(No Model.)

J. SPILLINGER.

WIRE STRETCHER.

No. 484,061. Patented Oct. 11, 1892.

Fig. 1.

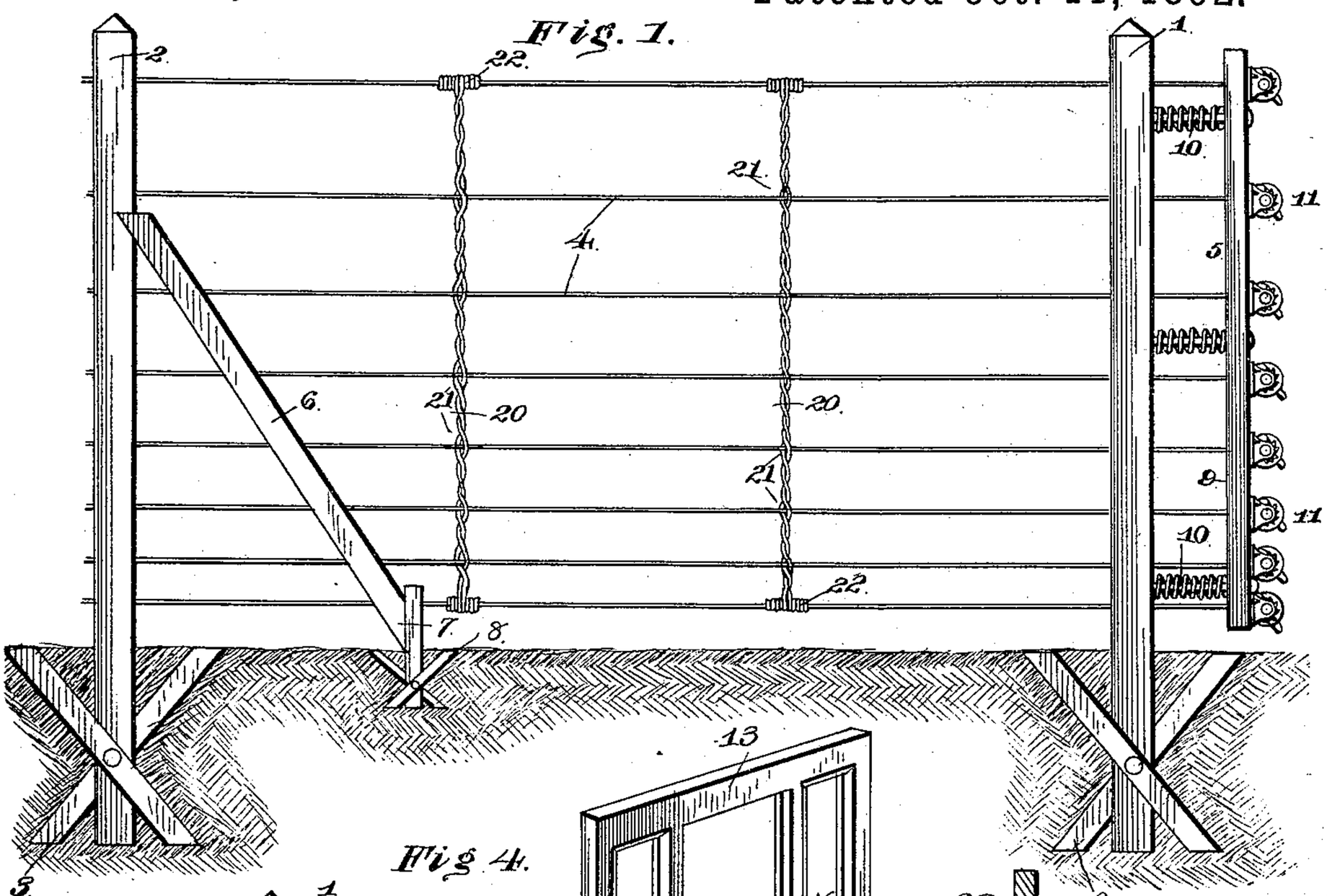


Fig. 2.

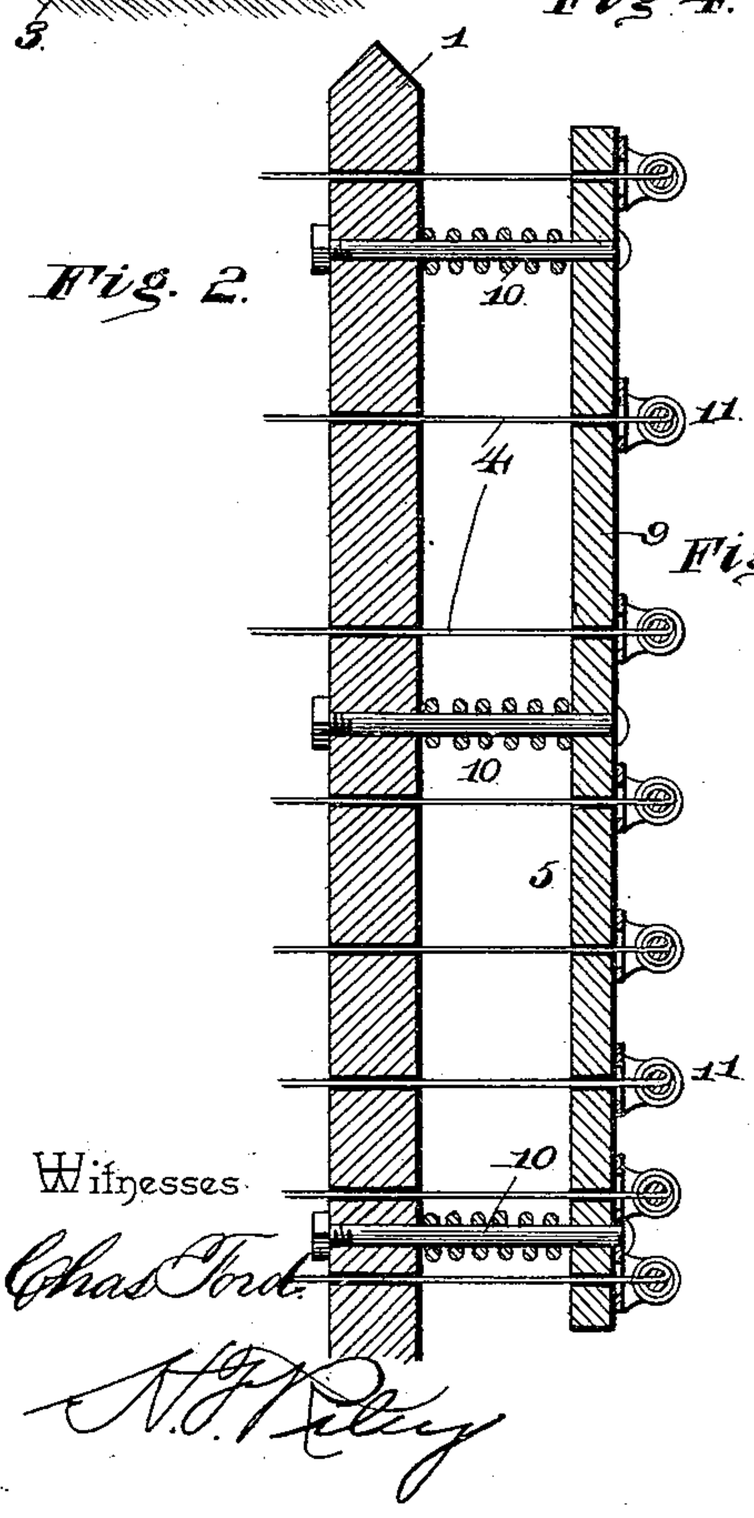


Fig. 4.

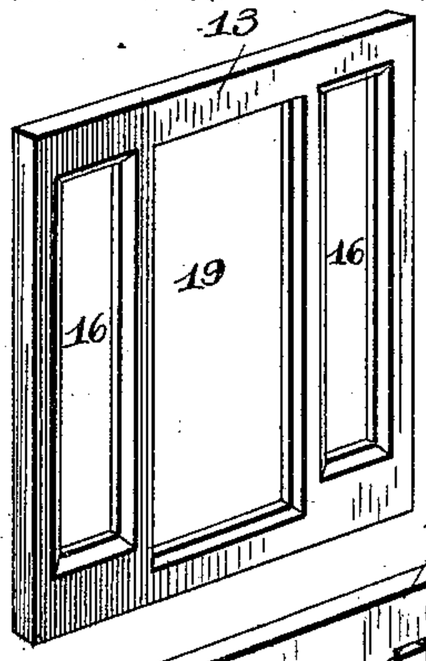


Fig. 3.

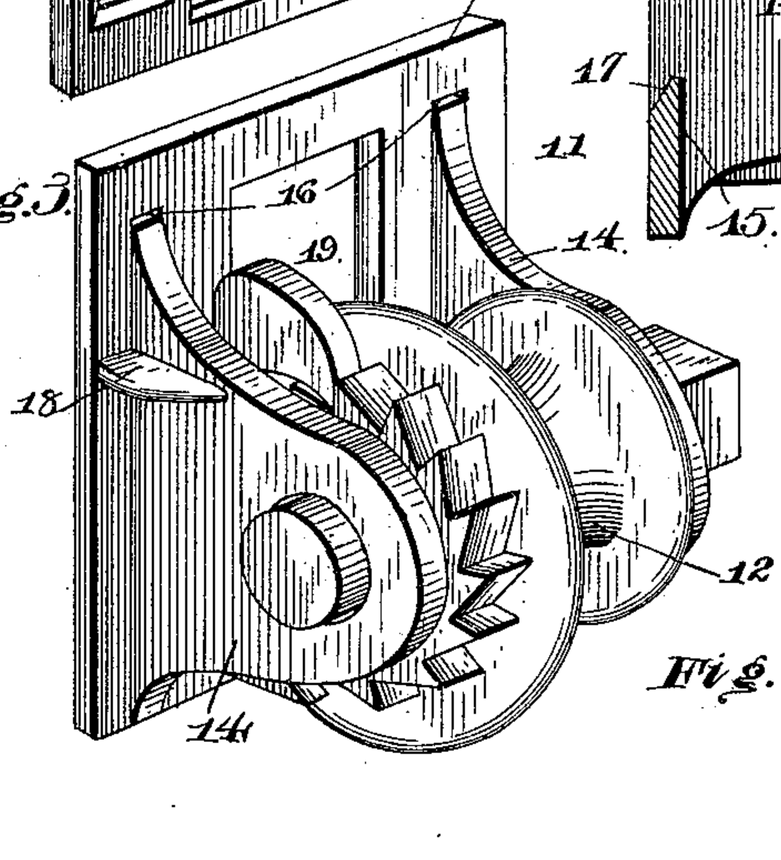


Fig. 6.

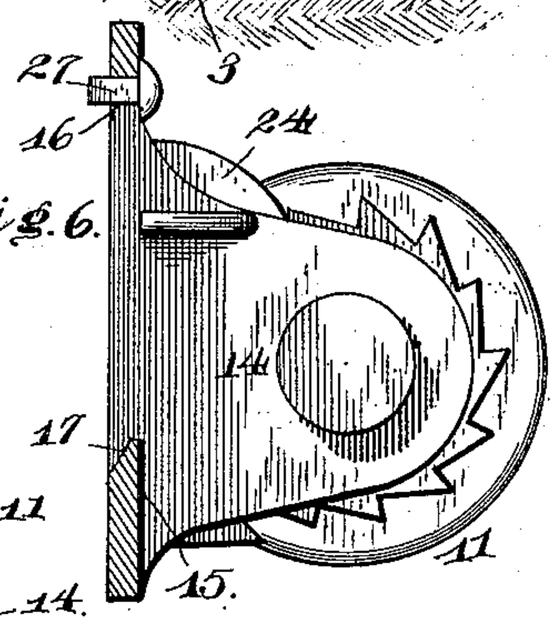
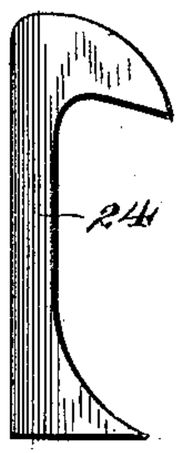


Fig. 5.



Witnesses
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By his Attorneys,
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UNITED STATES PATENT OFFICE.

JOSEPH SPILLINGER, OF PHILADELPHIA, PENNSYLVANIA.

WIRE-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 484,061, dated October 11, 1892.

Application filed March 25, 1892. Serial No. 426,374. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SPILLINGER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Wire-Stretchers, of which the following is a specification.

The object of the present invention is to improve the construction of wire-stretchers, and thus enable the wires of a fence to be maintained at the desired tension; and it consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a side elevation of a fence provided with wire-stretchers constructed in accordance with this invention. Fig. 2 is a vertical sectional view of one end of the fence. Fig. 3 is a detail perspective view of the wire-tightener. Fig. 4 is a detail perspective view of the back plate. Fig. 5 is a detail view of the pawl. Fig. 6 is a vertical sectional view illustrating the manner of securing the side plates to the back plate.

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

1 and 2 designate fence-posts, which are supported in the ground by diagonal crossed anchor-pieces 3 and which have secured to them horizontal fence-wires 4, and the latter are connected at the end post 1 with a yielding tension device 5, adapted to maintain the fence-wires 4 at the desired tension and at the same time permit the wires to contract and expand to avoid breakage. The diagonal anchor-pieces 3 provide a broad base for the post and enable the latter to stand severe strains incident to tightening the wires and the like without leaning or slanting. The fence-post 2 is supported and is prevented being drawn toward the post 1 by an inclined brace 6, having its ends beveled and gained into the post 2, and a stake or short post 7, which is provided with inclined anchor-pieces 8, constructed similarly to the anchor-pieces 3, but smaller than the latter. The horizontal wires pass through horizontal perforations of the posts and the brace 6.

The tension device comprises a vertical bar 9, slidingly mounted on horizontal bolts or stems 10, spiral springs disposed on the bolts or stems 10 and interposed between the post 1 and the bar 9, and a series of wire-tighteners 11, mounted on the bar 9, having the adjacent ends of the fence-wires connected to them and adapted to draw the wires to the desired tension. The bolts or stems 10 have their inner ends secured to the post 1 and are provided at their outer ends with heads. The wire-tightener 11 is constructed of metal and is composed of a frame and a windlass 12, journaled therein, consisting of a shaft, a drum, and a ratchet-wheel, all formed integral with one another. One end of the shaft is squared and is adapted to be turned by means of a crank-handle, a wrench, or the like. The frame is composed of a back plate 13 and side plates 14, which are constructed separately from the back plate and are recessed at the lower corners or ends of their inner edges at 15, the unrecessed portions fitting in longitudinal side openings 16 of the back plate. The upper walls of the recesses are beveled at 17 to engage the bottoms of the side openings. In order to prevent the side flanges from separating laterally, they are provided on their outer faces with laterally-extending lugs 18, which bear against the back plate. The back plate is provided with a central opening 19 to permit the passage of a wire, which is passed through an opening of the drum, and is thereby secured to the latter. The tension of the wire securely holds the parts of the frame together. The side plates are provided at their outer ends with circular bearing-openings to receive the windlass-shaft.

The drum is held against rotation by a pawl 24, loosely arranged in the frame, provided at its upper end with a tooth, and having its lower end enlarged. The pawl is adapted to fall by gravity into engagement with the ratchet and may be readily disengaged by lifting it.

The side plate 14 is locked to the back plate by a nail 27, which is interposed between the upper edge of the side plate and the top of the slot 16.

The horizontal fence-wires are supported at intervals by vertical fence-stays 20, each constructed of two wires provided with eyes 21

to receive the fence-wires and twisted between the eyes, the twisting forming the eyes. The ends 22 of the wires are twisted around the top and bottom wires of the fence and extend from the stay in opposite directions, and thereby securely hold the stay in its proper place.

Although I have herein described and illustrated my invention in connection with a special construction of fence, yet I do limit my invention thus, as the fence is no part of my invention.

What I claim is—

1. The combination, in a fence, of posts, horizontal wires, and a series of wire-tighteners connected with the wires and each composed of a frame having a back plate secured to one of the posts and detachable interlocking side plates provided with bearings and a drum journaled in the bearings, substantially as described.

2. In a fence, a wire-tightener comprising the back plate having a central opening and provided with the side openings beveled at the bottoms of the same, the side plates having bearing-openings provided at their inner ends with recesses and fitting into the side openings and engaging their beveled portions and provided at their outer faces with laterally-extending lugs, a drum journaled in the bearing-openings and provided with a ratchet, and a pawl loosely mounted in the frame and arranged to engage the ratchet, 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.

JOSEPH SPILLINGER.

Witnesses:
JESSE GILBERT,
EDWIN H. GORHAM.