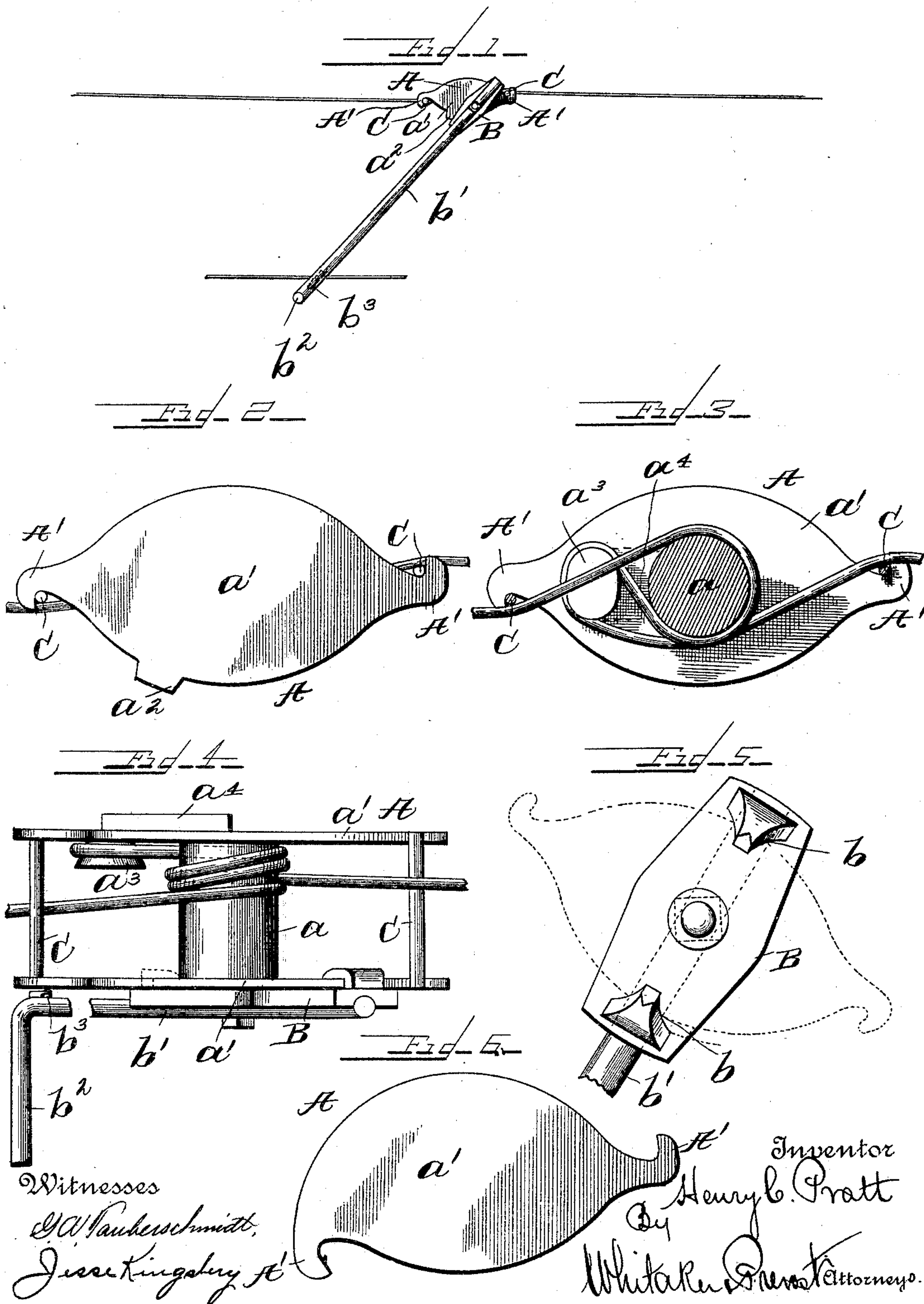


(No Model.)

H. C. PRATT.  
WIRE STRETCHING DEVICE.

No. 491,743.

Patented Feb. 14, 1893.





# UNITED STATES PATENT OFFICE.

HENRY C. PRATT, OF CANANDAIGUA, NEW YORK.

## WIRE-STRETCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 491,743, dated February 14, 1893.

Application filed August 31, 1892. Serial No. 444,645. (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-Stretching Devices; 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, and relates to that class of the same denominated midwire take-ups, which are used to take up the slack of the wire intermediate its ends in building wire fences, and are ordinarily secured and left in place after the wire has been properly stretched.

In the accompanying drawings I have shown one form in which I have contemplated embodying my invention and said invention is fully disclosed in the following description and claims.

Referring to said drawings: Figure 1 represents my improved wire stretcher applied to a wire showing the wrench which I preferably employ for turning the same. Fig. 2 is a side elevation of my improved wire stretcher. Fig. 3 is a central sectional view of the same. Fig. 4 is a top plan view showing the wrench in position. Fig. 5 is a view of the head portion of the wrench. Fig. 6 is a side view of a slightly modified form of spool.

In the drawings A represents the spool of my improved wire stretcher which consists of the spindle  $a$  provided with the side plates  $a'$   $a'$ . The side plates are formed preferably of the shape I have shown in the drawings, somewhat elliptical so that their peripheral edges are farther from the spindle  $a$  adjacent to the ends of the sides, than they are at the center. One of said side plates, (or both if preferred) is provided with a projection or lug  $a^2$  which is adapted to be engaged by the wrench which I prefer to employ to turn the said spool. The inner face of one of the side plates  $a'$  is provided with a wire engaging lug or projection  $a^3$  located eccentrically to the spindle  $a$ , and in order to give greater strength in casting the spool I preferably form a web  $a^4$  which extends along the outer surface of the said side plate from the eccentric lug  $a^3$

to the spindle  $a$  as shown in Fig. 4. Each end of each of the side plates  $a'$   $a'$  is provided with a recessed portion or hook  $A'$  which is adapted to receive a retaining pin for engaging the wire and preventing the spool from turning after it has been properly adjusted. The spool just described can be very cheaply made as it does not require to be cored and there are no holes to be drilled, while the operation of the spool is very effective.

I prefer to employ such a wrench as is illustrated in the drawings. B is the head of the wrench which is provided with two hooks or projections  $b$   $b$  adapted to engage the peripheral edges of the one side plate of the spool. One of the hooks  $b$  will be placed in engagement with the lug or projection  $a^2$  and the other will engage the opposite side of the plate  $a'$ . The head B is then turned by means of the lever or arm  $b'$ , when the hook not in engagement with lug  $a^2$ , will slip along the edge of the plate until the increasing diameter of the plate causes it to grip the edge and gives the wrench a secure hold of the spool. The hooks  $b$   $b$  extend over the edges of the plate  $a'$  and the wrench cannot be accidentally disengaged from the spool. I prefer to provide the operating arm or lever  $b'$  of the wrench with a handle  $b^2$  extending at right angles thereto, in order to give the operator more perfect control of the spool as it is turned to wind up the wire. I also provide said arm or lever  $b'$  with a retaining device consisting of a hook or projection  $b^3$  which is adapted to engage the wire operated upon or one of the other wires of the fence to hold the wrench and spool in position while the retaining pins C are inserted, where it is desirable to use both hands in placing the pins in position.

The operation of my improved device is as follows; the wrench is placed in engagement with one of the side plates of the spool, and the spool is placed in engagement with the wire, the wire passing between the wire engaging lug  $a^3$  and the spindle  $a$ . The spool is then turned, when the wire will be held by the lug  $a^3$  and wound about the spindle  $a$  until it is taut. When the proper tension is produced, the retaining pins C C will be placed in the hooks or recesses  $A'A'$  between the same and the wire so that the tension of the wire will tend to force said pins into their



seats, and the wrench may then be removed. I prefer to provide one side plate  $\alpha'$  with the lug or projection  $\alpha^2$  as it positively prevents the wrench from slipping and facilitates the  
5 easy manipulation of the device. I have shown in the first five figures the hooks A'A' disposed longitudinally of the device on its central line but I may form the hooks A' at one end out of line with those at the other end so  
10 that it will not require a full half revolution from one to the other to secure the spool in position as shown in Fig. 6. In the drawings I have also shown both ends of the spool provided with pins C C. This however is not  
15 essential and but one pin need be used if desired.

What I claim and desire to secure by Letters Patent is:

1. Means for stretching wire including a  
20 spool having a central spindle and side plates having unequal diameters one of said plates having its edge provided with a wrench engaging projection in the plane of said plate, substantially as described.
2. Means for stretching wire including a  
25 spool having a central spindle and side plates having unequal diameters, said plates having recessed portions for the reception of a retaining pin, one of said plates having its edge  
30 provided with a wrench engaging projection

in the plane of the plate and one of said plates having its inner face provided with a projection eccentric to the central spindle, substantially as described.

3. Means for stretching wire including the  
35 spool provided with a spindle and side plates of unequal diameter having the recessed portions for receiving a retaining pin, in combination with a wrench having at one end means for engaging the edges of one of said  
40 disks and having adjacent to its other end a retaining hook for engaging the wire, whereby said spool may be held in position by said retaining hook while the pin is being inserted, substantially as described.

4. The combination with the spool consisting of the central spindle and side plates having unequal diameters, one of said plates having a wrench engaging lug projecting from its edge in the plane of the plate, of a  
50 wrench having a flat face to engage one of said plates and a pair of projecting lugs for engaging the edges of said plate, substantially as described.

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

HENRY C. PRATT.

Witnesses:

JOHN S. COE,

MARY I. MACK.