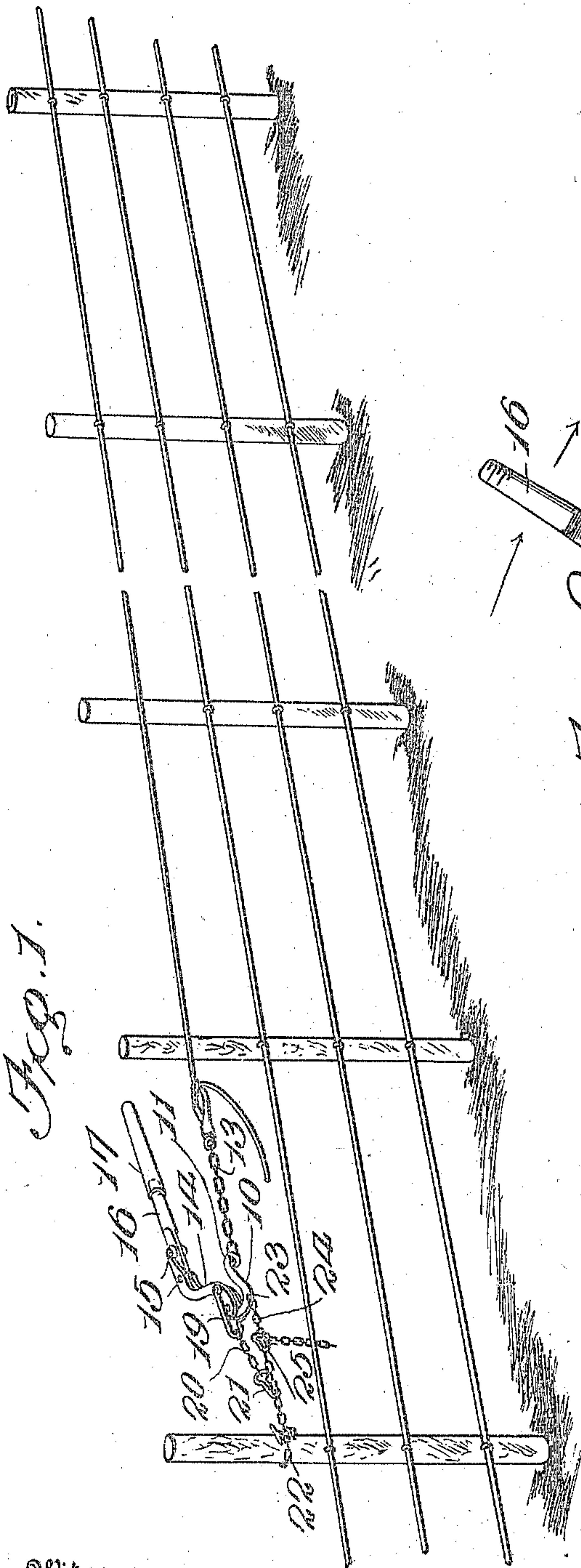


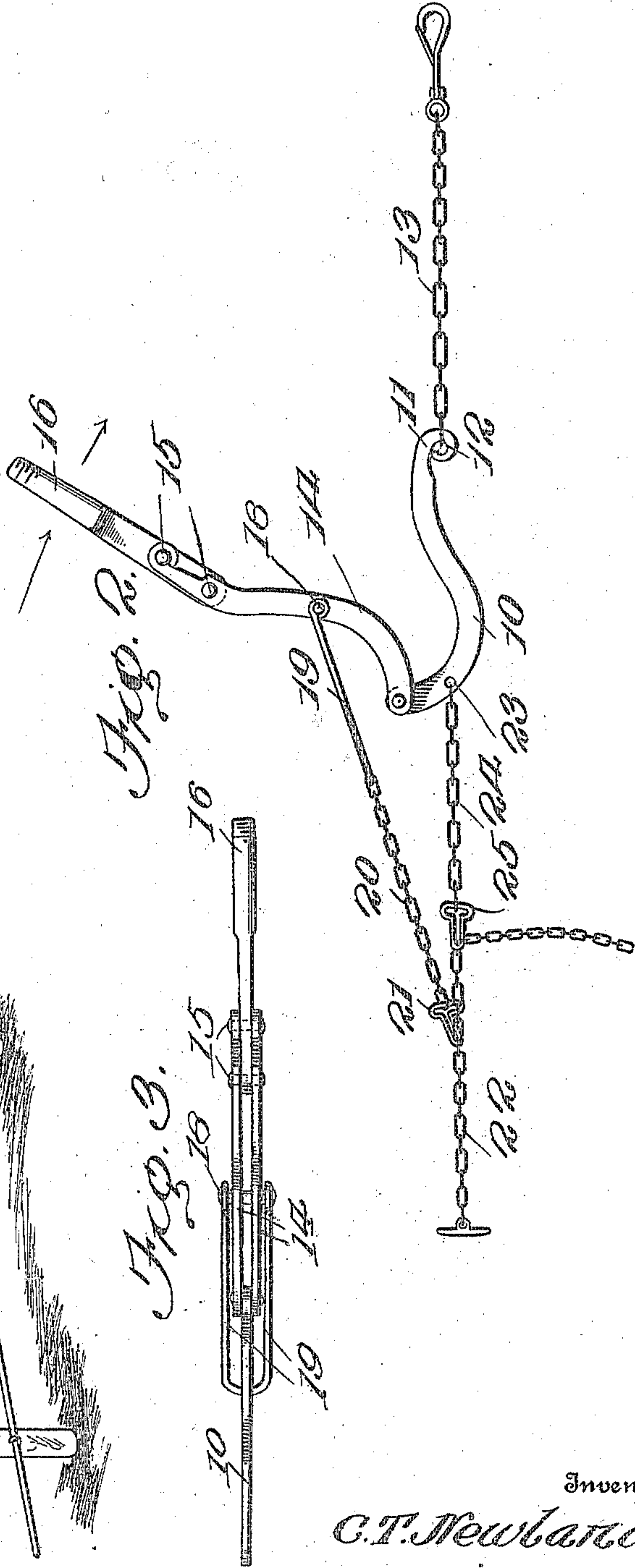
C. T. NEWLAND.
WIRE STRETCHER.
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UNITED STATES PATENT OFFICE.

CLARENCE T. NEWLAND, OF KOOSKIA, IDAHO.

WIRE-STRETCHER.

947,739.

Specification of Letters Patent. Patented Jan. 25, 1910.

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To all whom it may concern:

Be it known that I, CLARENCE T. NEWLAND, citizen of the United States, residing at Kooskia, in the county of Idaho and State of Idaho, have invented certain new and useful Improvements in Wire-Stretchers, of which the following is a specification.

This invention relates to wire stretchers and has particular reference to a stretcher to be employed in connection with fences, although the same may be employed in connection with any devices which are to be contracted and to which the device may be applied.

An object of this invention is to construct a stretcher which is strong and durable so as to withstand great strain during the operation of the same and one which may be easily operated and which will automatically be retained in a stretched position when desired.

The invention further aims the production of a stretcher of this character which comprises but few operative parts, the operation being mainly dependent upon the chains which are employed in securing the two members together which are adapted to be contracted.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a perspective view of the fence having the improved stretcher applied thereto and disclosed as being in a stretched position. Fig. 2 is a detailed view of the stretcher disclosing the same in a semi-closed position, and Fig. 3 is a top plan view of the stretcher.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings, the numeral 10 designates an arcuate arm which is provided at its rear extremity with an outwardly curved portion 11 which is provided with a hook 12 for the reception of a chain 13, or the like, for the purpose of securing the arcuate arm 10 to an object which is to be stretched, or upon a stationary object, toward which a wire or the like is to be stretched, as for instance a post. The arcuate arm 10 is so disposed as to extend the curved intermediate portion downwardly and to position the outer end of the same

upwardly, the forward end of the arm 10 being provided with a pair of curved arms 14 which are pivotally mounted thereon and which extend longitudinally from the arm 10. The curved arms 14 are held in parallel relation by means of rivets 15 or the like which are secured to the outer ends of the same and engage therebetween a shank 16 which is threaded at its outer extremity for the reception of a handle 17 which is formed of piping or a handle of like suitable structure which possesses sufficient strength.

The curved arms 14 are provided with a bolt 18 which is transversely disposed immediately through the same and which engages at its opposite extremities the looped inner extremities of a bail 19 which is thus hingedly supported upon the same. The bail 19 is provided with a chain 20 which is adapted to extend outwardly therefrom and provided with a locking plate 21 which is of elongated formation and provided with a longitudinal slot which is enlarged at its inner extremity to admit of the passage of a chain 22 therethrough, the chain 22 being secured to the object which is to be stretched. The chain 22 is adapted to slide loosely through the inner end of the plate 21 but is adapted to be locked from movement in the plate 21 by the positioning of the same in the outer end of the plate in the reduced extremity of the slot formed therein, the rectangular relation of the adjacent links forming shoulders to prevent passage through the plate 21. The arcuate arm 10 is apertured intermediately as at 23 for the reception of the inner end of a chain 24 which is engaged, through the medium of a second locking plate 25, to the chain 22 inwardly of the locking plate 21 and is adapted to retain the chain 22 in a taut position during the adjustment of the chain 20 and the locking plate 21.

In operation the outer extremities of the chains 13 and 22 are secured to the members to be moved when the chain 22 is drawn taut and held in such position by interlocking engagement with the plate 25. The handle 17 is now thrown outwardly to carry the link 19 and the curved arms 14 therewith to admit of the outward extension of the chain 20 in order to secure the locking plate 21 upon the chain 22 forwardly of the locking plate 25. When in such position the handle 17 is now retracted and caused to draw the chains 20 and 22 inwardly, thus

moving the objects to which the chains 13 and 22 are connected and slacking the chain 24 and the portion of the chain 22 disposed between the locking plates 21 and 25. The
 5 curved arms 14, which are disposed on the opposite sides of the arcuate arm 10 are swung over upon the same and as the bail 19 is then fulcrumed at a point below the pivotal center of the arms 14 upon the arcuate
 10 arm 10, the same effects a binding action and prevents the raising of the curved arms 14 and thus automatically holds the chains 13 and 20 in a taut position. The locking plate 25 is now moved upwardly over the chain 22
 15 until the slack is taken up when it is then secured in position and the handle 17 is again drawn outwardly. In like manner the plate 21 is moved longitudinally of the chain 22 and secured in a new position when the
 20 handle 17 is again drawn inwardly and caused to further stretch the members secured to the chains 13 and 22.

It is readily seen that owing to the formation of the arms 10 and 14 and of the disposition of the handle 17 upon the outer extremities of the arms 14 that a great leverage is secured and that the device can be easily
 25 operated without the application of great power thereto.

30 Having thus described the invention what is claimed as new is:

1. A stretcher of the class described comprising an arcuate arm, a chain carried by said arm adapted to be secured to an object
 35 to be stretched, curved arms pivotally connected to the forward end of said arcuate arm, a handle mounted upon the outer extremities of said curved arms, a bail intermediately pivoted on said curved arms, a
 40 chain carried by said bail and extended forwardly therefrom, a chain intermediately carried on said arcuate arm and extended forwardly therefrom and a main chain secured to a fixed article and engaged adjust-
 45 ably through the outer ends of said chains on said curved arms and on said arcuate arms.

2. A stretcher as specified comprising an arcuate arm, a chain carried upon the rear end of said arm, a chain forwardly extended 50 from an intermediate point of said arm, curved arms pivotally mounted in parallel on the forward end of said arcuate arm, a bail intermediately hinged on said curved arms, a handle carried in the outer ex- 55 tremities of said curved arms, a chain carried by said bail, locking plates positioned in the outer extremities of said chains on said bail and said arcuate arm and a main chain engaged through said locking plates and 60 secured to an object.

3. A stretcher comprising an arcuate arm adapted to be secured to a wire to be stretched, a pair of curved arms pivotally disposed on the outer end of said arcuate 65 arm, a main chain engaged with a post, a chain carried by said curved arms and adjustably connected to said main chain to stretch the same upon the swinging of said curved arms and a retaining chain carried 70 by said arcuate arm for adjustably engaging said main chain to retain the same in position when said chain on said curved arms is adjusted.

4. In a device as specified the combination 75 of an arcuate arm secured at one extremity to a wire to be stretched, a pair of curved arms pivotally mounted upon the opposite end of said arcuate arm and adapted to fold backwardly upon the same, a main chain 80 engaged with a fixed object, a retaining chain disposed between the outer end of said chain and an intermediate point on said arcuate arm and a chain carried intermediately upon said curved arms and adjustably 85 engaged with said main chain to tighten the same.

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

CLARENCE T. NEWLAND. [L. s.]

Witnesses:

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