

(No Model.)

H. A. KING.
WIRE STRETCHER.

No. 551,678

Patented Dec. 17, 1895.

Fig. 1.

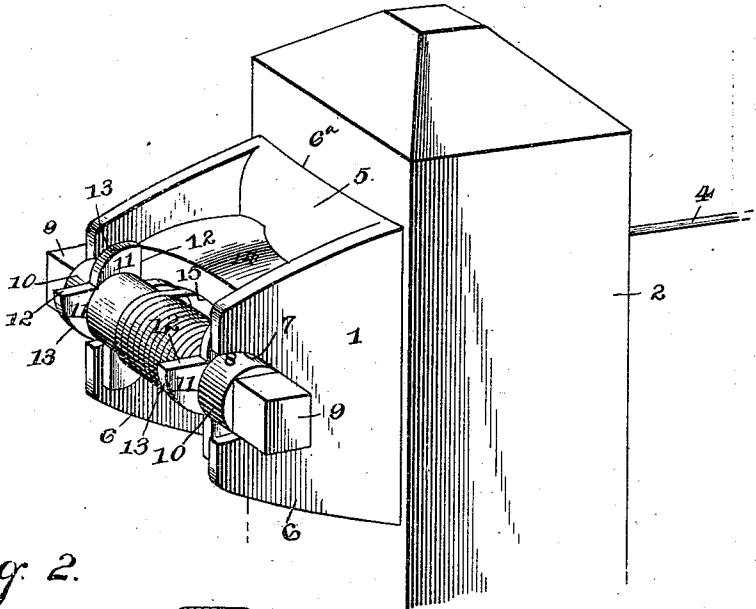


Fig. 2.

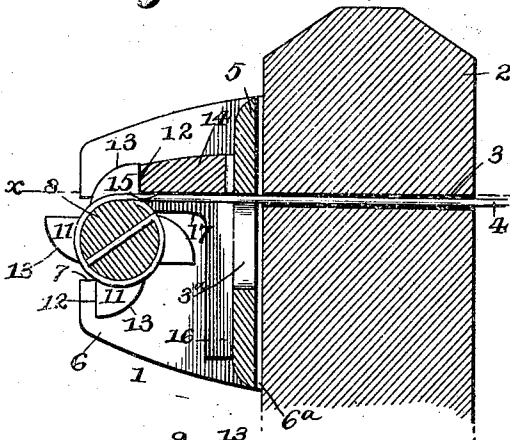


Fig. 3.

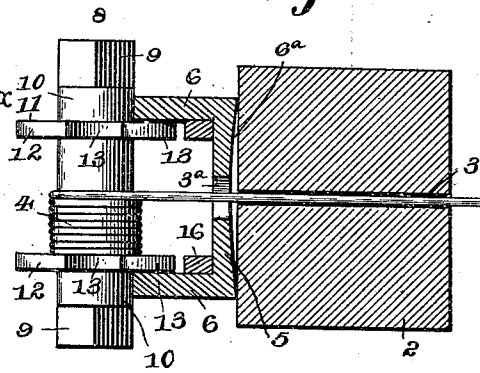


Fig. 4.

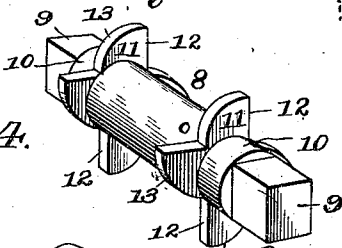
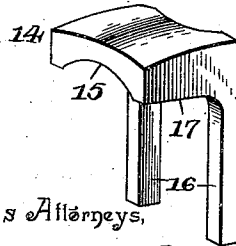


Fig. 5.



Inventor

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UNITED STATES PATENT OFFICE.

HAWKINS A. KING, OF QUINCY, MICHIGAN.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 551,678, dated December 17, 1895.

Application filed July 24, 1894. Serial No. 518,478. (No model.)

To all whom it may concern:

Be it known that I, HAWKINS A. KING, a citizen of the United States, residing at Quincy, in the county of Branch and State of Michigan, have invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention relates to wire-stretchers, and the main and primary object of the present invention is to provide a new and useful wire-stretcher that can be easily and readily applied to a fence-post for the purpose of stretching the horizontal wires of a wire fence and maintaining the same at the proper tension.

To this end the main and primary object of the present invention is to construct a wire-stretcher of comparatively few parts while at the same time providing simple and efficient means for stretching or tightening a fence-wire to the desired tension, and fastening the wire in its stretched condition.

With these and other objects in view which will readily appear as the nature of the invention is better understood the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a wire-stretcher constructed in accordance with this invention, the same being shown applied in operative position to a post and connected with a fence-wire. Fig. 2 is a central vertical sectional view. Fig. 3 is a horizontal sectional view on the line *x x* of Fig. 2. Fig. 4 is a detail in perspective of the windlass-shaft. Fig. 5 is a similar view of the key-block.

Referring to the accompanying drawings, 1 designates an open journal-box adapted to be held in position at one side of a fence-post 2, which is provided with a wire-opening 3. The said open journal-box 1 essentially comprises a base-plate 5, adapted to rest against the side of the post and opposite parallel side bearing-flanges 6, projected outwardly from opposite side edges of said base-plate, and said base-plate 5 of the open journal-box is provided with a concaved or recessed outer side 6^a, and by reason of this construction it will be obvious that the points of contact of the base-plate with the post are in direct

alignment with the side bearing-flanges 6, so that the strain that is placed on said bearing-flanges will only be distributed to those portions of the base-plate that bear against the post, whereby the journal-box will be held firmly in position and the base-plate prevented from breaking or splitting. The opposite parallel side bearing-flanges 6 of the journal-box are provided in their outer edges with the open bearing recesses or notches 7. In these is journaled the windlass-shaft 8, to which is connected one end of the wire 4 to be stretched, which wire passes through the opening 3 in the fence-post and a wire-opening 3^a, formed in the base-plate 5, and in alignment with the opening 3. The said windlass-shaft 8 is provided with the opposite squared extremities 9, adapted to receive a wrench or other suitable tool for adjusting the shaft, and adjacent to the squared ends 9 with the rounded bearing-spindles 10, that turn in the open bearing recesses or notches 7 of said side flanges, so that the shaft may be easily turned and adjusted in its bearings.

Inside of the bearings 10 the windlass-shaft 8 is provided with the opposite sets of catch-lugs 11. The opposite sets of catch-lugs 11 are arranged just inside of the flanges 6, and the distance between the sets of lugs is substantially equal to the space between the side flanges to prevent lateral or longitudinal play of the windlass-shaft. In each set there may be two or more of the catch-lugs 11, but I have illustrated four lugs in each set as a preferable number, and the said lugs are radially disposed or extended from the windlass-shaft and are each provided with a straight shoulder edge 12, and a rounded bearing edge 13, leading up to the outer extremity of said straight shoulder edge. The catch-lugs of each opposite set are arranged in longitudinal alignment, so that their straight and rounded edges will be in similar alignment, and the straight shoulder edges 12 of said lugs are adapted to be held by the tension of the wire 4 into locking engagement with the outer side of the key-block 14.

The key-block 14 is adapted to be inserted inside of the open journal-box between the base-plate thereof and the windlass-shaft, so that the same may be dropped between the said base-plate and the straight shoulder

edges of said catch-lugs. The separate key-block 14 is preferably curved and is provided upon its under side with a transverse wire groove or concavity 15, that is to fit directly over the fence-wire 4, so that the key-block may be inserted into the journal-box sufficiently low in order that the entire width of the straight shoulder edges 12 of the catch-lug may bear against it, as clearly illustrated in the drawings. The key-block 14 is of a length substantially equaling the width between the flanges 6, so as to fit snugly in the space therebetween, and has projected from its opposite ends the depending guide-arms 16, which serve to steady and guide the block 14 in and out of position and to prevent the same from being entirely lifted out of the journal-box when the windlass-shaft is turned in a direction to take up or tighten the wire. The said key-block 14 is further provided directly in front of the upper ends of the guide-arms 16 with the lifting-shoulders 17, under which the rounded bearing edges 13 of the lugs 11 are adapted to ride when the windlass-shaft is turned in a direction for tightening the fence-wires.

From the above it will be seen that to tighten a fence-wire it is simply necessary to turn the windlass-shaft in the proper direction and to insert the key-block in a position behind the straight edges of the catch-lugs, and the wire will be held securely fastened in its stretched condition, while at the same time the tension of the wire will retain the windlass-shaft and the journal-box properly in position. When turning the windlass-shaft to tighten the wire with the key-block in position, the said key-block will be automatically lifted up and will again drop back into position in rear of the straight shoulder edges of said catch-lugs.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

In a wire stretcher, the combination of an open journal box, a windlass shaft journaled in said box and provided with opposite sets of integral radially disposed catch lugs having straight shoulder edges and rounded bearing edges, an integrally formed self-adjusting key block registering within the journal box between the base thereof and the windlass shaft and provided in its under side with a transverse groove or concavity adapted to fit directly over the fence wire, whereby the block will rest on top of the fence wire and will normally be disposed sufficiently low in order to fit against the entire width of the straight shoulder edges of said catch lugs, said key block being further provided with integral guide arms depending from opposite ends thereof and working in the corners of the journal box, and forwardly extending lifting shoulders formed in front of the upper ends of the guide arms at the edges of the groove or concavity and adapted to be slidably engaged by the rounded edges of said catch lugs as the windlass shaft is rotated, substantially as set forth.

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

HAWKINS A. KING.

Witnesses:

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