No. 708,706. Patented Sept. 9, 1902.

A. J. GOLDSBY.

WIRE STRETCHER.

(Application filed July 16, 1901.)

(No Model.)

Fig. 5.

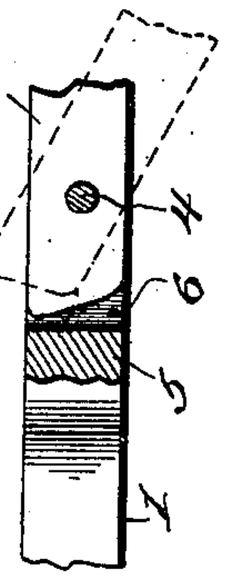


Fig. 4.

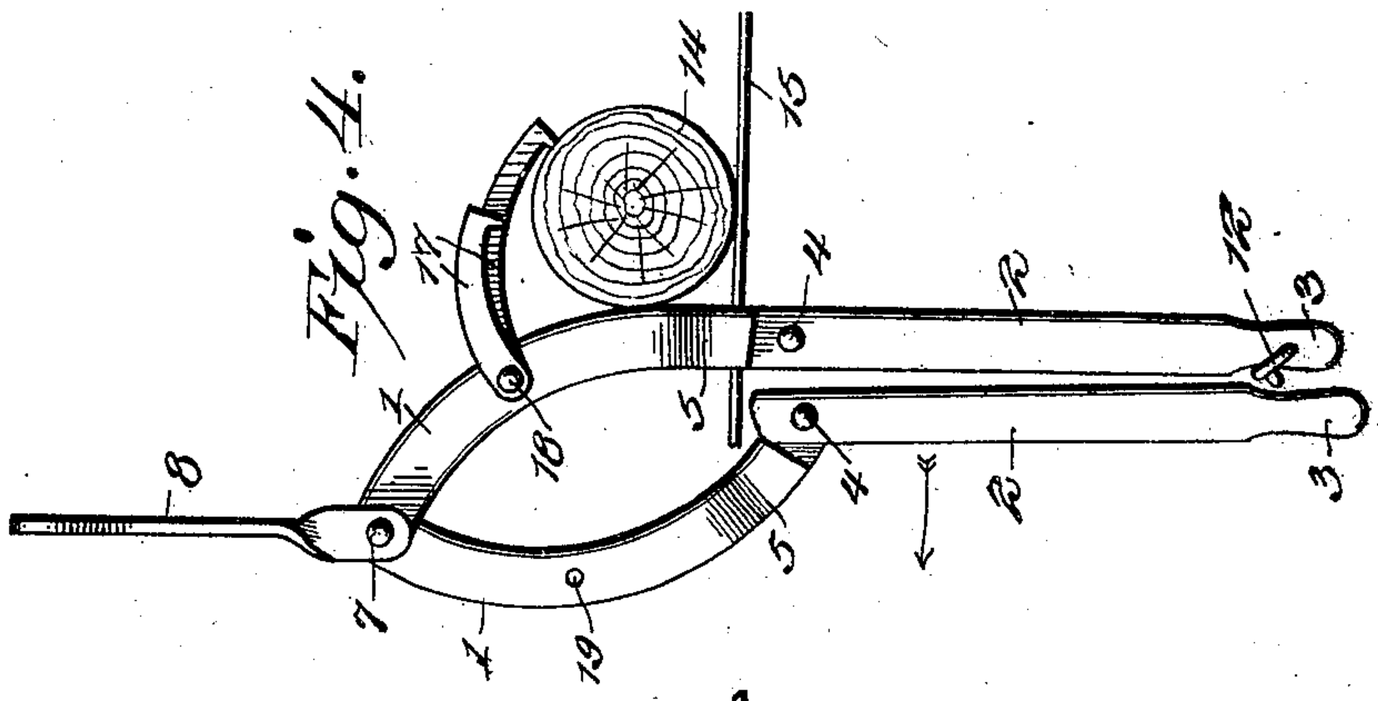


Fig. 3.

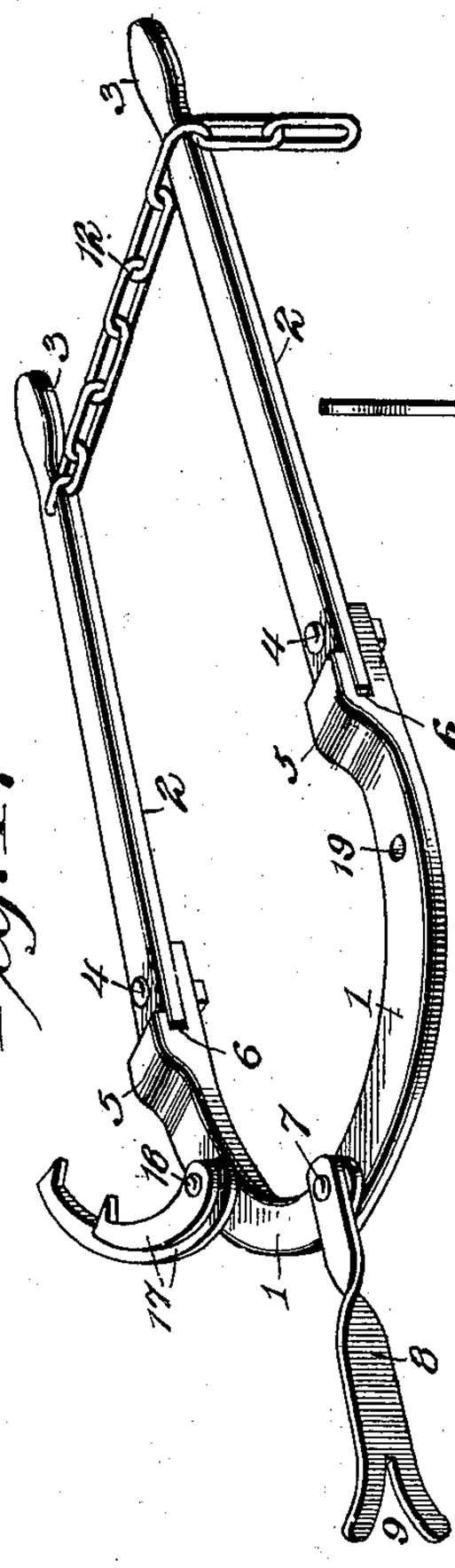
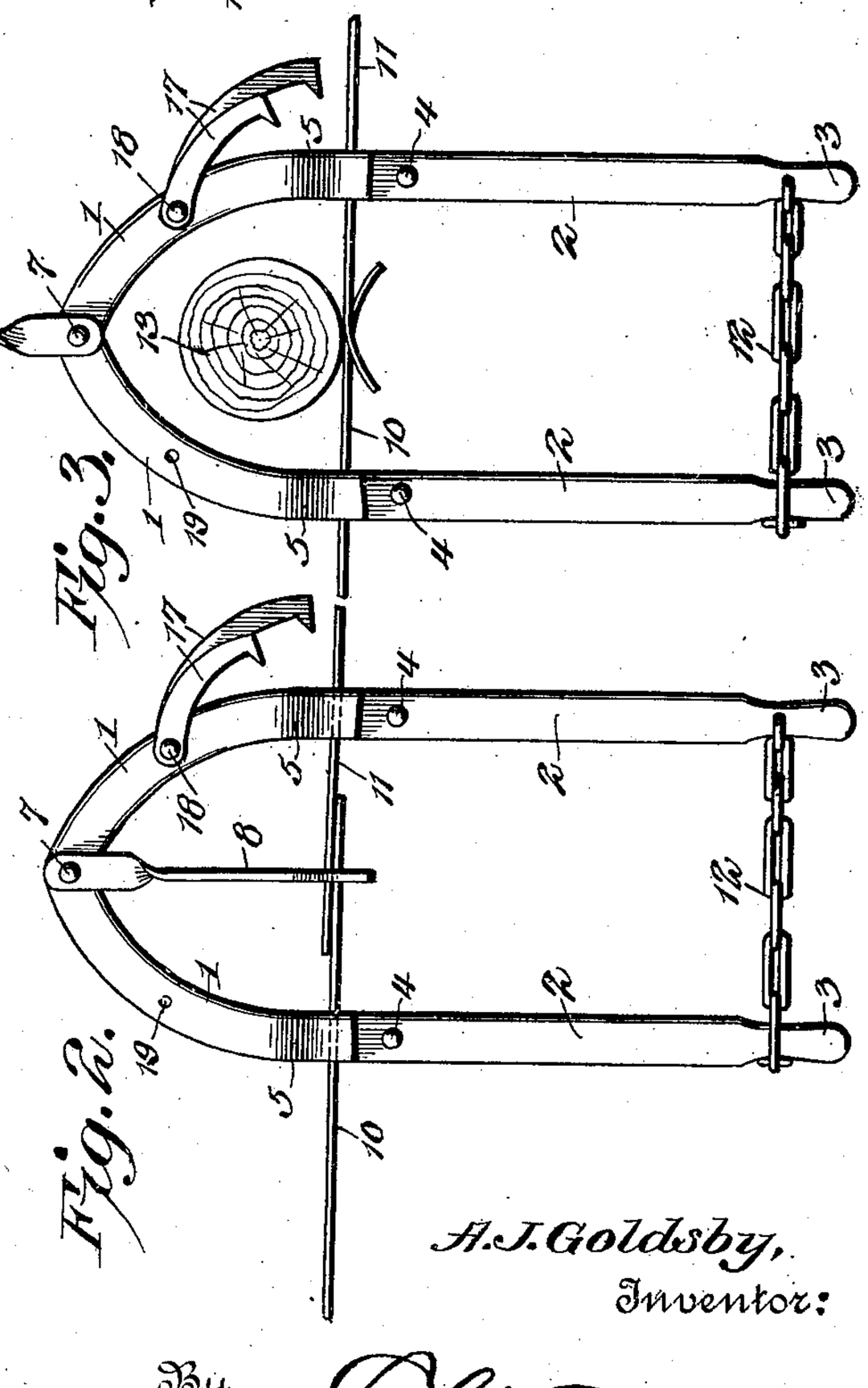


Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

ANDREW J. GOLDSBY, OF PRONAX, MISSOURI.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 708,706, dated September 9, 1902.

Application filed July 16, 1901. Serial No. 68,514. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. GOLDSBY, a citizen of the United States, residing at Pronax, in the county of Schuyler and State of Missouri, have invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention relates to wire-stretchers, and has for its object to provide an improved device of this character which is arranged for convenience in gripping a wire and to facilitate the manipulation of the device for stretching a wire in various relative positions.

It is furthermore designed to arrange for drawing together opposite wire portions that are to be spliced or connected and to maintain said wire portions in a proper relative position after being stretched and during the splicing or connecting thereof.

A final object of the invention resides in arranging the device for drawing opposite wire portions up to a single post without applying strain to the post and also to adapt the device for drawing a wire to an end post without bringing into use an additional post to form a support for the device, the latter being arranged for application directly to the end post and having means for locking the stretcher against the tension of the stretched wire to hold the latter while it is being secured to the post.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of a wire-stretcher embodying the present invention. Fig. 2 is a plan view illustrating the device as applied for drawing together opposite wire portions. Fig. 3 is a similar view showing the stretcher as applied to draw opposite wire portions to one and the same post. Fig. 4 is a plan view showing the device applied for drawing a wire to an end post and locked to hold the wire after it has been stretched. Fig. 5 is a detail view of one of the wire-clamps.

Like characters of reference designate corresponding parts in all the figures of the drawings.

In carrying out the present invention there is provided a pair of opposite duplicate members, each comprising a bowed or arcuate section 1 and a lever-section 2, which is provided at its outer end with a suitable handle 3, the inner ends of the two sections being overlapped and pivotally connected, as at 4, to secure a swinging movement of the lever-section in a substantially horizontal plane when the device is being applied to a wire. The upper side of the inner end of the arcuate section 1 is provided with a thickened or raised portion 5, located adjacent to the inner end of the lever-section 2 and provided with a transverse groove or seat 6, extending transversely across the inner end of the said enlarged portion or shoulder and designed for the reception of the inner curved or bowed end of the lever, which coöperates with the back of said seat to form a clamp or grip for the reception of a wire. The outer ends of the bowed or arcuate members 1 are pivotally connected, as at 7, so that the opposite members may be swung toward and away from each other upon said pivotal or fulcrumed connection. It will here be observed that the opposite sections of each member coöperate to form a wire-clamp, and the lever or handle member has a movement independent of the general movement of the entire member, so as to permit of the manipulation of the clamp independently of the stretching movement of the entire device. A wire guide or holder 8 lies centrally between the bowed members 1 and has one end pivotally mounted upon the pivotal connection 7, while the opposite free end of the guide is provided with a longitudinal bifurcation 9, which tapers inwardly and produces opposite fixed jaws for engagement with a wire, as will be hereinafter set forth.

In the application of the device as shown in Fig. 2 of the drawings, to draw together the opposite wire portions 10 and 11 the respective lever or operating members 2 are first swung upon their pivots 4 to open the wire-clamps for

the reception of the respective wire sections, the opposite members of the device being first separated to the desired extent upon the pivotal connection 7 as a center, after which these members are forced inwardly in opposite directions, so as to draw together the opposite wire portions, which are received in the slot or seat at the outer end of the wire guide or holder 8. After the completion of the stretching operation the stretcher members are held against separation under the strain of the wires by means of a chain 12, which has one end permanently connected to the handle portion of one of the lever-sections and its links being of a size to readily slip over the outer end of the opposite lever-section, thereby to connect the opposite stretcher members and prevent separation thereof. It will here be noted that the stretching operation tends to more tightly bind the wire-clamps upon the wires, whereby slipping of the clamps upon the wires is effectually obviated. The opposite overlapped end portions of the wires are directed into the slot of the wire-holder 8, so as to be held therein against rotation, while the free end portions are being twisted upon the respective opposite wires in splicing or connecting the same. After the wires have been connected the stretcher is released from the wires by removing the free end of the chain 12 and swinging the lever-sections 2, so as to disengage the clamps from the wires, whereby the entire device is conveniently freed from the wires.

Should it be desired to draw opposite wires to one and the same post, as indicated in Fig. 3 of the drawings, the device is placed astraddle of the post 13 and the opposite members connected to the respective wire portions and then manipulated to draw said wires toward the post in the manner hereinbefore described, after which the wires are connected to the posts by suitable fastenings. It will thus be seen that the post does not interfere in any manner whatsoever with the operation of the device, and therefore the latter may be used directly at a post as well as at points intermediate of opposite posts. In this latter operation of the device the wire-holder 8 is swung upon its pivotal connection, so as to lie entirely at the outer side of the stretcher members to permit of the reception of the post between the latter.

For an understanding of the manner of using the stretcher for drawing a wire to an end post reference is had to Fig. 4 of the drawings, wherein has been shown an end post 14, to which a wire 15 is to be stretched and connected. The handle members are drawn together and the entire device placed against the post, so as to have an intermediate fulcrum engagement therewith, and the wire being engaged by one or both of the wire-clamps. It will be understood that it is one of the bowed members 1 that bears against the post, whereby the wire lies between the fulcrum-support of the stretcher and the outer free end of the handle portion thereof, so that by forcing the handle in the direction of the arrow the wire will be stretched across the post, and when a sufficient tension has been placed thereon one or both of the hooks 17 are forced into engagement with the opposite side of the post, thereby interlocking the stretcher with the post and holding the former against movement by the strain of the wire when pressure has been removed from the handle portions of the stretcher. From the foregoing description it is apparent that the section 1 is provided with a post-engaging fulcrum portion, which is located intermediate of the post-engaging hook and the wire-clamp. It is designed to have at least two hooks of different sizes, the same having a common pivotal connection 18 with one of the members 1 and located between the adjacent wire-clamp and the pivotal connection of the stretcher members. It will be observed that the opposite member 1 is provided with an opening 19, which is designed for the reception of the removable pivotal connection 18 in order that the hooks may be transferred from one side to the other of the stretcher in order that either side of the device may be applied to a post. The purpose of having hooks of different sizes is to accommodate the stretcher to posts of different diameters, as will be readily understood.

From the foregoing it is apparent that the present invention provides an exceedingly simple and durable wire-stretcher, which is arranged for use in a plurality of different applications without materially altering or adjusting any of the parts of the device.

What I claim is—

1. A wire-stretcher, embodying a pair of lever members terminating at corresponding ends in handles, and having a mutual fulcrum connection at their corresponding opposite terminals, and wire-clamps carried intermediately by the members and at corresponding distances from the fulcrum connection thereof, the clamp of each lever member being active when inward strain is placed upon said lever.

2. A wire-stretcher, embodying a pair of lever members terminating at corresponding ends in handles, and having a mutual fulcrum connection at their corresponding opposite terminals, each member being formed of pivotally-connected sections having mutually-coöperating clamp members, the clamp members of each lever being active when inward strain is placed upon said lever.

3. A wire-stretcher comprising opposite members, each of which is formed by a bowed section and a handle-section, which are pivotally connected and are constructed to mutually coöperate and form a wire-clamp, the outer corresponding ends of the opposite bowed sections having a pivotal connection.

4. A wire-stretcher comprising opposite du-

plicate members, each of which is formed by a bowed section and a handle-section which have their inner ends overlapped and pivotally connected, the bowed member having a shoulder extended transversely across and in coöperative relation with the inner end of the handle-section to form therewith a wire-clamp, the outer ends of the opposite bowed sections having a common pivotal connection.

5. A wire-stretcher, comprising a pair of members pivotally connected at their terminals, corresponding wire-clamps provided at an intermediate point of the members, and a wire guide or holder disposed between the clamps.

6. A wire-stretcher, comprising a pair of lever members having a mutual pivotal connection at their terminals, corresponding wire-clamps carried at an intermediate point by the members, and a wire guide or holder carried by the pivotal connection of the members at one side of the plane of said members, and adjustable across the members into positions between the wire-clamps when in use and outside of the lever members when not in use.

7. A wire-stretcher, comprising a pair of lever members having a mutual pivotal connection, corresponding wire-clamps carried at an intermediate point by the members, and a wire guide or holder pivotally carried at the pivotal connection of the members at one side of the plane of the members and movable across the same into positions between the clamp members when in use and outside of the lever members when not in use.

8. A wire-stretcher, comprising a pair of lever members having a mutual terminal pivotal connection, corresponding wire-clamps carried at an intermediate point by the members, and a wire guide or holder pivotally carried by the pivotal connection of the members and having a forked free end, the guide or holder being movable in an arcuate path upon its pivotal support in a plane at one side of the plane of the lever members to positions between the clamp members when in use and outside of the lever members when not in use.

9. In a wire-stretcher, the combination of opposite duplicate members, each of which comprises a bowed member and a lever member which have their inner ends overlapped and pivotally connected, the bowed member having a transverse shoulder located adjacent to and extended transversely across the inner end of the lever-section, the outer ends of the opposite bowed sections having a common pivotal connection, a wire guide or holder having one end loosely mounted upon the said common pivotal connection and normally lying between the opposite members, the free end of the guide being provided with an inwardly-tapered, longitudinal bifurcation which is normally alined with the inner ends of the opposite lever-sections, and a plurality of laterally-projected post-engaging hooks of difference sizes, said hooks having common pivotal connection which is interchangeable from one bowed section to the other and located intermediate of the ends of said sections.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ANDREW J. GOLDSBY.

Witnesses:
QUINCY A. MIMMS,
GEORGE W. SEVERSON.