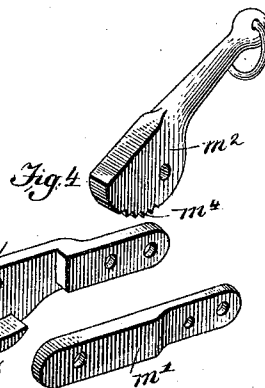
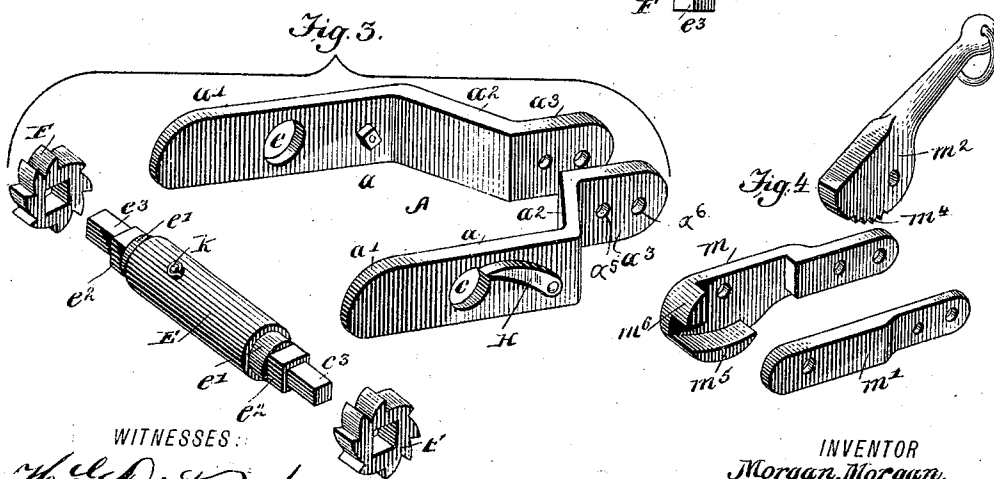
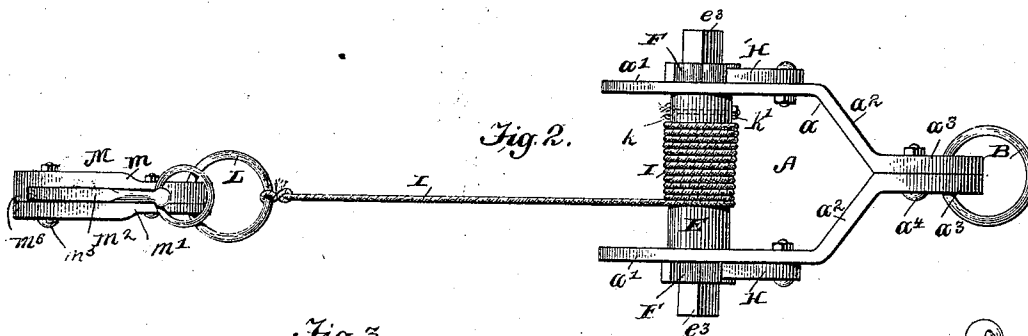
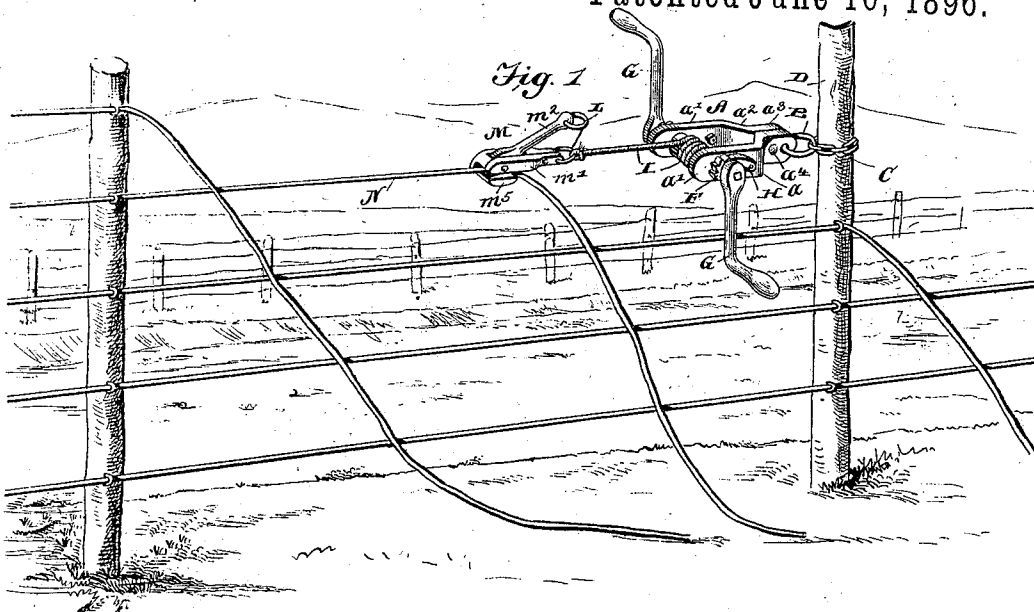


(No Model.)

M. MORGAN.
WIRE STRETCHER.

No. 562,015.

Patented June 16, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

MORGAN MORGAN, OF FOXBURG, PENNSYLVANIA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 562,015, dated June 16, 1896.

Application filed March 6, 1896. Serial No. 582,085. (No model.)

To all whom it may concern:

Be it known that I, MORGAN MORGAN, residing at Foxburg, in the county of Clarion and State of Pennsylvania, have invented an Improved Wire-Stretcher, of which the following is a specification.

This invention is an improved wire-stretching machine adapted for use in building wire fences either of the simple or barbed wire type.

The object of my invention is to provide an exceedingly cheap, simple, and efficient device, one in which the pull will be central—that is, in direct line between the two posts.

Another object is to provide a stretcher which shall be composed of a number of easily-assembled parts, so that in case any part of the machine should become broken said part can be removed, repaired, or replaced, thus preventing the demolition of the entire device by breaking a single part, as is the case with wire-stretchers now in use in which intricate castings are employed.

Another object is to provide an improved form of gripping-tool which will stand any amount of strain without breaking any of the parts.

Another object is to provide a stretching-machine which can be operated upon either the right or left hand side of the fence, and one which can be operated by either one or two men, as desired.

With these various objects in view my invention consists in the peculiar construction of the various parts and in their novel combination or arrangement, all of which are shown in the drawings, fully set forth in the description, and designated in the appended claim.

In the drawings forming a part of this specification, Figure 1 is a view showing my invention in use. Fig. 2 is a top plan view. Fig. 3 is a view showing the several parts of the stretcher detached. Fig. 4 is a similar view showing the parts of the gripping-tool detached.

In carrying out my invention I employ a yoke or frame A, composed of two similar pieces a , preferably of wrought-iron, said pieces a being parallel for the greater portion of their length, as shown at a' , then bent inward toward each other, as at a^2 , and securely bolted to each other at their rear ends

a^3 by means of a bolt a^4 passing through the perforation a^5 . The ends a^3 also have another opening a^6 , through which is passed a ring B, by means of which the stretcher is connected to the post D by means of a chain C. The parallel portions a' have circular openings e , in which turn the journal portions e' of the winding-shaft E, and upon the outer side of each journal e' is formed a square shoulder e^2 , upon which is mounted a ratchet-wheel F, and beyond each shoulder e^2 is arranged a square end e^3 , upon which are mounted the cranks G, by means of which the winding-shaft is rotated. A locking-pawl H is pivoted upon the outer side of each member a' and adapted to engage the ratchet-wheel F, thereby preventing any backward movement of the winding-shaft.

The drawing rope or chain I is attached to the winding shaft or drum E by means of an eyebolt k and nut k' , said bolt passing transversely through the shaft and secured therein by means of the nut k' , the drawing rope or chain being attached to the eye k , as most clearly shown in Fig. 2.

The drawing-rope I is connected to a ring L, which in turn is connected with the gripping-tool M, said gripping-tool comprising the side members m and m' and the gripping-lever m^2 , pivotally mounted between said side members upon a bolt m^3 , passing through said side members and lever, the forward end of said lever having a cam-shaped head m^4 , the under side of which is serrated and adapted to bind the wire N against a bearing-block m^5 , integral with the side member m , the upper face of said bearing-block being slightly concave to form a better lock in connection with the cam-shaped head of the lever. The side members m and m' are bolted together at their rear ends, and at the forward end the member m is formed with a space-block m^6 , which holds the side members the proper distance apart and also serves to guide the wire upon the bearing-block m^5 and beneath the head m^4 .

Now in operation the gripping-tool is connected with the winding shaft or drum by means of the drawing rope or chain I by means of the eyebolt and nut. The stretcher is then connected to the post D by means of the chain C, and the wire to be stretched is

then placed in the gripping-tool and the lever thrown back to tightly grip said wire, and, if desired, a suitable chain or rope may be attached to the free end of the lever. The wire
5 being now securely gripped in the tool M, the handles G are turned, rotating the winding shaft or drum E, winding the draw rope or chain I thereon, and stretching the wire to the desired extent.
10 By means of a wire-stretcher constructed as described I am enabled to obtain a direct or central pull between the posts, and, furthermore, am enabled to obtain a powerful leverage and pull upon the wire. The lock-
15 ing-pawl engages the ratchet-wheel at each side of the winding shaft or drum, and thus prevents any possible backward movement of the winding shaft or drum. After the wire has been stretched and secured the grip-
20 ping-lever is thrown forward to release the

wire. The locking-pawls are also thrown back, releasing the winding-shaft. Another wire to be stretched is then inserted in the gripping-tool, the gripping-lever thrown back, the locking-pawls thrown into engagement 25 with the ratchets, and the crank-handles revolved the same as before described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is— 30

The combination with the side members *m* and *m'*, of the grip-lever *m*², having teeth *m*⁴, the member *m*, having the bottom space-block *m*⁵, and the front space-block *m*⁶, and the pivotal connecting-bolt, all arranged sub- 35 stantially as shown and described.

MORGAN MORGAN.

Witnesses:

JOSIAH FILLMAN,
LEMUEL COLLINS.