

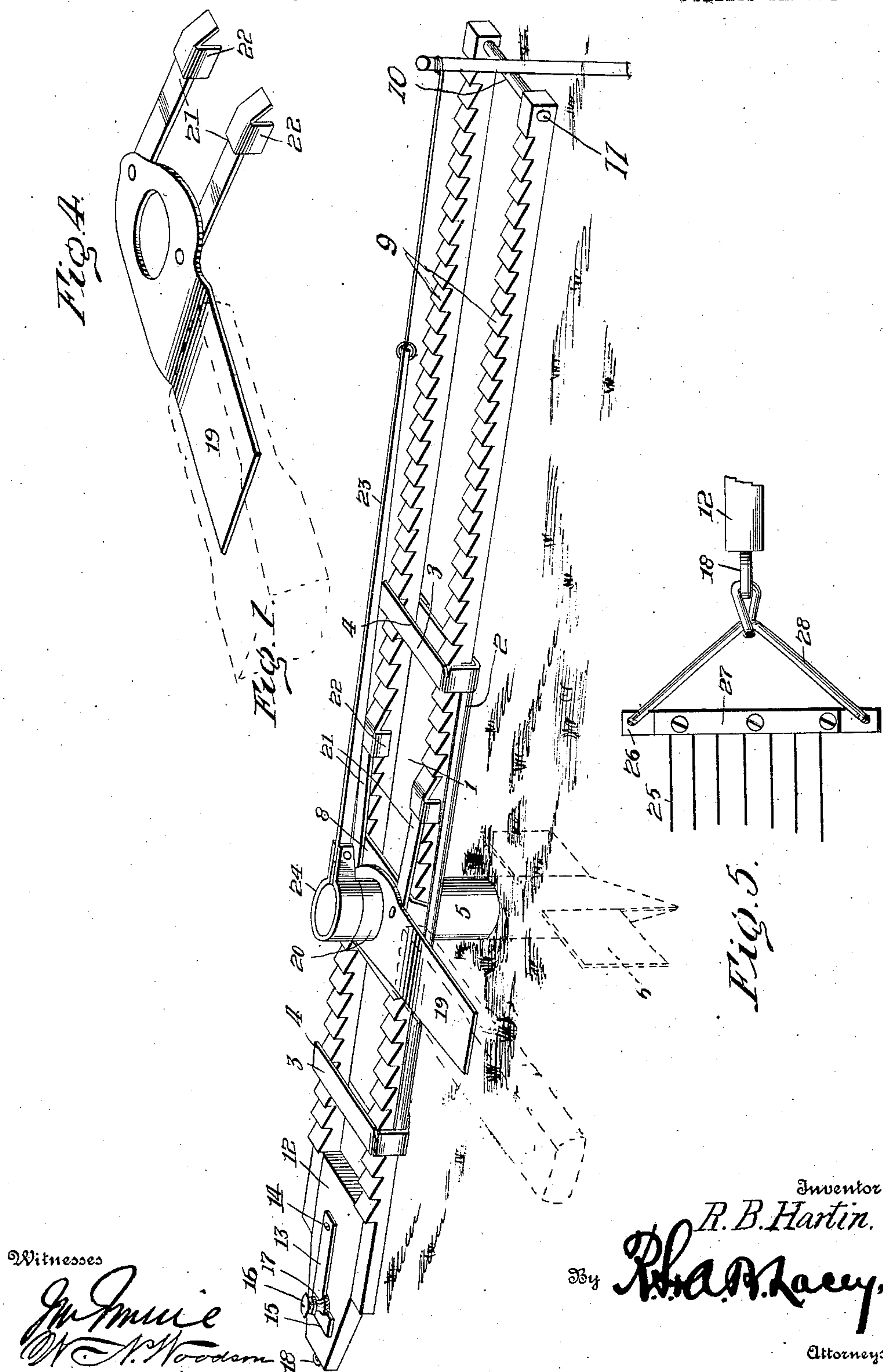
No. 855,632.

PATENTED JUNE 4, 1907.

R. B. HARTIN.
WIRE STRETCHER.

APPLICATION FILED OCT. 25, 1906.

2 SHEETS—SHEET 1.



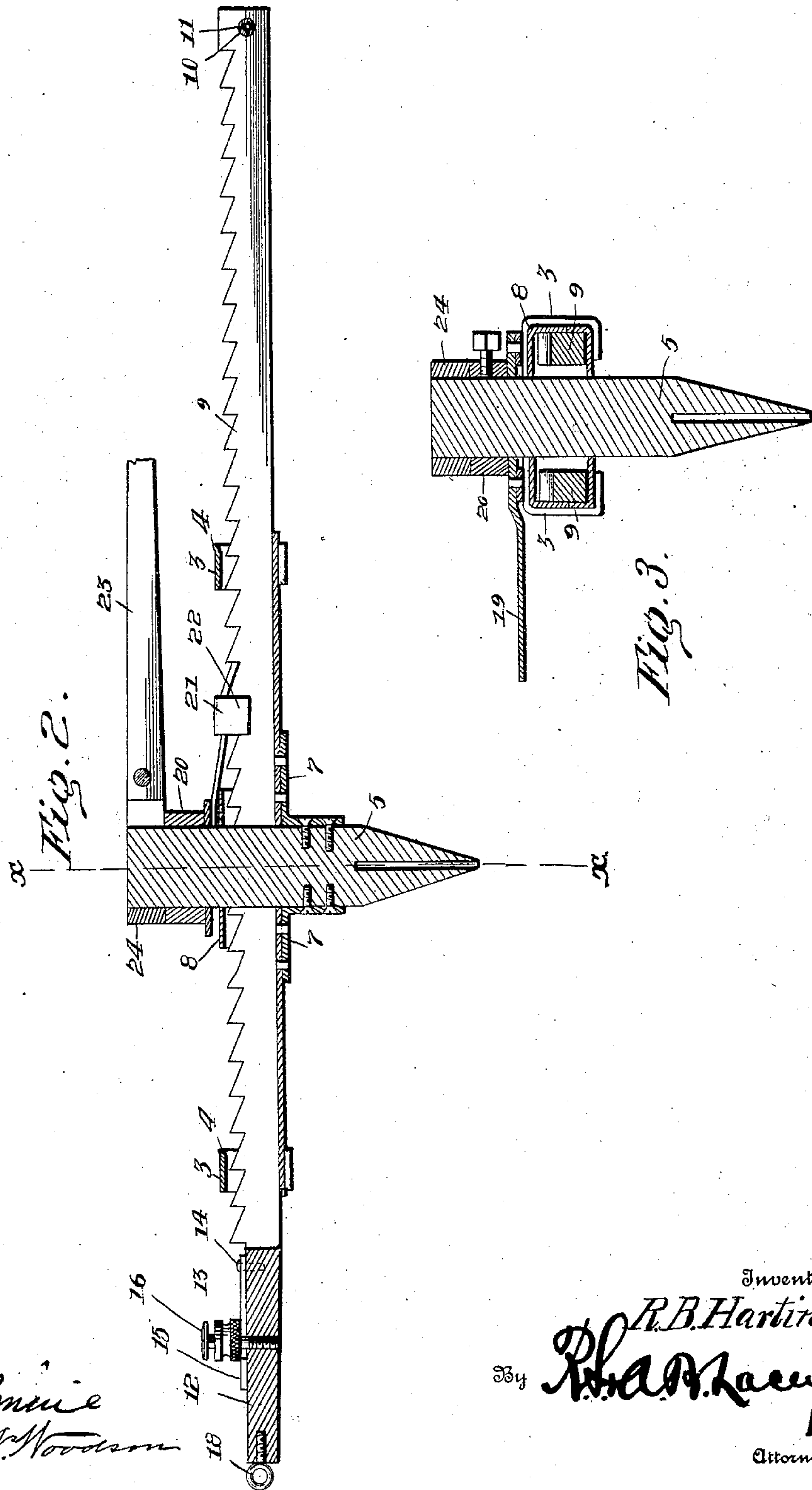
No. 855,632.

PATENTED JUNE 4, 1907.

R. B. HARTIN.
WIRE STRETCHER.

APPLICATION FILED OCT. 25, 1906.

2 SHEETS—SHEET 2.



Witnesses

John Muir
W. H. Woodson

Inventor

R. B. Hartin.

By

W. H. Woodson

Attorneys

UNITED STATES PATENT OFFICE.

RICHARD B. HARTIN, OF McCrory, ARKANSAS.

WIRE-STRETCHER.

No. 855,632.

Specification of Letters Patent.

Patented June 4, 1907.

Application filed October 25, 1906. Serial No. 340,559.

To all whom it may concern:

Be it known that I, RICHARD B. HARTIN, a citizen of the United States, residing at McCrory, in the county of Woodruff and State of Arkansas, have invented certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

This invention has relation to means for stretching wires or fabric in the construction of wire fences, whether the same consist of single strands or runner wires, or of a fabric such as woven wire or cables having pickets attached thereto.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a perspective view of a wire stretcher embodying the invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is a transverse section on the line $x-x$ of Fig. 2, the post and operating lever being turned one-quarter way around. Fig. 4 is a detail perspective view of the inner end of the lever provided with the two pawls. Fig. 5 is a detail view of the clamp for use in connection with a wire fence comprising a series of strands.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The device comprises a guide frame and a rack frame, the latter being mounted in the guide frame so as to be held thereto and directed in its movements thereby.

The guide frame comprises a base plate 1 having its longitudinal edge portions bent to form retaining flanges 2. A loop 3 is provided at each end of the base plate and extends over the rack frame to hold the same upon the base plate. An edge portion of each loop is bent upwardly, as indicated at 4 to prevent the teeth of the rack frame engaging with the loops when returning the rack frame to normal position. A post 5 is fitted to the guide frame and its lower end is pointed so as to readily penetrate the earth when driven therein to anchor the stretcher prelimi-

nary to tightening the wire fence or other thing to be stretched. A plate 6 is let into a kerf provided in the lower pointed end of the post 7 and is arranged at a right angle to the length of the stretcher so as to offer resistance to movement of the guide when the device is in operation. An opening is formed in the base plate to receive the post and the same projects above and below the base plate and is strengthened by braces 7 pendent from the base plate and either attached thereto or forming a part thereof. The braces 7 are secured in any manner to the post so as to prevent displacement thereof. A cap plate 8 is arranged to extend over the rack frame and its edge portions are bent so as to embrace opposite edges of the rack frame. The cap plate is apertured to receive the post.

The rack frame comprises companion rack bars 9 spaced apart and arranged parallel to each other and suitably connected by means of transverse ties. A rod 10 connects corresponding ends of the rack bars and receives a sleeve 11 placed between said rack bars to hold them properly spaced. A block 12 is placed between the opposite ends of the rack bars and is bolted or otherwise secured thereto and receives a clamp for holding the wire or like runner or strand to be tightened. The clamps consist of a bar 13 pivoted at 14 to the block 12 and adapted to turn in a plane approximately parallel with the rack frame. The outer end of the clamp bar or member 13 is formed with a lateral extension 15 adapted to engage the wire or like part placed between the clamp member and the block 12 to be gripped thereby. A threaded stud 16 is let into the block 12 and is provided with a clamp nut 17 which is adapted to force the clamp member 13 toward the block 12 so as to grip the wire or like part to be held during the stretching operation. The rack frame is placed upon the base plate 1 and operates through the loops 3 and between the retaining flanges 2. A guide eye 18 is located at the outer end of the block 12 for the fence wire or like strand to pass through, thereby preventing lateral displacement from the clamp.

The operating lever 19 has an opening near one end to receive the post 5 upon which it oscillates, said lever resting upon the cap plate 8 and held in place by means of a collar 20 secured to said post above the operating lever.

In the preferable construction, the operat-

ing lever comprises a handle-bar as shown by the dotted lines in Figs. 1 and 4 and an iron secured to the end of said handle-bar, the iron being in the form of a flat plate having an opening to receive the upper end of the post 5.

A pawl 21 is provided for each rack bar 9 and is pivotally connected to the operating lever 19 a like distance from the post 5. The pawls 21 are arranged to engage with the teeth of the respective rack bars 9. By pivotally connecting the pawls 21 with the operating lever 19 upon opposite sides of the post 5, oscillation of said lever in either direction causes one of the pawls to advance and the other to return to normal position. It will thus be understood that while one pawl is moving forward and advancing the rack frame, the other pawl is riding upon the teeth of the other rack bar. To prevent lateral displacement of the pawls, each is provided at its outer end with side flanges or lips 22 which embrace opposite sides of the respective rack bars 9. The flanges or lips 22 are spaced apart a distance to prevent their binding against the sides of the rack bars.

In operation, the guide frame is fixed and when the device is used in the open field, the lower end of the post 5 is driven into the ground and a brace or guide 23 is connected at one end to the upper end of the post 5 and its opposite end is suitably anchored to the ground by being made fast to a pin driven therein or anchored in any convenient way. A collar 24 is secured to the upper end of the post and receives the end of the brace or guide 23. The wire 25 or like strand or part to be stretched is secured to the rack frame preferably by means of the clamp 13 in the manner stated. Upon oscillating the operating lever 19, the rack frame is advanced and draws upon the wire or like part 25, thereby placing the same under the required tension. In the event of the wire fence or like part to be stretched consisting of a fabric, a clamp of special form is provided to grip the same throughout its width. This clamp consists of bars 26 and 27 having registering openings to receive bolts or screws by means of which the bars are drawn together after the fabric has been placed between them. The bar 26 projects beyond opposite ends of the bar 27

and a bail 28 is pivoted thereto, said bail being adapted to be connected to the rack frame in any manner, as by having its middle portion slipped over the threaded stud 16 or the clamp nut 17 mounted thereon.

Having thus described the invention, what is claimed as new is:

1. In a wire stretcher, the combination of a guide frame, an anchoring post secured to the guide frame and projecting above and below the same, a rack frame mounted upon the guide frame and comprising rack bars arranged upon opposite sides of said post, an operating lever mounted upon the aforementioned post, and pawls pivoted to said operating lever upon opposite sides of the post and adapted to engage the teeth of the respective rack bars.

2. In a wire stretcher, the combination of a guide frame, a post fitted thereto and projecting above and below the same, a rack frame comprising spaced rack bars arranged upon opposite sides of the post, a cap plate having the rack frame arranged between it and the guide frame, an operating lever mounted upon the post and resting upon said cap plate, and pawls pivotally connected to the operating lever upon opposite sides of said post and adapted to engage the teeth of the aforementioned rack bars.

3. In a wire stretcher, the combination of a guide frame comprising a base plate having longitudinal retaining flanges and terminal loops, a post fitted to the base plate and projecting above and below the same, a rack frame comprising parallel rack bars and arranged to slide upon the base plate between the longitudinal flanges thereof and through the said loops, the rack bars being upon the opposite sides of the aforementioned post, a cap plate mounted upon the post and having its edge portions flanged to embrace opposite edges of the rack frame, an operating lever mounted upon the post, and pawls pivoted to said operating lever and adapted to cooperate with the teeth of the respective rack bars.

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

RICHARD B. HARTIN. [L. s.]

Witnesses:

C. O. DYE,

C. E. RIGGS.