

(No Model.)

A. NICKLE.
WIRE STRETCHER.

No. 531,209.

Patented Dec. 18, 1894.

Fig. 1.

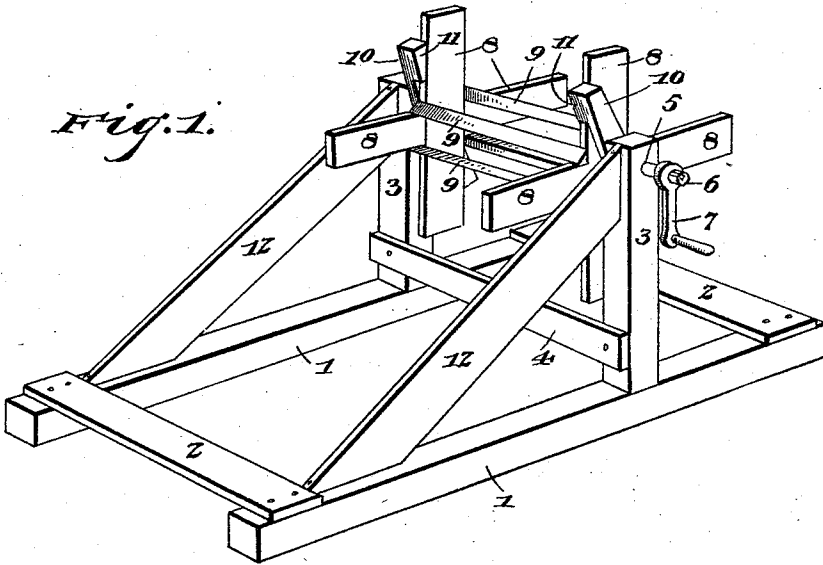


Fig. 2.

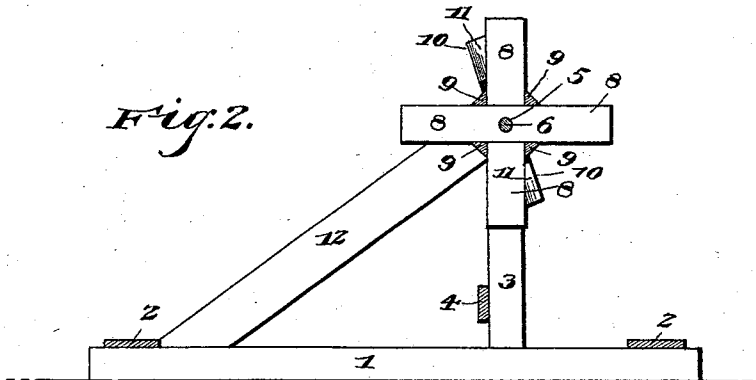


Fig. 3.

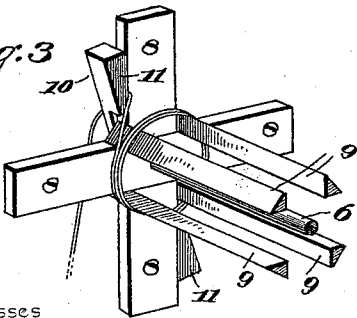
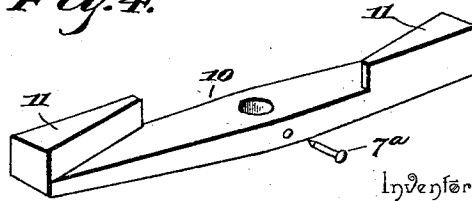


Fig. 4.



Witnesses

B. H. Ober.

J. B. Owens.

By *his* Attorneys.

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UNITED STATES PATENT OFFICE.

ALFRED NICKLE, OF PLEASANT MOUND, ASSIGNOR OF ONE-HALF TO J. J. JACKSON, OF MULBERRY GROVE, ILLINOIS.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 531,209, dated December 18, 1894.

Application filed June 13, 1894. Serial No. 514,458. (No model.)

To all whom it may concern:

Be it known that I, ALFRED NICKLE, a citizen of the United States, residing at Pleasant Mound, in the county of Bond and State of Illinois, have invented a new and useful Wire-Stretcher, of which the following is a specification.

This invention relates to an improvement in that class of wire stretchers in which a winding reel is adapted to be connected to the wire and to wind the same thereon; and the invention lies in an improvement in the construction of this reel, whereby the wire may be more effectually connected thereto.

These improvements are illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of my complete invention. Fig. 2 is a longitudinal section thereof. Fig. 3 is an enlarged perspective, showing in detail the operation of the wire-clamping devices. Fig. 4 is a detail perspective of one of the clamping bars.

The frame of the machine consists of two longitudinal and horizontal beams 1, joined to each other by means of the cross-braces 2, and having the vertical posts or standards 3 rigidly secured thereto. The standards 3 are one for each of the beams 1, and are provided with the cross-brace 4, by which their mutual rigidity is secured. Revolvably journaled in the boxes 5, of the upper ends of the standards 3, is the shaft 6, which extends from one standard 3 to another and which has one end projecting beyond the adjacent standard to facilitate securing the crank 7 thereto. By means of this crank the shaft 6 is given its characteristic rotary movement.

The reel proper is loosely mounted upon the shaft 6, so as to be capable of revolving independently of said shaft, and consists of the four radial beams 8 arranged in two pairs, each pair forming one end of the reel, and secured to each other by dove-tailing and bolting. Extending longitudinally with the shaft 6 are the bars 9, which are preferably four in number and which are rigidly secured to each pair of the radial-beams 8, at the corners of the crosses formed by the said pairs. These bars 9 operate to connect each pair of the beams 8, and to form the body-portion of the

drum or reel; while the beams 8 serve to perform the function of the usual flanges.

Fixed to the shaft 6, by means of the pins 7^a, passing therethrough, are the bars 10, which are two in number, one for each pair of the beams 8, and which are of a length equal to a little less than the length of said beams. The bars 10 are both provided at their ends with the lugs 11, which extend inwardly toward the center of the reel so that they will be capable of engaging the edges of the beams 8 which are adjacent thereto. Those sides of the lugs 11 which engage said beams 8 are formed inclined or beveled, so that a smooth face will engage the edges of the beams, as distinguished from an angular point. The lugs 11 are oppositely arranged on their respective bars 10, so that the upper lug, will engage the upper end of one of the beams 8, while the remaining lug, or lower lug, will engage the lower end of the same bar 8 but on the opposite side thereof.

In the use of the invention the end of the wire to be stretched is placed between the inclined portion of one of the lugs 11 and the adjacent beam 8, and then passed around the reel from right to left. The shaft should now be revolved, moving the end of the bar 10 against the wire which lies against the adjacent beam 8, thus causing the wire to be clamped between the two parts. As the revolution of the reel continues the wire will be wound around it, and the tension of the wire will operate on the reel to keep the bars 8 continually pressed against the respective lugs 10. By these means the wire is securely affixed to the reel. Should it be desired to add a second wire to the reel simultaneously with the operation of the first, this may be done by bringing into use one of the remaining lugs 11, which will be very easy. This addition of wires may be continued until all four of the lugs 11 have been brought into use; and if such a multiplicity of wires is anticipated, the bars 10 may be increased in number, so as to furnish more lugs and thereby increase the capacity of the reel.

12 indicates two braces, which are rigidly secured to the main beams 1 and to the posts or standards 3, and which operate to give ri-

gidity to said standards and to reinforce them during the stretching of the wires.

It will be observed that while the reel is loosely mounted on its shaft, it will be incapable of more than a slight independent movement thereon, since the bars 10 are rigidly connected to the shaft and operate, through the medium of their lugs 11, to restrict the movements of the reel within the space lying between one end of a beam 8 and the adjacent end of its companion.

Having described the invention, what I claim is—

In the wire stretcher a revoluble shaft, a reel loose on said shaft, and having at one end a beam extending on each side of the shaft, a clutch bar fixed to the shaft directly adjacent to said beam and extending diagonally so that

one end of the clutch bar will lie on one side of the beam, and the remaining end on the opposite side, the ends of the clutch bar being respectively formed with inwardly projecting lugs, having diagonally extending faces lying snugly against the adjacent sides of the beam, the wire being arranged with its end between one of the lugs on the clutch bar and the adjacent side of the cross bar of the reel, and with its contiguous portion wound around the reel, 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.

ALFRED NICKLE.

Witnesses:

HENRY JACOBS,
LOU. A. COMBS.