

(No Model.)

G. P. KIDD.
WIRE STRETCHER.

No. 493,432.

Patented Mar. 14, 1893.

FIG. 1.

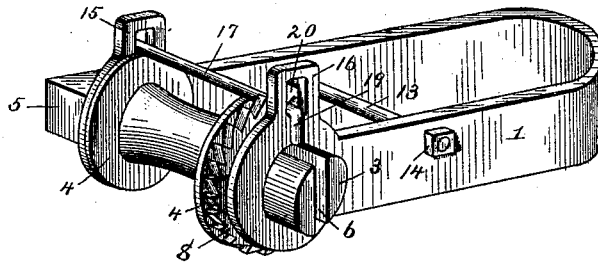


FIG. 2.

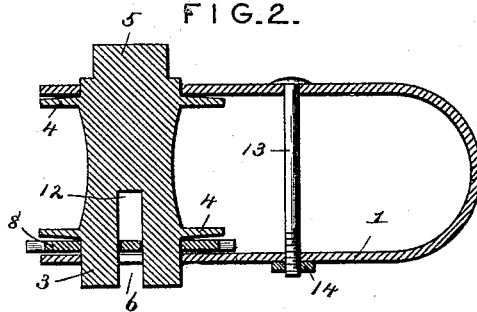


FIG. 3.

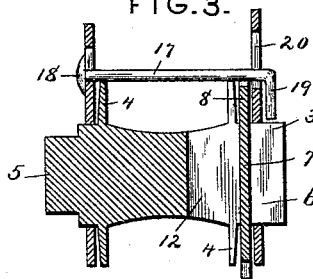


FIG. 4.

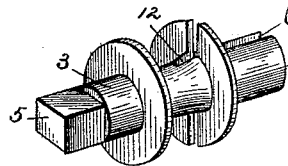


FIG. 5.

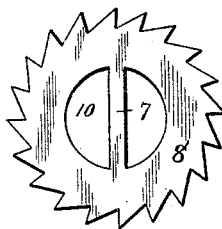
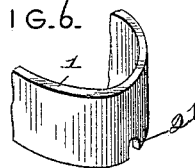


FIG. 6.



Witnesses

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By his Attorneys,

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Inventor

Gideon P. Kidd.

UNITED STATES PATENT OFFICE.

GIDEON P. KIDD, OF ROANN, INDIANA, ASSIGNOR OF ONE-HALF TO JAMES H. ARNOLD AND JAMES H. BARNHART, OF SAME PLACE.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 493,432, dated March 14, 1893.

Application filed June 6, 1892. Serial No. 435,670. (No model.)

To all whom it may concern:

Be it known that I, GIDEON P. KIDD, a citizen of the United States, residing at Roann, in the county of Wabash and State of Indiana, have invented a new and useful Wire-Stretcher, of which the following is a specification.

The invention relates to improvements in wire stretchers.

10 The object of the present invention is to simplify and improve the construction of that class of wire stretchers which are adapted to be attached to a fence and form a permanent part thereof, and enable the fence wires to be
15 tightened or adjusted from time to time as is found necessary.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated
20 in the accompanying drawings and pointed out in the claims hereto appended.

In the drawings—Figure 1 is a perspective view of a wire stretcher constructed in accordance with this invention. Fig. 2 is a horizontal sectional view. Fig. 3 is a transverse
25 sectional view. Fig. 4 is a detail perspective view of the shaft. Fig. 5 is a detail view of the ratchet disk. Fig. 6 is a detail perspective view of the rear end or bend of the yoke.

30 Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an approximately U-shaped yoke constructed of spring metal and provided in the outer ends of its sides with bearing openings in which are journaled rounded portions of a shaft 3, provided intermediate
35 its ends with annular flanges 4 which form a drum upon which a wire to be stretched is wound. One end of the shaft is squared at 5
40 to fit it to be engaged by a wrench or other tool, and its other end is provided with a longitudinal slot 6 extending inward to facilitate the attachment of an end of a strand of wire
45 to the shaft, and to receive a securing bar 7 of a ratchet disk 8. In order to cheapen the construction and facilitate the manufacture of the device, a separate ratchet disk is employed, and it is provided with oppositely dis-
50 posed segmental openings 10 which receive the divided portions of the slotted end of the

shaft and are separated by a bar diametrically disposed and adapted to be inserted in the slot of the bolt, whereby the ratchet disk is made rigid with the shaft. The shaft is
55 concavely grooved at 12 between the annular flanges to cause the wire being stretched to accumulate at the middle of the shaft to prevent its being caught in the flanges 8 and retarding the rotation of the shaft and the op-
60 eration of the device.

The yoke which is constructed of spring metal is adapted to have its sides sprung apart to receive the shaft and after the latter has been inserted the sides are held against lat-
65 eral movement by a transverse bolt 13 arranged in perforations of the sides and provided with a nut 14.

The sides of the yoke are provided on their upper edges with vertically extending lugs
70 or extensions 15 and 16, adapted for the reception of a pawl 17. The pawl 17 consists of a horizontal pin provided at one end with a head 18 and an angularly bent end 19; the extension 15 is provided with an opening of
75 sufficient size to permit the pin to move freely but to prevent the head of the pin from being drawn through it, and the other extension 16 is provided with a vertical slot 20 to permit the horizontal locking pin, which forms a
80 gravity pawl, to be readily engaged with and disengaged from the teeth of the ratchet wheel.

The wire stretcher is adapted to be applied to a strand of wire at any point along the
85 same, to take up the slack and in applying the device the wire is inserted in the slot of the shaft after which the ratchet disk is placed on the shaft, and the sides of the yoke are then sprung over the shaft. The yoke is pro-
90 vided at its bend with a notch 21 arranged at the lower edge and adapted to receive the wire to hold the device in proper position.

It will be seen that the device is simple and comparatively inexpensive in construction,
95 and may be readily applied to a fence, and is capable of maintaining a fence at any desired tension, and of being adjusted from time to time to preserve the necessary tension.

What I claim is—

1. In a wire stretcher, the combination of a yoke having vertical extensions provided with

openings, a shaft journaled in the sides of the yoke and having a longitudinal slot at one end, a ratchet disk having oppositely disposed segmental openings receiving the slotted portion of the shaft, and divided by a diametrically disposed locking bar arranged in the slot of the shaft, and a gravity pawl consisting of the transverse pin arranged in the openings of the extensions and provided at one end with a head and having its other end bent downward, substantially as described.

2. In a wire stretcher, the combination of a yoke provided at its bend at the lower edge thereof with a wire receiving notch and having at the front ends of its sides vertical extensions provided with openings, the slotted shaft journaled in the sides of the yoke pro-

vided with annular flanges and concavely curved between the flanges, the ratchet disk having the oppositely disposed segmental openings receiving the slotted portion of the shaft and divided by the diametrically disposed locking bar arranged in the slot of the shaft, and a transverse pin arranged in the openings of said extensions and engaging the ratchet disk, 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.

GIDEON P. KIDD.

Witnesses:

S. L. OCKER,

W. J. CONNER.