

(No Model.)

A. E. PETERSON.
BELT STRETCHING MACHINE.

No. 431,074.

Patented July 1, 1890.

FIG. 1

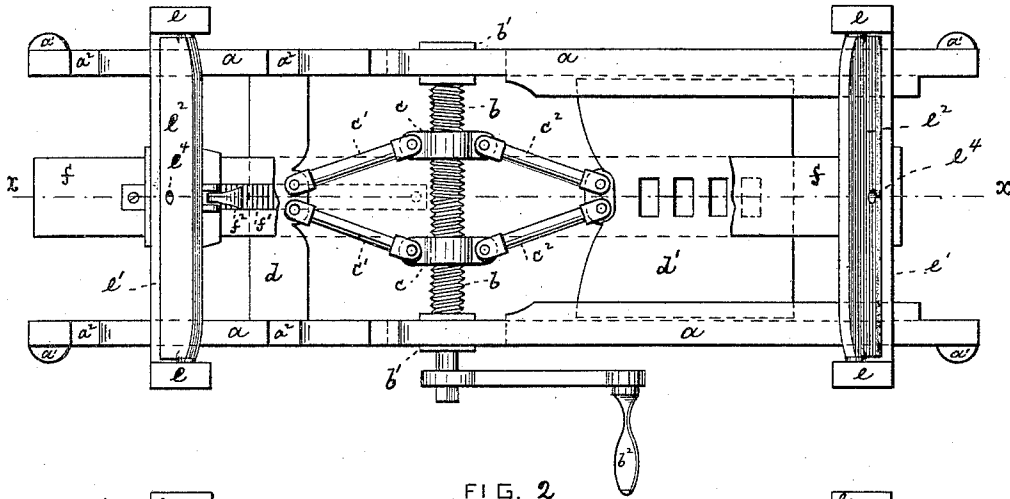
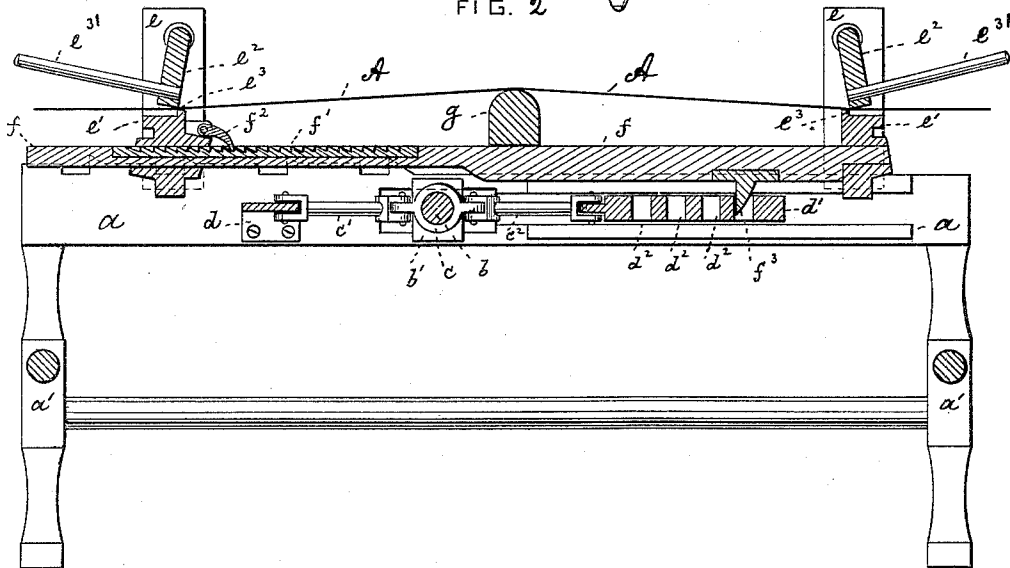


FIG. 2



WITNESSES

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BELT-STRETCHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 431,074, dated July 1, 1890.

Application filed April 7, 1890. Serial No. 346,873. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER E. PETERSON, of New York city, New York, have invented an Improved Machine for Stretching Leather, of which the following is a specification.

This invention relates to a machine of simple construction used for stretching leather, and more particularly designed for use in the manufacture of belting.

It consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is a top view of my improved machine with bar *f* partly broken away. Fig. 2 is a vertical longitudinal section on line *x x*, Fig. 1.

The letters *a a* represent two longitudinal rails supported upon feet *a'*, and connected by cross-pieces, the whole constituting the frame of the machine.

b is a right and left screw, the shaft of which loosely passes through bearings *b'*, that slide in slots formed in rails *a*. The screw *b* may be revolved by crank-handle *b²*.

c c are a pair of nuts surrounding screw *b* at opposite sides, and connected by the links *c' c'* to a fixed cross-piece *d* and by the links *c² c²* to a slide *d'*. This slide moves in the rails *a*, by which it is guided. It will be seen that on turning the handle *b²* the screw is by links *c'* moved away from cross-piece *d*, while the slide *d'* is by links *c²* moved in the same direction, but more rapidly than the screw.

Upon the stationary portion of the machine thus far described there are adapted to be placed two clamps, one fixed and the other movable. Each clamp consists of two uprights *e*, connected by a fixed lower jaw *e'* and a pivoted upper jaw *e²*. An offset *e³* is preferably formed on the lower jaw to constitute a biting or clamping edge, against which the upper jaw works. The lower jaws are provided, moreover, with a central opening, through which a stretcher-bar *f* passes. Upon one end of this bar is formed a rack *f'*, engaged by a click *f²*, pivoted to the lower jaw of the fixed clamp, as shown. The other end of the bar is rigidly connected to the movable clamp.

In use the fixed clamp is placed upon the

rails *a* between any one pair of notches *a²* thereof that hold the clamp in place. The stretcher-bar *f* is passed through the fixed clamp, and the movable clamp is also placed upon the rails. A nose *f³* on the bar *f* enters one of a set of slots *d²* in slide *d'*, and thus locks one end of the bar to the slide. The opposite end of the bar is by rack *f'* and click *f²* so connected to the fixed clamp that it permits the bar to be moved in a direction away from the clamp. The leather *A* to be stretched is next passed through the clamps, and the grip is effected by forcing the upper jaw *e²* down upon the fixed jaw by a suitable pin *e³*, that may be introduced through an opening *e⁴* of the upper jaw. Between the leather and the bar *f* a central cross-block *g* should be placed. As the crank-handle *b²* is now revolved the slide *d'* is moved toward the right, as already described; but the slide will, by engaging the nose *f³* of the bar *f*, draw the bar, and consequently the movable clamp, along with it, thus stretching the leather in the desired manner. During this motion the click *f²* will travel over the teeth of the rack *f'*, that is drawn through the fixed clamp. When the stretching operation ceases, the engagement of the click and rack will hold the clamps at any distance to which they have been drawn apart. The clamps, together with bar *f*, block *g*, and the leather *A*, are now lifted off the stretching-frame and placed aside for any length of time, during which the leather is to be kept under tension. A second pair of clamps are now put upon the machine to receive a second piece of leather, as is usual in leather-stretching machines.

What I claim is—

1. In a leather-stretching machine, the combination of a frame with a right and left screw-shaft, nuts surrounding the screw-shaft, a slide, links pivoted to the nuts and to the slide, and with a pair of clamps, one of which is adapted to be operated by the slide, substantially as specified.

2. In a leather-stretching machine, the combination of a frame with a right and left screw, a slotted slide connected thereto by links, a bar *f*, having nose *f³*, that engages the slotted slide, and with a fixed and a movable clamp, the fixed clamp being locked to the machine-

frame and the movable clamp being locked to bar *f*, substantially as specified.

3. In a leather-stretching machine, the combination of the following elements: a pair of
5 rails, a right and left screw, sliding bearings for said screw, a fixed cross-piece, and a slide, nuts surrounding the screw, links for connecting the nuts to the cross-piece and slide, and

a pair of clamps adapted to be locked, respectively, to the machine-frame and to the slide, 10 substantially as specified.

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Witnesses:

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