

(No Model.)

C. WILLSIE.

WIRE STRETCHER AND SUPPORT.

No. 313,146.

Patented Mar. 3, 1885.

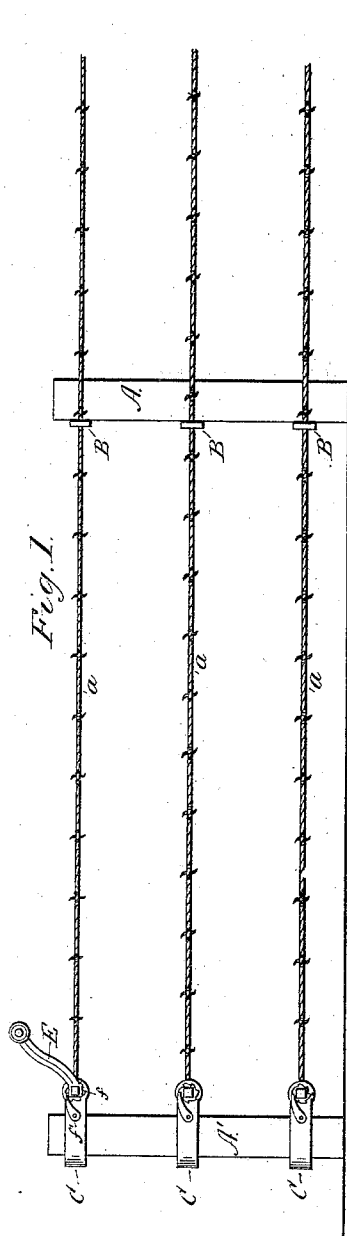


Fig. 1.

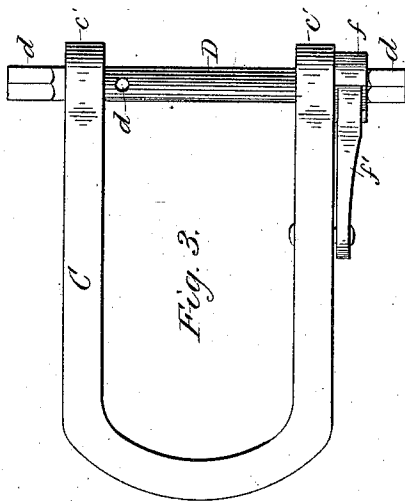


Fig. 3.

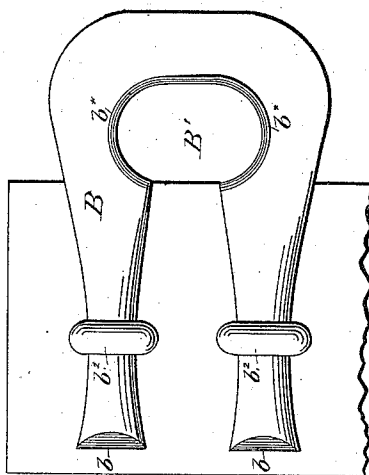


Fig. 2.

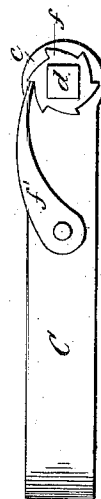


Fig. 4.

Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES WILLISIE, OF WELLINGTON, KANSAS.

WIRE STRETCHER AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 313,146, dated March 3, 1885.

Application filed May 16, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WILLISIE, a citizen of the United States, residing at Wellington, in the county of Sumner and State of Kansas, have invented certain new and useful Improvements in Wire Stretchers and Supports, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to wire stretchers and supports for barb-wire; and it consists in the construction and arrangement of the parts which will be hereinafter more fully described and pointed out.

The object of my invention is to provide simple, strong, and cheap devices to stretch the wires, and thereafter support them in position on the post.

In the drawings similar letters of reference indicate like parts.

Figure 1 shows my invention as applied to a fence. Fig. 2 is a plan view of the wire-support. Fig. 3 is a plan view of my wire-stretching device. Fig. 4 is a side elevation of the same.

The wire-stretcher consists of a U or clevis shaped device, preferably made of iron, the arms of which are enlarged at their ends, and provided with openings or bearings to receive a shaft or pin. This device may be of any required length and breadth necessary to fit the post upon which it is to be used. The shaft or pin passing through the openings of the enlarged ends of its arms is preferably made round in that part between the arms, and rectangular or octagonal on its ends, to receive a crank to turn the same. On one end of this shaft a ratchet is placed of ordinary construction, to engage with a pawl pivoted to one arm of the U or clevis shaped device. This ratchet and pawl prevent the shaft from turning back when the wire is being stretched thereby. A crank of ordinary construction may be used to rotate this shaft.

The support to the wires is also a U or staple shaped device, as shown in Fig. 2, having an elliptical opening to permit the ready passage of the barbed wire through it. This support may either be attached to the side of the post, as shown, or be driven into it. It is beveled on both sides in the elliptical open-

ing, the more readily to permit the wire to pass through it.

In Fig. 3 the stretching device is shown, in which C C are the arms, having enlarged ends with openings or bearings $c' c'$.

D is the shaft or pin, passing through said openings, having rectangular ends $d d$.

d' is a hole in said pin, through which the wire is passed before stretching to fasten it.

f is the ratchet, rigidly attached to one end of said shaft.

f' is the pawl, pivoted to one arm of the U-shaped device, to engage with said ratchet.

In Fig. 2, B B represent the arms of the supporting device, having enlarged ends $b b$, opening B', with beveled edges $b^* b^*$, fastened to the posts with staples $b^2 b^2$.

In Fig. 1 I have shown my stretching and supporting devices as applied to a fence, in which C C C represent the stretchers and B B the supports.

A' is the corner-post, to which the stretchers are applied, and A an intermediate post to which the supports are fastened.

aaa are barbed wires attached to the stretching devices, and passing through the openings in the supporting-staples.

The operation of my invention is as follows: The barbed wires having been fastened to a post at any given distance from the corner-post on which the stretching devices are placed, and strung from said post to said corner-post, the ends of the wires are passed through hole d in shaft D, which shaft is then revolved by crank E until the wire is straightened. The wires are then placed in proper elevation on the intermediate posts, and the supports applied. The crank E is then turned until the wire is sufficiently tightened.

The stretchers may be put on each corner-post, and the two ends of the wire attached to the same or only at one end, at the option of the user.

If from any cause the wires become loosened, they may be readily tightened in the manner above described.

The clevis and staple shaped parts of the stretching and supporting devices I prefer to make of cast-iron and in one piece; but they may be made of wrought-iron, if desired.

I deem it important that the clevis of the

stretcher be made of a single piece, and that it shall embrace the post, so as to give the strain of the wire a plane parallel with the bearing of the clevis on the post and the shaft bearing in each arm C thereof.

I deem the form and adaptation of the staples or supports B important, for the reason that the bevels b^* serve to guide the barbs properly into the elongated recesses B', to insure their passage through the supports. The face of the post also serves to throw these barbs into position to be acted upon by the bevels.

I am aware that a stretcher has been made having a clevis similar to mine in form, but having all the resistance located at a single point in the curve, as shown in Patent No. 195,955, of October 9, 1877. In such construction, however, the great strain comes upon a curve, and if the clevis is of cast metal, it would be liable to break. If of wrought metal it would be liable to bend and bind the journals of the windlass-shaft.

My clevis has no spring when under strain

which would interfere with the free action of the shaft in its journals.

I claim—

1. The combination, with the stretcher, substantially as described, of the supports having arms b b and elongated opening B', with beveled edges, b^* , adapted to be secured to the post by means, as b^2 , and to serve as and for the purposes set forth.

2. The combination of a wire-stretcher consisting of a clevis having a curved part to embrace the post, and two arms, as C, having journals, c' , a windlass or shaft, D, ratchet f , and pawl f' , with supports having arms b b , and elongated opening B', with beveled edges b^* , adapted to be secured to posts by suitable means, as b^2 , substantially as described.

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

CHARLES WILLISIE.

Witnesses:

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