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W. CUE.

WOVEN WIRE STRETCHER.

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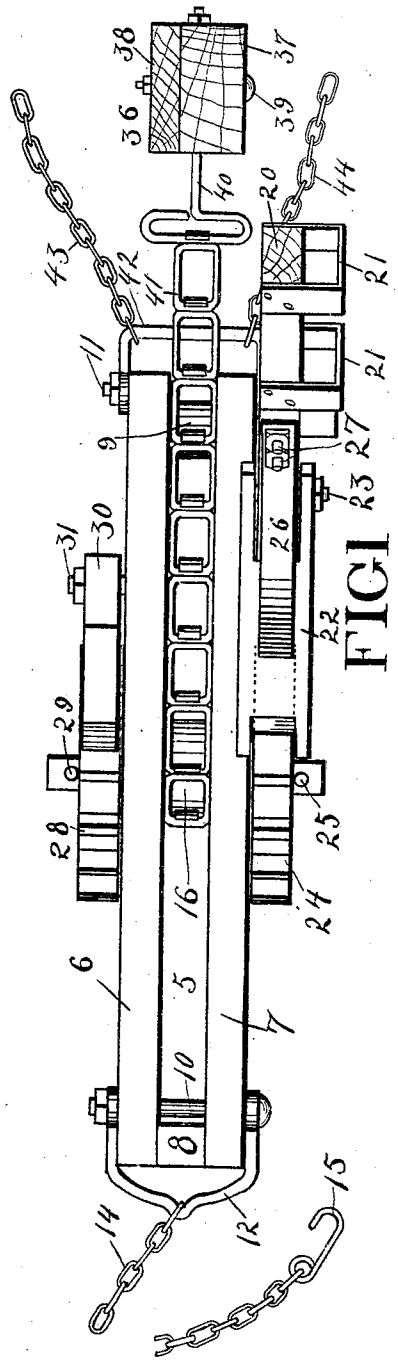

FIG 1

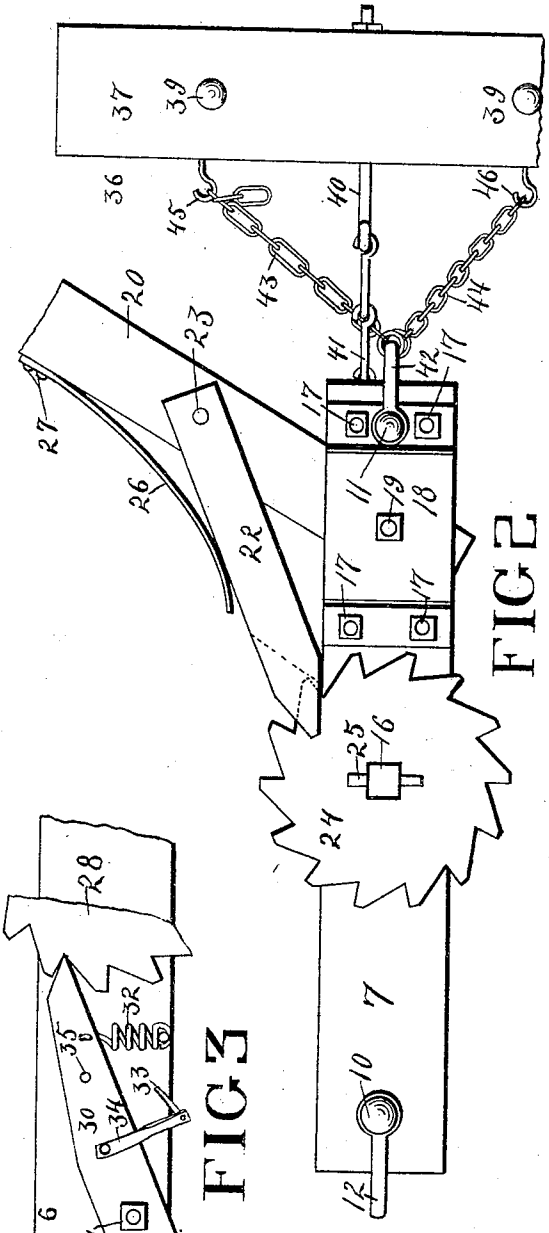

FIG 2

FIG 3

Witnesses
C. Edwin Lewis.
Otis Whipple Jr.

Inventor
William Cue
by Shepherd & Parker
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM CUE, OF PARKER, SOUTH DAKOTA.

WOVEN-WIRE STRETCHER.

No. 814,024. Specification of Letters Patent. Patented March 6, 1906.

Application filed October 2, 1905. Serial No 281,025.

To all whom it may concern:

Be it known that I, WILLIAM CUE, a citizen of the United States, residing at Parker, in the county of Turner and State of South Dakota, have invented certain new and useful Improvements in Woven-Wire Stretchers, of which the following is a specification.

My invention relates to a wire-stretcher, and has for its object the provision of a device of this character adapted to stretch woven-wire fabric of either coarse or fine texture without warping said fabric or injuring it in any way. To accomplish this object, it is necessary to provide a wire-stretcher which will grasp the fabric to be stretched across its entire width and maintain an even pull thereon at all times. In the present invention an efficient structure has been provided for accomplishing this purpose, as will be hereinafter set forth.

A further object of the invention is the provision of a wire-stretcher having a clamp which may be used to stretch a woven-wire fabric for a certain distance and of means for holding said clamp against retrograde movement while the actuating mechanism of the stretcher is being used to further stretch the fabric.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawings, Figure 1 is a plan view of a woven-wire stretcher constructed in accordance with the invention. Fig. 2 is a side elevation of the same; and Fig. 3 is a detail view looking from the opposite side of the stretcher and illustrating a retaining-pawl, which will be hereinafter described.

Like numerals designate similar parts in all of the figures of the drawings.

Referring to the drawings, the numeral 5 designates a frame comprising side bars 6 and 7 and spacing-blocks 8 and 9. Tie-bolts 10 and 11 serve to bind the parts of said frame together. Tie-bolt 10 also serves to secure a yoke 12 to the end of frame 5. A chain 14, one end of which is secured to yoke 12 and the other end of which is provided with a hook 15, provides means for securing frame 5 to a post, tree, or other suitable anchor when the device is being used.

Mounted in side bars 6 and 7 is a shaft 16, both ends of which project beyond said side bars and are angular in cross-section. Secured by bolts 17 to the outer face of side bar 7 is a keeper 18, and pivoted at 19 between said side bar and said keeper is an actuating-lever 20. U-shaped straps 21, carried by lever 20, provide means for attaching a secondary handle (not shown) to said lever, if desired.

An actuating-pawl 22, pivoted at 23 to lever 20, is adapted to engage and actuate a ratchet-wheel 24 secured by a pin 25 upon one end of shaft 16. A leaf-spring 26, secured at 27 to lever 20, bears upon the upper face of pawl 22 and serves to keep said pawl in engagement with ratchet-wheel 24. Mounted upon the opposite end of shaft 16 is a retaining-ratchet 28, which is held in position by a pin 29. A retaining-pawl 30, pivoted at 31 to side bar 6, is normally held in engagement with ratchet-wheel 28 by a spring 32. When it is desired to release said ratchet-wheel, pawl 30 is lifted and a pin 33, carried by a flexible strap 34, is passed through an opening 35, formed in pawl 30, the free end of said pin then resting upon the upper face of side bar 6 to thereby hold pawl 30 from engagement with ratchet-wheel 28.

A clamp 36, comprising the rectangular bars 37 and 38 and clamping-bolts 39, is provided with a draw-bolt 40, adapted to be engaged by one end of a chain 41, the other end of said chain being secured to shaft 16. Secured to frame 5 by tie-bolt 11 is a traveler-yoke 42, to which are secured chains 43 and 44. The opposite ends of said chains are adapted to engage hooks 45 and 46, carried by clamp 36, as will be hereinafter set forth.

The operation of the device is as follows: When it is desired to use the herein-described stretcher for the purpose of stretching a woven-wire fabric, the chain 14 is secured to a post, tree, or other suitable anchor. The fabric to be stretched is placed between the bars 37 and 38 of stretcher 36, and the clamping-bolts 39 are then tightened until said fabric is firmly gripped across its entire width by said clamp. Shaft 16 is then turned through its pawl-and-ratchet engagement with the actuating-lever 20 to wind the chain 41 upon said shaft, and thereby draw clamp 36 toward frame 5, as will be readily understood. Retaining pawl and ratchet wheel 30 and 28 serve to prevent retrograde movement of shaft 16 while this is being done. If it should be found that the fabric is not sufficiently stretched when clamp 36 has reached its limit of movement toward frame 5, chains 43 and 44 may be fastened to

hooks 45 and 46 to maintain the relation of clamp 36 and frame 5 while the retaining-pawl 30 is lifted from ratchet-wheel 28 and the chain 41 is again run out to its full length and secured to a second clamp similar to clamp 36, said second clamp being secured to the fabric some distance from frame 5. The fabric may then be further stretched without losing the advantage gained by the first stretching operation.

From the foregoing description it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention; but while the elements shown and described are well adapted to serve the purposes for which they are intended it is to be understood that the invention is not limited to the precise arrangement of parts set forth, for changes within the scope of the appended claims may be resorted to without departure from said invention.

Having described my invention, what I claim is—

1. A wire-stretcher, comprising a frame, a clamp, means for drawing said clamp toward said frame, a traveler-yoke secured to one end of said frame and flexible members secured to said traveler-yoke and adapted to engage said clamp.

2. A wire-stretcher, comprising a frame, a wire-engaging clamp, means for drawing said clamp toward said frame, a traveler-yoke secured to one end of said frame, flexible members secured to said traveler-yoke and hooks carried by the wire-engaging clamp adapted to engage with said flexible members.

3. A wire-stretcher, comprising a frame, a wire-engaging clamp adapted to engage a woven-wire fabric across its width, hooks carried by said clamp, means for drawing said clamp toward said frame, a traveler-yoke secured to one end of the frame and flexible members secured to said traveler-yoke and adapted to engage the hooks of the wire-engaging clamp, said hooks being located one upon each side of the center line of said clamp.

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

WILLIAM CUE.

Witnesses:
F. L. CLISBY,
R. S. CLISBY.