No. 860,139. PATENTED JULY 16, 1907.

M. E. JOHNSON.

WIRE STRETCHER.

APPLICATION FILED JAN. 16, 1907.

Fig. 1.

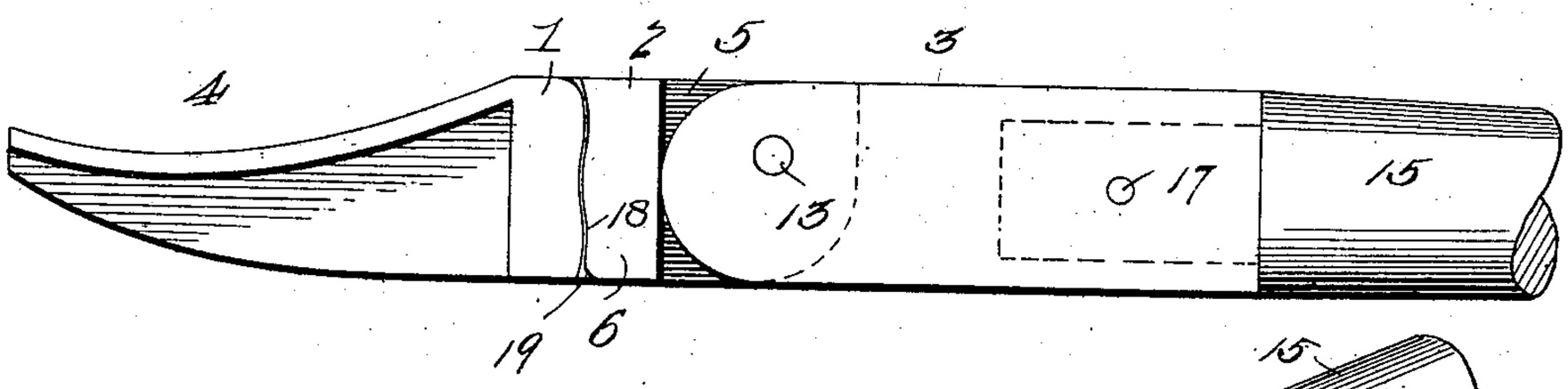


Fig. 2.

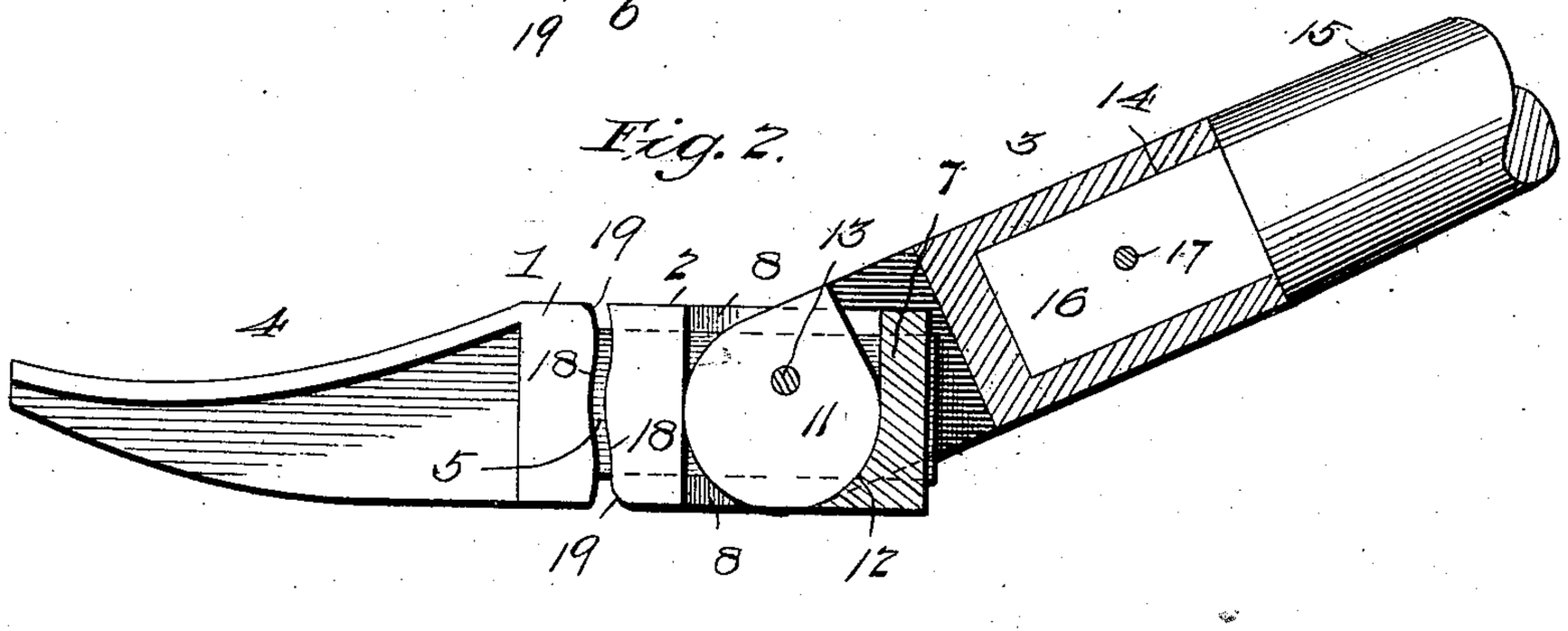


Fig. 3.

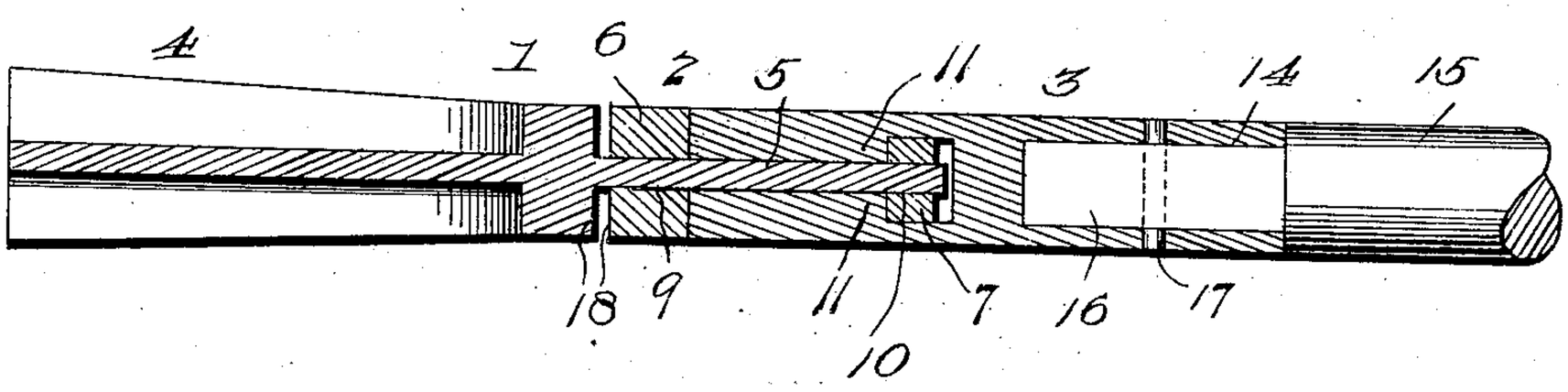
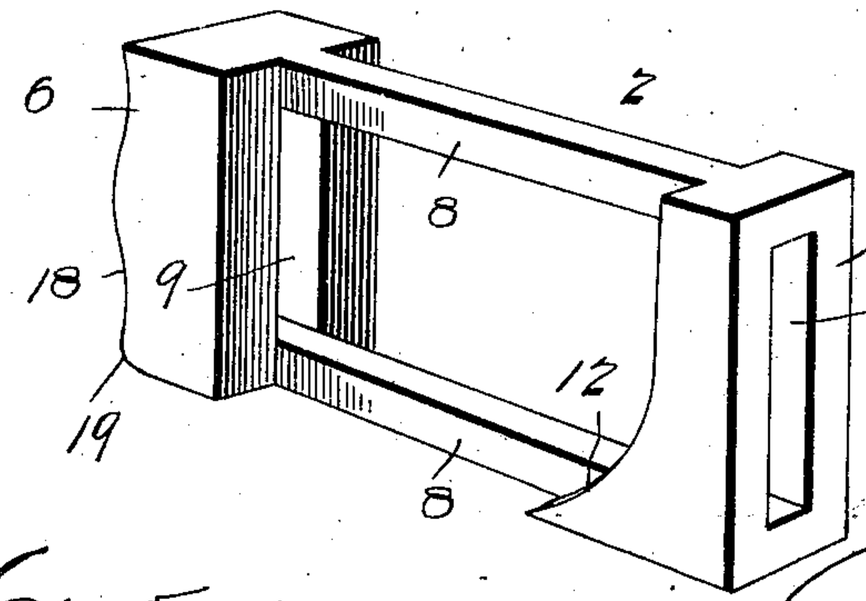


Fig. 4.



Witnesses

T. L. Mockabee

H. G. Keithley.

Inventor

Moses E. Johnson

By Percival M. Smith.

Attorney

UNITED STATES PATENT OFFICE.

MOSES E. JOHNSON, OF PITTSBURG, PENNSYLVANIA.

WIRE-STRETCHER.

No. 860,139. Specification of Letters Patent. Patented July 16, 1907.

Application filed January 16, 1907. Serial No. 352,571.

To all whom it may concern:

Be it known that I, MOSES E. JOHNSON, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Wire-Stretcher, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to wire stretchers, the object in view being to produce a single wire stretcher especially designed for use in constructing and repairing wire fences, whereby a firm and reliable hold or grip may be obtained on the wire without bending or crimping and impairing the strength of the wire, such grip or hold being obtained in and during the normal movement or swing of the lever handle of the stretcher.

A further object of the invention is to construct the jaws of the stretcher in such manner, and to so combine the jaw operating device therewith, that the wire may be gripped and held by either side of the jaws, that is to say at either side of the implement; furthermore the strain upon the jaws and the operating mechanism thereof is equally divided or distributed, thus increasing the life, durability and efficiency of the stretcher as a whole.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement of parts, as herein fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a plan view of the wire stretcher of this invention, showing the parts thereof in gripping position. Fig. 2 is a sectional plan view, showing the lever handle swung partly to one side to partially open the jaws. Fig. 3 is a central longitudinal section through the stretcher. Fig. 4 is an enlarged perspective view of the movable jaw of the stretcher.

The wire stretcher contemplated herein comprises three main members, viz; a fixed jaw 1, which is combined with the fulcrum head hereinafter described, a movable jaw 2, and a handle or lever member 3 which carries the operating device by which the movable jaw is actuated.

The fixed jaw 1 has extended to one side thereof the fulcrum head 4 which is preferably described on a hollow curve as to its working face so as to fit partially around and obtain a satisfactory hold upon the fence post across which the wire is being stretched. Projecting from the opposite and gripping face of the jaw 1 is a flat broad shank 5 upon which the movable jaw 2 slides back and forth.

The movable jaw 2 embodies a gripping head 6, a back or base 7, and connecting parallel side bars 8, as shown best in Fig. 4, the head 6 and the back or base 7 being apertured or slotted as shown at 9 and 10 to receive the shank 5, thus permitting the jaw 2 to slide freely on the shank. The connecting bars 8 are of a thickness equal to or slightly less than the thickness of the shank 5 so that they will slide freely between the cams on the lever handle to be described.

The lever or handle member 3 is bifurcated as best shown in Fig. 3, to straddle the shank 5 and is provided with oppositely arranged cams 11 which work on opposite sides of the shank 5 and between oppositely arranged shoulders formed by the head 6 and the base or back 7 of the sliding jaw 2, as shown in Fig. 2. It will be observed that the inner side of the base 7 is curved to form a cam face 12, against which the cams 11 operated to throw the movable jaw 2 away from the fixed jaw 1, the handle member being connected to the shank 5 by a pivot or stud 13, set off to one side of the center of the shank and eccentric to the working face of the cams.

When the lever handle is swung in one direction, the cams act against the base of the sliding jaw to separate the jaws to receive or release the wire which is held between them. When the lever is swung in the opposite direction the cams act upon and against the head 6 to force the sliding jaw toward the fixed jaw, firmly gripping the wire between said jaws. By continuing this movement of the lever handle the wire is stretched to the desired extent and may then be stapled or otherwise fastened in place.

The member 3 is formed with a socket 14 for the reception of a suitable handle or lever of any length necessary, and this socket may be either round, or square or of any other desired shape to suit the shape of the handle or lever 15, which is provided with a tongue 16 of corresponding shape and may be securely fastened in the socket by a pin 17. To obtain a firm grip on the wire and prevent crimping the same, the gripping faces of the jaws are waved or described on a compound curve as shown at 18, and the front and back corners of the fixed and movable jaws may also be rounded off as shown at 19 for the same purpose. The handle member 3 and the handle or lever 15 may, of course, be made in one piece if desired. These and other changes may be made in the form, construction and minor details of the stretcher, without departing from the principle or sacrificing any of the advantages of this invention.

I claim:—

1. A wire stretcher comprising a jaw with a shank, a second jaw mounted to slide on said shank and having oppositely arranged shoulders, and a jaw operating lever having a cam which works between said shoulders to open and close the jaws.

2. A wire stretcher comprising a jaw with a shank, a second jaw mounted to slide thereon and having two sets

of oppositely arranged shoulders, and a jaw operating lever having cams working at opposite sides of the shank between and against said shoulders of the sliding jaw.

3. A wire stretcher comprising a jaw with a shank, a second jaw mounted to slide on said shank and embodying a head, a base, and connecting side bars therefor, and a jaw-operating lever, bifurcated to straddle the shank and having cams working at opposite sides of the shank between and against the head and base of the sliding jaw.

4. A wire stretcher comprising a jaw with a shank, a sliding jaw mounted on said shank, and a jaw-operating lever having a pivotal connection with said shank and provided with a cam which acts alternately in opposite directions on the sliding jaw.

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

MOSES E. JOHNSON.

Witnesses:
W. J. WHITE,
P. LOWRY.