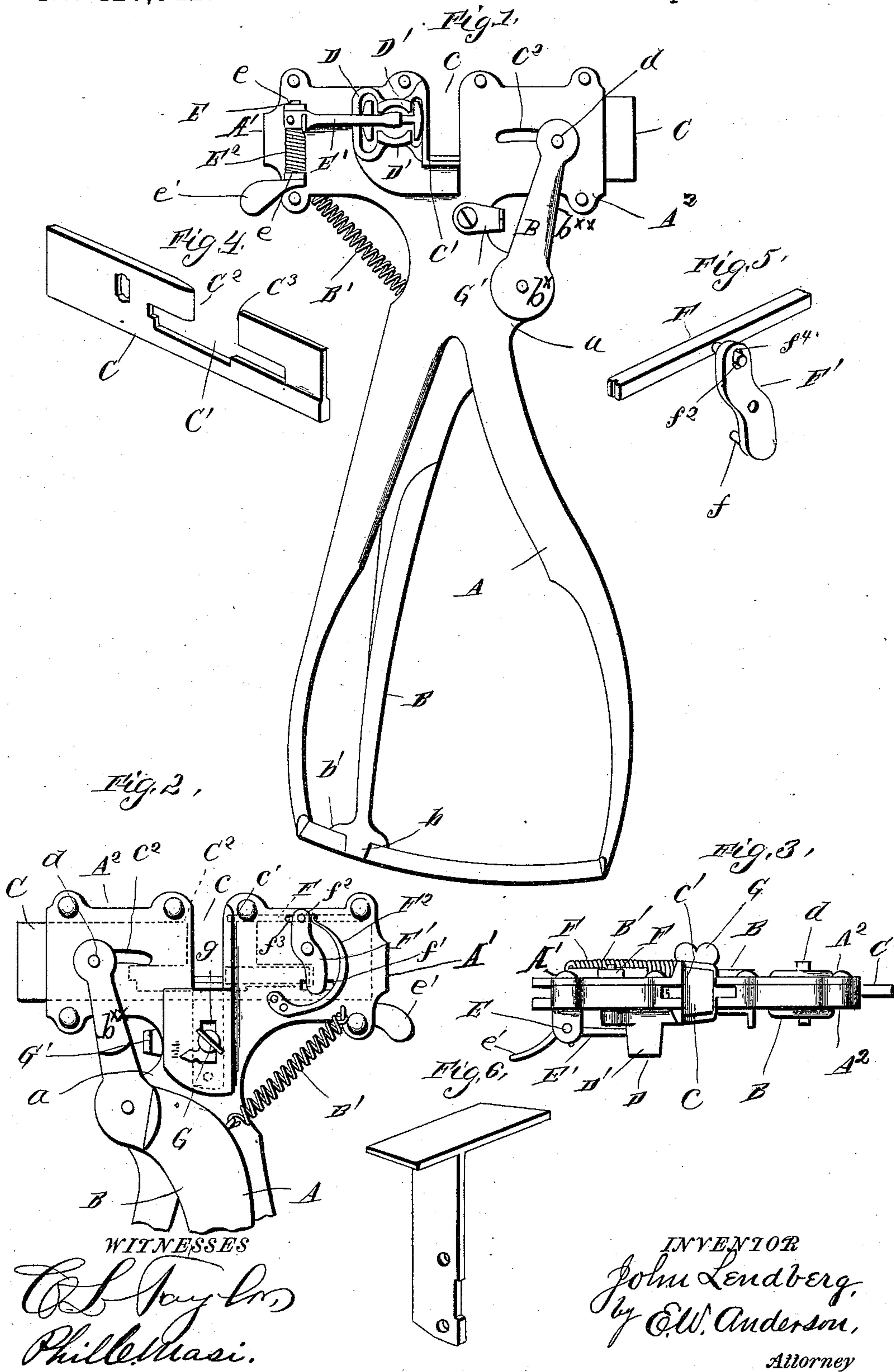


(Model.)

J. LENDBERG.  
BELT FASTENER TOOL.

No. 426,942.

Patented Apr. 29, 1890.





# UNITED STATES PATENT OFFICE.

JOHN LENDBERG, OF DOVER, NEW JERSEY.

## BELT-FASTENER TOOL.

SPECIFICATION forming part of Letters Patent No. 426,942, dated April 29, 1890.

Application filed July 27, 1889. Serial No. 318,846. (Model.)

*To all whom it may concern:*

Be it known that I, JOHN LENDBERG, a citizen of the United States, and a resident of Dover, in the county of Morris and State of New Jersey, have invented certain new and useful Improvements in Belt-Fastening Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a front view. Fig. 2 is a rear view partly broken away. Fig. 3 is a top plan view; and Figs. 4, 5, and 6 are detail views.

This invention relates to certain improvements in belt-fastening punches; and it consists of the novel construction and combination of parts, as will appear from the following description and accompanying illustrations.

In carrying out my invention I employ a handle or frame A, conformed to the grasp of the hand. B is a lever, having its fulcrum upon and astride a lateral stud-extension  $a$  of said handle, near one end of the latter, being offset and recessed at its fulcrum, as at  $b^x$ , and provided with two upwardly-projecting and slightly-inclined arms  $b^{xx}$ , one standing upon each side of a closure  $A^2$ , said recessed offset receiving said extension. The lever B is acted upon by a spring  $B'$ , applied as shown. The long arm of the lever B is slightly curved out of alignment with its short arm and is flattened outward, its extreme outer end, however, having guide-studs  $b$ , whose sides or greater widths are at right angles to that of the flat surface of the lever and embrace the outer connecting-piece of the frame A. The said outer end of the lever B has its edges ranging at right angles to the plane of the guide-studs  $b$ , extended as at  $b'$ , forming an extended bearing-surface for said end upon the frame-connecting piece.

The tapered end of the handle or frame A has cast or formed therewith closures or casings  $A' A^2$ , having between them, about centrally of the frame or handle A, a narrow opening  $c$  for the reception of the work or belt sections. The base and one side of the opening  $c$  are extended, as at  $c'$ , thus providing

thereat an extended right-angle bearing-surface for the work or belt section to rest against while being operated upon. In the side walls of the opening  $c$  are opposite or facing guide-slots  $c^2$ , the purpose of which will appear farther on.

C is a plate or carriage, having also a work-receiving opening  $C'$  coincident with, but of greater width than, the opening  $c$ , between the closure  $A' A^2$ . Said plate or carriage has at one side of its opening  $C'$  a knife edge or cutter  $C^2$ , the opposite side of said opening serving as a follower  $C^3$ , the purpose of which will presently appear.

Connection is effected between the plate or carriage C and the lever B by a pin  $d$ , passing through slightly-curved slots  $C^2$  in the closure  $A^2$  and secured to prongs. Upon one side of the closure or casing  $A'$  is cast a peculiarly-shaped chamber or receptacle D, adapted specially for the reception of and to contain the H-form fastening for the belt-sections, such as herein shown. The receptacle or chamber D comprises an outer narrower portion and a base portion, the latter opening at its inner end or bottom into the closure  $A'$ , and having its outer edge standing slightly away from the closure. The outer or narrow portion of the receptacle or chamber D consists of central parallel spaced extensions  $D'$  of the outer edge of the base or inner portion of said chamber or receptacle, having facing semicircular or concave surfaces.

E is an armed shaft axially supported in studs  $e e$ , cast upon the closure  $A^2$ , the arm  $E'$  of which shaft extends into the extended portion of the chamber or receptacle D, and has its free end resting or pressing upon the contents of the latter, consisting of a series of the aforesaid fastenings. The arm  $E'$  is held under pressure through the action of a spring  $E^2$ , encircling the shaft E and secured at one end thereto and at its opposite end to the closure  $A'$ . The shaft E is conveniently turned when it is desired to elevate its arm  $E'$  out of the receptacle or chamber D, in order to refill the same by applying suitable pressure to a thumb or finger piece  $e^x$ , secured to or formed with said shaft outside of its bearing-lugs.

F is a slide or bar arranged in the closure  $A'$  close to the outer side edge of the follower  $C^3$ , which normally stands with its inner end



about flush with the outer edge or surface of the guide-slot  $C^2$  in that side of the opening  $c$ . To this slide or bar is connected one end of a slightly-angular lever  $F'$ , centrally pivoted to the outside of the closure or casing  $A'$ , and having its other end provided with a limiting pin or projection  $f$  playing in a slot  $f'$  in the side of the said closure or casing. The connection between the lever  $F'$  and the slide  $F$  is effected by means of a pin or projection  $f^2$  on the said slide, extending through a vertical slot  $f^3$  in the side of the closure  $A'$ , and a slot  $f^4$  in the said lever, which slot extends in the direction of the length of the lever.

$F^2$  is a preferably-curved metal-plate spring having one end secured to the side of the closure  $A'$ , its opposite end pressing or bearing upon the lever  $F'$  near its slide-carrying end, and holding the inner end of the slide or bar  $F$  normally about flush with the outer side of the guide-slot  $c^2$  in the closure  $A'$ .

$G$  is a thumb-nut gage adjusted in a vertical slot  $g$  in one side of the handle or frame  $A$  at one end and near the work-receiving opening  $c$ , which gage has a pointer registering with graduations on said handle. Upon the opposite side of the handle or frame  $A$  and having the same relation with the opening  $c$  as the gage  $G$  is secured a claw-shaped stop  $G'$  for the work. It will be seen that with the receptacle or chamber  $D$  supplied with the fastenings and the lapped belt-sections properly adjusted in place in the opening  $c$  by pressing the lever  $B$  against the pressure of its spring the cutter and follower will be simultaneously actuated. The cutter will make the required incisions in the belt-sections, while the follower will be withdrawn sufficiently from the receptacle or chamber  $D$  to permit the passage through its bottom of a fastening. The lever  $B$  being released its spring will automatically return it to its former or original position, carrying the follower to eject the displaced fastening transversely of the opening  $c$  through the incisions in the belt-sections, it being guided into and held temporarily in the slots  $c^2$  by the slide or bar  $F$ , after which the belt-sections are removed

and straightened, the fastenings being turned at right angles to their inserted position. 50

It will be noticed that when the lever  $B$  has made its full return movement the guide slide or bar  $F$  has been retracted to permit the ready withdrawal of the connected belt-sections with the inserted fastening. 55

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The handle or frame, carrying at one end a simultaneously-actuated cutter and follower, in combination with a lever to effect such actuation of parts, and a receptacle opening into the closure of said follower, substantially as set forth. 60

2. The combination of the handle or frame, carrying at one end a carriage having a cutter and a follower, the closure for said follower and cutter having a work-receiving opening, in the side of which are guide-slots or grooves, and the spring-acted-upon lever actuating said carriage, substantially as set forth. 65

3. The combination of the frame or handle, carrying a follower and a cutter, and having a work-receiving opening, the sides of which contain guide-slots, the spring-acted-upon lever actuating said follower and cutter, and the guide slide or bar actuated by a supplemental spring-pressed lever and the aforesaid lever, substantially as set forth. 70

4. The combination of the frame or handle having the end closure, the carriage arranged in said closure, and having a cutter and a follower, the lever for manipulating the said carriage, the receptacle or chamber opening into one of said closures, and the spring-pressed shaft having an arm pressing upon the contents of said receptacle, substantially as specified. 75

In testimony whereof I affix my signature in presence of two witnesses. 80

JOHN LENDBERG.

Witnesses:

WILLIAM HOWELL,  
FRANK B. HAGAMAN.