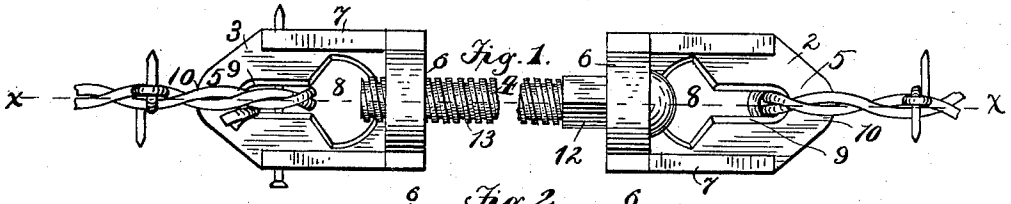
No. 610,160. Patented Aug. 30, 1898.

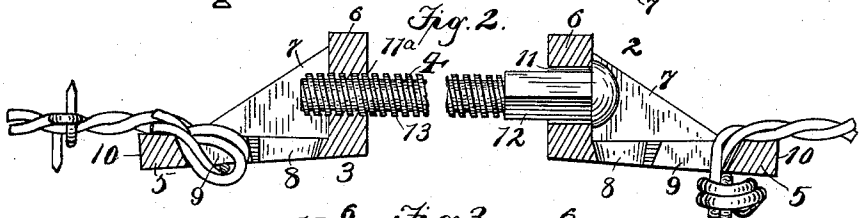
E. TAYLOR.

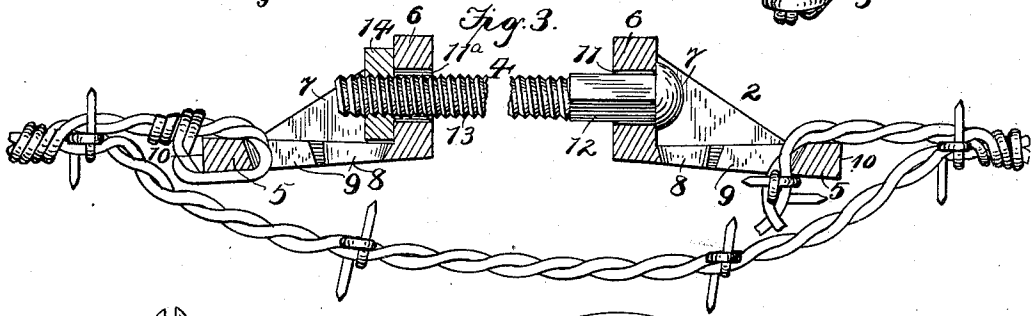
WIRE STRETCHER AND SPLICER.

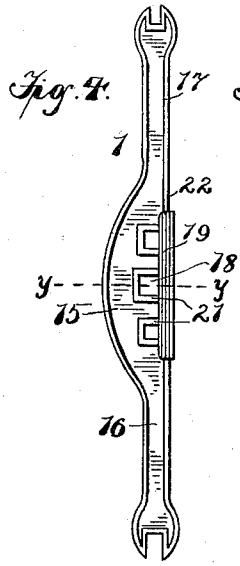
(Application filed Jan. 20, 1898.)

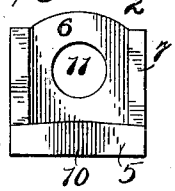
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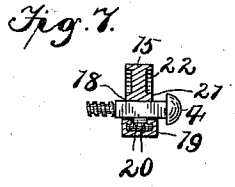












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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EZRA TAYLOR, OF ATTICA, KANSAS, ASSIGNOR OF ONE-HALF TO ELIAS M. PADGET, OF SAME PLACE.

WIRE STRETCHER AND SPLICER.

SPECIFICATION forming part of Letters Patent No. 610,160, dated August 30, 1898.

Application filed January 20, 1898. Serial No. 667,188. (No model.)

To all whom it may concern:

Be it known that I, EZRA TAYLOR, a citizen of the United States, residing at Attica, in the county of Harper and State of Kansas, have invented certain new and useful Improvements in Wire Stretchers and Splicers; 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to wire stretchers and splicers of that class that are adapted to be used for stretching wire fence, guy-wires, and the like; and it has for its objects, first, to provide a device of that class that will be cheap, durable, and effective; second, one that can be quickly applied and operated; third, that can be used in repairing broken strands; fourth, that can be used as a wire-tension device; fifth, that can be used without pliers; sixth, that can be used on guy-ropes for tents, &c.; seventh, that can be used in lieu of turnbuckles, and, eighth, that can be applied to a variety of uses of the nature above described, thereby supplying an extremely convenient device for many purposes.

In the drawings, Figure 1 is a top plan view showing my device as applied. Fig. 2 is a sectional view of the same, taken on a line X X of Fig. 1. Fig. 3 is a sectional view of a modified application of the device. Fig. 4 is a plan view of the wrench forming a part of the device. Fig. 5 is an end elevation of one of the castings. Fig. 6 is an elevation of my device in operation, showing the wrench in position and a means for preventing the castings from turning while the bolt is being drawn up; and Fig. 7 is a sectional view of the wrench on the bolt, taken on a line *y y* of Fig. 4.

Reference is had to the accompanying drawings, representing my stretcher and splicer, which consists of castings 2 and 3, the bolt 4, and the wrench 1. The castings 2 and 3 consist of an inclined base 5 and an upright portion 6, the said base 5 and upright portion 6 being reinforced with flanges 7. The base 5 is provided with a semicircular opening 8, converging into the elongated slot 9. The said semicircular opening 8 is so arranged as to allow a barb upon a barbed-wire strand to pass freely through the same, and the said slot 9 is so arranged as to allow the strand of wire to enter therein.

The outer end 10 of the base 5 is slightly enlarged to afford additional strength at that point. The upright portions 6 of the castings 2 and 3 are provided with circular openings 11 and 11^a for the admission of the bolt 4. The circular opening 11 in the casting 2 is of a size sufficient to allow the squared portion 12 of the bolt 4 to revolve freely therein. The opening 11^a in the casting 3 is threaded, so as to receive the threaded portion 13 of the bolt 4. In Fig. 3 of the drawings I have shown a modified application of the stretcher and splicer, wherein two of the castings 2 are employed with a common bolt and nut, the nut 14 being placed on the threaded end 13 of the bolt 4 to serve the same purpose as the threaded opening 11^a in the casting 3. The flanges 7 on the said castings 2 prevent the nut 14 from turning.

In Fig. 4 of the drawings I have shown the wrench by which the device is operated, said wrench consisting of a body portion 15 and elongated portions 16 and 17. The body portion 15 is provided with a series of notches 18 of different sizes to accommodate different-sized bolts. The elongated portions 16 and 17 are bifurcated at their outer ends and are to be used to bend or twist the strands of wire to any desired shape to enter the slots 9. To prevent the wrench slipping from the squared portion of the bolt after the said bolt has been placed in one of the notches 18, a sliding plate 19 is slid into the grooves 20 between the flanges 21 of the notches 18 and the flange 22 along the outer edge of the said wrench. The elongated portions 16 and 17 serve as handles when tightening the bolt. To prevent the castings 2 and 3 from turning when the wire is being tightened, I provide a heavy piece of wire 23, passing either end of the said wire 23 through the semicircular openings 8, respectively, having the wire 23 of such a length as to allow the wrench to be revolved

without coming in contact with the said wire 23.

In operation should it be desired to splice a broken wire the ends of the strands are bent back upon themselves to form a loop, the said loop then being inserted into the elongated slots 9 and secured therein by means of a nail, staple, or otherwise, as shown in Figs. 1 and 2 of the drawings. The wrench is then applied to the square portion 12 of the bolt 4 and the ends of the wire 23 inserted in the openings 8, as shown in Fig. 6 of the drawings, when the bolt 4 is revolved by means of the wrench and the ends of the wire drawn up. If it is desired to take up the slack in the wire without severing the same, the castings 2 and 3 may be attached to the strand by fastening separate pieces of wire in the grooves 9 and behind a barb on the strand, as shown in Fig. 3 of the drawings.

The bolt 4, being threaded throughout its entire length from point to squared shank 12, allows the casting 3 to be drawn up the full length of the bolt to the squared shank, thus taking up the slack in the fence-wire equal to the length of the threaded portion of the bolt, or in case the casting 3 has been drawn up to the squared shank on the bolt it can be loosened by turning the bolt until it travels to the end, which will allow the fence-wire to slacken to an extent equal to the length of the threaded portion of the bolt. By this means the device may be used as a regulator for tightening up the wires during the summer months and loosening them during the cold or winter months to allow for the expansion and contraction caused by the heat and cold.

The castings 2 and 3 being provided with the semicircular opening 8, the strand may be pulled through the same until a barb has passed through and then pushing the wire into the grooves 9, allowing the barb to come underneath the base 5, when the said barb will serve the same purpose as the nail or staple.

The device may be used in lieu of the usual wire-stretcher in building wire fence, cutting the wire in lengths, and securing the castings 2 and 3 to the ends thereof, when the strands may be tightened or loosened at pleasure. The bolt, it will be seen, is preferably of special construction, having a small head and a square shank and provided with coarse threads to permit of its being drawn up quickly. The castings 2, however, are adapted to be used in connection with an ordinary carriage-bolt. It is obvious that other means may be used for turning the bolt 4; but the wrench 1 employed by me simplifies the application of the device. The large U-shaped wire 23 may be dispensed with, but will be found convenient to hold the castings 2 and 3 when drawing up the bolt. These devices, consisting of the castings 2 and 3 and bolts 4, may be applied to wire in the roll, placed at suitable intervals, and sold with the wire, thereby equipping the wire with means for stretching and regulating the tension.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a wire stretcher and splicer, the combination of the castings 2 and 3, having the inclined bases 5, provided with semicircular openings 8, converging into elongated slots 9, the upright portion 6, having openings 11 and 11^a respectively; the reinforcing-flanges 7, and the bolt 4, having the squared shank 12, and the threads 13, extending from the end to the squared shank, in which the bolt 4, by rotation, becomes the means for stretching or regulating the wire, the adjustment of said wire being limited by the length of the threaded portion of the bolt, as shown and described.

2. In a wire-stretching splicer, the bolt 4, as shown, in combination with the castings 2 and 3, said casting 2 having the slotted inclined base 5, the upright portion 6, having a plain opening 11, and the side flanges 7, and supplying a swivel for the head of the bolt 4, and the casting 3, having the slotted inclined base 5, the upright 6, having a threaded opening 11^a, and the side flanges 7, supplying a nut for said bolt 4, substantially as, and for the purposes shown and described.

3. In a wire stretcher and splicer, the combination of the bolt 4, having coarse threads 13, and a short square portion 12, with the nut and swivel portions 6, of the castings 2 and 3, having the semicircular openings 8, and the elongated slots 9, in their inclined bases 5, and the portions 6 and bases 5, braced by the flanges 7, for the purposes shown and described.

4. The combination with a wire strand, of the bolt 4, having the coarse threads 13, and a short squared portion 12; the castings 2 and 3, having the inclined slotted bases 5, the side flanges 7, and the upright portions 6, provided respectively with openings 11 and 11^a; said bolt 4, adapted to be turned in the swivel-casting 2 and the nut-casting 3, by means of a wrench applied to its squared portion, to shorten or stretch said strand, as shown and described.

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

EZRA TAYLOR.

Witnesses:
CHAS. STOFER,
M. A. SHOEMAKER.