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PATENTED MAY 5, 1908.

C. C. ATKINSON.

WIRE STRETCHER.

APPLICATION FILED JULY 10, 1907.

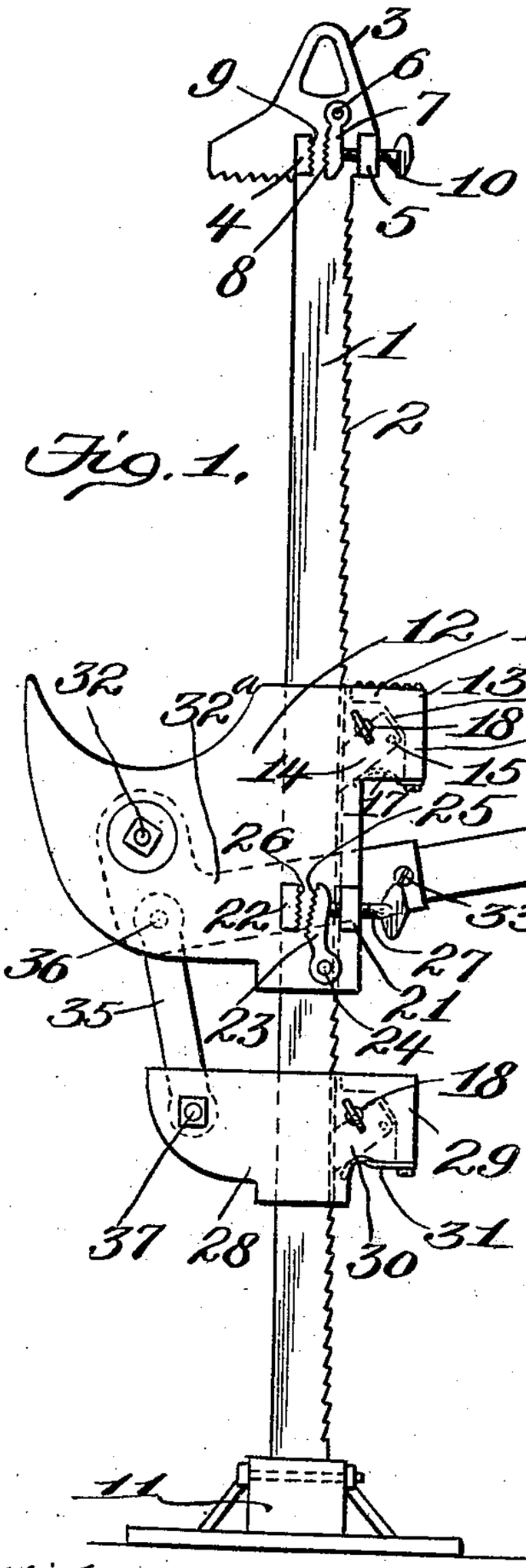

Fig. 1.

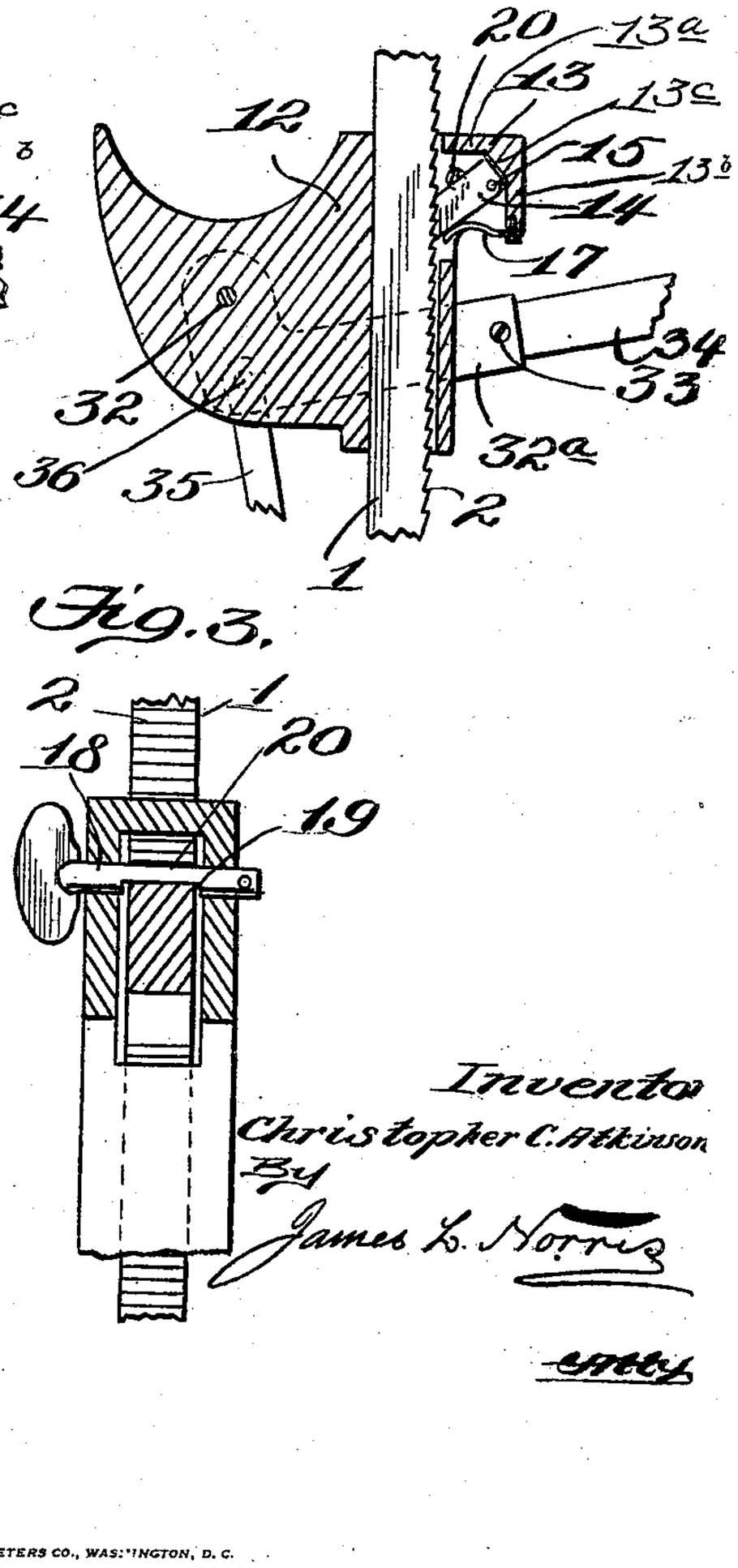

Fig. 2

Fig. 3.

Witnesses:

C. J. Kesler

J. B. Keesler

Inventor

Christopher C. Atkinson

By

James L. Norris

Atty

UNITED STATES PATENT OFFICE.

CHRISTOPHER C. ATKINSON, OF HAWKINSVILLE, GEORGIA.

WIRE-STRETCHER.

No. 886,920. Specification of Letters Patent. Patented May 5, 1908.

Application filed July 10, 1907. Serial No. 383,072.

To all whom it may concern:

Be it known that I, CHRISTOPHER C. ATKINSON, a citizen of the United States, residing at Hawkinsville, in the county of Pulaski and State of Georgia, have invented new and useful Improvements in Wire-Stretchers, of which the following is a specification.

This invention relates to devices for stretching fence wires, telegraph wires and the like for the purpose of drawing them taut preparatory to splicing their ends or securing them to a post or pole; and the objects thereof are to provide in a manner as hereinafter set forth a wire stretcher for the purpose referred to which shall be simple in its construction, strong, durable, efficient in its use, readily positioned for operative purposes and comparatively inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists in the novel construction, combination and arrangement of parts hereinafter more specifically described and illustrated in the accompanying drawings wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings wherein like characters denote corresponding parts throughout the several views and in which—

Figure 1 is a side elevation of a wire stretcher in accordance with this invention; Fig. 2 is a sectional detail showing the upper grip, and, Fig. 3 is a sectional detail showing the releasing means for the dogs of the grips.

Referring to the drawings by reference characters, 1 denotes an elongated bar provided with a rack 2. One end of the bar 1 has attached thereto a plate 3 constituting a clevis to which a chain may be attached when occasion so requires. The plate 3 upon one side is formed with a pair of lugs 4, 5 and between which is pivoted, as at 6, a swinging clamping member 7 having a serrated face 8 which associates with the serrated face 9 formed on the lug 4. The lug 5 is provided with a screw-threaded opening through which extends a clamping screw 10, the inner end of which is adapted to engage the swinging clamp member 7.

The lug 4 and the member 7 constitute a clamp for holding one end of a wire when occasion so requires, and to which is to be attached one end of the wire which is being stretched. The said member 7 is retained in clamping position through the medium of a binding screw 10.

The bar 1 may be provided with a suitable base. As shown, the base is indicated by the reference character 11.

Shiftably mounted upon the bar 1 is the upper slide or runner 12 provided with a hollow extension 13 having a top and an outer wall, indicated respectively 13^a 13^b. The inner face of the walls terminates in an inclined bearing surface 13^c. Within the extension 13 is arranged a toothed dog 14 adapted to engage with the teeth of the rack 2. The dog 14 is pivoted at one corner as at 15 to the extension 13. The dog 14 extends at an inclination with respect to the extension 13 and the upper end thereof is arranged in close proximity to the bearing surface 13^c, the latter constituting the stop for limiting the upward movement of the dog 14. Secured to the lower end of the outer wall 13^b is one end of a spring 17 which projects towards the bar 1 and engages the dog 14 for maintaining the latter in engagement with the teeth of the rack 2. Mounted in the extension 13 above the dog 14 is a releasing member 18 which is cut away as at 19. When the member 18 is positioned so that the cut-away portion 19 will be arranged directly over the dog 14, the dog will be held in engagement with the teeth of the rack 2 through the medium of the spring 17, but when the member 18 is rotated and the high part 20 thereof engages the dog 14 the latter is shifted out of engagement with the teeth of the rack. One side of the slide or runner 12 has projecting laterally therefrom a pair of lugs 21 and 22 and between the said lugs a clamping member 23 is positioned. The member 23 is pivoted as at 24 to the grip 12 and has a serrated face 25 which associates with the serrated face 26 of the lug 22. The lug 21 is provided with a screw-threaded opening through which extends a clamping screw 27 having its inner end bearing against the member 23. The lug 22 and member 23 constitute a clamp for holding the end of that wire which is being stretched as well as connecting the wire to the runner or slide 12. The member 23 is retained in clamping position through the medium of the screw 27 as will be evident.

Mounted upon the bar 1 below the slide or

runner 12 is positioned a slide or runner 28 having an extension 29 of the same construction as the extension 13. Within the extension 29 is pivotally mounted a dog 30 of the same construction as the dog 14 and is adapted to engage with the teeth of the rack 2 as well as being held in engagement with the teeth of the rack 2 through the medium of the spring 31 secured to the extension 29. Projecting through the extension 29 is a releasing member of the same construction as the member 18 and as both members are alike it is thought unnecessary to specifically describe them, the same reference characters being applied to both. The function of the releasing member mounted in the extension 29 is the same as the member 18.

Pivoted to the slide or runner 12 as at 32 is an L-shaped lever 32ª to which is attached, as at 33, a handle 34. The reference character 35 denotes a link which is pivoted at its upper end, as at 36, to the lever arm 32ª and at its lower end as at 37 to the slide or runner 28.

It will be assumed that one end of the wire has been clamped between the lug 4 and the member 8 and the other end between the lug 22 and member 23. By moving the lever arm 32ª in one direction the slide or runner 12 will be shifted towards the plate 3, while the slide or runner 28 will remain stationary such action drawing the wire taut. When the lever arm 32ª is moved in the opposite direction the slide or runner 12 will remain stationary and the slide or runner 28 will be moved towards the grip 12 or in other words when the lever 32ª is oscillated the slides or runners 12 and 28 will be intermittently shifted along the bar 1 such action drawing the wire taut, as will be evident. The slides or runners 12 and 28 are prevented from being shifted along the bar 1 when the dogs 14 and 30 are moved out of engagement with the rack. Such action is had when the high parts of the members 18 are moved to engage the dogs. When the cut-away portions of the members 18 are directly over the dogs the springs 17 and 31 will shift the dogs to engage with the teeth of the rack 2.

What I claim is—

1. A wire stretcher comprising a toothed bar, an upper and a lower intermittently shiftable slide mounted thereon and each provided with an extension of less height than its respective slide, a wire clamping device carried by one of the slides, a lever arm pivoted to one of the slides, a link connection between the lever arm and the other of the slides, a dog pivoted in each of said extensions and arranged at an inclination with respect thereto, each of said dogs having its free end formed with teeth adapted to engage the teeth of the bar for retaining its respective slide from movement in one direction during the actuation of the lever, and a shiftable releasing member projecting through each of said extensions and having a cut away portion adapted to allow of the engagement of the dog with the bar when the said cut away portion is positioned directly over the dog.

2. A wire stretcher comprising a toothed bar, an upper and a lower intermittently shiftable slide mounted thereon and each provided with an extension of less height than its respective slide, a wire clamping device carried by one of the slides, a lever arm pivoted to one of the slides, a link connection between the lever arm and the other of the slides, a dog pivoted in each of said extensions and arranged at an inclination with respect thereto, each of said dogs having its free end formed with teeth adapted to engage the teeth of the bar for retaining its respective slide from movement in one direction during the actuation of the lever, a shiftable releasing member projecting through each of said extensions and having a cut away portion adapted to allow of the engagement of the dog with the bar when the said cut away portion is positioned directly over the dog, and a spring connected to the lower end of each of said extensions and adapted to engage the lower edge of the dog near its free end and maintain the dog in engagement with the teeth of the bar when the cut away portion of the releasing member is arranged directly over the dog.

3. A wire stretcher comprising a toothed bar, an upper and a lower intermittently shiftable slide mounted thereon and each provided with an extension of less height than its respective slide, a wire clamping device carried by one of the slides, a lever arm pivoted to one of the slides, a link connection between the lever arm and the other of the slides, a dog pivoted in each of said extensions and arranged at an inclination with respect thereto, each of said dogs having its free end formed with teeth adapted to engage the teeth of the bar for retaining its respective slide from movement in one direction during the actuation of the lever, and a shiftable releasing member projecting through each of said extensions and having a cut away portion adapted to allow of the engagement of the dog with the bar when the said cut away portion is positioned directly over the dog, each of said extensions having its inner face formed with an inclined bearing surface to limit the upward movement of the dog.

4. A wire stretcher comprising a toothed bar, an upper and a lower intermittently shiftable slide mounted thereon and each provided with an extension of less height than its respective slide, a wire clamping device carried by one of the slides, a lever arm pivoted to one of the slides, a link connection between the lever arm and the other of the slides, a dog pivoted in each of said exten-

sions and arranged at an inclination with respect thereto, each of said dogs having its free end formed with teeth adapted to engage the teeth of the bar for retaining its respective slide from movement in one direction during the actuation of the lever, a shiftable releasing member projecting through each of said extensions and having a cut away portion adapted to allow of the engagement of the dog with the bar when the said cut away portion is positioned directly over the dog, and a spring connected to the lower end of each of said extensions and adapted to engage the lower edge of the dog near its free end and maintain the dog in engagement with the teeth of the bar when the cut away portion of the releasing member is arranged directly over the dog, each of said extensions having its inner face formed with an inclined bearing surface to limit the upward movement of the dog.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHRISTOPHER C. ATKINSON.

Witnesses:

J. J. POLLOCK,

P. T. MCGRIFF.