Oct. 16, 1951 R. L. DODD 2,571,347

WIRE STRETCHER

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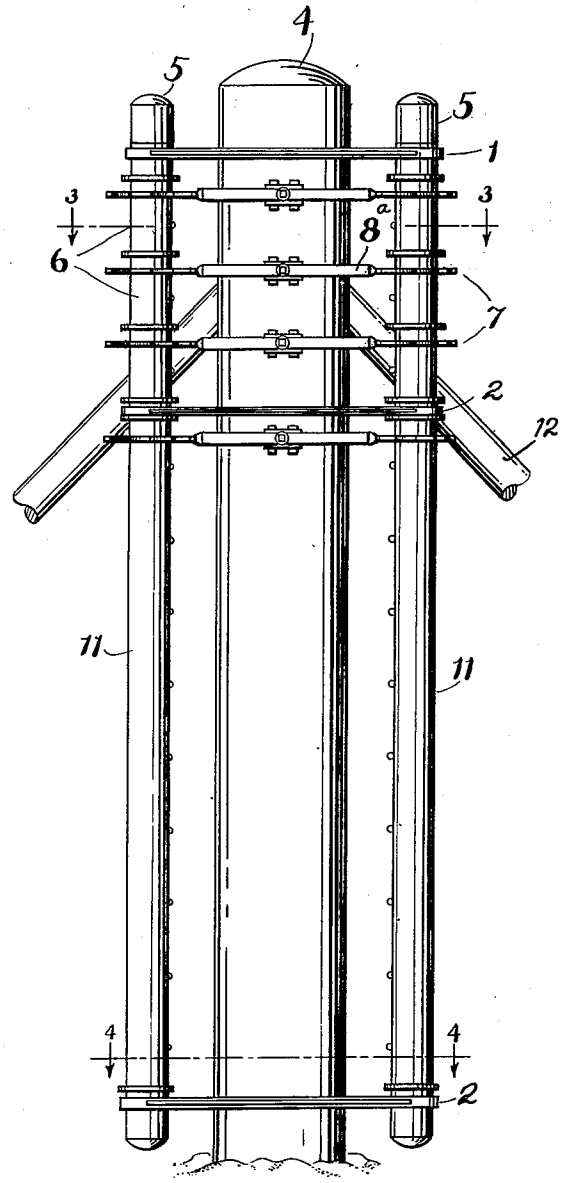


FIG. 1

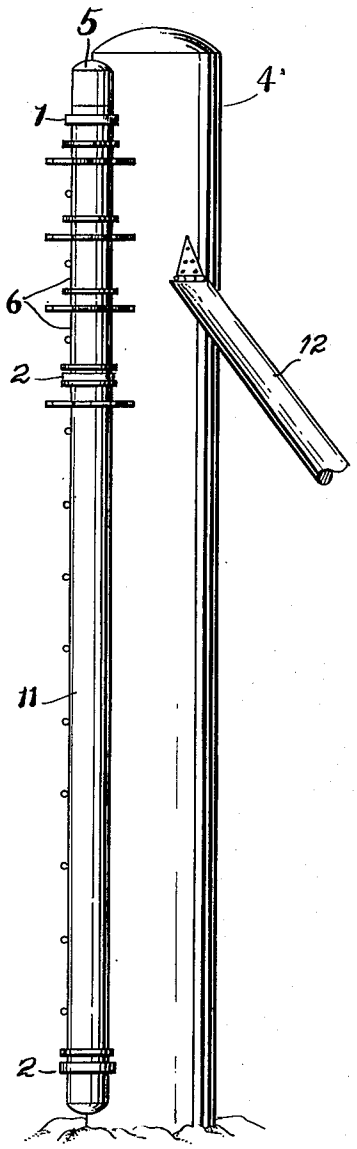


FIG. 2

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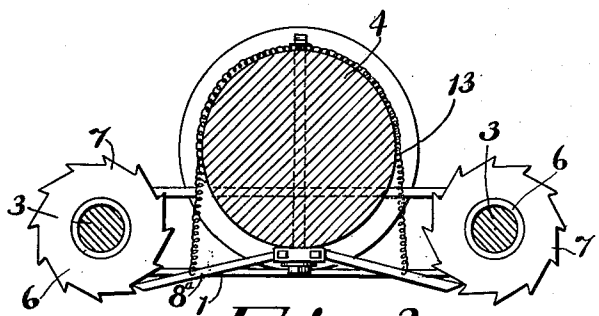


Fig. 3

Fig. 5

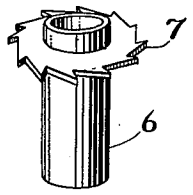


Fig. 4

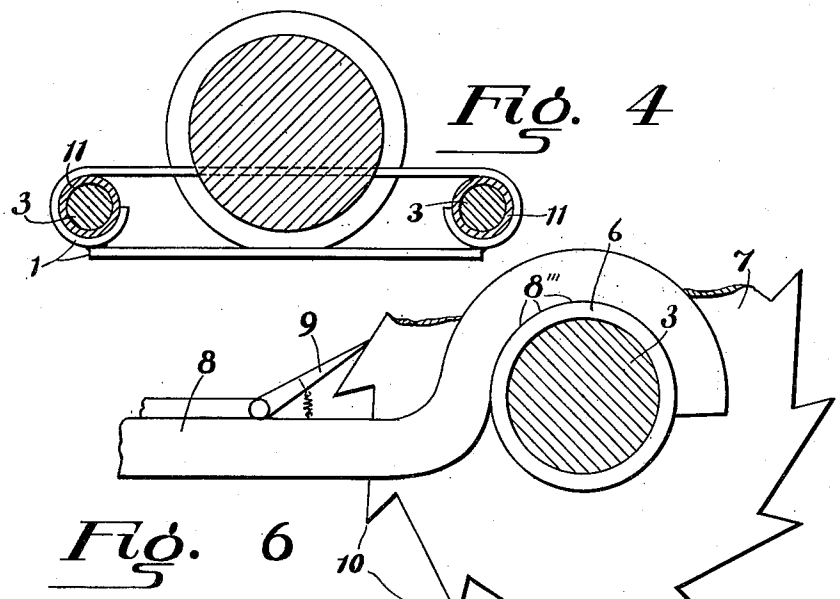


Fig. 6

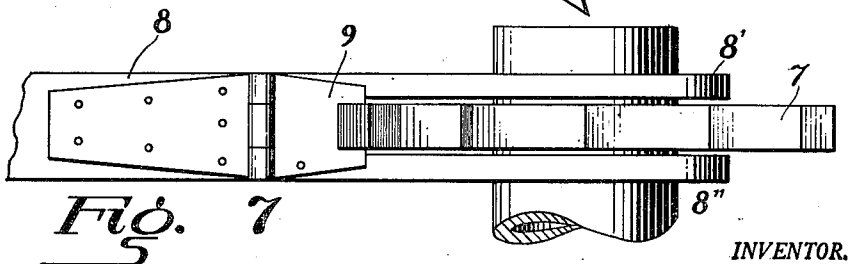


Fig. 7

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WIRE STRETCHER

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Application August 1, 1946, Serial No. 687,596

5 Claims. (Cl. 256—43)

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This invention relates to apparatus for stretching wires of wire fences, and it furthermore is intended for use in stretching woven wire fences when they have sagged after installation and use.

An object of this invention is to provide novel means associated with a post for stretching individual wires of fences so that each wire will be wound on a drum, or, in the case of woven wire fences, the woven wire will be wound on the drum so that the fence would be stretched to remove the slack in the wire which occurs after such fence has been installed for a time, the provision for stretching the woven wire fence comprising an elongated drum instead of several individual drums, as will presently appear.

An object of the invention furthermore is to provide rods on which the stretching instrumentalities are rotatably mounted, and a plurality of such instrumentalities may be superimposed on the rods for stretching individual wires, whereas a longer rotatable member may be employed where woven wire fencing or the like is to be stretched; it being the purpose of the inventor to provide rotatable elements associated with means by which power may be applied for turning them, it being understood that the wire to be stretched is anchored to the rotatable member and is wound thereon as it is manipulated or rotated.

A further object of the invention is to provide mechanical means for imparting motion to the rotatable members and preferably the mechanical means is manually operated for each individual element on which the wire is wound.

A still further object of the invention is to provide a wire stretching instrumentality comprising inexpensive parts.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application, wherein like characters denote corresponding parts in the several views, and in which:

Figure 1 illustrates a view in elevation of a wire stretching equipment embodying the invention;

Figure 2 illustrates a view in elevation in a position at right angles to that shown in Fig. 1;

Figure 3 illustrates a sectional view on the line 3—3 of Fig. 1 and being on an enlarged scale;

Figure 4 illustrates a sectional view on the line 4—4 of Fig. 1 and being on an enlarged scale;

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Figure 5 illustrates a perspective view of one of the drums or sleeves;

Figure 6 illustrates a detail view of the sleeve-operating handle in its position when operating on a ratchet at the left hand side of Fig. 3; and

Figure 7 illustrates a side elevation of the ratchet, showing the operating handle and parts associated therewith.

In these drawings 1 and 2 denote plates or bars having apertures for the reception of rods or shafts 3, which are secured to the plates and form a frame which is to be attached to a post 4. The upper ends of the rods or shafts have a threaded plug or cap 5 which serves to retain the parts assembled, as will presently appear. A plurality of tubular members 6, which may be regarded as drums on which the wire to be stretched is wound, is superimposed on the shafts, and each has a ratchet disk 7 attached to it at the upper end so that when rotary motion is imparted to the drum, the wire is wound on it. As a means for imparting motion to the drum, a lever or handle 8 has a pawl-like member 9 which is adapted to engage the ratchet teeth 10 and forcibly rotate the drum, and each drum is individually operated in like manner. At the lower end of the frame, elongated sleeves 11 are rotatable on the rods and they are intended to engage woven wire fence elements so that they can be wound thereon for stretching the wire. These elongated sleeves are likewise provided with ratchets similar to those heretofore described, which are likewise rotated to wind the wire on the sleeves. The lever 8 may be provided with a handle (not shown), by which it is manually oscillated.

The pawl wheels are each engaged by a ratchet or detent 8a having its end mediately attached to the post 4, and a spring 13 embraces the post 4 and has each end connected to each of the pawls so that the pawls are thereby drawn into engagement with the ratchet teeth and held in engagement with the shoulders of the teeth to prevent retrograde movement thereof.

Figure 7 shows a lever or handle of this character in association with a ratchet wheel which is on the right hand side of Fig. 3 so that in moving the lever after the pawl 9 has engaged the tooth and the lever is turned anti-clockwise, the drum will be turned thereby.

In further explanation of the means for imparting motion to the drums selectively, the lever 8 has two spaced curved furcations 8' and 8'' between which the ratchet disk 7 is adapted to extend, and in this position convex surfaces 8''' of the curved furcations bear against the drum.

By actuating the handle with the drum as a fulcrum, the pawl is caused to travel over the ratchet teeth when moving in one direction and to engage the shoulder of the desired ratchet tooth when moving in the opposite direction, in which latter operation the drum is rotated.

The post 4 may be braced or reinforced by means of diagonal tubes or the like 12 suitably connected at their upper ends to the post with the lower ends anchored in the ground.

I claim:

1. In a wire stretcher, a post, a horizontal frame affixed to the post with each end extending beyond the post in the same plane, at least two vertically disposed shafts supported in spaced parallel relationship adjacent the ends of the frame on the same side of the post, at least one drum surrounding each of said shafts and rotatable thereon, a ratchet wheel carried by each of said drums, said ratchet wheel cooperating with a suitable tool which engages the teeth thereof for rotating said drum and winding wire thereon, and means carried by said post and engaging said ratchet wheels for preventing retrograde movement of the drums.

2. In a wire stretcher, a post, a horizontal frame effixed to the post with each end extending beyond the post in the same plane, at least two vertically disposed shafts supported in spaced parallel relationship adjacent the ends of the frame on the same side of the post, at least one drum surrounding each of said shafts and rotatable thereon, a ratchet wheel carried by each of said drums, said ratchet wheel cooperating with a suitable tool which engages the teeth thereof for rotating said drum and winding wire thereon, and at least a pair of spring-pressed pawls supported by said post engageable with said ratchet wheels for preventing retrograde movement of the drums.

3. In a wire stretcher, a post, a horizontal bracket affixed to the post near the upper end thereof with each end extending beyond the post in the same plane, a second bracket secured to the post adjacent the lower end thereof and in parallel relationship to the first mentioned bracket with each end of said bracket extending beyond the post in the same plane, a pair of vertically disposed shafts having the ends thereof anchored in said brackets in spaced parallel relationship adjacent the ends of the bracket on the same side of the post, at least one drum surrounding each of said shafts and rotatable thereon, a ratchet wheel carried by each of said drums, said ratchet wheel cooperating with a suitable tool which engages the teeth thereof for rotating said drum and winding wire thereon, and means carried by said post and engaging said ratchet wheels for preventing retrograde movement of the drums.

4. In a wire stretcher, a post, a horizontal bracket affixed to the post near the upper end thereof with each end extending beyond the post in the same plane, a second bracket secured to the post adjacent the lower end thereof and in parallel relationship to the first mentioned bracket with each end of said bracket extending beyond the post in the same plane, a pair of vertically disposed shafts having the ends thereof anchored in said brackets in spaced parallel relationship adjacent the ends of the bracket on the same side of the post, at least one drum surrounding each of said shafts and rotatable thereon, a ratchet wheel carried by each of said drums, said ratchet wheel cooperating with a suitable tool which engages the teeth thereof for rotating said drum and winding wire thereon, and at least a pair of spring-pressed pawls supported by said post engageable with said ratchet wheels for preventing retrograde movement of the drums.

5. In a wire stretcher, a post, a horizontal frame affixed to the post with each end extending beyond the post in the same plane, a pair of vertically disposed shafts supported in parallel relationship adjacent the ends of the frame on the same side of the post, at least a pair of drums of unequal length surrounding each of said shafts and rotatable thereon, a ratchet wheel carried by each of the drums, said ratchet wheel cooperating with a suitable tool which engages the teeth thereof for rotating said drum and winding wire thereon, the said drum of greater length being adapted to wind woven wire fencing thereon, and spring-pressed pawls carried by the post and engageable with the teeth of said ratchet wheels for preventing retrograde movement of the drums.

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