

No. 614,581.

Patented Nov. 22, 1898.

S. SHOWN.  
WIRE STRETCHER.

(Application filed Apr. 6, 1898.)

(No Model.)

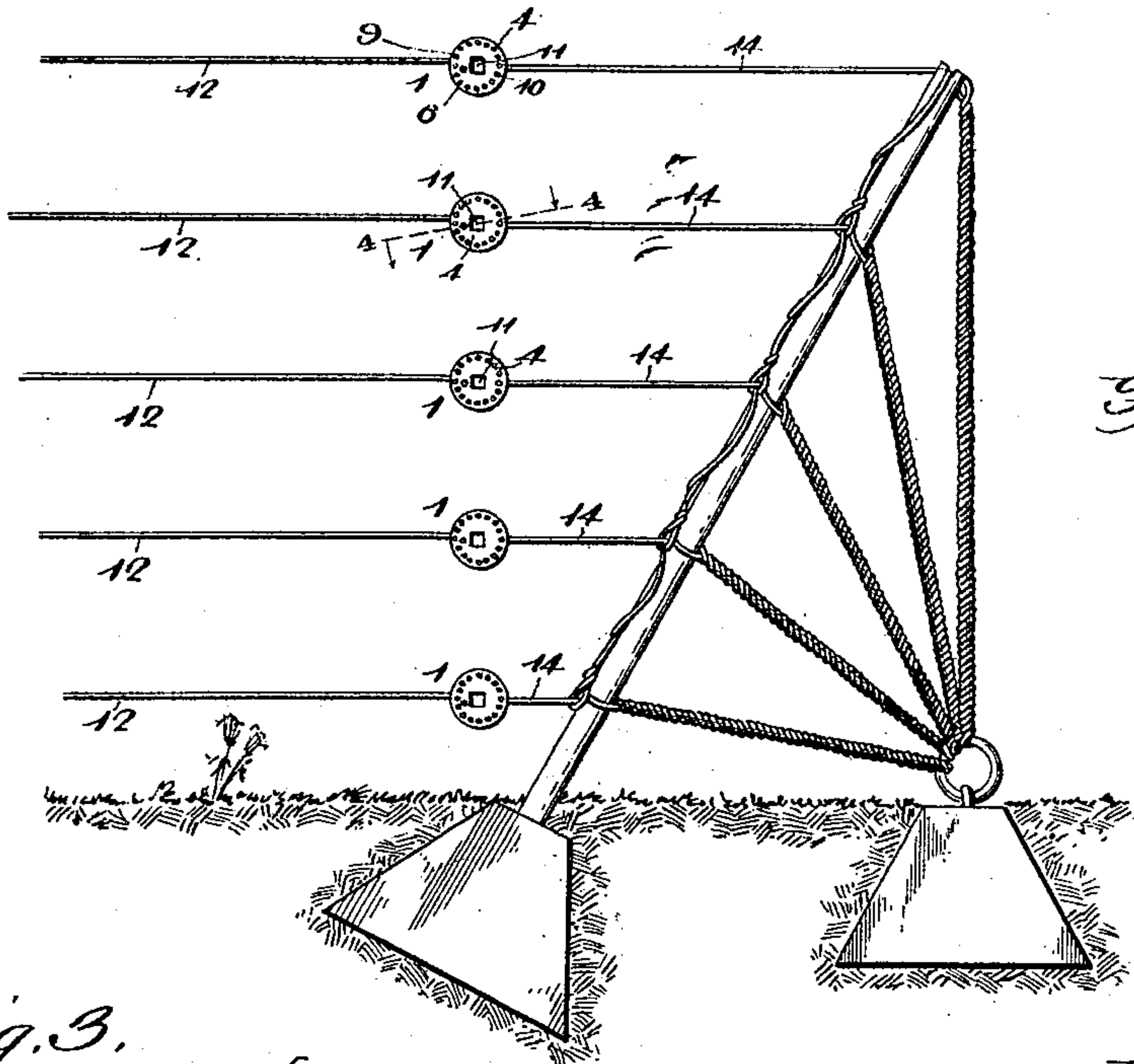


Fig. 1.

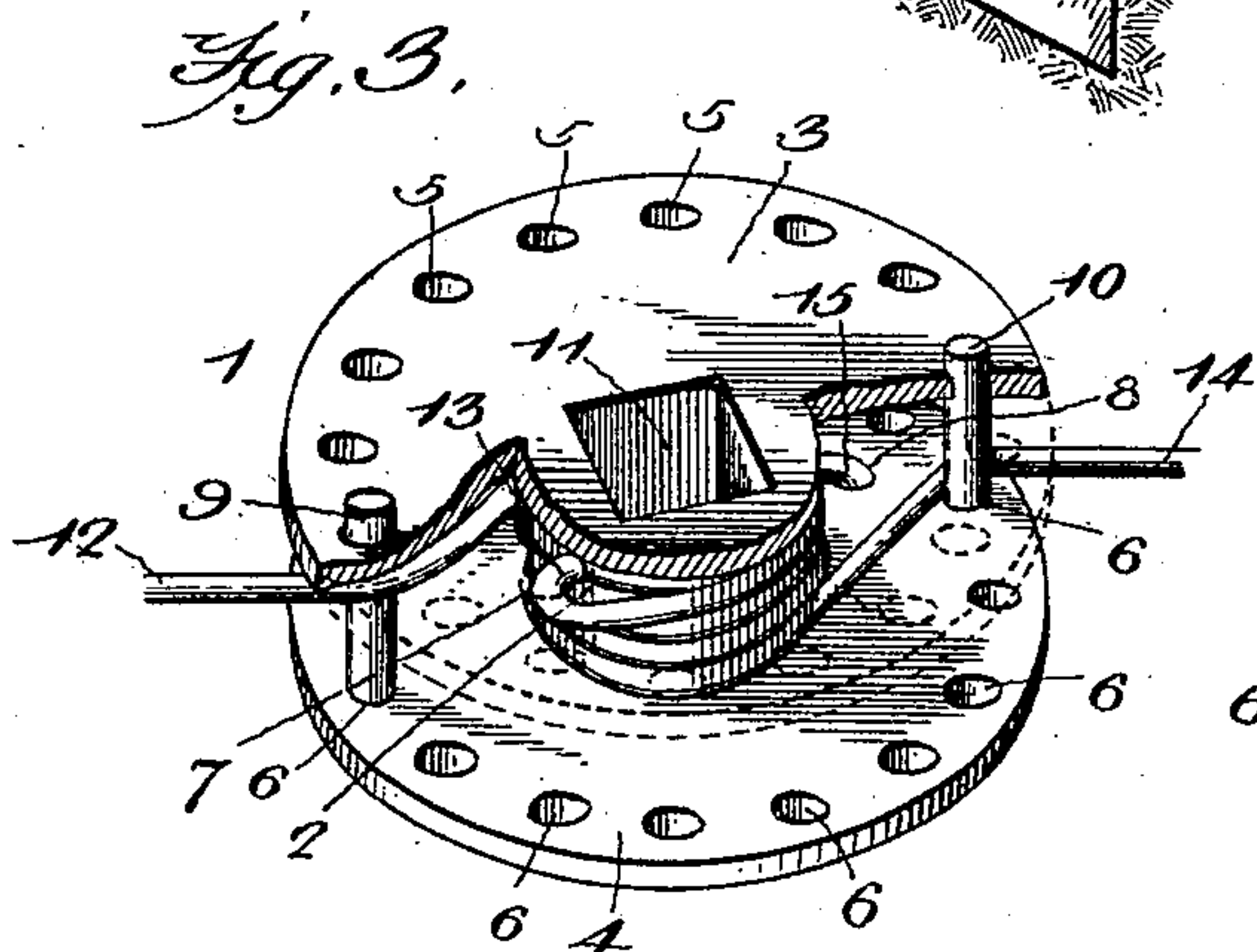


Fig. 3.

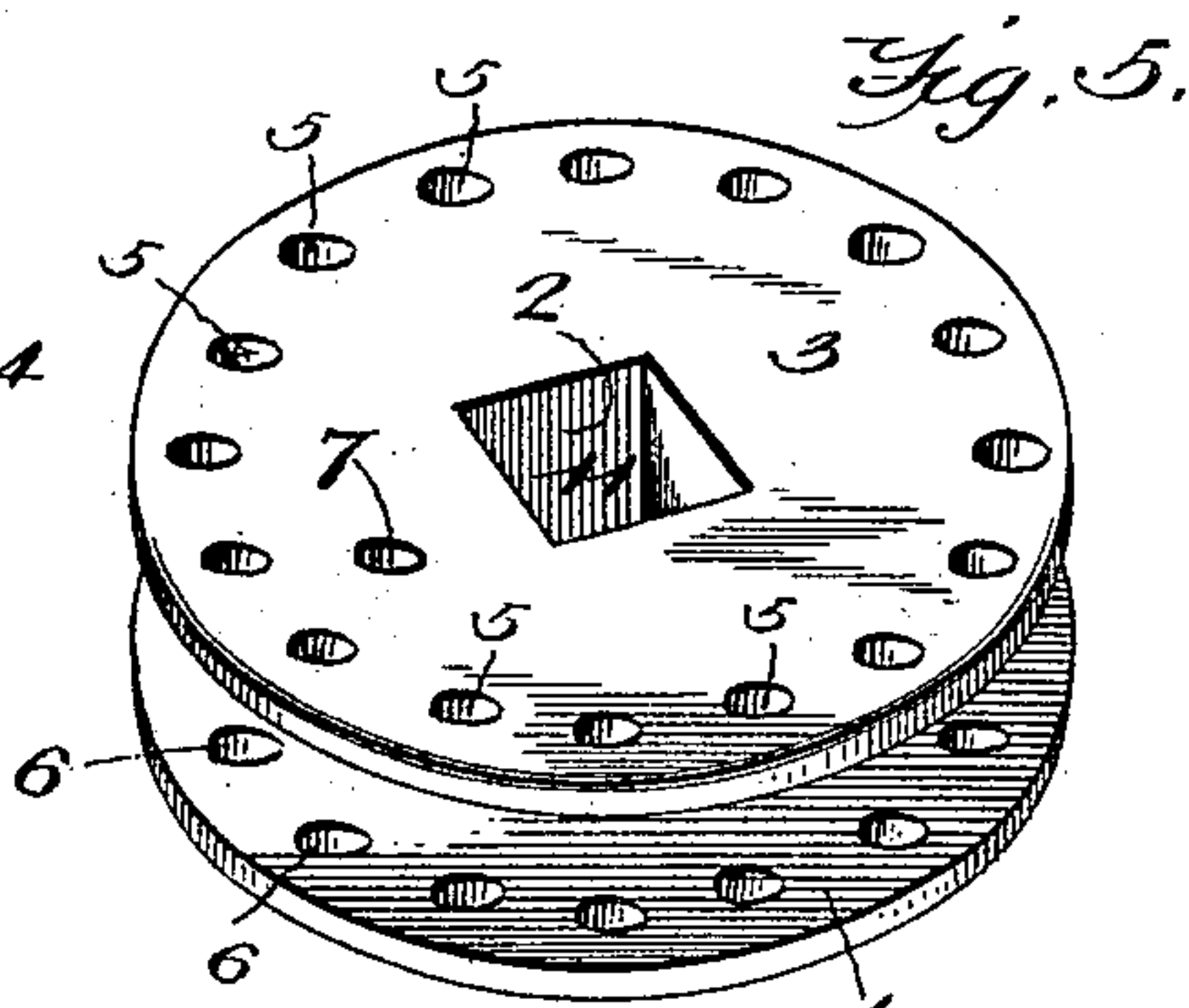


Fig. 5.

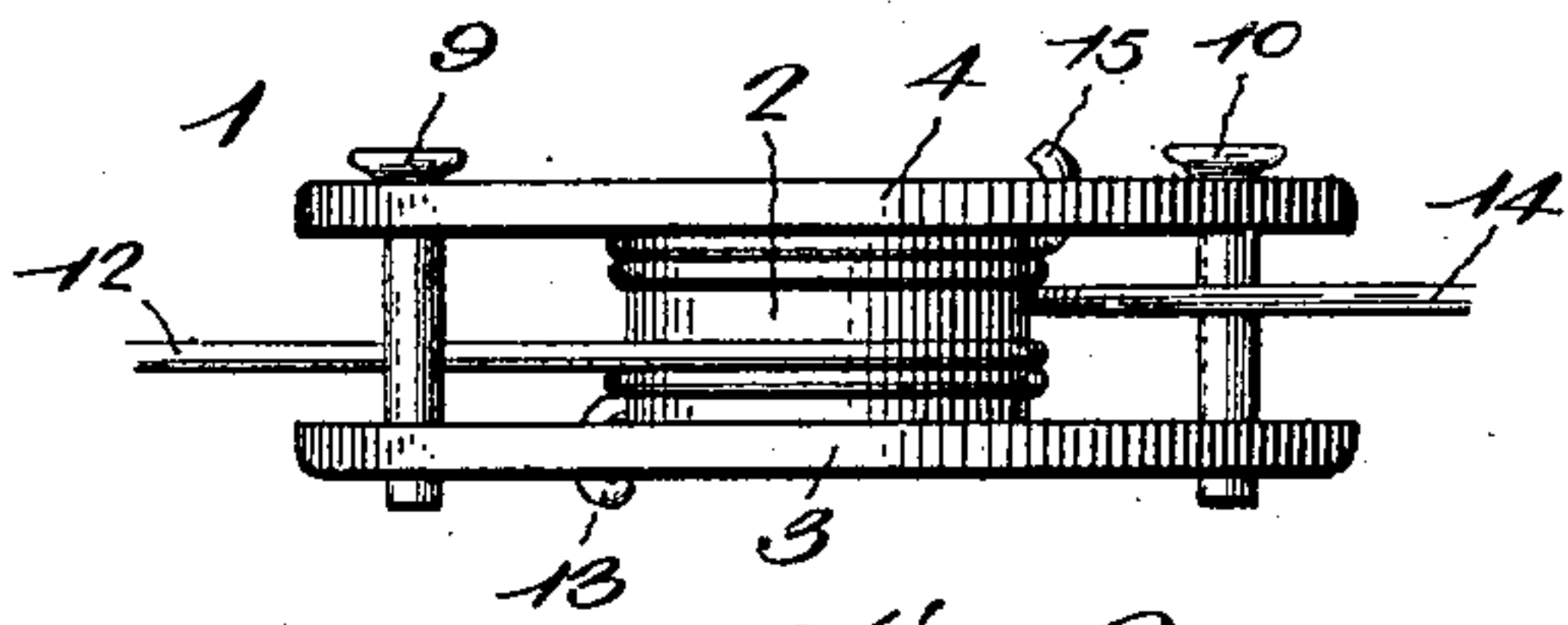


Fig. 2.

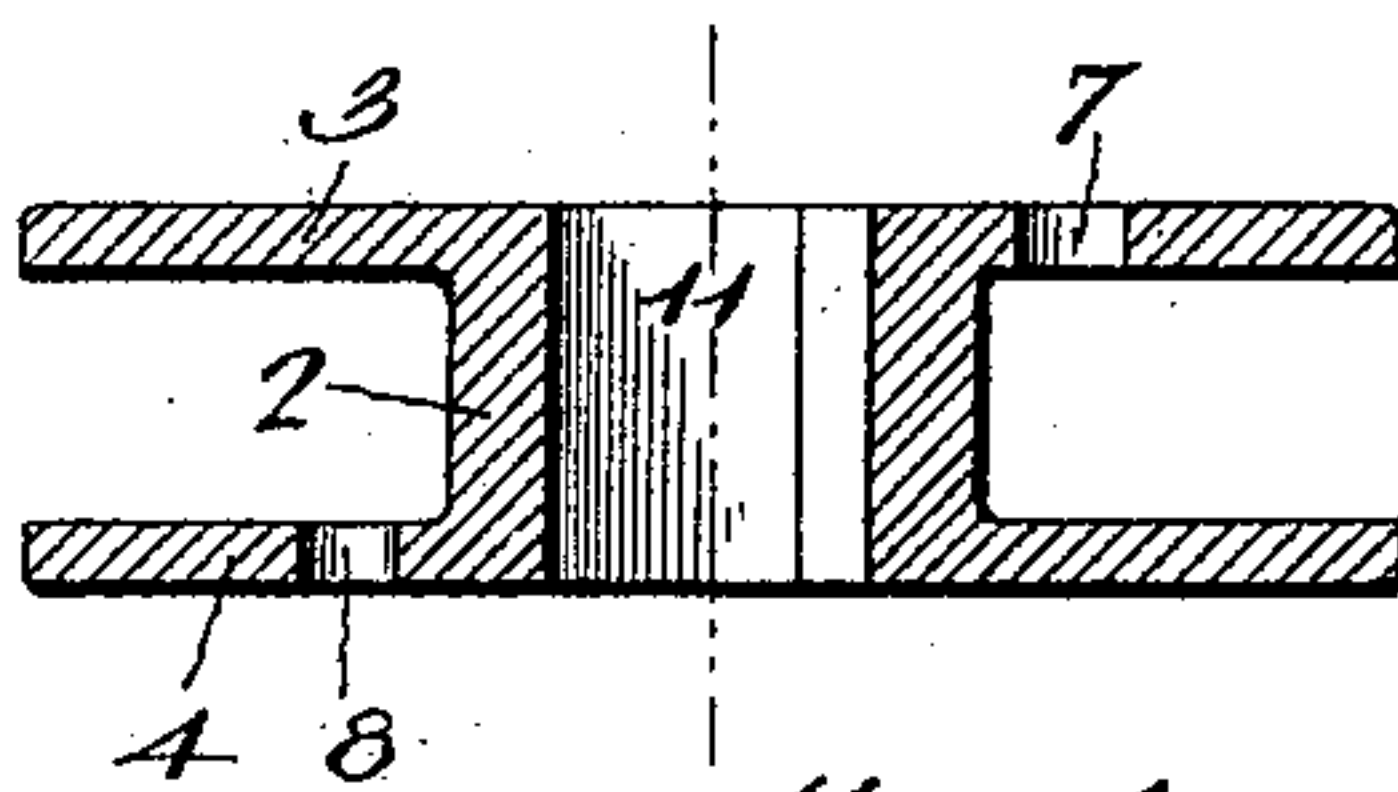


Fig. 4.

Witnesses

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# UNITED STATES PATENT OFFICE.

SILAS SHOWN, OF GLENVILLE, KENTUCKY.

## WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 614,581, dated November 22, 1898.

Application filed April 6, 1898. Serial No. 676,660. (No model.)

*To all whom it may concern:*

Be it known that I, SILAS SHOWN, a citizen of the United States, residing at Glenville, in the county of McLean and State of Kentucky, have invented a new and useful Wire-Stretcher, of which the following is a specification.

My invention relates to improvements in wire-tighteners for use on wire fences, and more particularly to that class in which a permanent tightener is employed in connection with the adjacent lengths of two fence-runners, which wires are coiled on the stretching device to be wound simultaneously thereon when said stretcher device is rotated in one direction.

The primary object of this invention is to provide a simple and cheap construction which may be applied readily to any ordinary construction of wire fence in which provision is made for the secure attachment of the adjacent lengths of two fence-wires and for the proper holding of the stretcher device to prevent rotation thereof under the strain of the wires and consequent slacking of the latter.

With these ends in view my invention consists of a wire-tightener cast in a single piece of metal with a short hub, two parallel heads at the respective ends of the hub and arranged contiguous to each other to provide a wire-receiving channel, a circular series of holes in each head, near the periphery thereof, wire-receiving holes in the respective heads and positioned at diametrically opposite points to each other and within the circular planes of the two series of holes in the heads, the latter series of holes adapted to receive holding-pins, which are inserted subsequent to the rotation of the stretcher and are arranged to engage with the adjacent lengths of the runner-wires, respectively, to restrain the stretcher device from rotation after the wires have been placed under tension.

The invention further consists in the combination of parts, as will be hereinafter fully described and claimed.

To enable others to understand my invention, I have illustrated the preferred embodiment thereof in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a side view of part of a fence with my improved permanent stretcher device applied to the length of the fence runner-wires. Fig. 2 is an enlarged plan view of one stretcher device with the runner and anchor wires applied thereto. Fig. 3 is a perspective view partly broken away to show the course of the lengths of the runner-wires in the stretcher and the attachment thereto of the wires. Fig. 4 is a substantially horizontal sectional view on the plane indicated by the dotted line 4 4 of Fig. 2, looking in the direction indicated by the arrow. Fig. 5 is a detail perspective view of the stretcher device with the wires and holding-pins detached therefrom.

Like numerals of reference denote like and corresponding parts in each of the several figures of the drawings.

My improved stretcher device is designated in its entirety by the numeral 1 in the accompanying drawings, and it is cast in a single piece of metal for simplicity, durability, and cheapness.

The stretcher device consists of a short hub 2 and the heads 3 4, which are integral with the hub and are arranged parallel to each other at the respective ends of the hub, so as to provide a narrow wire-receiving channel between said heads. The employment of a short hub and the arrangement of the two heads quite close together and in parallel planes provide a construction of stretcher in which the heads hold the lengths of the runner-wires in proper relation to the hub and prevent the structure from tilting or canting to an inclined position with respect to the line of the lengths of the runner-wires, thus contributing to the efficiency of the device and promoting the facility of operation thereof.

The head 3 is provided with a circular series of transverse apertures 5, and the other head 4 is provided with a like series of transverse apertures 6, said apertures in each head being formed near the edge of the head, and the apertures in one head being coincident with the apertures in the other head.

In the head 3, within the circular plane of the series of apertures 5 therein, is provided a single wire-receiving hole or aperture 7. In the other head 4, within the circular plane



of the series of holes 6 therein, is formed a single wire-receiving aperture 8, and this last-named aperture is situated in the head 4 at a diametrically opposite point to the aperture 7 in the other head 3 of the stretcher device. From this description it will be apparent that the single apertures 7 8 are formed in the respective heads 3 4 on opposite sides of the axial line of the hub 2, and in the practical service of the implement provision is thus made for the attachment of the adjacent ends of the lengths of the runner-wires in a manner to allow said lengths of runner-wires to be coiled on the hub 2 reversely to each other, whereby the rotation of the stretcher device in one direction insures the coiling of both lengths of the runner-wires on the hub of the implement, thus placing the wires under tension and enabling the stretching thereof to be performed very expeditiously.

Subsequent to the stretching of the wires connected with the heads and hub of the stretcher device the pins 9 10 are fitted in the concentric series of apertures 5 6 in the heads, the pin 9 bearing upon the upper side of one runner-wire, while the pin 10 bears against the under side of the other runner-wire. Each pin is preferably headed at one end to limit the insertion of the same in the pair of coincident openings in the respective heads of the stretcher device; but it is not necessary in practice to fasten the other end of the pin in the stretcher device, because the tension or strain of the wire with which it engages is sufficient to hold the pin in position. If desired, however, suitable means may be provided by which the holding-pin is prevented from having endwise displacement in either direction in the heads of the tension device.

To provide for the convenient rotation of the stretcher after the wires shall have been connected thereto, I construct the hub 2 of the stretcher with an angular or polygonal socket or passage 11, adapted to receive a suitable tool or implement, by which the stretcher may be rotated to coil the lengths of runner-wires on the spool or hub of the stretcher.

In adjusting the stretcher for service one end of the runner-wire 12 is bent to form the prong 13, and said runner-wire is carried in one direction partly around the hub, so as to have its prong 13 inserted and held in the aperture 7 of the head 3. The other runner 14 is likewise provided with a terminal prong 15, and said wire is partly carried around the hub in the opposite direction to the extremity of the runner-wire 12, the prong 15 being fitted in the aperture 8 of the other head 4. The lengths of the runner-wires are thus disposed in opposite directions around the hub and between the heads thereof, and the terminals or prongs of said wires 12 14 are attached to the respective heads at diametrically opposite points to the axial line of the stretcher-hub 2. The implement for rotating the

stretcher is now fitted in the socket or passage of the stretcher, and the implement is moved or turned in one direction to correspondingly actuate the stretcher. The effect of the rotation of the stretcher-head is to coil both lengths of the runner-wires simultaneously on the hub, thus placing both wires under tension, and as the heads are of large diameter and disposed closely adjacent to each other said heads are adapted to impinge or ride against the wires and prevent the stretcher device from canting or assuming an oblique position to the line of the wires, thereby promoting the operation of straining the wires to place them under the necessary tension. The stretcher having been rotated sufficiently to strain the wires, the pins 9 10 are inserted in the concentric series of coincident apertures 5 6 in the heads, and in disposing said pins the pin 9 is placed on one side of the stretcher to engage one runner-wire 12, while the other pin 10 is placed on the opposite side of the stretcher to engage the other runner 14. These pins prevent the stretcher from being rotated under the strain of the length of the runner-wires after the operating device for the stretcher has been disconnected from the hub.

It is evident that changes in the form and proportion of parts may be made by a skilled mechanic without departing from the spirit or sacrificing the advantages of the invention.

Having thus described the invention, what I claim is—

1. A wire-stretcher cast in a single piece of metal and comprising a short hub, 2, parallel heads at the respective ends of the hub and arranged in close relation to each other, a circular series of holes in each head near the edge thereof, a single hole in each head within the plane of the series of apertures therein to receive the terminal prong of a wire and with the two holes in the respective heads arranged on diametrically opposite sides of the axial line of the hub, and holding-pins adapted for insertion in the apertures near the periphery of the heads, substantially as described.

2. In a wire-fence stretcher, the combination of a stretcher having its closely adjacent heads provided on opposite sides of the axial line of its hub with transverse apertures, 7, 8, and each head having a series of transverse openings, a runner-wire carried in one direction around the stretcher-hub and provided with a terminal prong which fits in the aperture 7 of one head of the stretcher, another runner-wire carried around the stretcher-hub in a contrary direction to the first-named runner-wire and having its terminal prong fitted in the aperture, 8, of the other head of the stretcher, and holding-pins engaging with the respective wires, and fitted to the stretcher-head on opposite sides thereof, substantially as described.

3. A fence-wire stretcher, as a new article of manufacture, cast in a single piece of metal



and comprising a short hub provided with a polygonal opening which extends through the ends of said hub, parallel heads arranged close to each other to form a relatively narrow channel between themselves, a circular series of apertures in said heads, and single apertures located in the heads within the circular series of apertures, the single apertures in the respective heads being situated on opposite sides of the longitudinal axis of the short hub, 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.

SILAS SHOWN.

Witnesses:

HUGH L. LYNN,  
A. L. MOSELEY.