

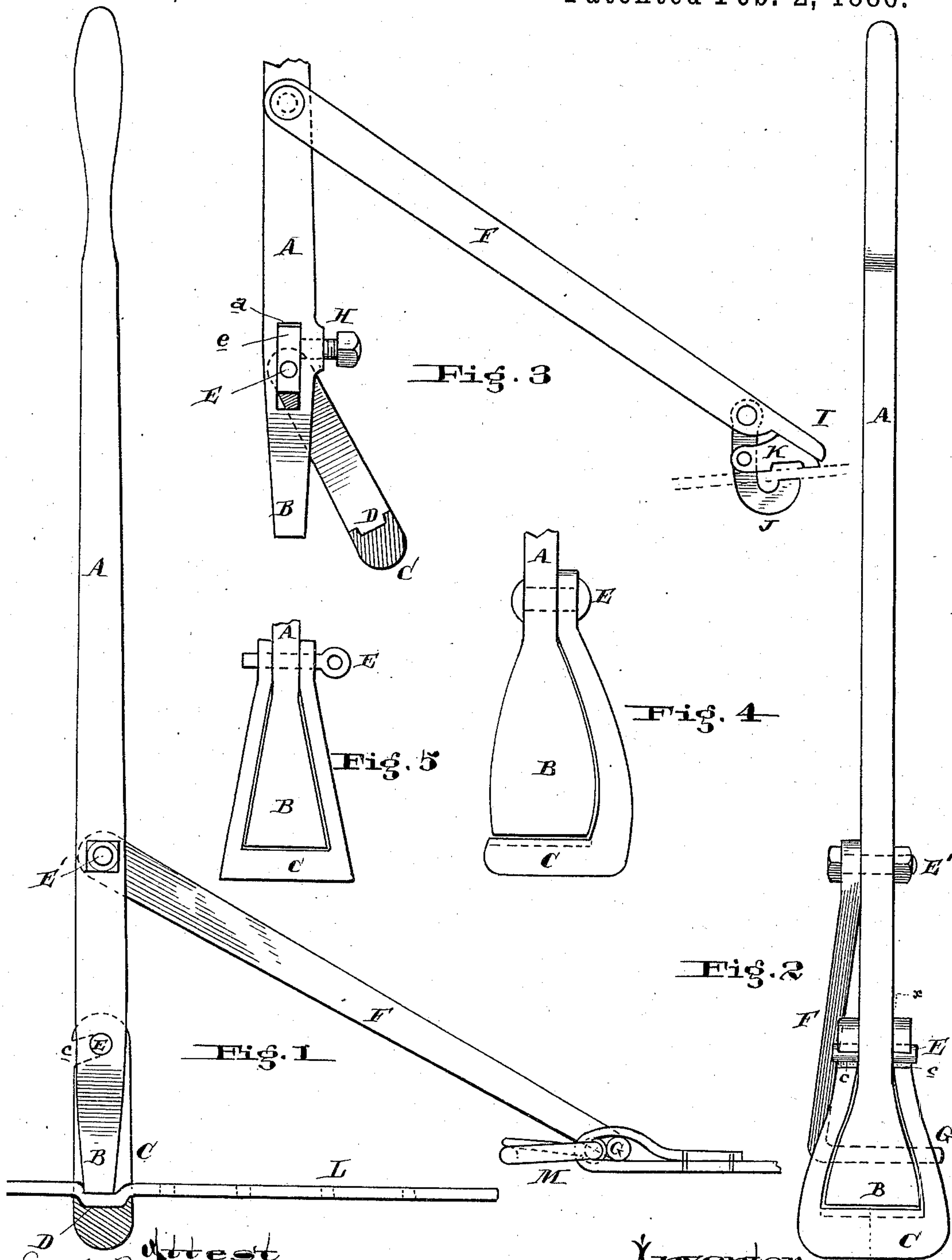
(No Model.)

J. COOPER.

STRAP CLAMPING AND STRETCHING DEVICE.

No. 335,179.

Patented Feb. 2, 1886.



Attest  
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# UNITED STATES PATENT OFFICE.

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## STRAP CLAMPING AND STRETCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 335,179, dated February 2, 1886.

Application filed September 29, 1885. Serial No. 178,521. (No model.)

*To all whom it may concern:*

Be it known that I, JORDON COOPER, of Lansdale, county of Montgomery, State of Pennsylvania, have invented an Improvement  
5 in Strap Clamping and Stretching Devices, of which the following is a specification.

My invention has reference to strap-tightening clamps, especially adapted for uniting apron-straps on harvesting machinery; and it  
10 consists of a clamping-lever adapted to grip a strap and hold in combination with a hinged arm having a finger or pin adapted to catch in the loop of a strap back of the buckle, and so arranged that upon moving the clamping-  
15 lever the buckle and free end of the strap are drawn together and may be buckled, leaving the strap under considerable tension, and in details of construction, all of which are fully set forth in the following specification and shown  
20 in the accompanying drawings, which form part thereof.

In harvesting machinery, particularly, it is necessary to buckle the apron or elevating straps under considerable tension, and this in  
25 practice is often a difficult operation for want of the proper appliances.

The object of my invention is, therefore, to provide a suitable mechanism, which can be quickly applied to the straps, and, after the  
30 same have been drawn together and buckled under the requisite tension, may be readily and easily removed, leaving the straps united.

It is also evident that this device may be used for many purposes other than in harvest-  
35 ing machinery, for which it is especially designed.

In the drawings, Figure 1 is a sectional side elevation on line *x x*, showing my improved device in the act of uniting two ends of a strap.  
40 Fig. 2 is a front elevation of the same. Fig. 3 is a similar view to that shown in Fig. 1, only in this case the upper part of the lever is broken away, and illustrates a modification. Figs. 4 and 5 are front elevations of modified  
45 forms of clamps for the main lever.

A is the lever, and is provided on its lower extremity with the enlarged or widened part B.

C is a pivoted clamping strap or jaw, and is hinged to the lever A by pin E, and is adapted  
50 to swing under the lower edge, B, clamping strap L between them, and in practice it is desirable to form a depression, D, therein,

so that the part B bends the strap downward into the jaw C and insures a more positive grip thereof. This jaw C should be made so  
55 that it can be lowered or removed entirely when it is made double-legged, as shown in Figs. 2 and 5, so that after the straps are united it may be lowered or removed for dis-  
connecting; but in case it is made L-shaped, 60 as shown in Figs. 3 and 4, then it may be either pivoted rigidly, as indicated in Fig. 4, or the pivot E thereof may be secured to a slide, *e*, working in a slot, *a*, of lever A, and locked in  
65 position by a set-screw, H, whereby, after the strap has been fastened, the jaw C may be lowered to free it. This slide may also be used in the construction shown in Fig. 5; but in this case the pin E would be detachable from the  
slide. 70

As shown in Figs. 1 and 2, the jaw C is provided with notches or slots *c*, which catch over the pin E on the lever A, so that after the  
strap L has been united to the buckle M the jaw C may be knocked off the pin C and re- 75 moved.

Pivoted at E' to the lever A, at some distance above the pin E, is the arm F, preferably provided on its end with a finger, G, adapted to catch through the loop of the strap back of  
80 the buckle M, as shown in Fig. 1; but, if desired, in place of the finger G, a clamp, I, such as shown in Fig. 3, may be used, which clamp may consist of a hinged jaw, J, carried by the arm F, and to which the block K is hinged, 85 and is prevented from too much upward movement by an extension of the arm F. From this it is seen that if the arm F be pulled after the strap has been placed between the jaws J and K, the said strap will be clamped by them. 90 Therefore it is seen that both the arm F and lever A may be provided with a strap-clamp, if desired; but in practice I prefer the construction shown in Figs. 1 and 2.

Having now described my invention, what I claim as new, and desire to secure by Let-  
ters Patent, is— 95

1. A strap-tightening device consisting of a lever having its end provided with a clamping-jaw, in combination with a hinged arm 100 connected to the lever above the clamp and provided with a pin or finger, substantially as and for the purpose specified.

2. A strap-tightening device consisting of a



lever having its end provided with a detachable clamping-jaw, in combination with a hinged arm connected to the lever above the clamp and provided with a pin or finger, substantially as and for the purpose specified.

3. The combination of lever A, hinged clamping-jaw C, and hinged arm F, having the pin or finger G, substantially as and for the purpose specified.

4. The combination of lever A, having the widened end B, forming a jaw, hinged clamping-jaw C, having the depression D, and hinged arm F, having the pin or finger G, substantially as and for the purpose specified.

5. The combination of lever A, having pin E, hinged clamping-jaw C, having hooks c, and hinged arm F, having the pin or finger G, substantially as and for the purpose specified.

6. A strap-tightening device consisting of a lever combined with a hinged arm, the lower free ends of which are provided with suitable means, substantially as described, for attachment to the strap ends, substantially as and for the purpose specified.

7. The combination of the lever A, having slot a, with the hinged jaw C, sliding block c, pin E, set-screw H, and hinged arm F, having means, substantially as described, for attachment to a strip, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

JORDON COOPER.

Witnesses:

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ANDREW ZANE, Jr.