No. 802,579. PATENTED OCT. 24, 1905.

B. S. MANNING.

WIRE STRETCHER.

APPLICATION FILED DEC. 31, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

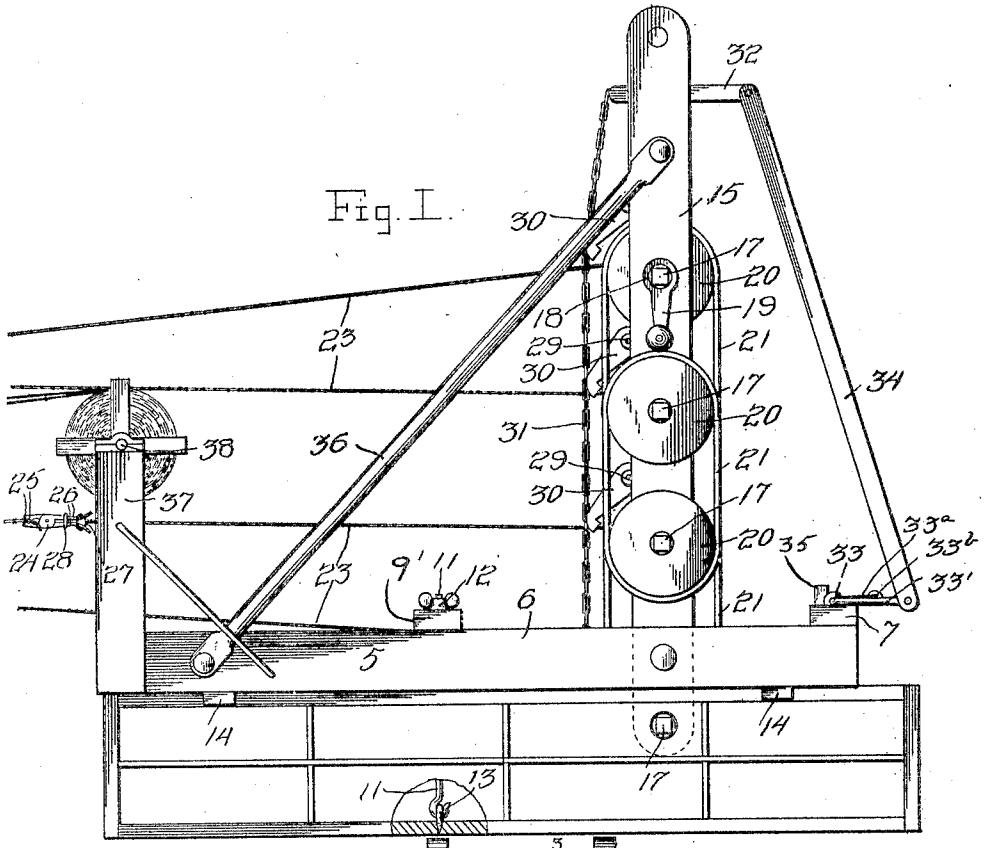
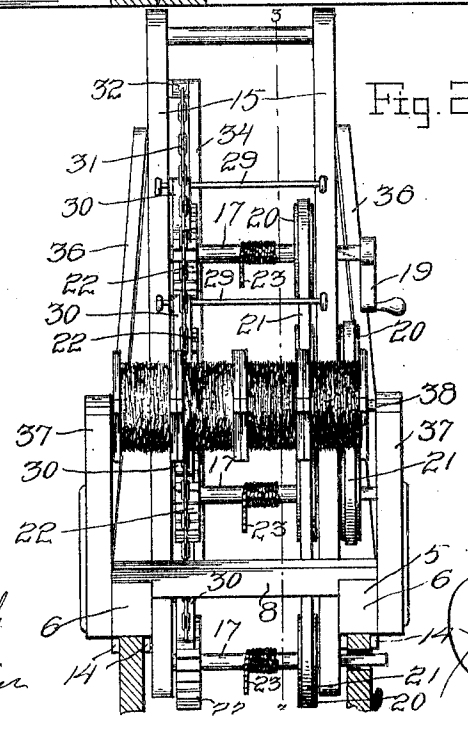


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

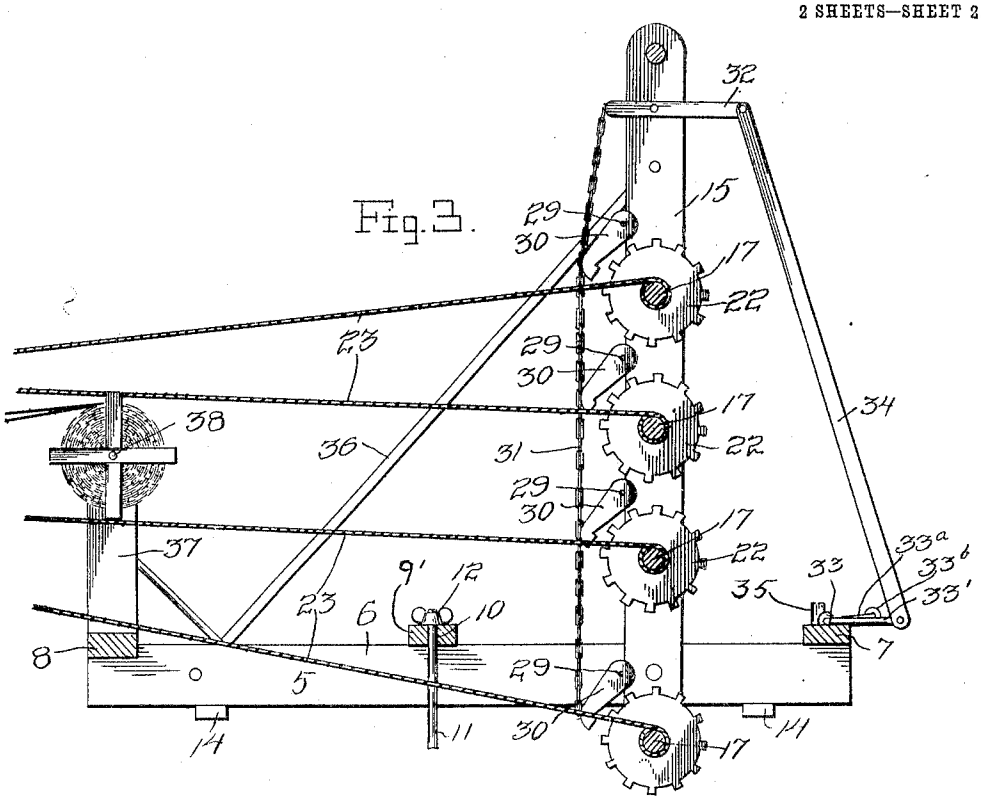
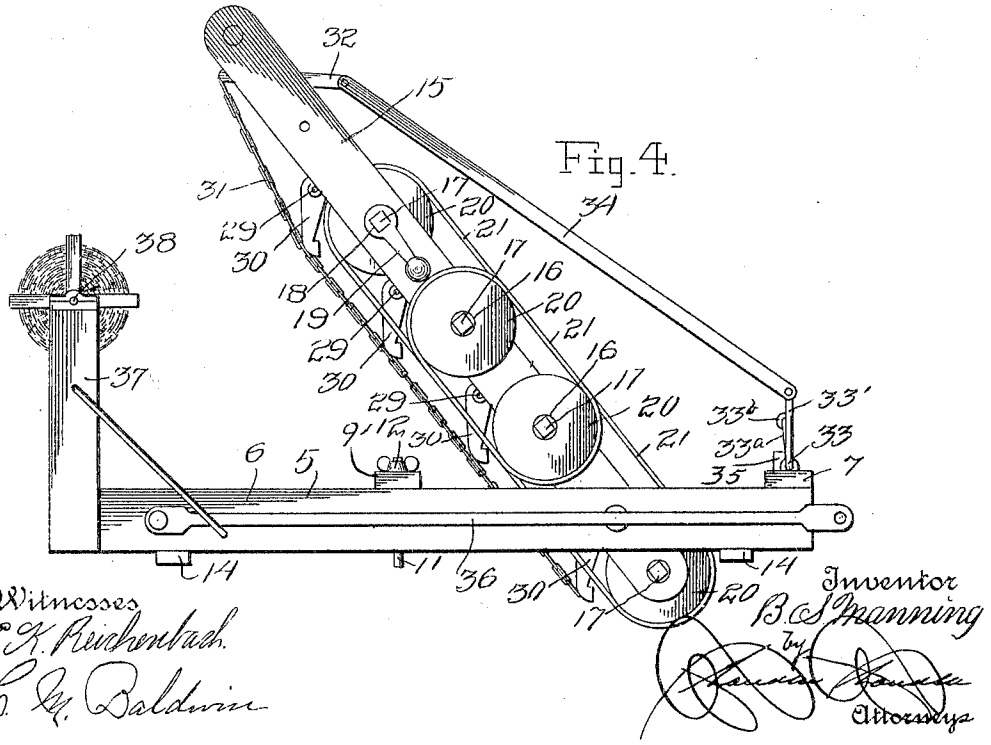


Fig. 4.



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UNITED STATES PATENT OFFICE.

BUTLER S. MANNING, OF TAP, TEXAS.

WIRE-STRETCHER.

No. 802,579. Specification of Letters Patent. Patented Oct. 24, 1905.

Application filed December 31, 1904. Serial No. 239,171.

To all whom it may concern:

Be it known that I, BUTLER S. MANNING, a citizen of the United States, residing at Tap, in the county of Dickens, State of Texas, have invented certain new and useful Improvements in Wire-Stretchers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to wire-stretchers, and more particularly to those arranged for disposal upon wagons, and has for its object to provide a wire-stretcher with which a plurality of wires may be stretched simultaneously and which will be arranged to hold the spools containing the wire which is to be strung.

Another object is to provide a wire-stretcher which will be provided with means for holding the wires taut until they are permanently fastened.

Other objects and advantages will be apparent from the following description, and it will be understood that modifications of the specific construction shown may be made and any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the present invention applied to a wagon and showing it in operation. Fig. 2 is an end view of Fig. 1. Fig. 3 is a longitudinal section of a stretcher, taken on line 3 3 of Fig. 2. Fig. 4 is a side elevation of the stretcher folded.

Referring now to the drawings, the present invention comprises a frame 5, including spaced longitudinally-extending sills 6 and transverse end pieces 7 and 8, disposed at the rearward and forward ends of the frame, respectively. Extending transversely of the frame and spaced from the ends of the sills there is a cross-piece 9′, provided with vertical openings 10 therethrough, in which are engaged the shanks of hooks 11, these shanks being threaded at their free end to extend above the cross-piece and having wing-nuts 12 engaged therewith. When the stretcher is in use, the sills 6 are disposed upon the side-boards of a wagon and the hooks 11 are engaged in eyes 13, secured in the bottom of the wagon, the wing-nuts being operated to tighten the parts and prevent displacement of the frame. Spaced cleats 14 are secured to the under faces of the sills 6, and when the sills are in position upon the sides of the wagon these cleats lie against the opposite faces of the sides to prevent lateral movement of the frame. Pivotally mounted between the sills adjacent to the rearward ends thereof are a pair of coinciding uprights 15, provided with a plurality of spaced openings 16, the openings of the two uprights alining, as illustrated. The uprights extend below the sills 6, and one pair of the alining openings lie below the sills, the remaining pairs lying above the sills. A plurality of shafts 17 are journaled adjacent to their ends in the alining openings 16. The ends of the shafts project beyond the outer faces of the uprights 15, and at their ends the shafts are squared for engagement in the squared socket 18 of a removable handle 19, a plurality of these handles being provided, if desired, for use on a number of the shafts at the same time. The several shafts are connected for simultaneous rotation by means of pulleys 20 and belts 21, and the shafts are also provided with notched wheels 22, these wheels lying between the uprights 15. Secured to the shafts between the uprights are cables 23, provided with wire-grips 24 at their free ends, these grips each including pivotally-connected jaws 25, arranged for engagement with a wire and having operating-handles 26. The handles are connected adjacent to their free ends by means of a chain 27, and the cables 23 are connected with the chains 27 at the centers thereof, so that when the cables are taut the grips will be held with their jaws in position to tightly clamp a wire therebetween. A sliding ring 28 is engaged with the handles 26, and it may be moved to hold the handles with the jaws in operative position, as will be readily understood.

Secured to the forward faces of the uprights 15 there are a plurality of transverse rods 29, upon which are pivotally mounted latches 30, these latches being equal in number to the notched wheels 22 and being arranged for movement into and out of position to engage the notched wheels and prevent rotation of the shafts. The rods 29 are disposed one above each of the shafts, and the latches 30 are disposed so that they are held by gravity at times in engagement with the notched wheels. To hold the latches nor-

mally out of engagement with the wheels, however, these latches are connected by means of a chain 31, which at its upper end is secured to the forward end of a lever 32, pivoted to one of the uprights and extending longitudinally of the frame.

For movement of the lever 32 a rock-shaft 33 is pivoted to the end piece 7 and has arms 33′ and 33ª extending at right angles thereto, the former having a link 34 pivoted thereto and also pivoted to the rearward end of the lever 32. The arm 33ª has a laterally-extending handle 33ᵇ at its free end, by which the rock-shaft may be moved to operate the lever 32. The arrangement of parts is such that the weight of the link 34 holds the lever 32 normally with the latches 30 out of engagement with the wheels 22, the arm 33′ extending rearwardly and lying at the downward limit of its movement. When it is desired to move the latches into operative position, the rock-shaft is moved to bring the point of pivotal connection of the arm 33′ and the link 34 forwardly of the shaft 33, thus raising the rearward end of the lever 32 and permitting the latches to fall into operative position. Further forward movement of the arm 33 under the weight of the link 34 is prevented by a block 35, secured to the end piece 7 and with which the arm 33ª comes into engagement.

Pivoted at their lower ends to the sills 6, adjacent to the forward ends thereof, are a pair of braces 36, the upper ends of these braces being removably attached to the uprights 15, adjacent to their upper ends, and these braces prevent movement of the uprights upon their pivotal connection with the sills, as will be readily understood.

Secured to the ends of the front cross-piece 8 are uprights 37, having bearings in their upper ends, in which are removably engaged the ends of a spool-carrying shaft 38.

In use spools of wire are disposed upon the shaft 38, these spools being equal in number to the strands to be stretched, and the ends of the wires from the spools are attached to a fence-post. The wagon is then driven to the point from which the wires are to be stretched, after which the wire-grips 24 of the different cables are engaged with the wires adjacent to the spools. The handles 19 are then engaged with one or more of the shafts 17, and the shafts are rotated to wind the cables thereupon and stretch the wires, as will be readily understood. After the stretching operation the latches 30 are engaged with the notched wheels 22 to prevent unwinding of the cable, and the wires may be secured to the post in the usual manner. When not in use, the braces 36 may be detached from the uprights and the parts may be folded, as shown in Fig. 4.

What is claimed is—

1. A machine of the class described comprising a frame, uprights pivoted in the frame, braces removably attached to the uprights and pivoted to the frame, said uprights and braces being arranged for movement of their upper ends toward the frame, shafts revolubly mounted in the uprights, connections between the shafts for simultaneous rotation thereof, means for holding the shafts against rotation, means for moving the holding means into and out of operative position, a shaft mounted upon the frame and arranged for reception of wire-reels, cables connected with the shafts and adapted to be wound thereupon, and grips carried by the cables and arranged for engagement with wires.

2. A machine of the class described comprising a frame including sills, spaced cleats carried by the sills and adapted for the reception of the sides of a wagon therebetween, coinciding uprights carried by the sills, a shaft journaled in the uprights, a wire-reel carried by the shaft, a notched wheel carried by the shaft, a rod secured to the uprights, a dog pivoted upon the rod for movement into and out of engagement with the notched wheel, a lever pivotally connected with the uprights, connections between the lever and the dog for movement of the dog when the lever is moved, a rock-shaft, connections between the rock-shaft and the lever for movement of the lever when said shaft is rocked, a cable engaged with the winding-drum and a wire-grip carried by the cable.

3. A machine of the class described comprising spaced uprights, shafts journaled in the uprights, winding-drums carried by the shafts, notched wheels carried by the shafts, rods secured to the uprights and lying one above each of the shafts, dogs pivoted upon the rods and arranged for engagement of the notched wheels to hold the shafts against movement, connections between the several dogs for simultaneous movement thereof into and out of engagement with the notched wheels, a lever pivotally connected with the uprights and connected with the dog connecting means for movement of the dogs when the lever is moved, cables engaged with the winding-drums and wire-grips carried by the cables.

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

BUTLER S. MANNING.

Witnesses:
I. SMITH,
M. I. SMITH.