No. 865,079. PATENTED SEPT. 3, 1907.

L. A. BUTTS.

WIRE STRETCHER.

APPLICATION FILED FEB. 12, 1907.

Fig. 1.

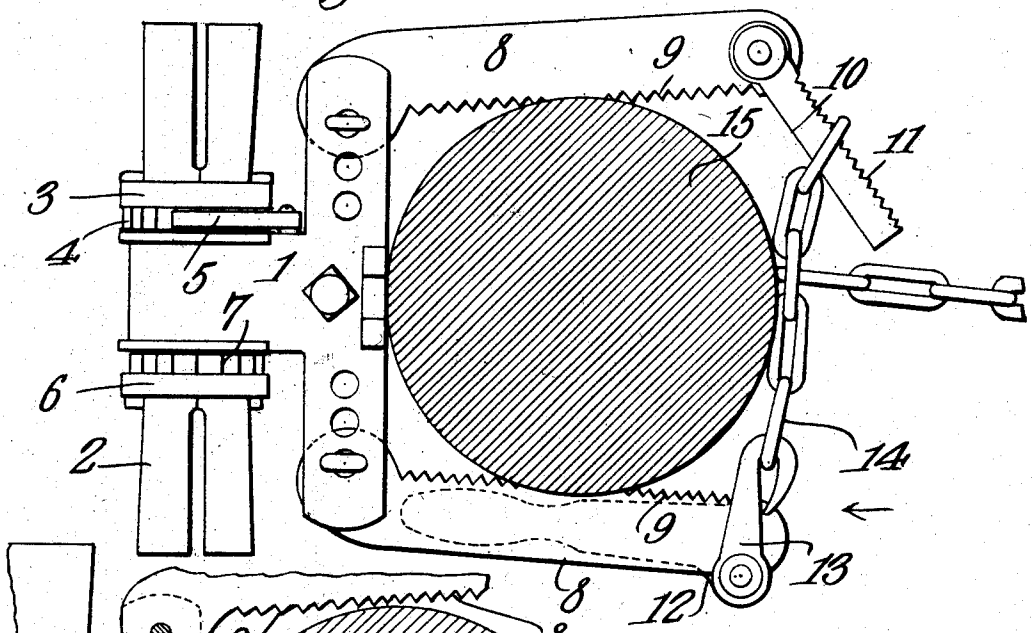



Fig. 2.

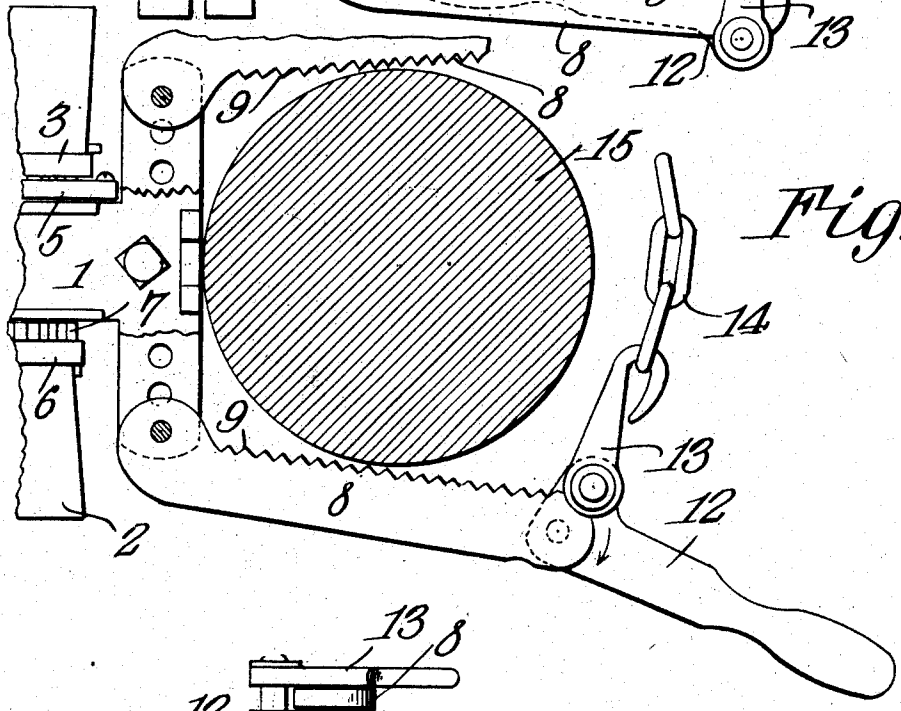






Fig. 3.

WITNESSES:

Lucien A. Butts,

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# UNITED STATES PATENT OFFICE.

LUCIEN A. BUTTS, OF RUSSELL, IOWA

## WIRE-STRETCHER.

No. 865,079. Specification of Letters Patent. Patented Sept. 3, 1907.

Application filed February 12, 1907. Serial No. 357,020.

*To all whom it may concern:*

Be it known that I, LUCIEN A. BUTTS, a citizen of the United States, residing at Russell, in the county of Lucas and State of Iowa, have invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention has relation to wire stretchers and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a wire stretcher having means whereby it may be easily and readily applied to or removed from a post or similar fixed object.

The stretcher consists primarily of a cylinder journaled for rotation in a cross-head and having an annulus supplied thereto which is provided with a series of ratchets. A pawl is pivotally mounted upon the cross-head for engagement with the said ratchets to retain the cylinder against reverse rotation. A second annulus is also mounted upon the cylinder and is provided with teeth which may be engaged by a wrench for the purpose of rotating the cylinder and winding the wire thereon. Side arms are pivoted to the cross-head and are provided with inner serrated edges which are adapted to engage opposite sides of a post or other fixed object to which the stretcher is attached. The means for drawing and holding said side arms together is the special feature of my present invention and it is in the construction and arrangement of the last said means that my present invention differs materially from my prior invention covered by Patent No. 751,608 dated February 9, 1904. The said means consists primarily of a bar pivotally mounted upon one of the side arms and a lever fulcrumed upon the other side arm. Said bar is provided with a serrated or roughened edge. A hook is pivoted upon said lever and is linked into the end of a chain. The said bar is adapted to pass through one of the links of the chain and when the lever is swung and the chain is tightened the link receiving the bar is drawn into close contact with the bar and binds against the same, whereby, the free ends of the side arms are drawn together and engage the supporting post.

In the accompanying drawing:—Figure 1 is a top plan view of the wire stretcher. Fig. 2 is a top plan view of a portion of the stretcher with the lever thereof open, and Fig. 3 is an end view of one of the side arms of the stretcher.

The stretcher consists of the cross-head 1 upon which is journaled for rotation the cylinder 2. An annulus 3 is mounted upon the said cylinder and is provided with ratchet teeth 4. The pawl 5 is pivoted upon the cross-head and is adapted to engage the teeth 4. The annulus 6 is also mounted upon the cylinder 2 and is provided with teeth 7 which may be engaged by a wrench for the purpose of rotating the cylinder 2 and winding the wire being stretched upon said cylinder. The engagement of the pawl 5 with the teeth 4 retains the said cylinder against reverse rotation. The side arms 8, 8 are pivoted to the opposite ends of the cross-head 1 and the inner edges of the said side arms are serrated as at 9. The bar 10 is pivotally attached to one of the side arms 8 and is provided with a serrated edge 11. The lever 12 is fulcrumed to the other side arm 8 and the hook 13 is pivoted upon said lever. The chain 14 is linked into said hook and any one of the links of the said chain is adapted to be slipped over the bar 10 and engaged with the ratchet edge thereof. In applying the stretcher to a support such as a post 15 the edge of the cross-head 1 is placed against the said post while the serrated edges of the side arms 8 are brought into contact with the sides of the post. The lever 12 is then swung around so that the pivot thereof upon which the hook 13 is mounted is between the fulcrum of the lever and the end of the bar 10. One of the links of the chain 14 is then slipped over and along the said bar 10 until the slack in that portion of the chain between the said bar and the hook 13 is taken up. The lever 12 is then swung upon its fulcrum and its free end is carried around under the side arm 8 to which it is attached. This movement carries the pivot upon which the hook 13 is mounted around upon the opposite side of the fulcrum of the lever from the bar 10, and as the stress upon the link which receives the said bar is in a lateral direction the said link binds against the said bar and consequently the ends of the side arms 8 are drawn slightly together and the serrated edges thereof are forced into the sides of the post 15. Thus, the stretcher is applied to the supporting post and when so applied may be used for the purpose of stretching line wires in fence or other constructions.

To remove the stretcher the operation above described is reversed.

Having described my invention what I claim as new and desire to secure by Letters Patent is:—

1. In a wire stretcher having movable side arms for engagement with a supporting object, a means for drawing said arms together comprising a bar attached to one of the arms, a lever fulcrumed at its ends to the other arm, a hook pivoted to said lever at an intermediate point thereof and a chain linked to said hook and adapted to engage said bar.

2. In a wire stretcher having movable side arms for en-

gagement with a supporting object, a bar pivoted to one of the side arms and having a serrated edge, a lever fulcrumed to the other side arm, a hook pivoted to said lever at a point between its fulcrum and its end and a chain linked to said hook and adapted to engage said bar.

3. In a wire stretcher having movable side arms for engagement with a supporting object, a bar pivoted to one of the side arms and having a serrated edge, a lever fulcrumed at its end to the end of the other side arm, a hook pivoted upon said lever at a point between its free end and its fulcrum and a chain linked into said hook and adapted to engage said bar.

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

LUCIEN A. BUTTS.

Witnesses:
GEORGE CAVETT,
P. J. MORRISON.