

No. 717,481.

Patented Dec. 30, 1902.

A. E. WHITE.

WIRE OR ROPE STRETCHER AND FASTENER.

(Application filed July 19, 1902.)

(No Model.)

Fig. 1.

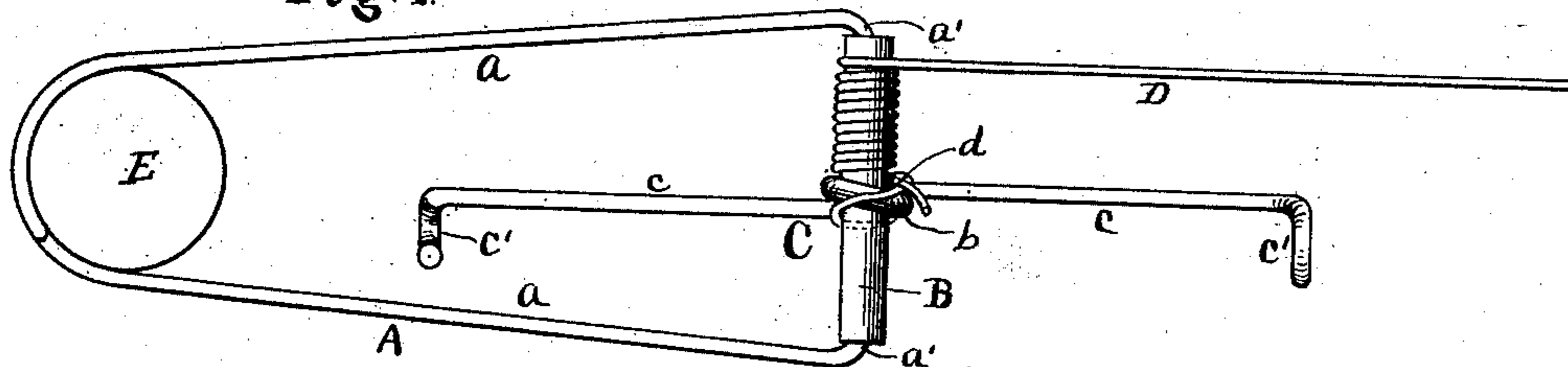


Fig. 2.

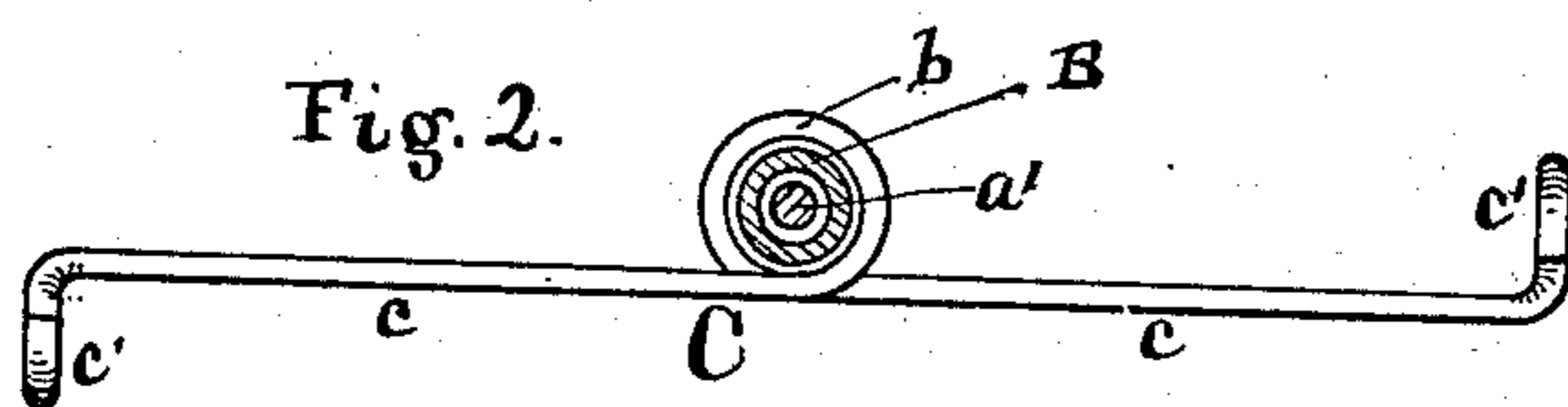


Fig. 3.

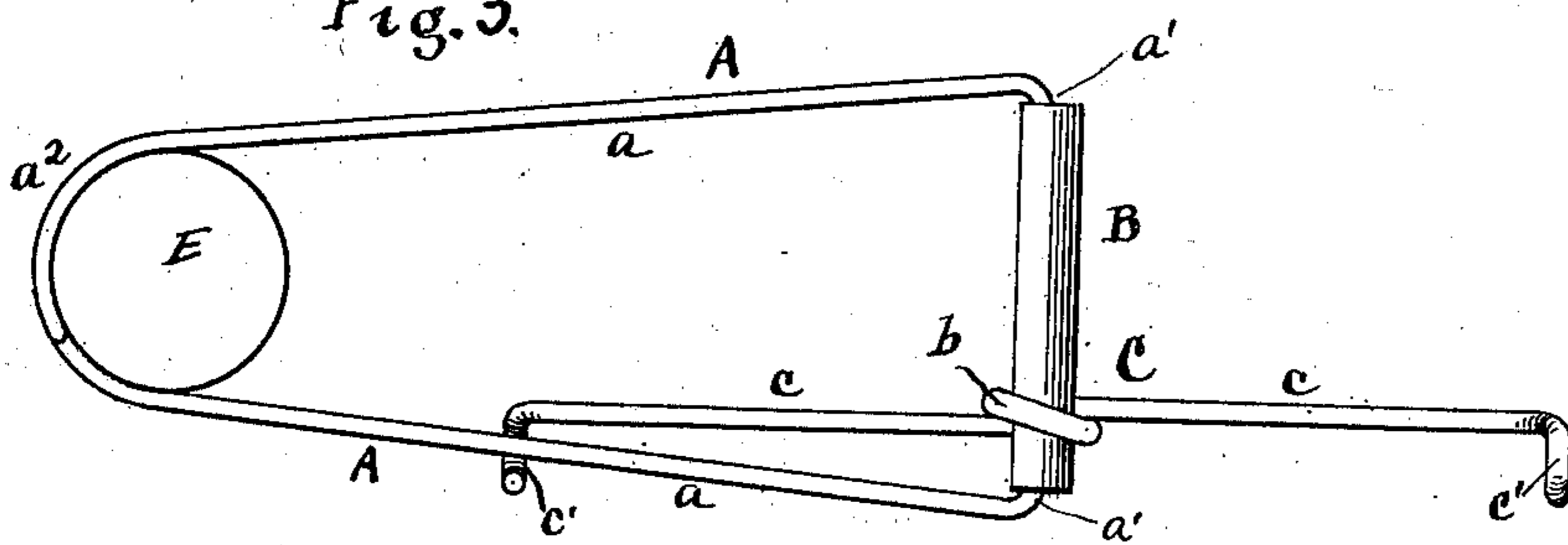
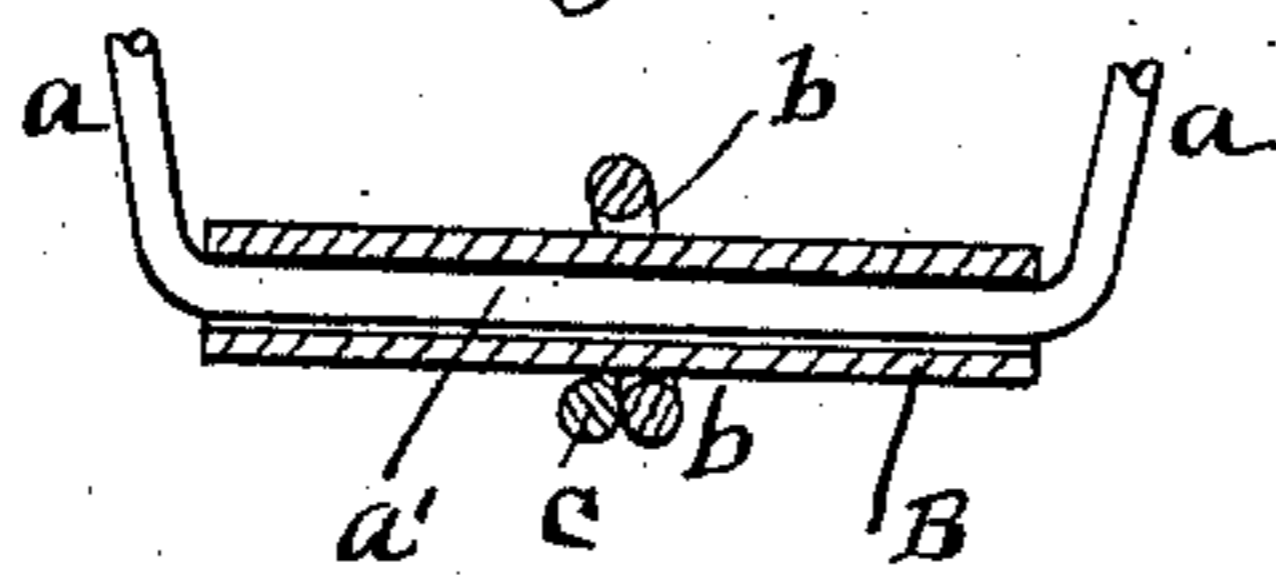


Fig. 4.



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# UNITED STATES PATENT OFFICE.

ARTHUR E. WHITE, OF CHICAGO, ILLINOIS.

## WIRE OR ROPE STRETCHER AND FASTENER.

SPECIFICATION forming part of Letters Patent No. 717,481, dated December 30, 1902.

Application filed July 19, 1902. Serial No. 116,177. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR E. WHITE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Wire or Rope Stretchers and Fasteners, of which the following is a specification.

The object of this invention is to construct a simple, reliable, and effective device by the use of which wire and rope can be easily and quickly drawn taut or stretched to the extent required and then readily fastened and locked and held in its taut or strained condition all by means of the same device or appliance.

The invention consists in the features of construction and combinations of parts hereinafter described and claimed.

In the drawings, Figure 1 is a top or plan view showing the device or appliance of the invention in use for drawing taut or stretching a wire or rope; Fig. 2, a cross-section of the windlass of the device or appliance; Fig. 3, a plan view showing the manner of interlocking the arm of the windlass with the frame when the wire or rope has been drawn taut or strained to the extent desired; and Fig. 4, a longitudinal section through the windlass of the device or appliance, showing the winding-sleeve in section with a portion of the frame in elevation.

The stretcher and fastener of the invention has a frame A, preferably made of a round rod of steel, iron, or other suitable material bent into a shape to have side arms or bars  $a$  and a cross arm or bar  $a'$  and a circular end  $a^2$ , though the form of the end  $a^2$  is immaterial; but preferably this end is split, so that the two bars or sections thereof overlies each other for spreading the end in attaching the device to a stake, post, or other fixed object for use. The cross arm or bar  $a'$  has mounted thereon a tubular sleeve B, also preferably made of metal and constituting the winding-drum of the device or appliance, the cross arm or bar  $a'$  serving as a journal or axle for the drum-sleeve. The winding arm or lever C is mounted on the drum-sleeve B, so as to turn the drum-sleeve and wind thereon the wire, rope, cable, or other cord. The lever or arm is preferably made of a round rod of metal and, as

shown, is mounted on the drum-sleeve by an eye or loop  $b$ , through which the drum-sleeve passes, leaving the arm or lever when not interlocked with the drum-sleeve free to turn thereon. The arm or lever has its bars  $c$  extending equally each side of the drum-sleeve, and each bar terminates in a hook or open eye  $c'$ , the hooks or eyes standing in opposite directions to each other, so that each hook or eye can be brought into engagement with a side arm or bar of the frame and lock the arm or lever with the frame, so that the winding-drum sleeve will be held against reverse rotation.

In use a wire, rope, cable, or other cord D is drawn taut or strained by looping its end  $d$  around the drum-sleeve and across the loop  $b$ , as shown in Fig. 1, or otherwise securely fastened to the drum-sleeve and the arm or lever, locking the drum-sleeve and the arm or lever together, so that by turning the arm or lever the drum-sleeve will be turned, winding thereon the wire, rope, cable, or other cord, as shown in Fig. 1. The extent of the winding onto the drum-sleeve is one that will draw the wire, rope, cable, or cord taut or strained to the extent required, and when this point is reached the hook or open eye at one end of the arm or lever C is brought into engagement with a side bar of the frame, holding the arm or lever and the drum-sleeve against back-turning from the strain of the wire, rope, cable, or cord and holding the wire, rope, cable, or cord in its taut or strained condition. The release of the wire, rope, cable, or cord from its taut or strained condition, if desired for any purpose, is readily attained, it only being necessary to turn the arm or lever sufficiently to disengage its hook or open eye from the side bar of the frame, when the arm or lever, and with it the drum-sleeve, can be turned backward, unwinding from the drum-sleeve the wire, rope, cable, or cord, and if the wire, rope, cable, or cord becomes slack the slackness can be readily taken up, it only being necessary to turn the arm or lever to wind the wire, rope, cable, or cord farther onto the drum-sleeve, such winding continuing until the slackness is removed, when the arm or lever can be again locked with the side bar of the frame. The frame

in use is to have its end  $a^2$  caught over a stake or post E or other fixed object which will furnish a fulcrum for the draw or strain in winding the wire, rope, cable, or cord taut.

5 The device or appliance is exceedingly simple in construction, comprising, as it does, a frame, preferably made of a single rod or heavy wire or other material bent into a shape to have the side arms or bars and a cross arm  
10 or bar forming the journal or axle of the drum-sleeve and an end adapted to be engaged with a fixed object, and the drum-sleeve can be made of a piece of metal tubing, through which the frame can be slipped and then bent into  
15 the shape shown or other suitable shape, and the arm or lever, made from a single piece of rod or heavy wire, can be looped around the drum-sleeve and its ends turned in opposite directions to form engaging hooks or opening-  
20 eyes, thus making the construction of the device as a whole very cheap and at the same time of a form well adapted for the purpose of drawing taut or straining a wire, rope, cable, or cord.

25 The device or appliance can be used for many purposes—such, for instance, as drawing and fastening a guy wire or rope, or drawing and fastening a fence-wire, or drawing and fastening a tent-rope, and for many other  
30 uses and purposes. The frame can be caught at its outer end over a stake, pin, or post or other fixed object in position for the wire, rope, cable, or cord to be connected with the winding arm or lever and the winding-drum  
35 sleeve, and by turning the winding arm or lever the wire, rope, cable, or cord will be wound onto the winding-drum sleeve very rapidly and in a uniform manner, and when the winding operation is completed by lock-  
40 ing the winding arm or lever with a side bar of the frame or otherwise holding it in a fixed

position the parts will be held against unwinding of the wire, rope, cable, or cord.

The device or appliance, while simple in construction, will be found efficient and reliable in use, and by its use wire, rope, cable, or cord can be quickly drawn taut or strained and thereafter held in its taut or strained condition.

What I regard as new, and desire to secure by Letters Patent, is—

1. In a wire and rope tightener and fastener, the combination of a drum-sleeve, a winding-arm revolvably mounted on the drum-sleeve, a frame having side arms terminating in an engaging end, and a cross-arm oppositely arranged in relation to the engaging end at a sufficient distance therefrom to allow of the rotation of the winding-arm, and having the drum-sleeve mounted thereon, substantially as described.

2. In a wire and rope tightener and fastener, the combination of a frame having side arms, an end cross-arm and an engaging end, a drum-sleeve mounted on the cross-arm, and a winding-lever on the drum-sleeve and having at its end a hook for engagement with the side arm of the frame, substantially as described.

3. In a wire and rope tightener and fastener, the combination of a frame having side arms, an end cross-arm and a separable engaging end, a drum-sleeve mounted on the cross-arm, and a winding-lever looped around the drum-sleeve and having at each end a hook for engagement with the side arm, substantially as described.

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Witnesses:

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