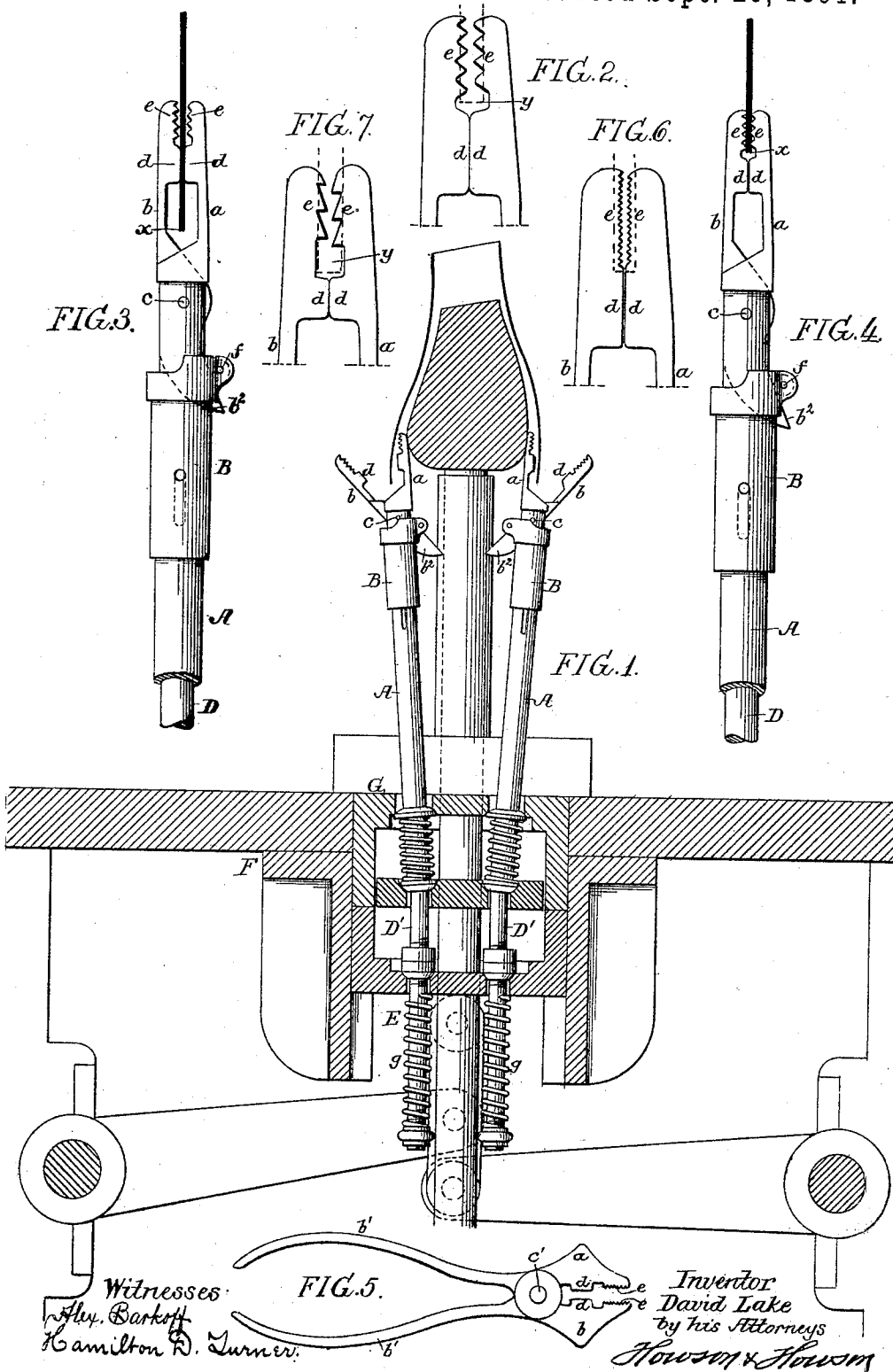


(No Model.)

D. LAKE.
LASTING NIPPERS.

No. 460,394.

Patented Sept. 29, 1891.



Witnesses:
Aly. Barkoff
Hamilton D. Turner.

Inventor
David Lake
by his Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

DAVID LAKE, OF PLEASANTVILLE, NEW JERSEY, ASSIGNOR TO THE
WHIFFEN-LAKE LASTING MACHINE COMPANY, OF SAME PLACE.

LASTING-NIPPERS.

SPECIFICATION forming part of Letters Patent No. 460,394, dated September 29, 1891.

Application filed October 31, 1889. Renewed August 21, 1890. Serial No. 362,570. (No model.)

To all whom it may concern:

Be it known that I, DAVID LAKE, a citizen of the United States, and a resident of Pleasantville, Atlantic county, New Jersey, have
5 invented certain Improvements in Lasting-Nippers, of which the following is a specification.

The object of my invention is to so construct the nippers used in lasting boots and shoes
10 that said nippers will slip on the upper until they reach a given point near the edge, whereupon the nippers will seize the upper and draw it over the last.

In the accompanying drawings, Figure 1 is
15 a transverse section of a shoe-lasting machine with my improved lasting-nippers in position, the jaws of the nippers being open. Fig. 2 is an enlarged exaggerated view of the nipping-jaws. Figs. 3 and 4 are diagrams showing the
20 action of my improved nippers. Fig. 5 is a view of a pair of hand-nippers embodying the invention, and Figs. 6 and 7 are exaggerated views illustrating modifications.

The machine illustrated in the accompanying
25 drawings is fully set forth and claimed in an application for patent filed by Whiffen, Lake, and Lake on October 14, 1889, Serial No. 326,932, and in a further application by same parties filed on the same date, Serial No.
30 326,933.

The construction of the machine forms no part of my present invention, the machine being shown merely to illustrate the application of my improved nippers thereto.

35 In lasting boots and shoes, especially by machinery, it is of the utmost importance to center the upper upon the last and to nip the upper at its extreme lower edge, so as not to destroy or deface the leather of the upper, and
40 consequently considerable time is ordinarily expended by the operator in adjusting and centering the upper on the last.

The main object of the present invention is to so construct the nippers that they will center
45 and adjust the upper quickly and accurately.

I will first describe my invention in connection with the ordinary hand-nippers shown in Fig. 5. The two jaws *a b* of the nippers are
50 pivoted at *c* and have the usual rearwardly-projecting portions *a'* *b'* for being grasped by

the hand. There are two independent gripping-faces on the jaws *a* and *b*, one gripping-face *d* being smooth, while the other gripping-face *e* is roughened, the roughened gripping-
55 faces being situated at the ends of the jaws and the smooth faces *d* back of the roughened faces. The faces of the gripping-jaws are slightly back of the line of the faces of the smooth jaws, so that they will not interfere
60 with the slipping of the upper until it is released from the control of the smooth jaws. The faces *d*, although pressing upon the leather of the upper when the nippers are closed, will slip upon said leather, while the
65 roughened faces, as soon as they close upon the upper leather, will nip the same and will not slip, and the faces are so arranged that when the smooth faces *d* are in contact with the leather of the upper the roughened faces
70 are held away from the upper and will not bite into it; but as the nippers slip upon the upper the faces *d* slip from the lower edge of the upper, and consequently the tendency of the nippers is to close and permit the rough-
75 ened faces to nip the upper and firmly hold it at its lower edge, thus preventing further slip and insuring the drawing of the upper over the last in the usual manner. By this construction of the nippers the care usually de-
80 manded in lasting is not essential, for if one side of the upper is higher than the other that side will be nipped first, and the upper will be properly centered upon the last before the jaws on the other side nip it and the actual
85 lasting operation begins.

In carrying out my invention in connection with the lasting-machine above described I use the same hollow spindle *A*, having at its upper end the fixed jaw *a*, and pivoted to this
90 spindle at *e* is the movable jaw *b*, the arm *b*² of which is controlled by a sleeve or head *B*, a pin or roller *f* on which acts on the arm *b*², tending to close the nippers. The head *B* is secured to a rod *D*, connected to a rod *D'*,
95 which passes through a frame *E*, in the present instance sliding in ways *F* on the frame of the machine, and between a nut at the lower end of this rod and this slide *E* is a spring
100 *g*. The sleeve *A* is connected to a slide *G*, so that the action is to first grip the upper and then draw down upon the frame, the faces *d*

d of the nippers slipping upon the upper, as shown in Fig. 3, until the lower edge *x* of the upper is reached, when the upper passes from the control of the smooth jaws *d d* and the roughened jaws *e e* grasp the upper and hold it until they are opened by any suitable automatic mechanism used in connection with the lasting-machine. I prefer to round the edges of the teeth of the roughened jaws *e e*, as shown in Fig. 2, and I also prefer to have a small space *y* between the smooth jaws *d* and the roughened jaws *e*, although the jaws may be made, as shown in Fig. 6, close up to each other, or, as in Fig. 7, with a wide space *y* between the smooth and rough jaws, and instead of having the teeth, as shown in Fig. 2, they may be formed as in Fig. 7, or in other forms, without departing from my invention, the teeth being so formed, however, that they will not lacerate the upper, and I have found that the rounded teeth will hold sufficiently to allow the shoe to be properly lasted.

I do not claim as my invention the process of lasting by permitting the nippers to slip on

the upper until their gripping-jaws are close to the edge of the same, as this forms the subject of a separate application filed by Edward Whiffen December 10, 1889, Serial No. 333,241, my invention merely appertaining to the special construction of the lasting-jaws, whereby they are available for use in carrying out said process.

I claim as my invention—

Lasting-nippers having an outer roughened or toothed portion for gripping the upper and an inner plain bearing portion projecting forward beyond the toothed or roughened portion and serving to hold the latter out of action until the plain bearing portion has passed beyond the upper, substantially as specified.

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

DAVID LAKE.

Witnesses:

HENRY HOWSON,
HARRY SMITH.