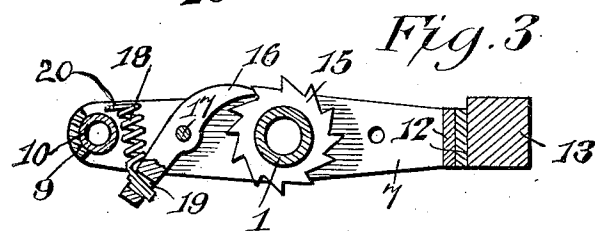
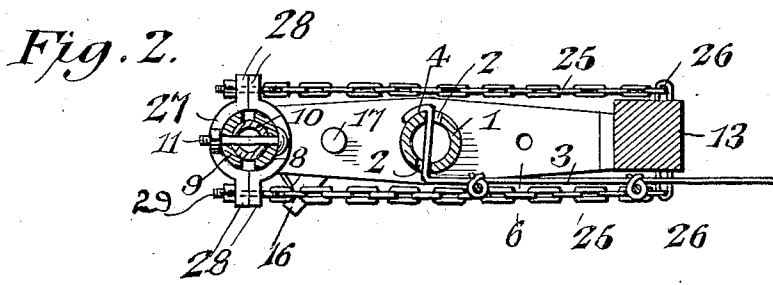
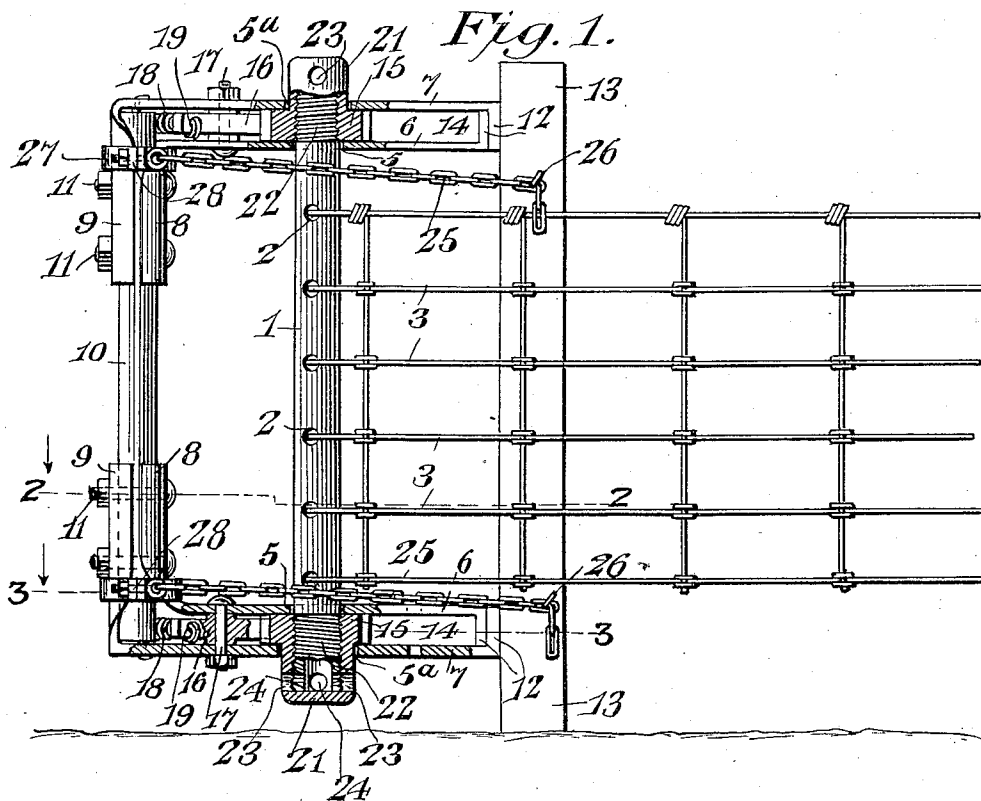


G. J. TURNER.
 WIRE STRETCHER.
 APPLICATION FILED JUNE 25, 1912.

1,057,901.

Patented Apr. 1, 1913.



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CHARLES J. TURNER, OF MONTICELLO, IOWA.

WIRE-STRETCHER.

1,057,901.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES J. TURNER, a citizen of the United States, residing at Monticello, in the county of Jones and State of Iowa, have invented a new and useful Wire-Stretcher, of which the following is a specification.

The invention relates to improvements in wire stretchers.

The object of the present invention is to improve the construction of wire stretchers, and to provide a simple, inexpensive and efficient wire stretcher of great strength and durability, adapted to be easily handled and operated, and capable of being quickly set up for use and of operating on woven wire, barbed wire and smooth fence wires or wire fencing.

A further object of the invention is to provide a wire stretcher of this character, adapted to be placed against the fence post and operated without an additional anchoring post, and capable of being readily connected with the wire to be stretched without the use of clamps and by means of a relatively small amount of the wires.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims here-to appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a side elevation partly in section of a wire stretcher, constructed in accordance with this invention. Fig. 2 is a horizontal sectional view on the line 2—2 of Fig. 1. Fig. 3 is a similar view on the line 3—3 of Fig. 1.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is illustrated the preferred embodiment of the invention, the wire stretcher comprises in its construction a vertical shaft 1, preferably constructed of tubular metal and provided at intervals with openings 2, adapted to receive the terminals of wires 3 to be stretched. The terminals 4 of the fence wires after being passed through the open-

ings 2 are bent at an angle and only a comparatively small amount of wire is required for connecting the fence wires to the wire stretcher. In connecting fence wires at points intermediate of their ends to the shaft, as for instance when the wire is paid out from coils, short pieces of wire may be passed through the opening 2 of the shaft and used as fastening means for the said fence wires.

The vertical shaft 1 may be of any desired length and any number of wire receiving openings 2 may be provided to adapt it for stretching various widths of woven fence wire or the desired number of smooth or barbed fence wires.

The vertical shaft is journaled in suitable bearing openings 5 of upper and lower arms or portions of a bearing or supporting frame. The upper and lower arms or portions of the frame are each composed of inner and outer plates 6 and 7, having terminal attaching portions 8 and 9 bent inwardly at right angles and curved transversely to fit and embrace a vertical connecting bar or standard 10 to which they are secured by bolts 11, or other suitable fastening devices. The terminal attaching portions are fitted against the opposite faces of the vertical bar or standard 10, which is preferably constructed of tubular metal. The forward terminals of the spaced horizontal plates are bent at right angles to form overlapping lugs 12, fitted together and spacing the plates 6 and 7 and forming abutments to fit against a fence post 13, as clearly illustrated in Fig. 1 of the drawing.

The spaces or openings 14 formed by the inner and outer plates 6 and 7 of the upper and lower arms or portions of the bearing or supporting frame receive upper and lower ratchet wheels 15, fixed to the vertical shaft 1 by the means hereinafter described and engaged by spring actuated pawls or dogs 16. The pawls or dogs 16, which are also mounted in the openings 14, are pivoted to the plates of the upper and lower portions of the frame by vertical bolts 17, which pierce the plates and serve to connect the same. The bolts pass through the dogs or pawls at points intermediate of the ends thereof, and the outer ends of the dogs or pawls are connected with coiled springs 18, which maintain the pawls or dogs in engagement with the ratchet wheels. Each pawl or dog 18 is provided with a perfora-

tion 19 to receive one end of its spring, and the other end 20 of each spring is secured to the frame. The ratchet wheels 15 are preferably formed integral with heads or caps 21 and with the heads or caps are interiorly threaded and arranged on threaded portions 22 of the vertical shaft. The screw threads at one end of the shaft are designed to be right hand threads, and those at the other end of the shaft will in practice be left hand screw threads. This will permit the wire stretcher to be inverted so as to arrange either cap and ratchet wheel at the top and the device to be operated as a right hand or left hand device without unscrewing the caps and the ratchet wheels from the shaft. The caps when formed integral with the ratchet wheels extend through openings 5^a in the outer plates 7, the openings 5 in the inner plates 6 fitting the vertical shaft 1. The caps or heads 21, which form closures for the upper and lower ends of the tubular shaft 1, may be constructed separate from the ratchet wheels, and they are provided at intervals with horizontal perforations 23, which register with corresponding perforations 24 in the ends of the shaft. The openings are adapted to receive a straight bar to permit the shaft to be turned, but if desired the wire stretcher may be equipped with a special actuating bar having a dog for engaging the ratchet wheel and provided with a circular bearing opening to fit over the upper cap or head. When the vertical shaft 1 is rotated, the wires are quickly and simultaneously stretched and the ratchet mechanism holds the shaft against retrograde rotation and retains the wires under tension while they are being stapled or otherwise secured to the fence post.

The wire stretcher is connected to the fence post by means of upper and lower chains 25, temporarily secured to the fence post at opposite sides thereof by wire staples 26, or other suitable fastening devices and connected with the frame by a suitable clamp 27. The clamp 27, which may be of any preferred construction, is preferably composed of two sections having outwardly

bent terminals 28, pierced by eye bolts 29 into which the adjacent ends of the chains 25 are linked.

What is claimed is:—

1. A wire stretcher including a frame comprising upper and lower plates or members arranged in pairs and spaced apart to form openings and having their outer terminals overlapped to form spacing lugs and abutments to fit against a fence post, the inner terminals of the plates or members being bent at an angle to form attaching portions, and a bar or standard secured between the attaching portions of the plates or member and connecting the same, a vertical shaft journaled in the plates or members and provided with means for the attachment of the fence wires, upper and lower ratchet wheels mounted on the vertical shaft and arranged in the space between the plates or members, pawls or dogs also mounted in the said space and engaging the ratchet wheels, and means for securing the frame to a fence post.

2. A wire stretcher including a frame comprising a vertical standard, and upper and lower arms extending from the standard and provided with openings and adapted to fit against a fence post, a vertical shaft having its terminals reversely threaded and extending through the upper and lower arms, ratchet wheels arranged in the openings of the upper and lower arms and provided with integral caps, said ratchet wheels and caps being reversely threaded and engaging the threads of the vertical shaft and permitting the wire stretcher to be inverted to arrange the same for either right hand or left hand use, and pawls or dogs also mounted in the openings of the arms and arranged to engage the ratchet wheels.

In testimony, that I claim the foregoing as my own, I have hereto affixed by signature in the presence of two witnesses.

CHARLES J. TURNER.

Witnesses:

J. J. LOCHER,
M. H. TEETER.