

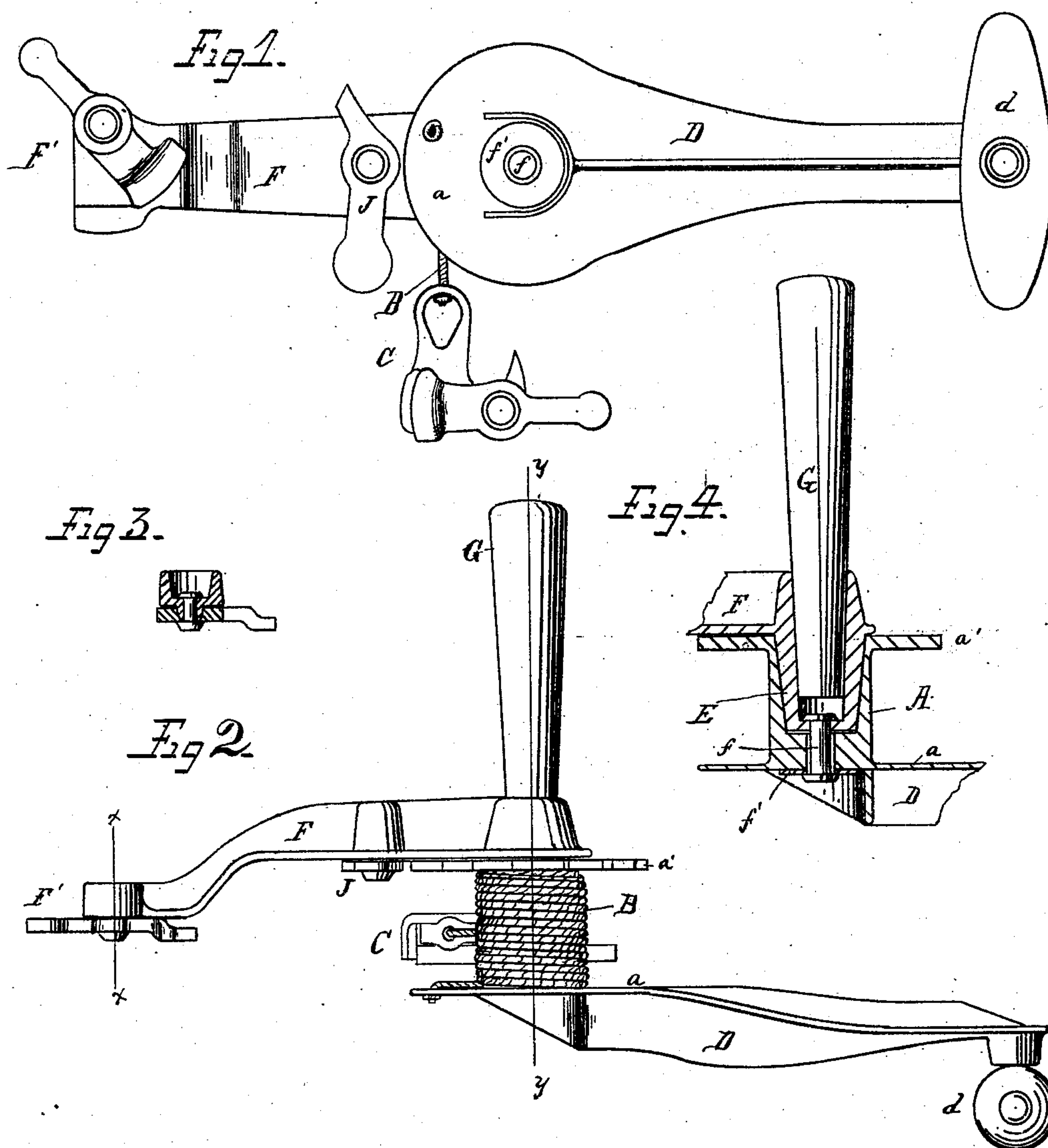
(No Model.)

2 Sheets—Sheet 1.

S. M. STEVENS.
WIRE FENCE STRETCHER.

No. 248,063.

Patented Oct. 11, 1881.



WITNESSES—
J. Everett Brown
A. W. Munday.

INVENTOR—
Sidney M. Stevens,
By Munday Evans & Adcock
his Attys.

(No Model.)

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Fig 5.

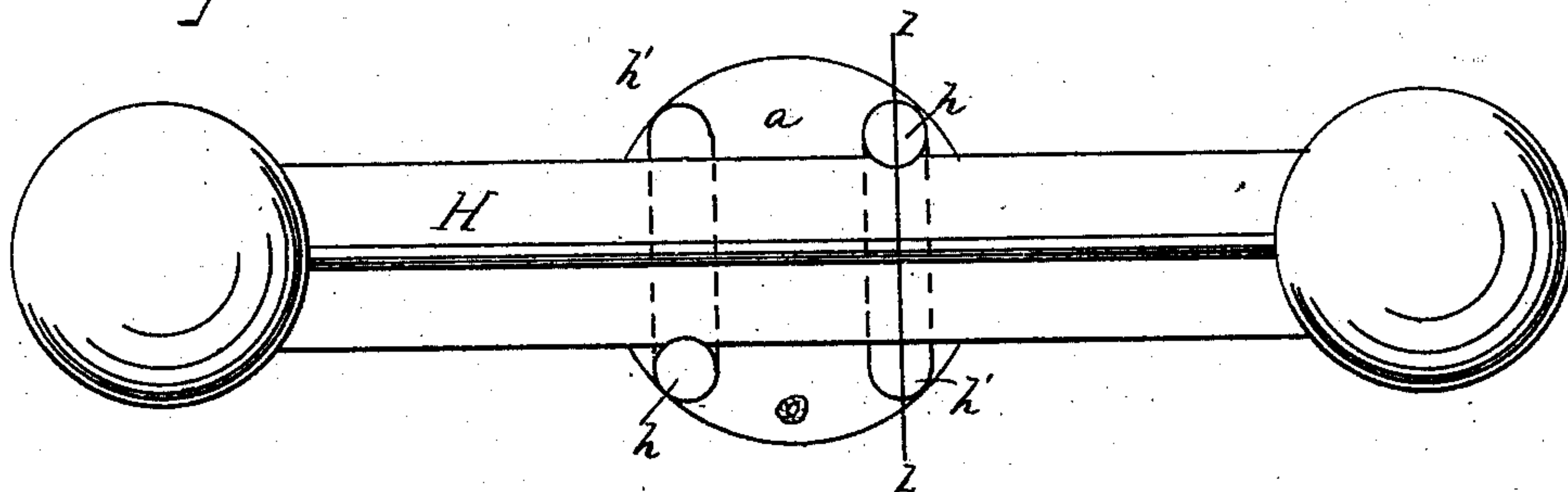
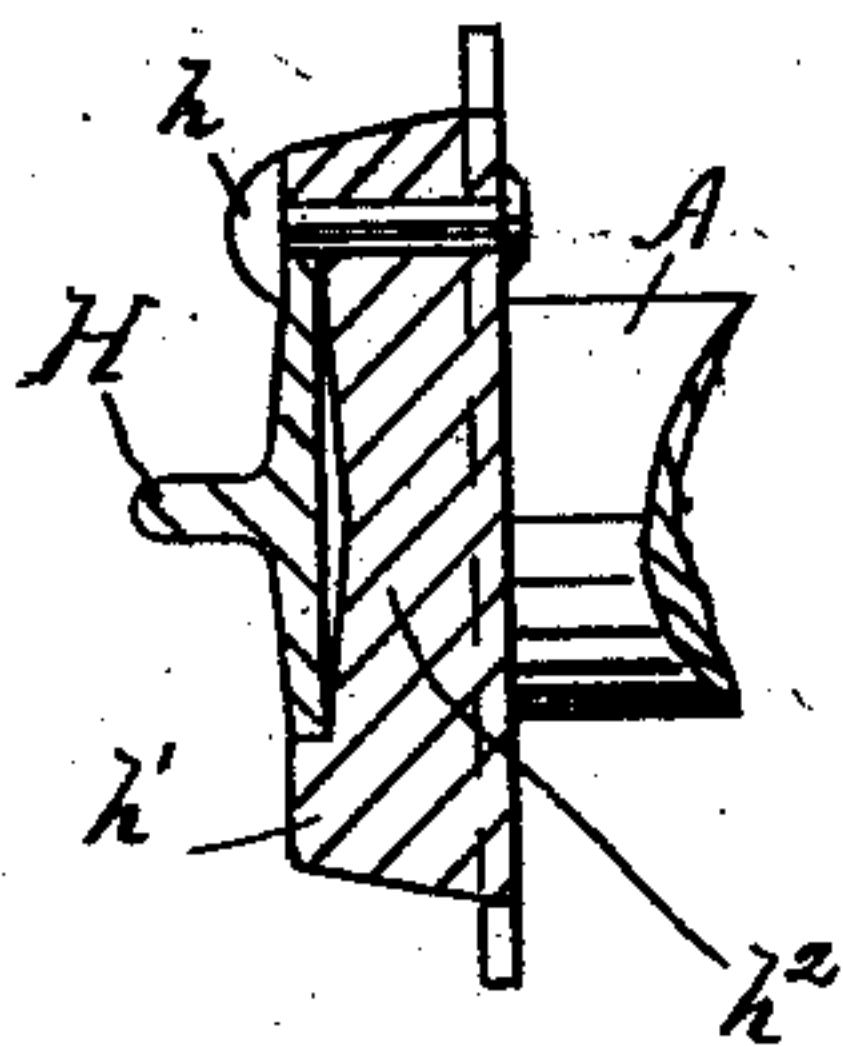


Fig 6.



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UNITED STATES PATENT OFFICE.

SIDNEY M. STEVENS, OF DE KALB, ILLINOIS.

FENCE-WIRE STRETCHER.

SPECIFICATION forming part of Letters Patent No. 248,063, dated October 11, 1881.

Application filed July 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY M. STEVENS, of De Kalb, in the county of De Kalb and State of Illinois, have invented certain Improvements in Fence-Wire Stretchers, of which the following is a specification.

This invention relates to that class of devices for straining fence-wires, which are made in the form of portable winches; and the invention consists in certain modifications and changes in structure tending to cheapen the cost, simplify the manufacture, and make the device more easy to operate and handle in doing the work of wire-stretching, as will be more fully hereinafter made apparent.

In the accompanying drawings, which form a part of this specification, Figure 1 represents a side view of the apparatus. The draftsman for convenience has shown the apparatus upside down. Fig. 2 is a view looking down upon Fig. 1, and shows the under side of the device. Fig. 3 is a section on xx of Fig. 2, and Fig. 4 is a section on yy of the same figure. Figs. 5 and 6 show the sliding handle which I sometimes use and its attachment.

Like letters of reference, made use of in the several figures, denote always the same parts.

It will be noticed that my improved apparatus is very light and portable, there being absolutely no more frame-work than necessary to support the winch-drum, its handle and bearings, and the griper.

In the drawings, A is the drum of the winch, having a suitable flange or shoulder, $a a'$, at each end. To this drum is attached a strong cord or rope, B, or it may be, if preferred, a light chain. The preferable method of attachment of the rope B is to pass it through a perforation in one of the shoulders a .

At the free end of the rope I affix sometimes a gripping device, C, consisting of a flanged piece of metal secured to the rope and provided with a pivoted weighted cam-latch having a roughened surface, between which and the flange the wire may be securely gripped when the rope is strained. Sometimes I use merely a hook at this end of the rope, as in operation—except when the apparatus is employed to draw the two free ends of a fence-wire together—the rope is usually secured to a fence-post.

To one of the heads of the drum is cast the crank D, furnished with the handle d . Instead, however, of being cast with the drum, I sometimes find it advantageous to make this crank of a separate bar of iron, H, and secure it to the drum-head by devices which will permit it to slide thereon. These devices may be headed rivets h and studs h' , located relatively as shown. The studs may form a portion of the raised ridges h^2 , cast on the drum-head to remove the handle from the head and prevent friction.

I provide the bar H at each end with a handle, so that at the time of greatest strain the operator may apply the full force of both hands to the work of turning the winch, or may slide the bar through to give a greater leverage for operating with a single hand.

Through the axis of the drum is a taper hole fitted to receive the taper trunnion or axle, E, which projects from the griper F. The trunnion and drum are united by the rivet or bolt f and washer f' , the rivet being inserted through the hollow trunnion into the hole in the small end of the same, and thence passing through a perforation in the head of the drum at that side which carries the crank-arm.

For convenience in handling the device I drive into the hollow of the trunnion a plug-handle, G, of wood, which projects sufficiently to give a good firm holding place for the left hand of the operator.

Upon the outer end of the griper F is a flange and pivoted cam F' for holding the end of the wire.

The shoulder a' of the drum has its periphery cut into ratchet-teeth and a pawl, J, pivoted to the side of the griper-piece, takes into these teeth to hold the slack as the winch is wound.

In operation, the end of the rope being secured to a wire or to a post, the griper is attached to the wire to be stretched by means of the holder F' . The slack is then taken up by winding up the rope on the winch.

Having thus fully described my invention, I claim—

1. The fence-wire stretcher consisting of an arm, F, carrying a gripping device, and provided with a trunnion, E, a winding-drum mounted on said trunnion and secured directly thereto, and provided with an operating-crank,

and a cord provided with a hook or griper, substantially as specified.

2. The combination of arm F, hollow conical trunnion E, drum A, ratchet *a'*, crank D, bolt
5 or rivet *f*, griper F', pawl J, and cord B, substantially as specified.

3. The combination, with the drum, mounted on a trunnion at one side of the griper-carry-

ing arm, of a handle, G, projecting from the opposite side, the crank, the ratchet, the cord, to the pawl, and gripping device, substantially as specified.

SIDNEY M. STEVENS.

Witnesses:

H. M. MUNDAY,

T. EVERETT BROWN.