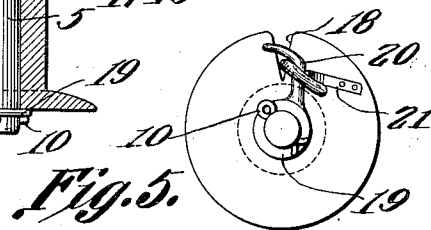
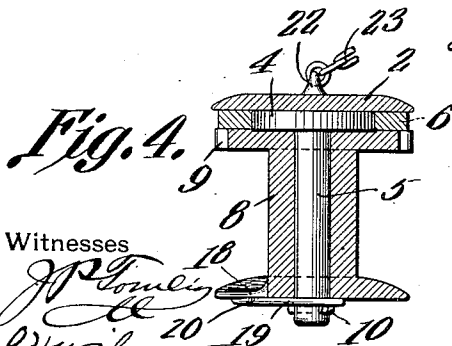
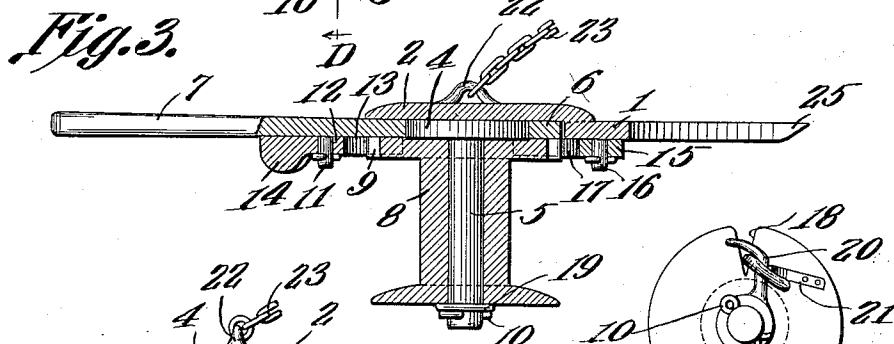
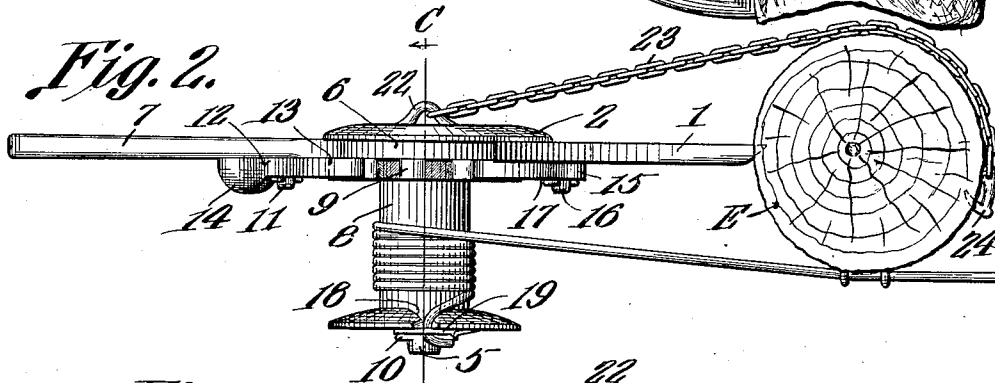
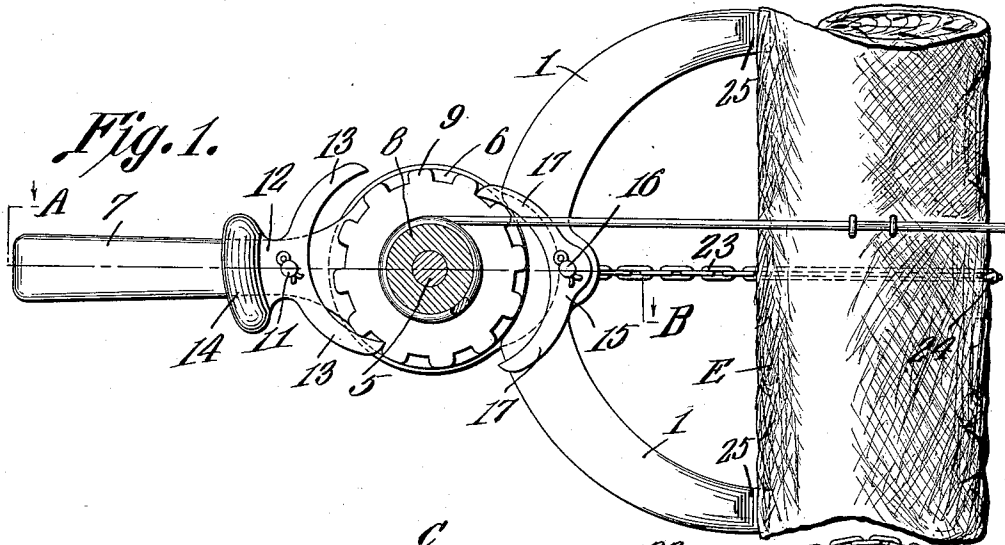


O. P. STARNES.
WIRE STRETCHER.
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1,023,972.

Patented Apr. 23, 1912.



Witnesses

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UNITED STATES PATENT OFFICE.

OLIVER P. STARNES, OF CHEYENNE, OKLAHOMA.

WIRE-STRETCHER.

1,023,972.

Specification of Letters Patent.

Patented Apr. 23, 1912.

Application filed November 13, 1911. Serial No. 659,998.

To all whom it may concern:

Be it known that I, OLIVER P. STARNES, a citizen of the United States, residing at Cheyenne, in the county of Roger Mills and State of Oklahoma, have invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention relates to wire stretchers, one of its objects being to provide a simple, light and durable device of this character adapted to be placed in engagement with the post to which the wire is to be secured, the construction being such as not to interfere with the proper attachment of the wire to the post on which the stretcher is placed.

A further object is to provide a stretcher which can be quickly reversed so as to rotate the winding spool in either direction desired.

A further object is to provide a stretcher having improved means for attaching the wire to the winding spool, the free end of the wire being supported at a point where it will not interfere with the operation of the structure.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a vertical section through the stretcher, the same being shown in position upon a post. Fig. 2 is a plan view of the structure shown in Fig. 1, the post being shown in section. Fig. 3 is a section on line A—B Fig. 1. Fig. 4 is a section on line C—D Fig. 2. Fig. 5 is an end elevation of the spool and showing the wire engaging catch.

Referring to the figures by characters of reference 1 designates oppositely disposed bowed legs extending from a body 2 which is offset laterally relative to the legs and has a central circular extension 4 from the center of which projects a spindle 5. A ring 6 is mounted to rotate on the extension 4 and has an operating lever 7 extending therefrom. A spool 8 rotates on the spindle and one of its flanges has teeth 9 formed thereon, said flange being adapted to lap the ring 6

and hold it against displacement relative to the extension 4. Any suitable means, such as a cotter pin 10 or the like may be arranged on the free end of the spindle 5 as to hold the spool in position thereon.

A stud 11 extends from lever 7 close to the teeth 9 and a pawl 12 is pivotally mounted thereon, said pawl having oppositely extending curved arms 13 and a centrally disposed weighted extension 14. Thus it will be seen that the weight 14 serves to hold one of the arms 13 normally in engagement with the teeth 9. A detent 15 is fulcrumed on a stud 16 extending from the body 2 adjacent the legs 1 and this detent is made up of oppositely bowed arms 17 either of which is adapted to engage the teeth 9, according to the position in which the device is held. When one of the arms 17 is in engagement with the teeth the other arm acts as a weight to hold it in such position.

The outer flange of the spool 8 has a radially disposed V-shaped slot 18. A ring 19 is loosely mounted on the spindle 5 between the spool and the cotter pin 10 and carries a hook 20 adapted to extend across the slot 18 for the purpose hereinafter set forth. A spring, such as shown at 21, may be provided for holding the hook 20 normally pressed toward and across the slot.

An eye 22 is formed on the outer face of the body 2 and is engaged by one end of an anchoring chain 23 the other end of which carries a hook 24.

As shown particularly in Figs. 2 and 3, the ends of the legs 1 are reduced, as at 25. In using the stretcher, these reduced ends are adapted to be placed in engagement with the post E to which the stretched wire is to be secured. The anchoring chain 23 is then extended around that side of the post farthest removed from the point where the wire is to be fastened and the hook 24 is then driven into the post, as shown in Fig. 2. With the parts thus assembled the end of the wire to be stretched is placed in the slot 18 and the hook 20 is pressed against it so as to force it inwardly within the slot. Lever 7 is then oscillated and during each downward movement thereof, the lower arm 13 of the pawl 12 will rotate the spool 8 and cause the wire to wind thereon. The teeth 9 will ride under the upper arm 17 of the detent 15 and said arm will thus prevent the spool from rotating backwardly and unwinding the wire. Thus an intermittent

rotation of the spool in one direction is obtained. The wire, while held by means of the tightener can be secured to the post without shifting the tightener and it will be apparent, that as the tension of the wire increases the legs 1 more firmly engage the post. Furthermore, as the stretcher engages the post to which the wire is to be attached, the post is at all times subjected to the same strain as when the stretched wire is fastened thereto and, therefore, there is no danger of the post yielding and the wire sagging after the stretcher has been removed.

It will be seen that the wire can be quickly and securely attached to the spool and that the end of the wire projects laterally from the spool and will not interfere with the proper operation of the mechanism. The various parts of the structure can be assembled readily and it will be seen that as the structure is formed of but few parts, it will not readily get out of order and can be cheaply manufactured.

It is to be understood that, by providing the pawl and the detent with similar oppositely disposed arms and by providing a pawl and detent which are movable by gravity into engagement with the teeth 9, the stretcher can be reversed so as to bring either of the legs 1 uppermost and it will operate with equal efficiency when in either of these positions.

What is claimed is:—

1. A wire stretcher including post engaging members, a body extending therefrom,

means connected to the body for anchoring the members in engagement with the post to which the stretched wire is to be secured, a winding spool mounted for rotation relative to the body, an actuating lever, a reversible gravity operated pawl carried by the lever and cooperating with the spool to intermittently rotate the spool during the oscillation of the lever, and a reversible gravity operated detent carried by the body and cooperating with the spool to hold it against rotation in the opposite direction.

2. A reversible wire stretcher, including diverging post engaging members having reduced free ends, a body extending from said members, a winding spool carried by the body, an oscillatory actuating lever, a pawl carried by the lever and having oppositely extending similar arms, a weighted extension upon the pawl for holding one of the arms normally in engagement with the spool, a detent carried by the body and having oppositely disposed similar spool engaging arms, one of said arms constituting means for holding the other arm in engagement with the spool, and means for securing to the spool the end of the wire to be attached to the post engaged by the stretcher.

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

OLIVER P. STARNES.

Witnesses:

T. L. TURNER,

R. L. TRAMMELL.