Dec. 9, 1924. 1,518,769

J. F. BRUNK

WIRE STRETCHER

Filed March 10, 1924

Fig. 1

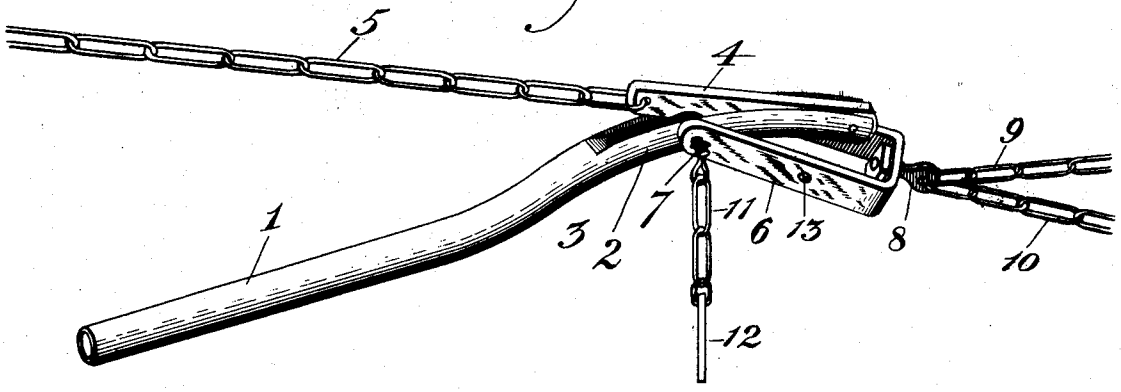


Fig. 2

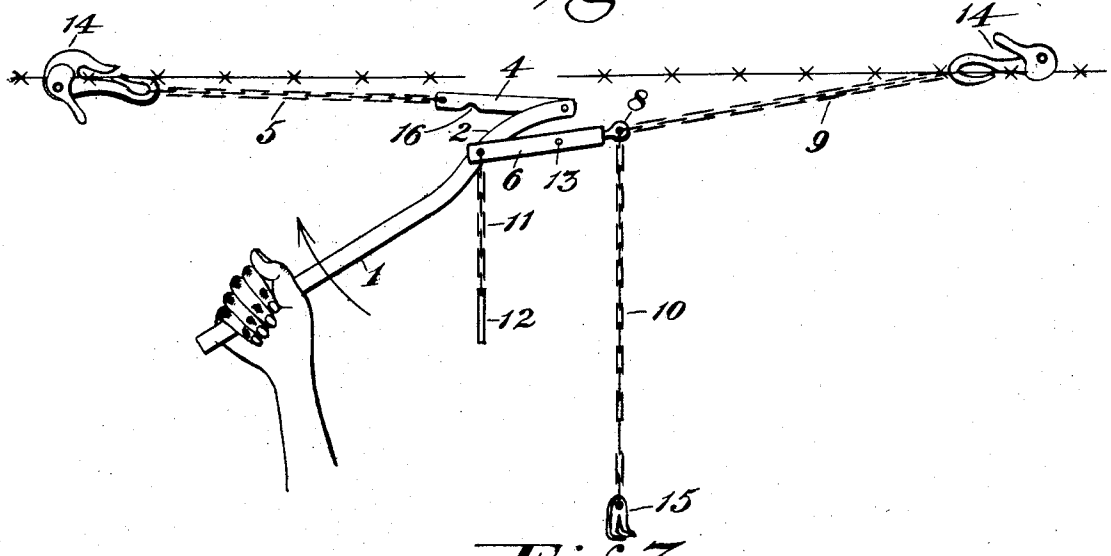
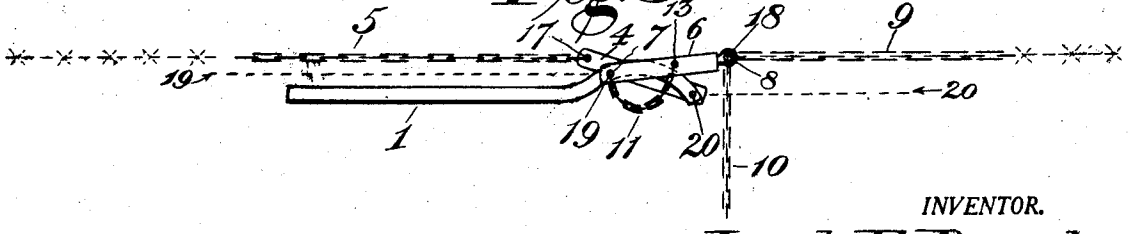


Fig. 3



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JOSEPH F. BRUNK, OF BASIN, WYOMING.

WIRE STRETCHER.

Application filed March 10, 1924. Serial No. 698,234.

To all whom it may concern:

Be it known that I, JOSEPH F. BRUNK, a citizen of the United States, residing at Basin, in the county of Big Horn and State of Wyoming, have invented certain new and useful Improvements in Wire Stretchers, of which the following is a specification.

My invention relates to wire stretchers.

My object is to provide a device of this character for building wire fence and splicing broken wires, that can be easily and conveniently handled, and that can be quickly adjusted to the work in performing the various operations required of such a device.

Another object is to provide a wire stretcher which will automatically lock itself upon the completion of a stretching operation, and will be held in its locked position by the tension in the wires upon which it has just operated.

A further object is to provide positive locking means for the device in addition to the automatic locking means just referred to, whereby the possibility of the device becoming accidentally unlocked is forestalled.

Other objects will appear in the subjoined description.

An important feature of the invention consists in an operating lever, curved at one end and slotted in the plane of its curvature, with a link pivoted at the forward end of said curved portion and adapted to be drawn backwardly into said slot, entering the same at the convex side thereof; while at about the central portion of said curved section of the operating lever, a U-shaped member or clevis is pivoted, with its closed end extending sufficiently beyond the outer end of said curved section to permit the end of said section and the link carried therein to pass up and down freely through said clevis between its parallel sides, said clevis having a swivel at its outer end for engagement with the chains operating in one direction, and said link being arranged at its free end to engage the chain extending in the other direction.

The invention consists in certain novel features of construction and arrangement of parts, as will be hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Fig. 1 is a perspective view of my device.

Fig. 2 is a side elevation showing the device in the act of bringing two wires toward each other for splicing; and,

Fig. 3 is a side elevation showing the device in locked position at the completion of a stretching operation.

The numeral 1 indicates the operating lever provided at its forward end with a curved section 2, the outer end of which comes into alinement with the straight or handle portion of the lever. This curved portion is provided with a central slot 3. Pivoted in the forward end of this slot is a link 4 adapted to swing backwardly into the slot; and to the other end of this link is secured the rear chain 5 of the device.

About midway of the curved portion 2 of the operating lever, a U-shaped member or clevis 6 is pivotally connected thereto by means of a pivot 7 which extends transversely through said section across the slot 3 therein. This clevis is of a length to extend forwardly beyond the end of said curved portion, so that said portion has free up and down movement between the parallel sides of the clevis. At the outer end of this U-shaped member or clevis is a swivel ring 8 to which are attached the stretcher chains 9 and 10.

The pivot pin 7 projects outwardly preferably at the right side of the clevis 6, and to this projecting portion is suitably attached a short chain 11 which carries a pin 12 adapted to be received into the alined openings 13 of the clevis, when the device is in its locked position, as illustrated in Fig. 3, the reason of which will be more fully explained in describing the operation of the device.

To the ends of the chains 5 and 9 are secured wire clamps 14 of any ordinary or preferred construction, and to the end of chain 10 is secured a grab hook 15.

The link 4 near its outer end is provided on its under side with a notch 16 into which the pin 7 is received, and which permits the link to lie down a little deeper in the slot 3, the reason of which arrangement will become more apparent when the operation of the device is described.

The operation of the device is, for the most part, already apparent. From Fig. 2 it will be seen that when two sections of wire are engaged by the clamps 14, and the lever 1 is moved in the direction of the arrow,

the wires will be drawn toward each other; and when the handle of the clamp has come up to a horizontal position, the points 17 and 18 (see Fig. 3) will be in alinement with each other, in a line parallel with the handle 1, and that the horizontal line extending through these two points is in a plane above the horizontal line extending through the point 19 where the clevis is pivoted to the curved portion of the operating lever; and also still further above the plane of the point 20 where the link 4 is pivoted to the forward end of the operating handle. It will be seen that as soon as the point 19 moves above the plane of the point 20, the tension on the wires will exert a pull on the lever 1 that will automatically move it upwardly, thus automatically holding it locked in that position; and since the notch 16 of the link 4 receives the pin 7 thereinto, the handle is permitted to rise a little farther than would otherwise be the case, whereby the device is more securely locked automatically. But when the parts are in the position just described, as shown in Fig. 3, the curved end of the operating lever has moved downwardly through the clevis sufficiently to bring its upper side below the alined openings 13 of the clevis, so that the pin 12 carried on the chain 11 can be passed through said alined openings, thereby positively locking the device in the position it has already automatically assumed by reason of the tension in the engaged wires.

In stretching a long section of wire, or when, for any reason it is desirable to do so, the chains 9 and 10 may be connected together and formed into a loop around a fence post, while the wire to be stretched will be engaged by the clamp on the end of the chain 5.

Attention is also called to the fact that at the end of a clamping operation when the device automatically locks itself, the handle stops at a point parallel with the chain 5 and with the wire being operated upon, and is spaced therefrom sufficiently not to bump the hand of the operator into the chain or the wire, which latter often has barbs on it.

From the foregoing it will be seen that I have provided a device of great simplicity; easy and convenient to handle; strong and durable, and yet inexpensive, in construction; one that will automatically lock itself at the completion of a stretching operation; and that also has additional means for independently and positively locking it in the position which it assumes automatically.

Having now described my invention, what I claim as new and desire to protect by Letters Patent is:—

A device of the character described, comprising an operating lever with one end of said lever arranged to form a handle and the other end bent into a curved portion provided with a longitudinal slot; a link pivoted in the forward end of said curved portion in said slot and adapted to swing rearwardly over the convex side of said portion and to be received into said slot, and adapted at its rear end for engagement with one of the stretcher chains, a U-shaped member pivoted at its open end to said curved portion at approximately its middle part and extending forwardly sufficiently to permit its closed end to clear the forward end of said curved portion of the operating lever, to adapt said member to swing upwardly and downwardly on said curved portion; a swivel in the closed end of said U-shaped member for engagement with one of the stretcher chains; said member having alined openings in its sides, and a pin to pass through said openings when the lever is swung into position to bring the convex side of the curved end portion of the operating lever inwardly beyond said openings, whereby to automatically hold the lever against a return movement, and also to positively lock it against accidental return movement.

In testimony whereof I affix my signature.

JOSEPH F. BRUNK.