No. 698,476. Patented Apr. 29, 1902.

R. EDER.

LASTING MACHINE.

(Application filed Apr. 19, 1901.)

(No Model.) 2 Sheets—Sheet 1

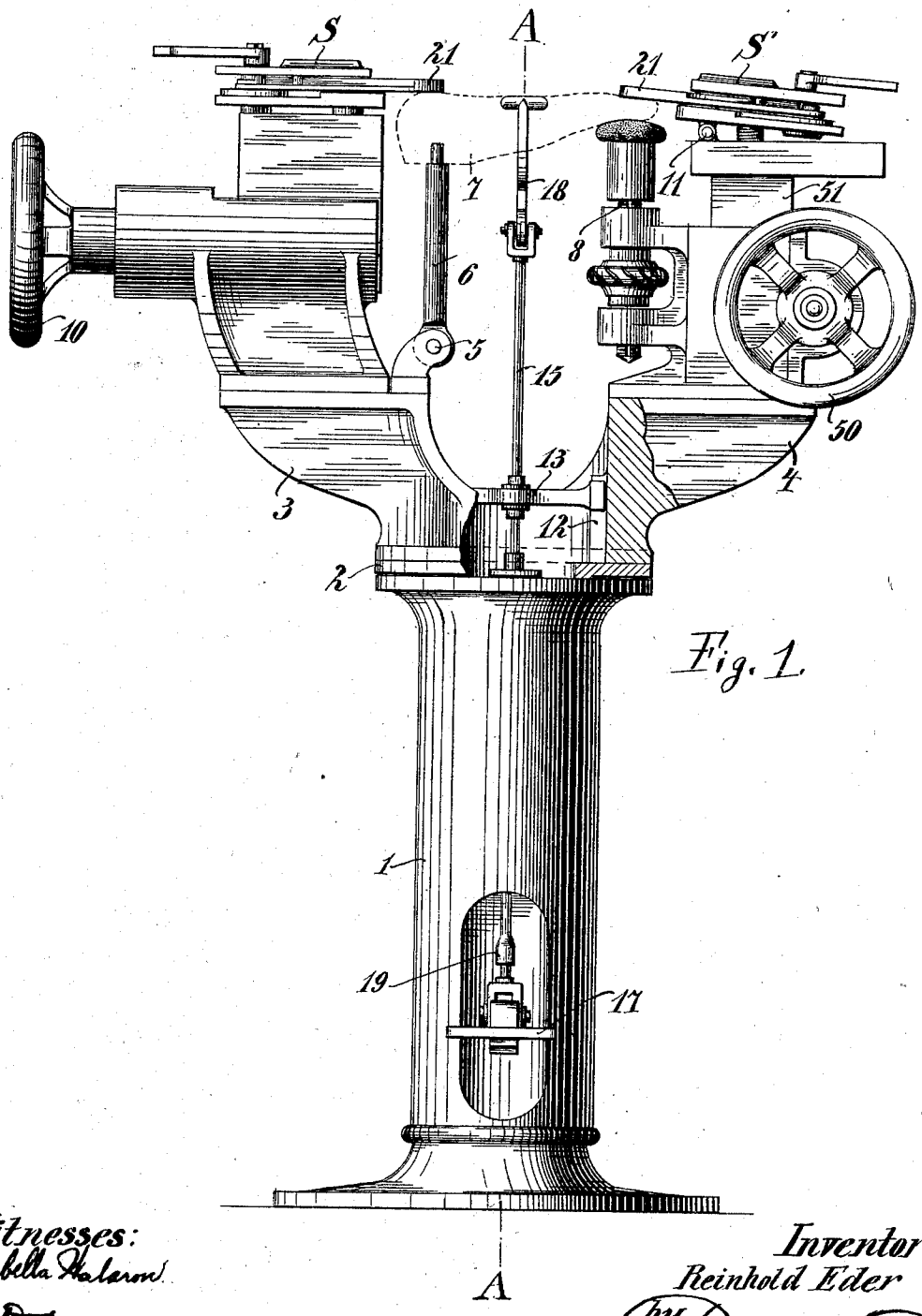


Fig. 1.

Witnesses:
Isabella Halaron
Otto Munn

Inventor:
Reinhold Eder
by Richards & Q
Attorneys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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(No Model.) 2 Sheets—Sheet 2.

Fig. 2

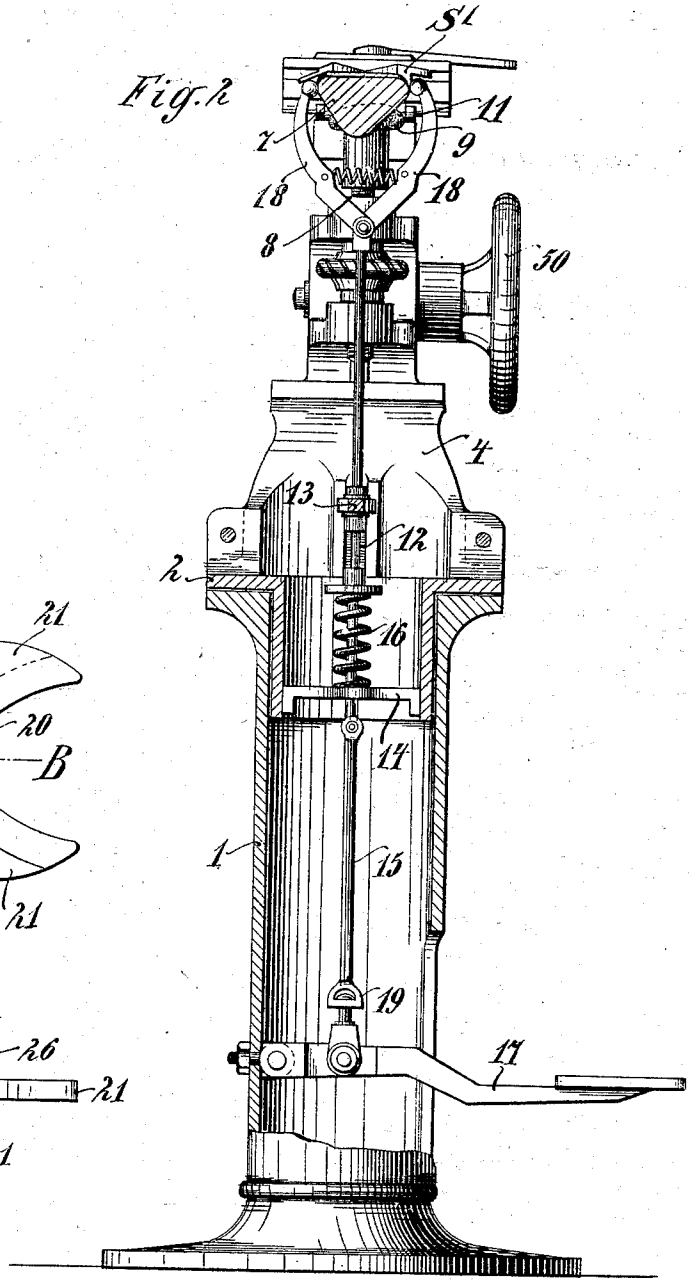


Fig. 3

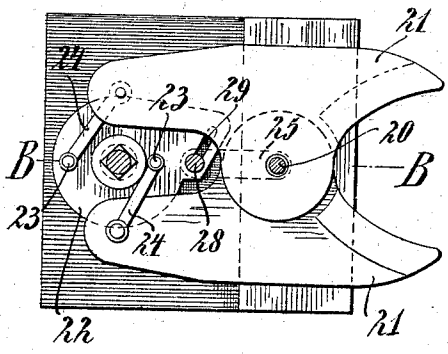
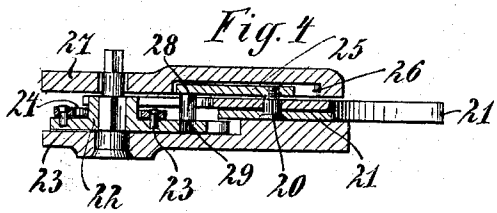


Fig. 4



Witnesses:
Isabella Waldron
O. Duncan

Inventor.
Reinhold Eder
by Richards & G.
Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

REINHOLD EDER, OF BERLIN, GERMANY, ASSIGNOR TO ERNST SCHUSTER, OF BERLIN, GERMANY.

LASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 698,476, dated April 29, 1902.

Application filed April 19, 1901. Serial No. 56,574. (No model.)

To all whom it may concern:

Be it known that I, REINHOLD EDER, manufacturer, a citizen of the Kingdom of Prussia, and a resident of Griefswalderstrasse 13, Berlin, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Lasting-Machines, of which the following is a specification.

The present invention relates to improvements in means for stretching and fastening the upper-leather of boots and shoes on lasts.

In the annexed drawings one form of construction of the said device is represented as an example.

Figure 1 is a side view thereof, and Fig. 2 a section on the line A A of Fig. 1. Figs. 3 and 4 represent one of the nippers in plan view and section on line B B, respectively.

In a hollow standard 1 a freely-rotatable head 2 is mounted, to which two supports 3 and 4 are fixed, diametrically opposed to each other. On the pivot 5 on the support 3 the carrier 6 of the last 7 moves in the vertical plane of the axis of the apparatus, and on the support 4 is mounted a spindle 8, adapted to be adjusted as regards height by revolving it. The mushroom-shaped head of the said spindle serves as a support for the point of the last 7. On each support 3 and 4 nippers S and S′, respectively, are arranged, which serve to stretch and hold the leather on the last. The particular arrangement and construction of the said nippers will be hereinafter described. Of these nippers S is horizontally adjustable with regard to the last 7 by means of a hand-wheel 10. The other, S′, which is to a slight extent movable on the horizontal pivot 11, can be raised and lowered by means of a hand-wheel 50 and rack 51. The rod 15 is vertically guided in the head 2 by means of an arm 13, sliding in guides 12 and a stationary bridge 14. The said rod 15 is normally pressed upward by the spring 16, but can be drawn downward by means of a treadle-lever 17. At the upper end of rod 15 are two arms 18, acting under spring action and in the manner of nippers. These draw the leather tight and hold it in the manner shown in Fig. 2. To facilitate the turning of the upper part into the most convenient position for working, a swivel-joint 19 is provided in the bar 15.

The nippers effecting the stretching and holding of the leather consist of two suitably-shaped levers 21, oscillating on a common fulcrum 20, the front ends of the said levers being suitably hollowed out. The nippers are opened and closed by turning a disk 22, having on its upper side eccentrically-placed pivots 23, which act upon the rear ends of the levers 21 by means of connecting-rods 24.

In order to draw the leather very tight, the jaws of the nippers are not only closed, but the latter are also advanced in the direction of the longitudinal axis of the last. For this purpose the pivot 20 revolves in a sliding block moving in a groove 26 in the plate 27, covering the nippers. At the end of the said sliding block 25 is a pin 28, which enters a slot 29 in the disk 22, the said slot being inclined at an angle of about forty-five degrees to the longitudinal axis of the machine. On disk 22 being revolved by means of a key placed upon the squared end of its pivot the nippers are closed by means of the arrangement described, and the leather is drawn laterally tightly over the last. At the same time the upper leather at the toe and heel of the last is drawn tight by the displacement of the nippers themselves on their support.

What I claim is—

In a lasting-machine, the combination with the last-holder and the nipper-support adjacent thereto, of a horizontally-disposed sliding plate supported upon said nipper-support, a pair of horizontally-disposed nipper-jaws pivoted to said sliding plate, a cam-disk located beneath the rear ends of said jaws, a cam-groove in said disk, links connecting said disk with the ends of said nippers, and a pin carried by the plate engaging the cam-groove in the disk, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

REINHOLD EDER.

Witnesses:

WOLDEMAR HAUPT,

HENRY HASPER.