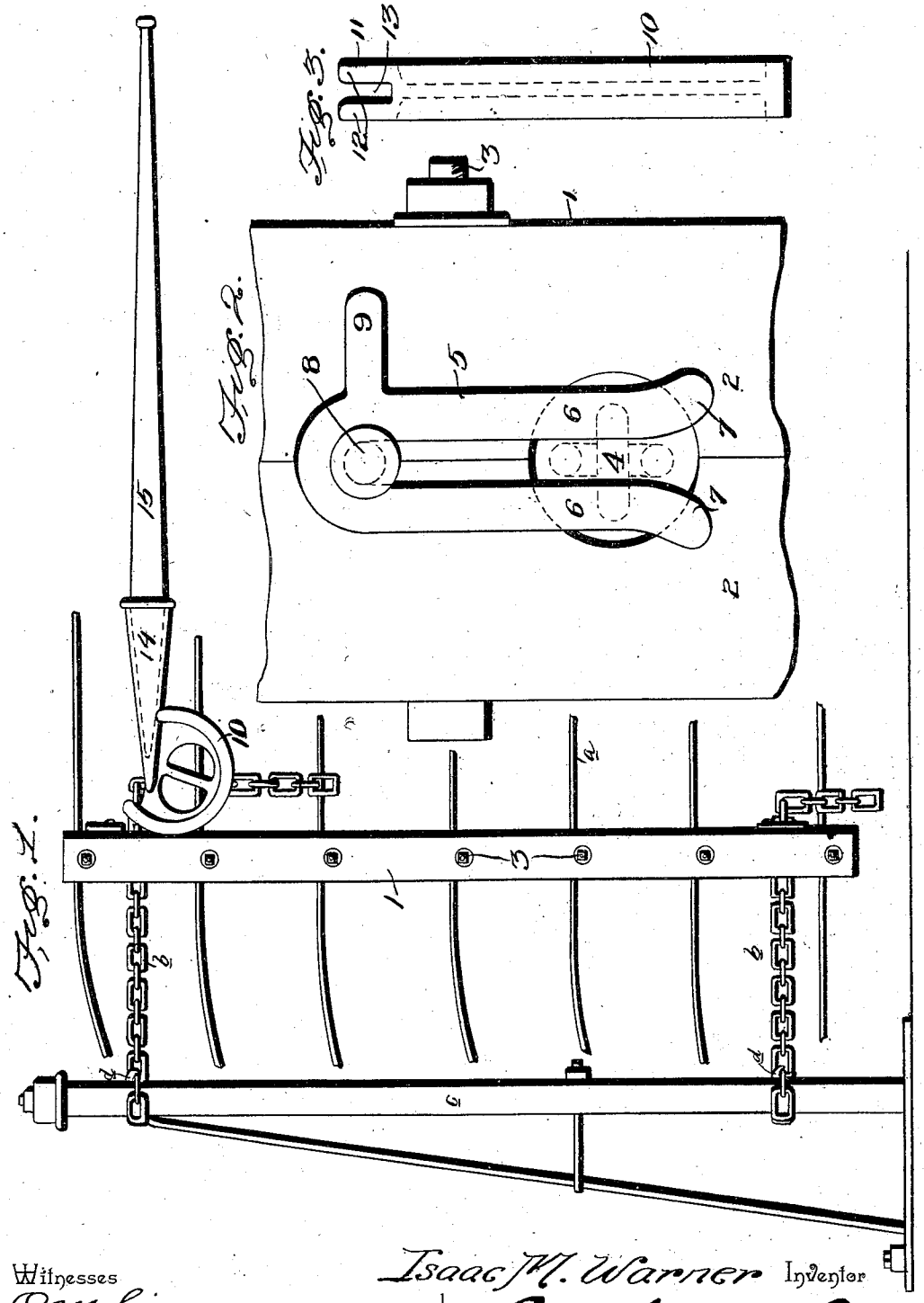
No. 728,057. PATENTED MAY 12. 1903.

I. M. WARNER.

WIRE FENCE STRETCHER.

APPLICATION FILED FEB. 27, 1902.

NO MODEL.



Witnesses
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No. 728,057. Patented May 12, 1903.

UNITED STATES PATENT OFFICE.

ISAAC M. WARNER, OF UNION CITY, MICHIGAN, ASSIGNOR TO FRANK C. BOISE, OF UNION CITY, MICHIGAN.

WIRE-FENCE STRETCHER.

SPECIFICATION forming part of Letters Patent No. 728,057, dated May 12, 1903.

Application filed February 27, 1902. Serial No. 95,987. (No model.)

To all whom it may concern:

Be it known that I, ISAAC M. WARNER, a citizen of the United States, residing at Union City, in the county of Branch and State of Michigan, have invented a new and useful Wire-Fence Stretcher, of which the following is a specification.

My invention is an improved wire-fence stretcher; and it consists in the peculiar construction and combination of devices hereinafter fully set forth and claimed.

One object of my invention is to provide an improved construction of the stretcher-cam by means of which the chain may be readily engaged and disengaged by the cam and by means of which the cam-lever may be readily attached to the cam and unshipped therefrom.

A further object of my invention is to provide an improved construction of chain-lock by means of which the stretcher-bar may be secured to the stretcher-chains and disengaged therefrom at will.

In the accompanying drawings, Figure 1 is a side elevation of a wire-fence stretcher embodying my improvements, showing the same in operative position. Fig. 2 is a detail elevation showing a portion of the front side of the stretcher-bar and one of the adjustable chain-locks with which the stretcher-bar is provided. Fig. 3 is a detail elevation of the stretcher-cam, showing the claw with which the same is provided for engaging and disengaging the stretcher-chains.

The stretcher-bar 1 comprises a pair of bars 2, which are connected together by transversely-disposed bolts 3. The said bars 2 are by the said bolts clamped on opposite sides of the runner-wires *a* of the fence. The stretcher-bar is further provided at suitable points near its upper and lower ends with openings 4, which are partly formed in each of the section-bars 2 and extend from the front to the rear sides of the stretcher-bar, the said openings 4 being the chain-openings through which the stretcher-chains *b* are passed. The stretcher-chains are here shown as having their outer ends passed around an end post *c* and secured thereto by hooks *d*.

On the front side of the stretcher-bar are chain-locks 5 for engaging the stretcher-chains and securing them to the stretcher-bar while the runner-wires are under tension. There are as many of the said chain-locks as there are stretcher-chains. Each chain-lock is of the construction shown in detail in Fig. 2 and is U-shaped, thereby forming a pair of arms 6, which are parallel with each other, or approximately so, and extend downwardly over the chain-opening 4 and bear against the front side of the stretcher-bar above and below the chain-opening. The lower ends of the arms 6 are curved outwardly in opposite directions, as at 7, to facilitate the engagement of the chain-lock with a link of the stretcher-chain, the arms 6 being disposed astride of one of the links of the chain, as shown in Fig. 2, the chain-link being indicated in dotted lines at *e*. Each chain-lock is supported and slidably connected to the front side of the stretcher-bar by a headed stud 8, which engages the crotch or fork in the upper end of the chain-lock. The chain-lock is provided with a finger-piece or arm 9, which extends laterally from one of the arms 6 near the upper end thereof and by means of which the chain-lock may be readily raised or lowered to disengage or engage a link of one of the stretcher-chains, as will be understood.

I employ a stretcher-cam 10, which is preferably of the form shown in the drawings and is adapted to bear against the front side of the stretcher-bar and coöperate therewith and with the stretcher-chains in stretching the fence-wires. The said stretcher-cam is provided on one side with an upstanding claw 11, which is adapted to engage the stretcher-chains. The said claw comprises a pair of upstanding lugs 12 to bear against opposite sides of a chain-link and has an open slot 13 between them to receive the chain-link. The said stretcher-cam is provided with a socket 14 in the form of an arm extending outwardly from the stretcher-cam, which socket 14 is adapted to receive the inner end of a lever 15. It will be understood that the lever may be readily attached to and unshipped from the cam by means of the socket-arm 14. Hence when the lever becomes broken it may be readily replaced.

No claim is made herein generically to the combination, with runner-wires, of a stretcher-

bar attached thereto, a fixed support, as a post, a flexible connecting element between the same and said stretcher-bar, and a lever having a cam bearing against said stretcher-bar and to which the flexible connecting element is attached, said lever having a cam on which said flexible connecting element is wound when said lever is operated, as the same is covered by the claims in my copending application for Letters Patent of the United States for a wire-fence stretcher, Serial No. 68,366, filed July 15, 1901.

Having thus described my invention, I claim—

1. In a wire-fence stretcher, the combination with a stretcher-bar having chain-openings, of chain-locks slidably connected to the stretcher-bar and having engaging arms to span the chain-openings and bear on opposite sides of the chain-links, substantially as described.

2. In a wire-fence stretcher, the combination of a stretcher-bar having a chain-opening therein, a beaded stud above said opening, and a U-shaped chain-lock outside of said stud, slidably supported thereby and adapted to be disposed with its arms across the chain-opening, to bear on opposite sides of a chain-link, substantially as described.

3. In a wire-fence stretcher, a U-shaped chain-lock, in combination with a stretcher-bar having a chain-opening and means to slidably connect the chain-lock to the stretcher-bar, substantially as described.

4. In a wire-fence stretcher, the combination with a stretcher-bar having a chain-opening, of a chain-lock slidably connected to the stretcher-bar and having a fork adapted to be disposed across the chain-opening and engaged with a link of a stretcher-chain, substantially as described.

5. In a wire-fence stretcher, a stretcher-cam having means on one side thereof to engage a stretcher-chain and an outwardly-extending socket-arm on the opposite side thereof adapted to receive one end of a lever, substantially as described.

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

ISAAC M. WARNER.

Witnesses:
H. T. CARPENTER,
CHAS. H. LOWELL.