^3$  on the bottom of the frame D, so that when the heel-post is tipped rearwardly in order to bring the toe of the 35 shoe-last and the shoe thereon upon the toe-piece the pressure of the spring will bring the heel-post back into its normal position and hold the shoe firmly against the toe-piece. This feature of a spring-pressed heel-post is 40 common to shoe-jacks, and I do not claim it as a part of my invention.

A toe-rest H has a depending shank  $H'$ , as indicated by dotted lines in Fig. 1, which is adapted to fit between the flanges  $D'$  on the 45 end of the frame D opposite the heel-post, and the toe-rest has also depending lugs  $h$ , which fit into corresponding recesses  $d^5$  in the flanges  $D'$  to prevent the sliding of the toe-rest. The toe-rest is further secured be- 50 tween the flanges by means of a pin J, which extends through the flanges and through the shank of the toe-rest. On the upper side of the toe-rest H is a series of steps  $H^2$ , placed one above the other and provided on the sides 55 with vertical ribs or flanges  $h'$ . The toe-piece K is adapted to rest upon the steps, and it has its lower end bifurcated, as best shown in Fig. 2<sup>a</sup>, so that the opposite arms  $k$  at its lower end will slide between the flanges  $h'$  of 60 the toe-rest. The toe-piece K has also at its upper end a roll  $K'$ , which is pivoted therein and which is hollowed out in the center, so as to fit the top of a shoe-last. The roll  $K'$  is made of rubber or of equivalent material, so 65 that it will yield to the pressure of the shoe, and its yielding, together with its rolling, movement will prevent it from injuring the

shoe in any way. It is customary to form toe-pieces of solid metal and to cover them with leather or cloth; but toe-pieces of this kind 70 are very likely to injure the shoe, and, moreover, they will not hold a shoe and last so firmly as will a yielding roll.

In Fig. 3 I have shown a toe-piece  $K^a$ , which is of a well-known form and adapted 75 to fit in an old-style jack, the only new feature in the toe-piece being the rubber roll  $K'$ , which is pivoted in its upper end and which I claim as a part of my invention. The toe-piece  $k^b$  (shown in Fig. 4) is also adapted 80 to fit another style of jack and is likewise provided with the roll  $K'$  at the top. I do not confine myself to any precise form of toe-piece, as they may be made to fit any kind of jack, and the roll in the top may be fitted to 85 the various styles of toe-pieces.

In Fig. 5 I have shown means for making the jack heel either a high or a low one. The heel-post E, which is normally low, is provided with a loose last-pin  $e^3$  at the top, on 90 which fits loosely a sleeve L, which is provided with a set-screw  $l$ , by means of which the pin may be held at a desired height, and by placing this sleeve upon the post it makes a tall post of it. If desired, the sleeve may be pro- 95 vided with a loose pin and may be slipped on over the ordinary rigid pin of the heel-post. In this figure is shown, also, a toe-rest  $H^3$ , which is shaped like the toe-rest H, described above, having the same steps and vertical 100 flanges; but instead of being formed in a single piece it is made up in sections  $H^4$ , which are shaped to fit one upon another and are held together by pins  $h^3$ , which extend from one piece into holes in another, and by spring- 105 pressed pins M, which extend through diagonally from a lower piece into a corresponding hole in the piece above. The spring-pressed pins lock the several pieces together and extend from the front side of the jack, 110 the lower ends of the pins terminating in suitable handles  $m$ , which facilitate the partial removal of the pins. The lowest of the sections  $H^4$  rests between the flanges  $D'$  of the frame D, and the height of the toe-rest 115 may be changed by varying the number of the sections. To remove a section, the pin M, which holds it, is pulled downward till it is released from the upper section, when the section may be easily removed. 120

In connection with the sleeve L an adjustable toe-piece N is used, although it may be used with the low post and with either form of toe-rest. The toe-piece N has lugs  $N'$  on 125 opposite sides at the top, which carry a rubber roll  $K'$ , like that already described, and the lower part of the toe-rest is bifurcated, so that it will fit the toe-rest. At the upper end of the bifurcated part of the toe-piece are projecting lugs  $n$ , between which is pivoted 130 a block  $n'$ , which will naturally drop of its own weight, so as to hang vertically in the bifurcation of the toe-piece, but which may be held upward by a spring-catch  $n^2$ , which

is secured to the toe-piece and is adapted to spring over the free end of the block. It will be seen, then, that the toe-piece may be used in connection with either a low or a high heel-post, and by having the toe-piece and toe-rest both adjustable vertically the jack may be quickly and nicely fitted to shoes of various sizes.

In Fig. 9 I have shown a frog P—such as is usually screwed to a bench—and the frog is shaped in the main like a common frog; but its lower end P' is shaped to fit in one of the sections H<sup>4</sup> of the toe-rest and is provided with a hole *p* to receive the pin M and holes *p'* to receive the pins *h*<sup>2</sup>. The frog can therefore be easily secured in the jack, and it can be used more conveniently in this way than when secured to a bench.

A shoe and last are secured upon the jack in the ordinary way, as shown in Fig. 1, and when the jack is to be tilted so as to bring the shoe into a position to work upon its edge the frame D is swung so that it will align with the plate C, thus crowding the pin B from off the front lip of the plate, as described, and the jack may then be easily tilted.

Having thus fully described my invention, I claim as new, and desire to secure by Letters Patent—

1. A jack comprising a flat base having its central portion cut away, as shown, a plate hinged to the base so as to fit within the cut-away portion thereof, a spring-pressed pin secured to the base and adapted to overlap the plate, a frame centrally pivoted to the plate and provided with vertical flanges and with an eccentric to engage the spring-pressed pin, and a suitable heel-post and toe-rest secured between the flanges of the frame, substantially as described.

2. The combination, with a base having its central portion cut away, of a plate hinged to the base and fitting in the cut-away portion thereof, a frame pivoted to the plate and provided with a heel-post and toe-rest, and means for locking the plate in position, substantially as described.

3. The combination, with the base having its central portion cut away, as shown, the plate hinged in the cut-away portion of the base and provided with a projecting rounded lip, and the spring-pressed pin mounted on the

base so as to overlap the lip of the plate, of a frame pivoted in a central opening of the plate, said frame having vertical flanges and an eccentric to engage the spring-pressed pin, and a suitable heel-post and toe-rest fastened between the flanges of the frame, substantially as described.

4. In a shoe-jack, the combination, with a toe-piece having a bifurcated upper end, of a concave and yielding roller pivoted in the bifurcation of the toe-piece, substantially as described.

5. In a shoe-jack, the combination, with a toe-rest and a toe-piece adjustably carried thereby, of a concave rubber roller pivoted in the upper end of the toe-piece, substantially as herein shown and described.

6. The combination, with a jack of the character described, of a toe-rest formed with a series of steps and made up in sections fitting one upon another, substantially as described.

7. In a shoe-jack, the combination, with a heel-post having a socket in its upper end, of a pin removably secured in the socket of the post, a sleeve fitting loosely on the pin, and a set-screw for securing the sleeve to the pin, substantially as and for the purpose set forth.

8. In a shoe-jack, the combination, with an extensible heel-post, of an adjustable toe-piece carrying a yielding roller in its upper end, substantially as described.

9. In a jack, the combination, with a toe-rest, of a toe-piece shaped to fit upon the toe-rest, said toe-piece having a hinged block adapted to swing between it and the toe-rest, substantially as described.

10. In a jack of the character described, the extensible toe-piece having a block hinged thereon and adapted to swing beneath its seat, and a spring-catch to hold the block in an elevated position, substantially as described.

11. In a shoe-jack, the combination, with a toe-rest, of the frog P, adapted to fit in the toe-rest and provided with the holes *p* and *p'*, substantially as described.

GEORGE DORWART.

Witnesses:

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JOSEPH M. CANFIELD.