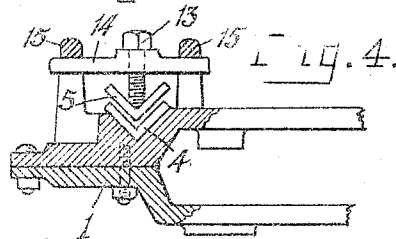
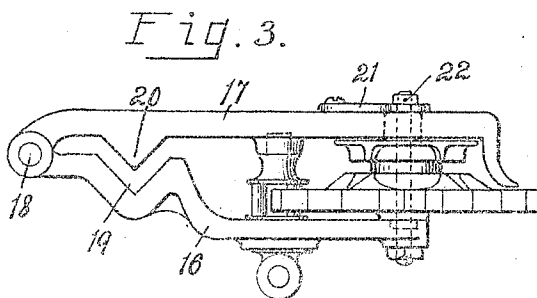
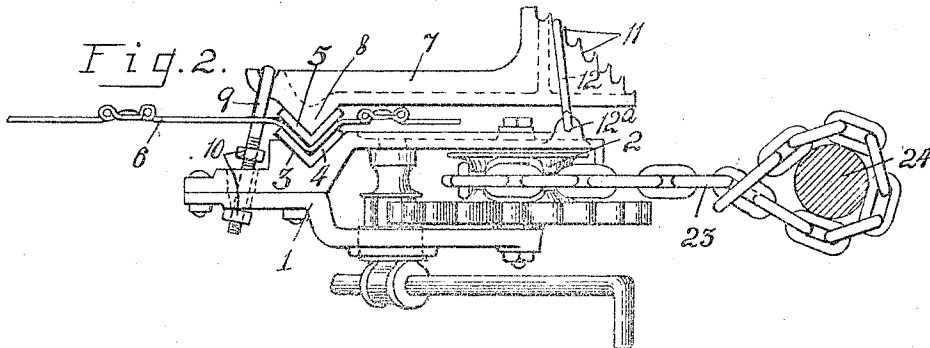
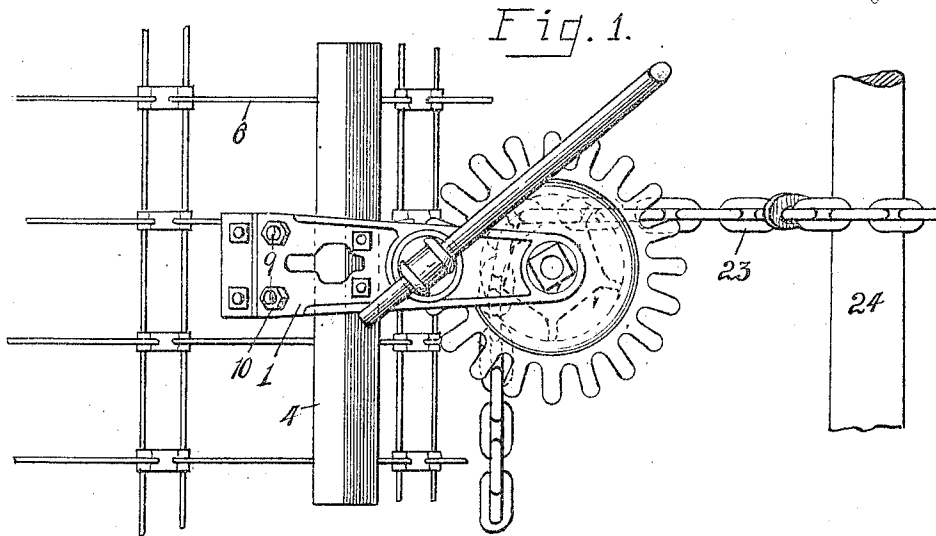


A. & C. A. CHURCH.
 MEANS FOR CLAMPING FENCES TO STRETCHER JACKS.
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WITNESSES:

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UNITED STATES PATENT OFFICE.

ANDREW CHURCH AND CHARLES A. CHURCH, OF ADRIAN, MICHIGAN.

MEANS FOR CLAMPING FENCES TO STRETCHER-JACKS.

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Specification of Letters Patent.

Patented May 31, 1910.

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To all whom it may concern:

Be it known that we, ANDREW CHURCH and CHARLES A. CHURCH, citizens of the United States, and residents of Adrian, in the county of Lenawee and State of Michigan, have invented a certain new and useful Means for Clamping Fences to Stretcher-Jacks; and we do hereby 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.

Our invention relates to fence stretchers of the class employed more particularly for use in connection with the stretching of woven wire fences, but may be used for the stretching of picket or other kinds of fences in which line wires are employed.

The object of our invention is the provision, in combination with the jacks of stretchers of this class, of simple and efficient means for securely clamping a fence thereto, which means is of strong and economical construction, is capable of being easily and quickly operated to engage or release a fence, and enables a fence to be stretched to within the length of the jack from the post to which such jack is attached, thus enhancing the practicability and commercial value of stretchers of this class.

The operation, construction and arrangement of the parts of the invention are fully described in the following specification, and while such invention in its broader aspect is capable of being embodied in numerous forms, a preferred form and two modifications of the same are illustrated in the accompanying drawings, in which,—

Figure 1 is a side elevation of a stretcher embodying the preferred form of our invention and in operative connection with a fence and post. Fig. 2 is a top plan view of the same. Fig. 3 is a plan view of a stretcher embodying another form of our invention, and Fig. 4 is a similar view of a portion of a jack partly in section embodying still another form of our invention.

Our invention in its broad aspect consists in providing a stretcher-jack with a receptacle or socket for receiving a fence-clamping bar and with means for causing a companion clamping-bar to cooperate with the socket fitting bar to securely grip a fence.

In Figs. 1 and 2, in which the preferred form of the invention is shown, 1 designates a stretcher-jack of any suitable construction, in the forked end of which is mounted the customary chain drum 2 and operating parts. In one side of the jack preferably near the closed end of the fork thereof, is provided a transverse receptacle or groove 3 of suitable shape to receive an angle-iron, channel-iron or other form of clamp-bar 4, as shown. A companion clamp-bar 5 of similar shape to the bar 4 is intended to fit therein and to cooperate therewith to grip an interposed fabric 6. The means employed in this form of our invention for forcing the clamp-bars together to grip a fabric consists in the provision of a lever-bar 7, which is preferably formed on its inner side near one end with a boss 8 fashioned to fit into the hollow or angle of the clamp-bar 5 and has such end removably hooked within a loop or other suitable fulcrum member 9 attached to the jack. This loop is mounted to have a swinging movement to enable the lever-bar to adjust itself to fit the hollow or angle of the outer clamp-bar 5 irrespective of the thickness of the fence wires being clamped. The loop 9 may also be adjusted relative to the jack by a turning of the securing nuts 10. The free end of the lever-bar 7 is shown as being formed with a plurality of stepped notches 11 with any one of which the looped end of a bail or loop member 12, which is swingingly attached to the contiguous side of the jack fork, as at 12^a, may be engaged to hold the lever-bar in clamped position. The stepped arrangement of the notches 11 allows for a variation in the thickness of fence wires clamped by the bars 4—5. The provision of clamp-bars which are shaped so as to enable one to fit within the other causes a crimp to be formed in the warp or line wires of a fence at the point of bite of the clamp-bars, thereby more effectually securing the fence against slipping between the clamp-bars than would otherwise be the case.

The modification shown in Fig. 4 is similar to the form above described, except that the outer clamp-bar 5, instead of being held to its seat in the companion-bar 4 by a lever-bar 7, is acted on by a set-screw 13, which is threaded through a bar 14 that has its ends passed within loops 15, 15 carried by the jack.

In Fig. 3 the fork-arms of the jack, which

are designated 16 and 17, are hinged together at the closed end of the jack, as at 18, and one is provided on its inner surface near its pivoted end with a receptacle or groove 19 for a clamp-bar to seat in, while the other is provided with a complemental boss or projection 20 adapted to fit into the hollow or angle of the companion clamp-bar, and acts in a similar manner to the lever-bar 7 of the first mentioned form. When the arm 17 is swung outwardly from the contiguous trunnions of the chain drum 2 and operating parts, such drum and parts are supported by the other arm 16. The arms 16 and 17 when in clamped or closed position are locked against opening or relative movements by a dog or latch-member 21, which engages the shouldered end 22 of the drum shaft or trunnion.

In the operation of our invention the clamp-bars 4 and 5 are placed in opposing engagement with the fence to be stretched and then placed between the clamping parts of the jack, one bar fitting within the receptacle or socket provided therefor in the jack body and the other bar being pressed closely to the receptacle fitting bar to grip and firmly hold the fence therebetween when the lever members 7 or 17 are closed relative to their companion clamping-parts or the set-screw 13 is screwed inwardly, as the case may be. The lever-bar 7 is securely held in clamped position by the engagement of the bail member 12 with the proper notch 11 of such bar. The jack having been clamped to the fence, a tightening chain 23 is attached at one end to a post 24 and has its other end passed over the drum 2 of the stretcher, thus adapting a turning of the drum in the proper direction to effect a shortening of the space between the post and stretcher and a consequent tightening of the attached fence.

It is apparent that our improved fence clamping means enables a fence to be gripped or released thereby with very much less trouble and greater rapidity than is possible with the means heretofore employed for such purpose, as the insertion or removal of the clamping bolts which are ordinarily used to clamp the bars together is obviated, and also that our clamping means eliminates the use of individual clamping parts, for the several line wires of a fence and the boring of a large number of bolt-holes in the clamp-bars or a bar carrying the individual clamping parts, thus very materially reducing the cost of manufacture of devices of this class. It is also evident that by securing the clamp-bars directly to the stretcher-

jack it is possible to stretch a fence much closer to a post to which the jack is attached than is possible where the clamping means is secured to a fence at some distance from a jack and connected to the jack or the chain drum by a chain, as is customarily the case.

We wish it understood that our invention is not limited to any specific construction or arrangement of the parts except in so far as such limitations are specified in the claims.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is,—

1. The combination with a stretcher-jack, of a clamping part carried thereby at one side thereof, and a set of normally loose fence clamping bars adapted to be clamped together by the cooperating action of said part and jack and being capable of longitudinal adjustment relative to the jack.

2. A stretcher-jack having two relatively movable parts having complemental protuberant and recessed clamp-bar engaging portions, and a set of normally loose clamp-bars carried by and clamped together by said parts.

3. A fence stretcher-jack having two relatively movable parts which cooperate to clamp a set of clamping bars together, an adjustable swinging fulcrum member connecting said parts at one end, means connecting the other end of said parts adapted to permit relative longitudinal movements thereof, and fence clamping bars held by said parts.

4. A fence-stretcher-jack having a part provided with a socket, a part movable relative to said socketed part and having a protuberance complemental to said socket, a fence-clamping bar seated in said socket, and a companion clamping-bar in engagement with and held to its companion by said protuberance.

5. A fence stretcher jack having a part hingedly connected to one side thereof and movable to cooperate with the jack to clamp a pair of interposed fence clamping bars together, and a cooperating bail and stepped surface for adjustably securing said part in clamped position.

In testimony whereof we have hereunto signed our names to this specification in the presence of two subscribing witnesses.

ANDREW CHURCH.
CHARLES A. CHURCH.

Witnesses:

SUSIE W. SCHUREMAN,
D. B. MORGAN.