

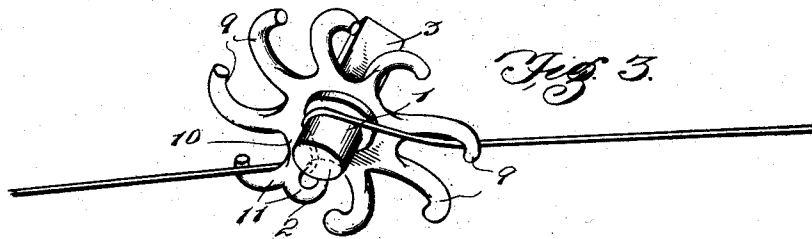
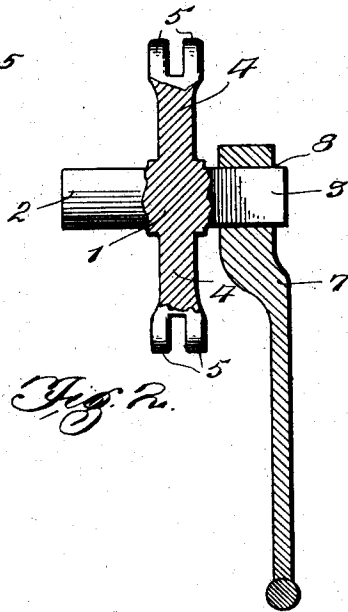
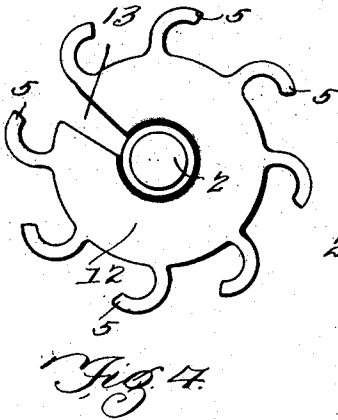
No. 706,606.

Patented Aug. 12, 1902.

T. SPRIGGS.
WIRE TIGHTENER.

(Application filed May 11, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS SPRIGGS, OF LITTLE RIVER, KANSAS.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 706,606, dated August 12, 1902.

Application filed May 11, 1901. Serial No. 59,882. (No model.)

To all whom it may concern:

Be it known that I, THOMAS SPRIGGS, a citizen of the United States, residing at Little River, in the county of Rice and State of Kansas, have invented a new and useful Wire-Tightener, of which the following is a specification.

This invention relates to wire-tighteners; and the object of the same is to provide simple, cheap, and effective means for taking up slack at intermediate points in wire lengths and applicable to either smooth or barbed wire, the improved device being easily applied to or disconnected from the wire.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the preferred form of the improved tightener shown applied to a barb-wire length. Fig. 2 is an edge elevation of the device shown by Fig. 1 partially in section and showing a winding device applied thereto in section. Fig. 3 is a perspective view of a modified form of the improved device shown applied to smooth wire. Fig. 4 is a detail elevation of a further modified form of the device.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

Referring to Figs. 1 and 2, the preferred form of the device comprises a hub 1, with a cylindrical projecting portion 2 at one side of the device and a squared or angular projecting portion 3 at the opposite side of the device. Radiating at regular intervals from the said hub are arms 4, having separated hooked fingers 5 at their outer ends, all the fingers having the same direction and one of the arms formed with an undercut to provide a catch, as at 6, to prevent the wire from slipping and set up a reliable means of maintaining the said wire in operative twisting relation to the device. A crank or handle 7 is removably applied to the angular projecting portion of the hub 1 and is provided with a socket 8 for this purpose. The form of the device as an entirety as thus set forth can be applied from either side of the wire or the fence including the latter and is in a sense reversible as regards application thereof from either side of

the wire, so that the winding operation can be performed in either one of two directions.

In applying the device to the wire it is pushed toward the latter from either side and the cylindrical projecting portion 2 of the hub is arranged under the wire, the said wire being looped and passed through the undercut or catch 6 and over the opposite portion of the hub, the hooked fingers of one arm being arranged to have a downward grip on the wire at one point and the hooked fingers of a diametrically-opposed arm being disposed to exert an upward pressure or grip on an opposite portion of the wire, with the portions 2 and 3 of the hub projecting in a plane at a right angle to the wire. By rotating the tightener to the left by means of the crank or handle the wire will be wound and held as shown by Fig. 1, and the arms with the hooked fingers will serve as locking means to prevent the accidental release of the wire. By turning or winding the tightener in the manner set forth the undercut notch will carry the loop around, winding up the portions of the runner or strand, continuing into the loop on the opposite ends of the drum till the desired tension is obtained, when by applying diametrically opposite arms 4 4 to the strand the drum will be prevented from unwinding.

The tightener can be used for temporary stretching purposes and removed immediately after the stretching operation is completed, or it can remain in permanent connection with the wire and be operated at different times to take up the slack.

The form of the device shown by Fig. 3 is substantially like that just described, with the exception that the hub 1 has curved arms 9 radiating therefrom to form hooks and one arm 10 with two hooks 11, thereby indicating from the showing of Figs. 1 and 2 and this modified form in Fig. 3 that one or more arms with two hooks thereon can be employed. The arm 10, Fig. 3, having the hooks 11 is shorter than the remaining arms of the series, so as to bring the said hooks closer to the hub, and one of said hooks, as clearly shown, has a transverse direction to provide a catching means to replace the undercut shown by Fig. 1. When this modified form of the device is applied, the wire is passed over the cylindrical portion 2 of the hub and

down and across back of the arm 10 and over the outermost hook 11, a diametrically opposite arm 9 having contact with the upper portion of said wire. The tightener shown by Fig. 3 is also capable of application to the wire from either side to exert a stretching-pressure in opposite directions and is operated by a crank or handle similar to that heretofore set forth.

- o The improved tightener is cheap in its construction and a number can be used without material expense and will efficiently serve the purpose for which it is intended. It is also strong and durable and easily and readily applied or detached.

Fig. 4 shows a disk-like flange 12, peripherally supporting hooks similar to those heretofore set forth, the hooks in this instance being either in pairs or single. This form of the device has a radial slot 13 therein to permit the wire to cross over close to the hub.

Having thus described the invention, what is claimed as new is—

1. As an improved article of manufacture a wire-tightener for direct application to a wire strand to be tightened, comprising a hub with opposite horizontally-disposed extremities and intermediate radially-arranged arms with one or more sets of terminal hooks to bear upon the wire, the arms having means at one point whereby the wire to be stretched

or tightened may be carried transversely across the device to engage opposite portions of the hub, the hub, arms and hooks being of an integral immovable construction relatively to each other and the wire strand engaging the hub on opposite sides of the arms when the tightener is in operative position.

2. A wire-tightener comprising a hub with a plurality of arms radiating therefrom, the said arms being extended from an intermediate point of the hub and having means at one point whereby the wire to be stretched or tightened may be carried transversely across the device to engage opposite portions of the hub divided by the arms.

3. A wire-stretcher comprising a hub having longitudinal extensions, arms radiating from said hub intermediately between said extensions and provided with terminal hooks for engaging the wire, and means for engaging a loop of the wire and permitting it to pass transversely across the device for winding engagement with both hub extensions.

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

THOMAS SPRIGGS.

Witnesses:

J. W. CRAWFORD,
BLANCHE FRANKENBERGER.