No. 625,987. Patented May 30, 1899.

H. C. PRATT.

WIRE STRETCHER.

(Application filed Mar. 25, 1898. Renewed Oct. 24, 1898.)

(No Model.)

Fig. 1.

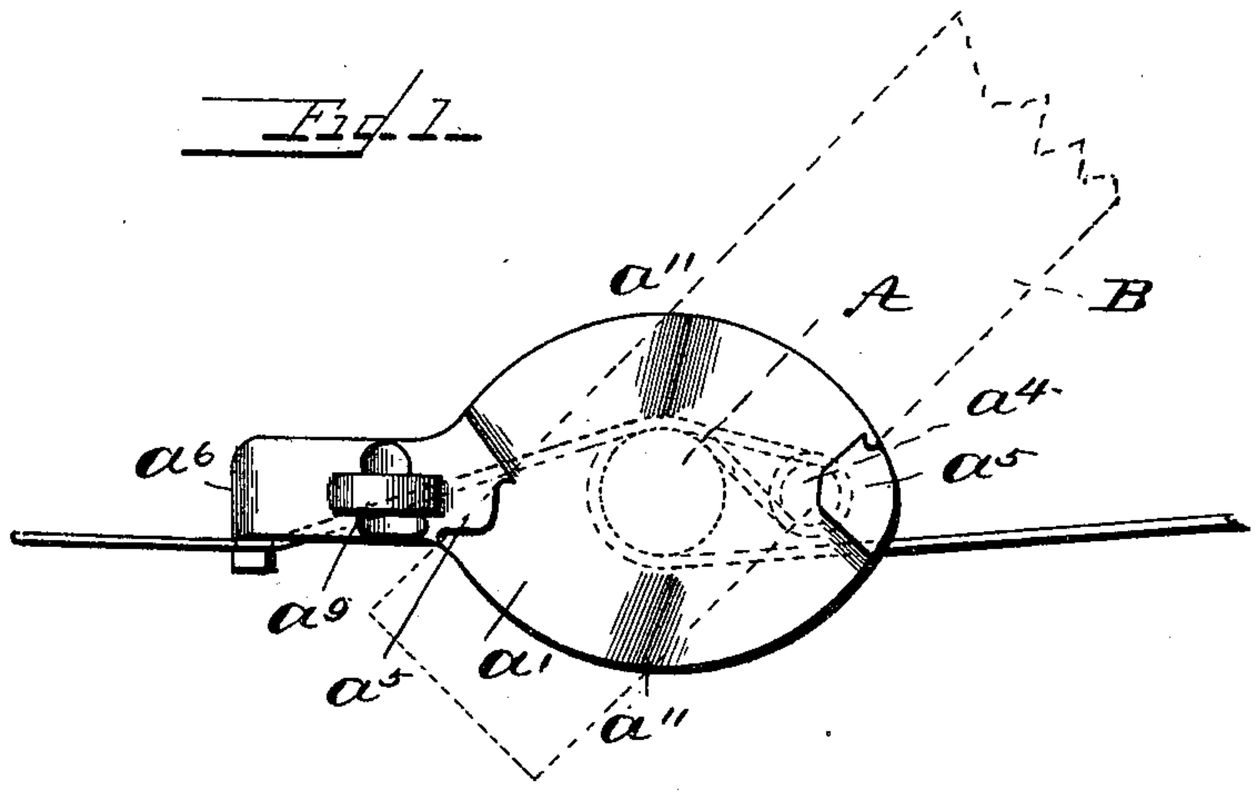


Fig. 2.

Fig. 3.

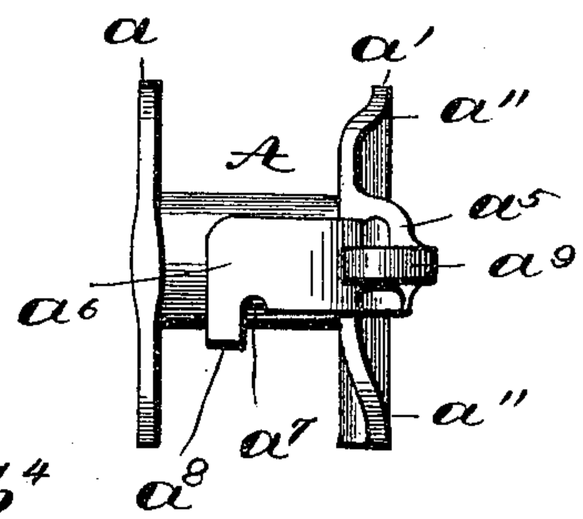
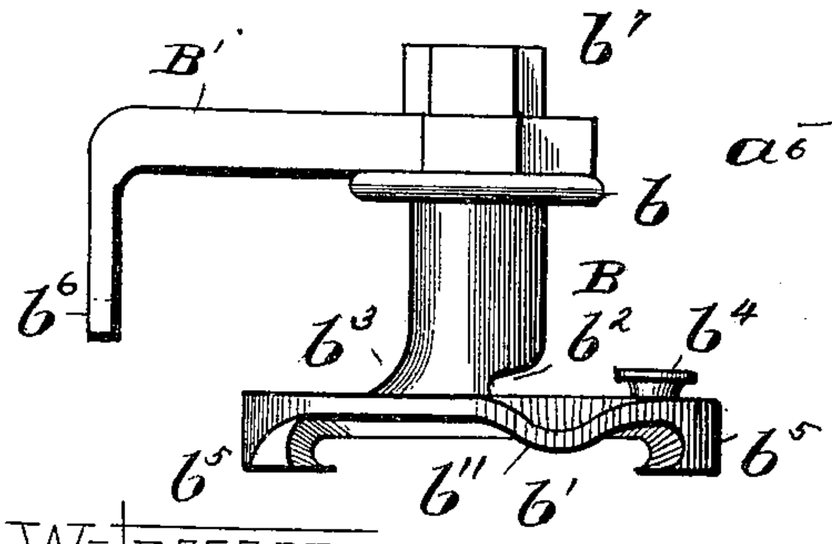


Fig. 4.



Witnesses—

G. A. Pauberschmidt,

J. D. Kingsbury

Inventor—

Henry C. Pratt

By Whittaker & Prevost Attys

UNITED STATES PATENT OFFICE.

HENRY C. PRATT, OF CANANDAIGUA, NEW YORK.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 625,987, dated May 30, 1899.

Application filed March 25, 1898. Renewed October 24, 1898. Serial No. 694,424. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. PRATT, a citizen of the United States, residing at Canandaigua, in the county of Ontario and State of New York, have invented certain new and useful Improvements in Wire-Stretchers; and I 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.

My invention is an improvement in wire-stretchers of the class generally known as "mid-wire take-ups;" and it consists in the novel features hereinafter fully described, reference being had to the accompanying drawings, which illustrate one form in which I have contemplated embodying my invention, and said invention is fully disclosed in the following description and claims.

Referring to the drawings, Figure 1 represents a side elevation of my improved device in operative position. Fig. 2 is a top plan view of the same, and Fig. 3 is an end view. Fig. 4 is a top plan view of a modification of my invention.

A represents the stem of my improved device, which is provided at its ends with integral elongated flanges a a'. The stem A is provided adjacent to the flange a' with a recess or cut-away portion a^2, and on the opposite side of the stem from said recess I provide an inclined shoulder a^3. Adjacent to the recess a^2 the flange a' is provided with a headed stud a^4, which is substantially in line with the shoulder a^3. On the exterior face of the flange a' I provide two lugs a^5 a^5, the upper face of one lug and the lower face of the other being undercut or recessed, as shown, to receive the edges of a flat bar (shown in dotted lines in Fig. 1 at B) by means of which the device is rotated to take up the slack of the wire.

At one end of the flange a' is an inwardly-curved retaining-arm a^6, provided on its under side with a recess a^7 and retaining-lug a^8 to prevent the wire from slipping off the end of the arm. I also prefer to provide a perforated ear or lug a^9, which in this instance is formed at the juncture of the arm a^6 with the flange a'. This perforated lug serves two important functions in connection with the device. In some instances it may be found desirable to secure the arm a^6 positively to the wire to prevent its disengagement therefrom, and this can be advantageously accomplished by passing a tie-wire through the perforated ear a^9 and around the line-wire, as shown in dotted lines in Fig. 2. In shipping the devices, also, they can be conveniently secured together in strings or bunches by means of this perforated ear.

This device is formed of one piece throughout, and while I have shown the flange a' provided with the undercut lugs a^5 it is obvious that they might be placed upon the other flange, if desired. The flange a' is also provided at two opposite points on opposite sides of the stud a^4 with outwardly-curved guiding or deflecting portions a^{11} for the purpose of preventing the wire riding up on the edges of the flange as the device is rotated and for guiding the wire inwardly in case it should have a tendency to do so.

In using the device it is placed upon a wire which it is desired to make taut so that the wire will lie between the recess a^2 of the stem A and the stud a^4. The device is then rotated by means of the bar B, as shown in Fig. 1, and the wire will be formed into a loop around the stud a^4 by the first part of the revolution of the device, thereby taking up at once a large amount of the slack. As the strained wire comes into contact with the inclined shoulder a^3 it will slide inwardly toward the center of the stem A, as indicated in dotted lines in Fig. 2, so that in the subsequent revolutions of the device the wire will be wound upon the stem and will clear the stud a^4.

In some instances it may be desirable to give the device less than a half-turn, as in tightening the wires of short sections of fence, and in such cases I prefer to employ a modification of my invention. (Shown in Fig. 4.) In this construction B represents the stem of the device, having the elongated flange b' at one end and a smaller circular flange b at the other end. The stem B is provided with the recess b^2 and inclined shoulder b^3, as shown, and the flange b' is provided with the stud b^4 and undercut lugs b^5 for the reception of a wrench, also the guiding portions b^{11}, these parts being the same as in the other form. (Shown in Figs. 1 to 3, inclusive.)

At the end of the device adjacent to flange b the stem is extended outside of the flange

to provide a polygonal post b^7, preferably hexagonal. The retaining-arm B′ is made separate from the rest of the device and is provided at one end with the inwardly-bent portion b^6 and at the other end with a polygonal aperture to engage the post b^7. It will thus be seen that the device can be given six different positions in a single revolution and may be retained in any desired position by slipping the arm B′ from the stud b^4, changing its position and replacing it, and then allowing the part b^6 to engage the wire.

What I claim, and desire to secure by Letters Patent, is—

1. A wire-stretcher comprising among its members, a stem provided at one end with a flange having a short eccentric stud thereon extending in the same direction as said stem but shorter than the stem, said stem having adjacent to said flange an inclined shoulder extending from the flange to a point substantially in line with the end of said eccentric stud, whereby said shoulder will deflect the wire out of line with said stud, means for rotating said stem and a retaining-arm provided with a portion for engaging the line-wire, substantially as described.

2. A wire-stretcher comprising among its members, a stem provided with an inclined shoulder, a flange adjacent to said shoulder provided with a stud eccentric to said stem and substantially in line with said shoulder, lugs on the exterior face of said flange having opposite undercut faces and an integral retaining-arm having a portion bent into line with said stem and provided with means for preventing its accidental disengagement from the wire, substantially as described.

3. A wire-stretcher comprising among its members, a stem provided with an inclined shoulder, a flange adjacent to said shoulder provided with a stud eccentric to said stem and substantially in line with said shoulder, lugs on the exterior face of said flange provided with opposite undercut faces, an integral retaining-arm connected with said flange and having a portion extending into line with the stem and provided with means for preventing its accidental disengagement from the wire and a perforated ear on said arm substantially as described.

4. A wire-stretcher comprising among its members a stem provided at one end with a flange having a short eccentric stud thereon extending in the same direction as the stem but shorter than the stem, a retaining-arm integral with said flange having a portion extending inwardly to a point in line with the central portion of the stem to engage the wire, said flange being provided on its outer face with projections for turning said stem, and flange substantially as described.

5. A wire-stretcher comprising among its members a stem provided at one end with a flange having a short eccentric stud thereon extending in the same direction as the stem but shorter than the stem, a retaining-arm formed integrally with said flange having a portion extending inwardly to a point in line with the central portion of the stem and provided with a retaining device for engaging the wire, a perforated ear on said arm and projections on the side of said flange opposite the spindle for engaging a wrench, substantially as described.

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

HENRY C. PRATT.

Witnesses:
JOHN S. COE,
MAGGIE MCCORMACK.