

June 24, 1924.

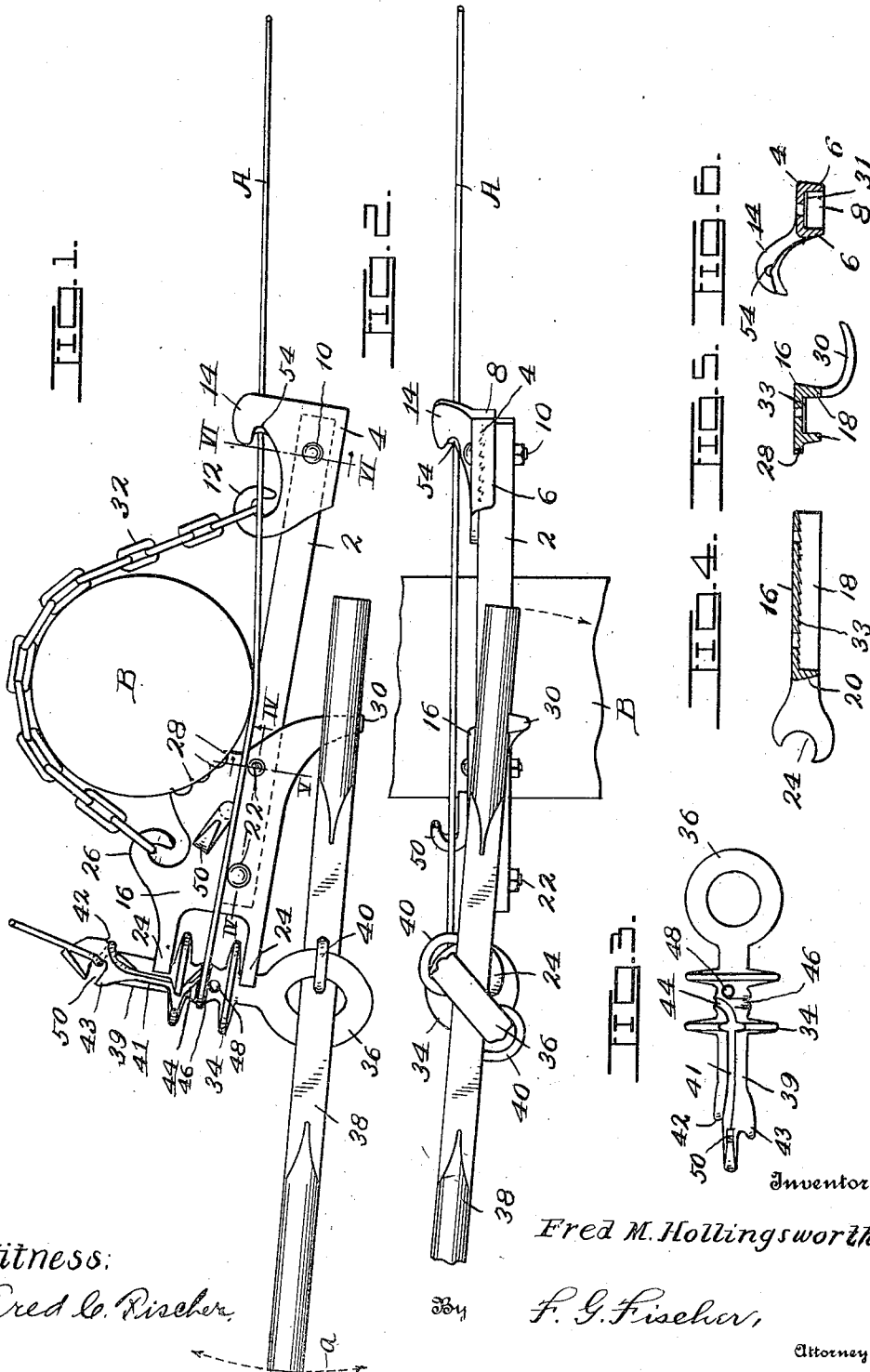
F. M. HOLLINGSWORTH

1,498,731

WIRE STRETCHER

Filed May 15, 1922

2 Sheets-Sheet 1



Witness:

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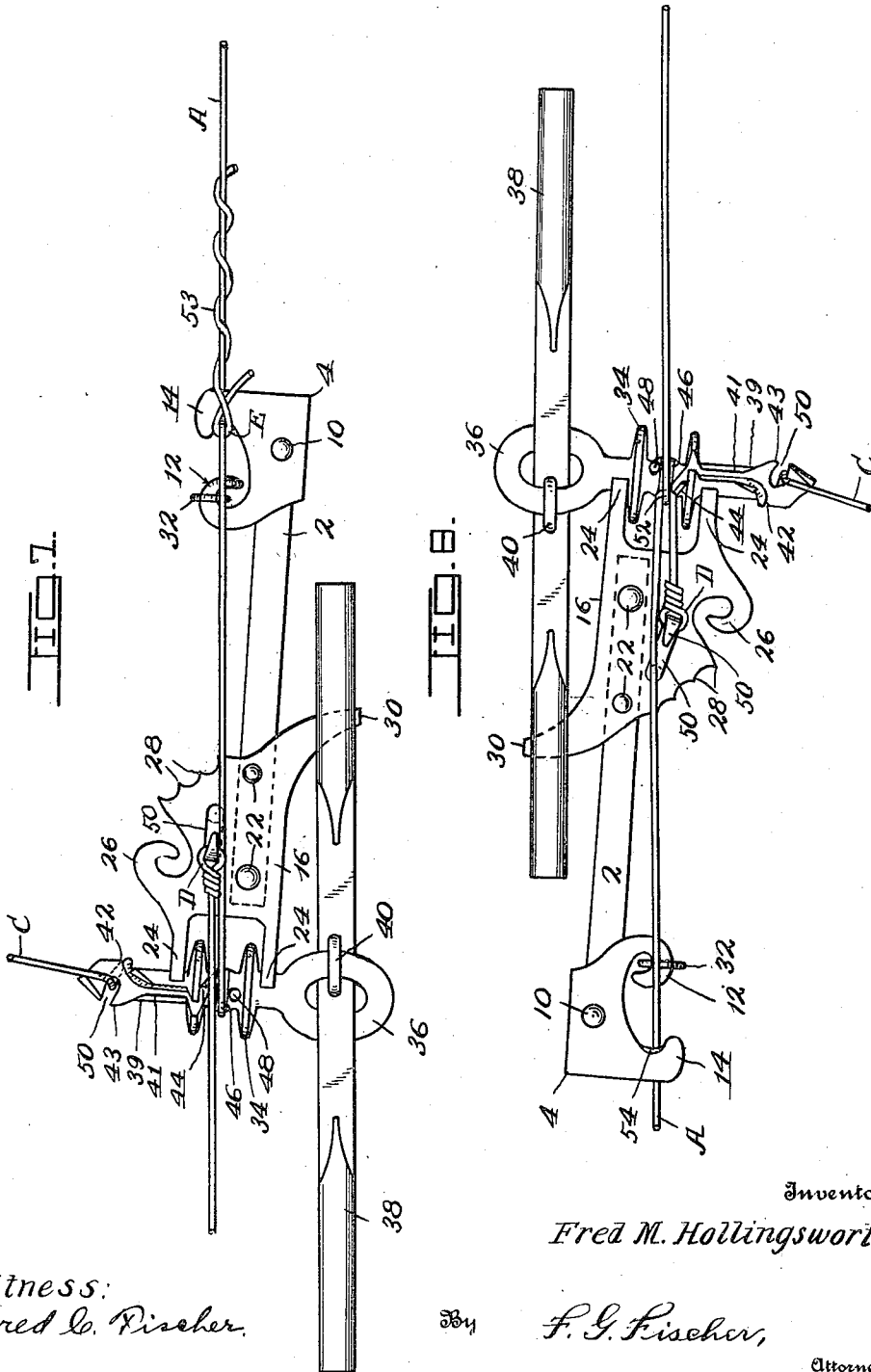
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Witness:
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Inventor:
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Patented June 24, 1924.

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UNITED STATES PATENT OFFICE.

FRED. M. HOLLINGSWORTH, OF ODESSA, TEXAS.

WIRE STRETCHER.

Application filed May 15, 1922. Serial No. 561,128.

To all whom it may concern:

Be it known that I, FRED. M. HOLLINGSWORTH, a citizen of the United States, residing at Odessa, in the county of Ector and State of Texas, have invented certain new and useful Improvements in Wire Stretchers, of which the following is a specification.

My invention relates to wire stretchers and splicers of the character employed in constructing and repairing wire fences, and my object is to provide a simple, inexpensive and efficient device of light portable character possessing advantages over other devices now in use.

One preferred embodiment of my invention is illustrated in the accompanying drawings which form a part of this specification, and with reference to which the invention will be more fully described and then be particularly pointed out and defined in the appended claims.

Fig. 1 is a plan view of the device in the act of stretching a fence wire and holding it against a post preparatory to being secured by a staple.

Fig. 2 is a side elevation of the parts disclosed by Fig. 1, with a portion of the post broken away.

Fig. 3 is a detail of a drum forming an important feature of the invention.

Fig. 4 is a detail section on line IV—IV of Fig. 1, of a member having bearings in which the drum is journaled.

Fig. 5 is a detail cross section of the bearing member on line V—V of Fig. 1.

Fig. 6 is a detail cross section of another member taken on line VI—VI of Fig. 1.

Fig. 7 is a plan view of the device in initial position for holding two wires in position preparatory to splicing them together.

Fig. 8 is a plan view of the final position of the device for holding the two wires to be spliced together.

In carrying out the invention, I employ a bar 2 consisting, preferably, of wood in order to gain strength and lightness. Said bar 2 is provided at its rear end with a member 4 having oppositely-disposed longitudinal flanges 6 for engaging the sides of the bar 2 and a transverse flange 8 for engaging the rear end of said bar 2. The flanges 6 and 8 coact with suitable means such as a bolt 10 in securing the member 4 to the bearing 2. The member 4 is provided at its forward portion with a laterally projecting hook 12 and at its rear portion with a laterally and upwardly projecting support 14 adapted to rest upon the fence wire A and thus support the rear portion of the device.

The forward portion of the bar 2 is provided with a member 16 having longitudinal flanges 18 for engaging the sides of the bar 2 and a transverse flange 20 for engaging the front end of said bar 2 and coacting with other fastening means such as bolts 22 in securing said member 16 in position. The member 16 is provided with a pair of forwardly projecting bearings 24, a laterally projecting hook 26, a plurality of teeth 28, and a laterally projecting abutment 30, which latter is at the rear end of the member 16 and projects therefrom in an opposite direction to the hook 26.

The hooks 12 and 26 of the members 4 and 16, respectively, are equipped with anchoring means such as a chain 32 whereby the device may be anchored to a fence post B. The hook 12 is, preferably, closed over the engaging link of the anchor 32 to secure the same to said hook 12, while the hook 26 is left open so that the opposite end of the anchor 32 may be disconnected when the anchor is to be placed around or removed from the post B. By forming the anchor 32 of links as shown it may be adjusted to fit different sizes of posts by engaging any of its links over the hook 26. The members 4 and 16 are provided at their undersides with ratchet-like teeth 31 and 33, respectively, which are embedded in the bar 2 and thus coact with bolts 10 and 22 in firmly holding said members in place.

34 designates a drum which is removably mounted in the bearings 24. Said drum 34 is provided at one side with a relatively large loop or eye 36 in which a lever 38 is loosely mounted, so that it may be swung laterally as indicated by the arrow *a* to engage or disengage the abutment 30. The lever 38 is held in the loop 36 by suitable means such as staples 40. The opposite side of the drum 34 is provided with a holder 39 for holding one end of the wire A. Said holder 39 is provided with a longitudinal groove 41, one end of which extends to a shoulder 42 opposite a shoulder 43 adjacent to the outer end of the holder 40. The opposite end of the groove 41 communicates with an oblique groove 44 in the drum 34,

which latter also has a central peripheral groove 46 in addition to an eye 48 for purposes which will hereinafter appear. The outer portion of the holder 40 has a notch 50 opposite the shoulder 42.

In practice one end of the fence wire is attached to a fence post, not shown. The operator then moves forward to another post a suitable distance from the first post and anchors the device to said other post by placing the chain 32 around the same and linking it over the hook 26.

Then before or after mounting the drum 34 in the bearings 24 the wire A is placed in the grooves 44 and 41, thence around the shoulders 42 and 43 and through the notch 50, thence outwardly as disclosed by Fig. 1. The wire A is then drawn tightly against the post B by turning the lever 38 to wind said wire A upon the drum 34. After the wire A has been drawn sufficiently taut one end of the lever 38 is swung into position on top of the abutment 30 which holds said lever 38 and the drum 34 from turning backwardly and allowing the wire A to become slack. The operator is now free to use both hands in stapling or otherwise securing the wire A to the post B. During the stretching operation the backward pull of the wire firmly holds the drum 34 in its bearings 24 and causes the teeth 28 to become embedded in the post B, thereby preventing the device from being drawn backwardly and allowing the wire to become slack. It will also be noted by reference to Fig. 1, that by arranging the drum 34 at the forward end of the device said drum 34 will be in advance of the post to which the wire A is stapled after the stretching operation, and hence the wire A has no chance to become slack when it is removed from the drum 34, which is usually the case on that type of stretchers where the drum is located at the rear of the post to which the stretcher is secured. That portion of the wire A secured to the holder 40 may either be the free end of the wire or it may be a part of a spool of wire, not shown, the object being to arrange the drum 34 and the holder 40 in such a way that either the free end of a wire, or wire on a spool may be attached in the manner shown and described. In some instances where the free end of the wire is attached to the drum 34 and is too short to be secured to the holder 39 as shown by Fig. 1, said free end may be threaded through the eye 48 and by giving it a half turn around the drum 34, it will be prevented from slipping out of said eye 48 when the drum 34 is rotated to wind the wire thereon and stretch the same.

Figs. 7 and 8, show how the ends of two wires or both ends of a broken wire may be brought together for splicing. In this instance one end C of the wire is secured to

the drum 34 either by threading it through the eye 48 or engaging it with the holder 40 in the same manner as when the wire is to be stretched, while the other end is formed into a loop D which is placed over a hook 50 having a swivel connection to the member 16. After thus connecting the two ends of the wire to the device, the wire is stretched taut by winding it upon the drum 34, after which the device is turned around to the position disclosed by Fig. 8 to form a hitch 52 which holds the two portions of the wire together. The drum 34 is then rotated in a reverse direction to release that portion of the wire wound thereon, after which said released portion of the wire is finally twisted around the main portion of the wire. The looped end D of the wire is then disengaged from hook 50 and twisted around the main portion of the wire. In instances where considerable slack is to be taken up before splicing the ends of the wire together the drum 34 becomes filled with windings before the wire is drawn sufficiently taut. In such cases that portion of the wire connected to the drum 34 is secured to the support 14 by a piece of wire 53. That portion of the wire wound upon the drum 34 is then removed, drawn taut and again secured to the drum 34 which is rotated until the wire is sufficiently taut to be spliced. As shown the wire 53 is twisted around the fence wire A and brought up over the supporting member 14, and thence down beneath the wire A around which it is looped, as indicated at E. A notch 54 is provided in the forward end of the support 14 to receive the looped portion of the wire 53 and prevent the same from slipping off of said support 14.

From the foregoing description it will be readily understood that I have provided a device embodying the features above pointed out, and while I have shown and described the preferred construction, combination and arrangement of parts, I reserve the right to make such changes as properly fall within the spirit and scope of the claims. Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

1. In a device of the character described a bar, a member fixed to said bar and provided with a support for engagement with a wire to be stretched or spliced, a second member fixed to the bar, a drum journaled in said second member for stretching the wire, a lever for rotating said drum, and an abutment extending from the second member and against which the lever may be adjusted to prevent backward rotation of the drum.

2. In a device of the character described a bar, a member fixed to said bar and pro-

vided with a support for engagement with
a wire to be stretched or spliced, a second
member fixed to the bar, a drum journaled
in said second member and adapted to
5 stretch the wire, a loop on one side of said
drum, a lever extending loosely through said
loop and whereby the drum may be rotated,
and an abutment on the second member for

engagement by the lever to prevent back-
ward rotation of the drum.

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

FRED. M. HOLLINGSWORTH.

Witnesses:

L. J. FISCHER,
F. C. FISCHER.