

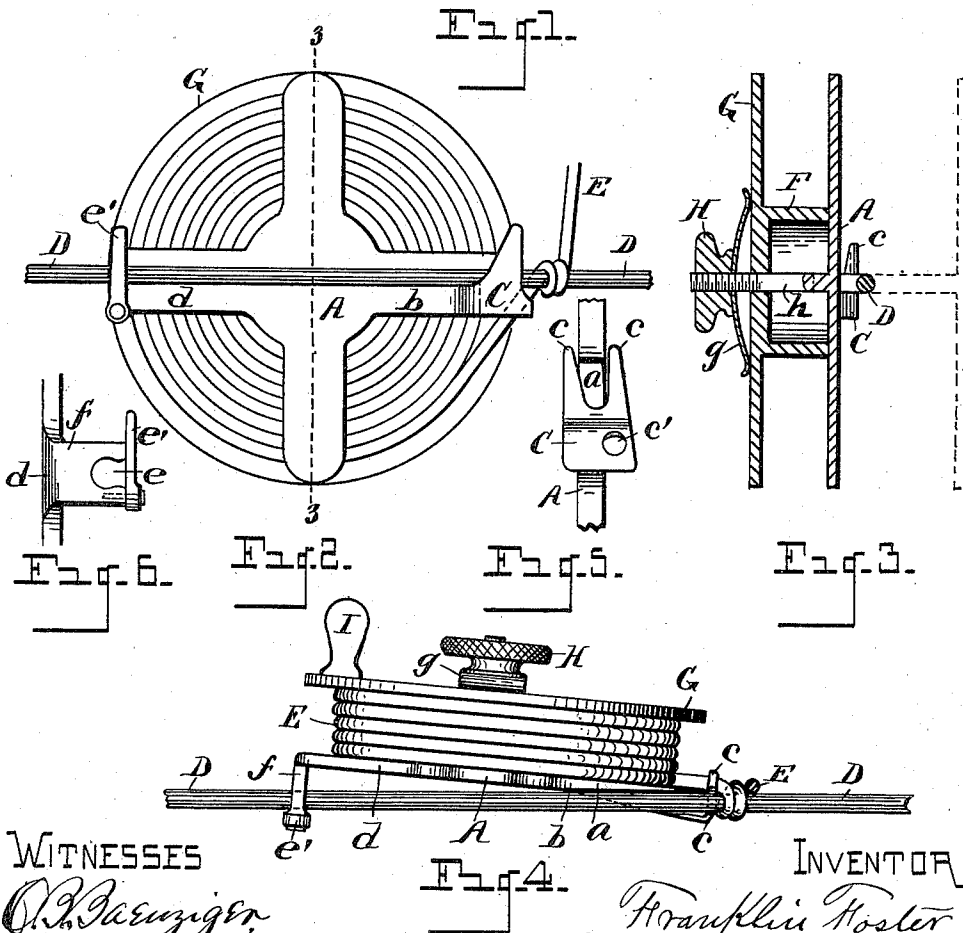
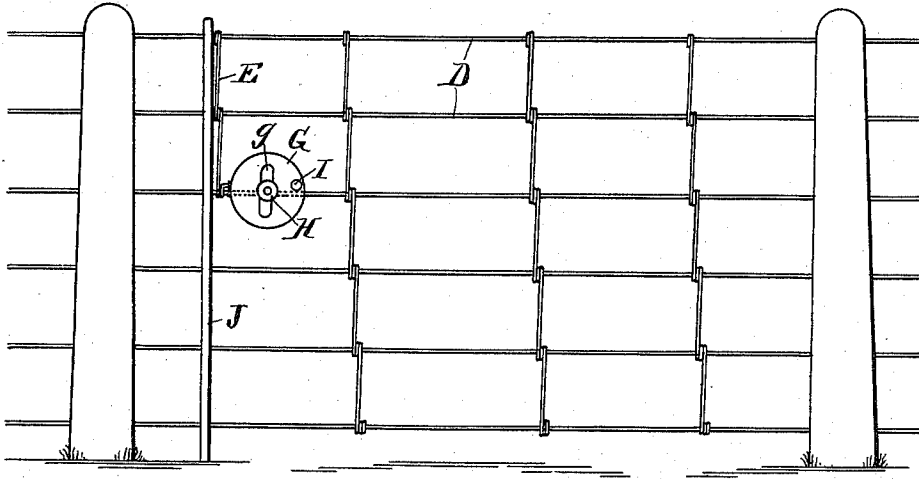
(No Model.)

F. FOSTER.

DEVICE FOR ATTACHING STAY WIRES TO FENCES.

No. 584,583.

Patented June 15, 1897.



WITNESSES

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FRANKLIN FOSTER, OF WOODMERE, MICHIGAN.

DEVICE FOR ATTACHING STAY-WIRES TO FENCES.

SPECIFICATION forming part of Letters Patent No. 584,583, dated June 15, 1897.

Application filed March 29, 1897. Serial No. 629,729. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN FOSTER, a citizen of the United States, residing at Woodmere, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Devices for Attaching Stay-Wires to Fences; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improved device in attaching stay-wires to the line-wires of the fences; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide simple and effective means for attaching the vertical stay-wires to the horizontal line-wires of a fence in such manner as to enable the stay-wire to be quickly and securely attached by winding it successively around said horizontal wires, the arrangement being such that the stay-wires are carried in a continuous coil upon a rotary drum, from which the stay-wire is unwound as it is required for use. This object is attained by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a portion of a fence, showing the application of my improved device for attaching stay-wires thereto. Fig. 2 is an enlarged side elevation of the drum or reel upon which the stay-wire is mounted. Fig. 3 is a diametrical section on line 3 3 of Fig. 2, the wire being omitted from the drum of the reel. Fig. 4 is a plan view of Fig. 2. Fig. 5 is an enlarged detail in elevation of the forked guide carried by a portion of the reel which receives the line or horizontal wires of the fence and which is also provided with an aperture below said guide through which the stay-wire passes. Fig. 6 is a detail in elevation of a projecting guide-plate carried by the reel and adapted to be attached to the line-wires to assist in retaining the reel in operative position.

Referring to the letters of reference, A

designates the fixed or stationary portion of the reel, which consists of a series of radial arms of any desired diameter. Two of these arms I will term the "horizontal" arms, of which the arm *b* is provided with an integral guide-plate C, having the upwardly-extending fork *c*. This fork stands at right angles to the plane of the arm *b* and one of its sides stands outward beyond the plane thereof, so as to more freely receive the line-wire D, as clearly shown in Figs. 2, 3, and 4, a way *a* (see Fig. 4) being cut in the face of said arm to accommodate said wire. Below the fork *c* in the inner lower corner of the guide-plate C is a guide-aperture *c'*, through which the stay-wire E is fed. The opposite horizontal arm *d* is provided at its outer end with a right-angle guide-plate *f*, which stands outward from the face of said arm and is provided at its outer end with an open slot *e*, which is adapted to freely receive the line-wire D and in which said wire may be temporarily secured to the pivoted latch or button *e'*, which closes said slot, but which may be swung away from said slotted opening to relieve said wire when desired.

The rotary portion of the reel consists of a drum F, which is formed integral with a circular disk G, whose diameter is equal to that of the radial arms of the part A, and which, together with said arms, forms a guide which keeps in place the coil of stay-wire E, which is mounted upon said drum and rises between said disk and said arms, as clearly shown in Figs. 2 and 4. The two parts of said reel are secured together by means of a bolt *h*, which extends from the fixed part A and passes through the center of the disk G, its outer end passing through an elliptical spring *g*, whose ends bear upon the face of said disk and which is confined by the thumb-nut H, which is screwed upon the outer end of said bolt. By this arrangement the parts of the reel are yieldingly held together and the drum F is permitted to rotate while the part A may be held stationary. The spring *g* permits a slight lateral play of the drum and at the same time its tension prevents the drum from rotating except as required.

In the application of this improved device the reel is first filled with the stay-wire by reeling the wire onto the drum F through the

rotation thereof by means of the crank I, projecting from the face of the disk G. When the reel shall have become filled, the free end of the stay-wire E is passed outward through the aperture *c'* in the guide-plate C, said wire passing upward through said aperture from the under side of the reel, as clearly shown in Fig. 2. The free end of the stay-wire projecting from said guide-plate is then wound around the upper stay-wire of the fence. This is accomplished by mounting the reel upon the upper wire of the fence, as shown in Figs. 2 and 4, so that said upper wire shall lie in the fork of the guide-plate C and in the slotted opening *e* of the plate *f*, being secured therein by the pivoted button *e'*. The free end of the stay-wire is then held against the line-wire D and the reel rotated around said wire, whereby the stay-wire is twisted around the line-wire, as clearly shown in Fig. 1. The stay-wire may be wound around the line-wire in this way two or more times, so as to firmly secure the end thereof, when the reel is detached and passed downward to the next successive line-wire of the fence, the stay-wire E paying off from said reel as it is passed downward. The reel is secured to the succeeding line-wire in like manner, so that said wire shall lie in the fork *c* and in the slotted opening *e* of the plate *f*, when by rotating said reel the stay-wire is wound tightly around the succeeding line-wire of the fence upon which said reel is mounted, the upward strain upon the stay-wire keeping the line-wire securely in the fork *c* of the guide-plate, and the pivoted button *e'*, closing the opening of the slot *e* in the guide-plate *f*, securely retains the reel in position on the line-wire as it is rotated. In this manner the stay-wire is wound around each successive line-wire of the fence from the top to the bottom and is severed afterward, being wrapped around the bottom wire and the operation repeated at such distance from the first stay-wire as it is desired that said stay-wires shall be placed.

In the operation of applying the stay-wires by this improved device it is necessary to support the longitudinal wires of the fence at the point of attachment of the stay-wire, so that the said wires may be maintained at the proper distance apart. This I accomplish by means of a portable stake J, the edge of which is notched (not shown) so as to receive the longitudinal wires of the fence and maintain them the requisite distance apart while the stay-wire is being applied thereto.

It will now be seen that this improved device is simple, compact, and practicable, enabling the stay-wire to be applied to the line-wires of the fence without the use of additional tools and in a very perfect and rapid manner, and because of the comparatively small diameter of the reel upon which the stay-wire is wound the stays may be applied to fences in which the line-wires are very close together.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device for attaching stay-wires to fences, the reel comprising a fixed and a rotary member, the fixed member of the reel having means for attachment to the line-wire of the fence, the rotary member of the reel turning on the fixed member and adapted to carry the stay-wire to wind upon the line-wires of the fence.

2. In a device for attaching stay-wires to fences, the reel consisting of a fixed and a rotary member, the fixed member having engaging guides for attaching it to the line-wire and having a guide-plate to receive the stay-wire, the rotary member consisting of a drum journaled to the fixed member and adapted to carry the stay-wire which is supplied to said guide-plate and wound upon the line-wires of the fence.

3. In a device for attaching stay-wires to fences, the two-part reel consisting of a fixed part carrying suitable attaching means for detachably mounting said part upon the line-wire and having a guide-plate adapted to receive the stay-wire, the rotary part yieldingly journaled upon the fixed part and having a drum from which the stay-wire is adapted to be supplied to said guide-plate and wound upon the line-wires of the fence.

4. In a device for attaching stay-wires to fences, the two-part reel consisting of a fixed member having means for attachment to the line fence-wires and provided with a projecting bolt, the rotary member consisting of a drum journaled upon said bolt, a spring through which said bolt passes, and a thumb-nut on the end of said bolt bearing against said spring, said drum being adapted to carry the stay-wire which is wound upon the line-wires of the fence, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANKLIN FOSTER.

Witnesses:

EDGAR S. WHEELER,
M. A. MARTIN.