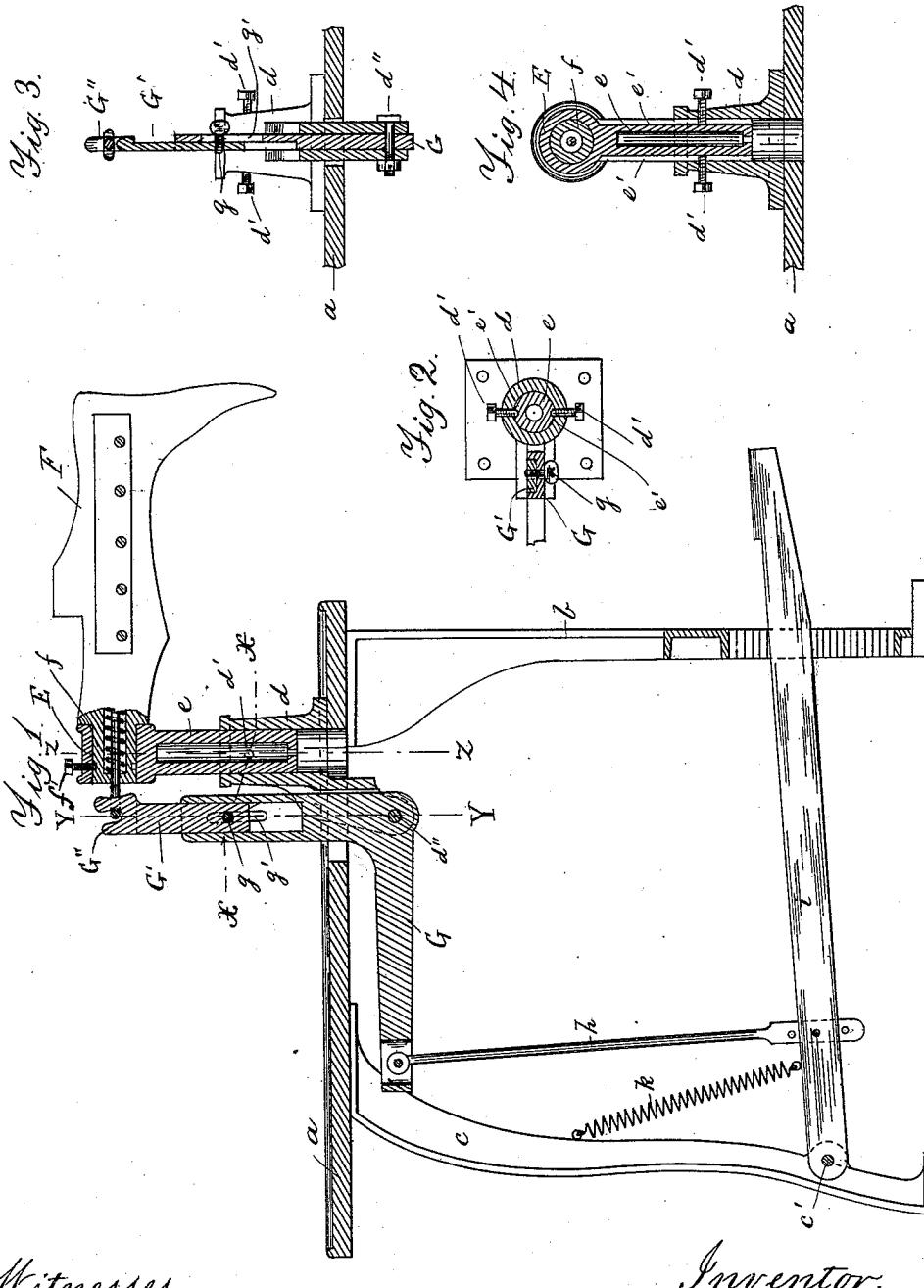


(No Model.)

C. A. SUMNER.
BOOT OR SHOE TREEING MACHINE.

No. 420,501.

Patented Feb. 4, 1890.



Witnesses.

Geo. W. White
Selma R. Schelin.

Inventor.

Clarence A. Sumner.
by Alban Andrew, his atty.

UNITED STATES PATENT OFFICE.

CLARENCE A. SUMNER, OF MILFORD, ASSIGNOR OF ONE-HALF TO OLIVER A. MILLER, OF BROCKTON, MASSACHUSETTS.

BOOT OR SHOE TREEING MACHINE.

SPECIFICATION forming part of Letters Patent No. 420,501, dated February 4, 1890.

Application filed June 29, 1889. Serial No. 316,006. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE A. SUMNER, a citizen of the United States, and a resident of Milford, in the county of Worcester and State of Massachusetts, have invented new and useful Improvements in Boot or Shoe Treeing Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in boot or shoe treeing machines; and it has for its object the vertical adjustment of the boot or shoe tree carrying standard according to the size of the operator, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 represents a vertical section of the improved treeing-machine, a part of which is shown in elevation. Fig. 2 represents a cross-section on the line X X, shown in Fig. 1. Fig. 3 represents a vertical section on the line Y Y, shown in Fig. 1; and Fig. 4 represents a vertical section on the line Z Z, also shown in Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

a represents the table, and *b* and *c* represent, respectively, the front and rear legs or supports for it, as usual on treeing-machines.

The standard for the boot or shoe tree is composed of two parts—namely, a stationary hollow one *d*, secured to the table *a* in a suitable manner, and a vertically-adjustable part *e*, fitting within the bore of the part *d*, as shown in Figs. 1 and 4. The vertically-adjustable part *e* is secured to the hollow part *d*, preferably, by means of a pair of diametrically-opposed set-screws *d'* *d'*, screwed through the sides of said hollow part and having their inner ends bearing against the bottom of vertical grooves *e'* *e'* on opposite sides of the part *e*, as shown. Said set-screws and vertical grooves also serve the purpose of preventing the part *e* from rotation while being adjusted up or down relative to the hollow standard *d*.

F represents an expansive boot or shoe tree, as usual having a cylindrical end *f*, that is journaled in the bearing *E* in the upper

end of the adjustable standard *e* and prevented from a longitudinal motion therein by means of the set-screw *f'*, as is common in treeing-machines of this kind. It is also desirable that the knee-lever, by means of which the tree is expanded, should be made adjustable, so as to compensate for the vertical adjustment of the standard, and for this purpose I construct it as follows:

G is the knee-lever, which is pivoted at *d''* to ears depending from the stationary standard *d*, as usual. To the upwardly-projecting end of the said knee-lever is secured in an adjustable manner, preferably by means of a clamping or set screw *g*, the knee-lever extension or bar *G'*, having a forked upper end *G''*, to which the device for expanding the tree *F* is secured, as usual. A slot *g'* is made in the vertical portion of the knee-lever, as shown in Figs. 1 and 3, through which the screw *g* passes loosely, and by this means it will readily be seen that the vertical portion of the said knee-lever can be lengthened or shortened according to the vertical adjustment of the tree-carrying part *e* of the standard.

I prefer to make ribs on the lever *G*, as shown, between which the part *G'* is guided while being adjusted up or down relative to the main part of said knee-lever *G*. To the rear end of said knee-lever *G* is pivoted the rod *h*, the lower end of which is connected, as usual, to the treadle-lever *i*, that is hinged at *c'* to the leg *c* and is automatically returned to its highest position by means of a spring *k*, as is usual in treeing-machines of this kind.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

1. In a treeing-machine, the stationary hollow standard *d* and its vertically-adjustable tree-carrying part *e*, in combination with the knee-lever *G* and its adjustable part *G'*, substantially as and for the purpose set forth.

2. In a treeing-machine, the stationary hollow standard *d* and the vertically-adjustable tree-carrying part *e* and the expansive tree *F*, journaled in the latter, combined with the knee-lever *G*, having an adjustable part *G'* connected to the expansion device of the boot

or shoe tree, substantially as and for the purpose set forth.

3. In a treeing-machine, the stationary hollow standard *d* and its set-screws *d' d'*, combined with the vertically-adjustable tree-carrying part *e*, having a vertical groove or grooves *e' e'* for receiving the inner ends of said set-screws, substantially as and for the purpose set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 16th day of March, A. D. 1889.

CLARENCE A. SUMNER.

Witnesses:

AUGUSTUS WHEELER,
HEBER D. BOWKER.