(No Model.)

J. F. HANNA.

WIRE GATE.

No. 351,375. Patented Oct. 26, 1886.

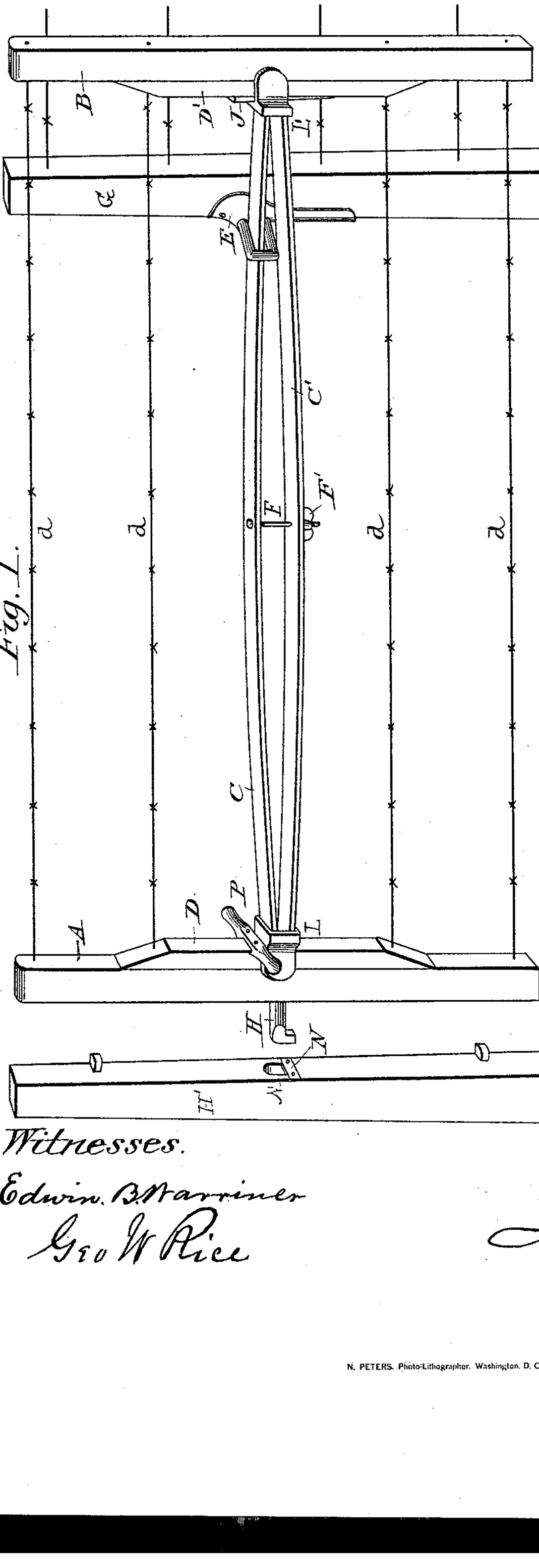

Fig. 1.

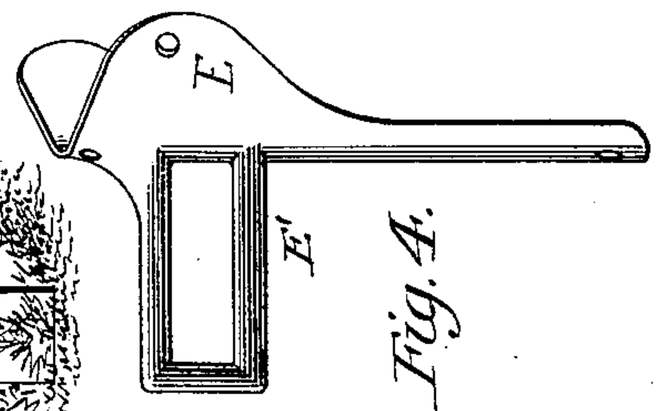

Fig. 4.

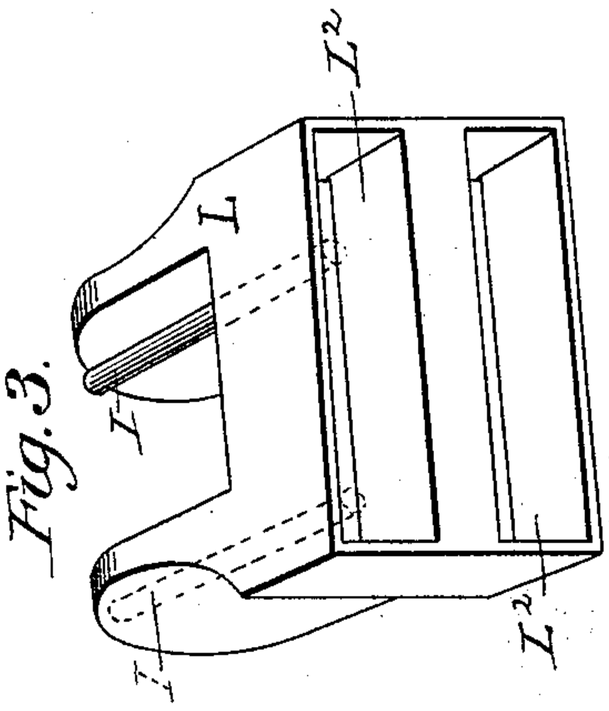

Fig. 3.

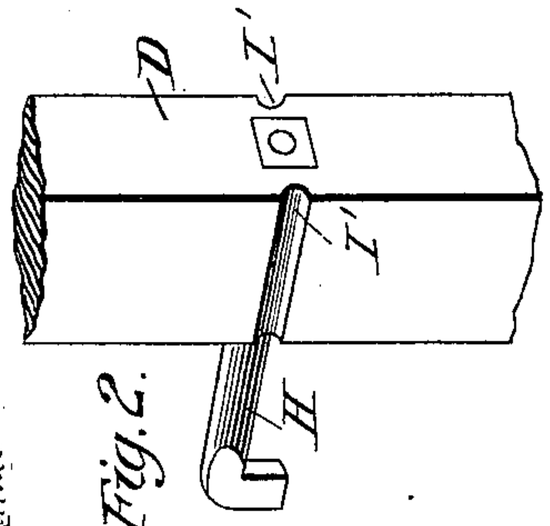

Fig. 2.

Witnesses.

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JOHN F. HANNA, OF MOMENCE, ILLINOIS.

WIRE GATE.

SPECIFICATION forming part of Letters Patent No. 351,375, dated October 26, 1886.

Application filed April 19, 1886. Serial No. 199,103. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. HANNA, a citizen of the United States, residing near Momence, in the county of Kankakee and State of Illinois, have invented a new and useful Improvement in Wire Gates, of which the following is a specification.

My invention relates to an improvement in gates, and has for its objects to construct a useful, light, and substantial gate by the aid of two curved flexible bars, constituting a part of the frame thereof, and connecting flanged sockets, in conjunction with a wedge and a screw for straining the wire strands to a proper tension, the said bar linking with a flanged hanger, in which the gate slides and turns. The gate possesses superior advantages in point of simplicity, economy, and general efficiency. I attain these objects by the construction illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents in perspective the wire gate having two curved bars, which are linked to the fence-post. Fig. 2 represents a detached vertical brace-block having a curved bolt passing through it and into a threaded nut inclosed thereon, the said block being provided with two small grooves at the center thereof across the two sides. Fig. 3 represents a flanged socket having double receptacles. Fig. 4 represents the flanged link-hanger for attaching the gate to a fence-post.

Similar letters indicate corresponding parts in all the figures.

Two broad slightly-curved bars, C C′, constitute the inward part of the gate-frame, and said bars can be constructed of hard wood or metal in a slightly-curved form. The ends of said bars enter and abut against double receptacles of flanged sockets L L′, connecting the grooved brace-blocks D D′. The upper bar, C, passes through or is linked with the flanged hanger E on the gate-post, so it can slide and turn therein, and the bars C C′ are connected and held in their proper curved position by bolt F, inserted through their centers and secured by a threaded thumb-nut, F′, for lightly adjusting the curve thereof to accurately regulate the tension of the wire strands *d* after the gate is in use.

The vertical wood brace-blocks D D′ (one of which is shown detached in Fig. 2) are attached to the uprights A B of the gate by the wire strands *d*, and have grooves I′ I′ across their centers on two sides thereof for the projections I I of the flanged sockets to enter. Block D has a small mortise therein for receiving the threaded nut of the screw-threaded curved bolt H, that bears against the central inward part of the flanged socket.

The flanged sockets, as shown in Fig. 3, are formed of metal, having double receptacles L^2 L^2 and two rounded end flanges, having on their inner sides tongue projections I I, which enter the grooves I′ I′ of the brace-blocks D D′. In the recess between the said flanges and body of the block D′ a wood or metal wedge, J, is inserted, as shown in Fig. 1.

The link-hanger E (represented detached in Fig. 4) is of malleable metal, having a link, E′, projecting at right angles. The upper part of said link is enlarged for strength, having two curved smooth flanges and an elongated part for extending down the fence-post G. It is secured thereto by means of screws, and the broad part, which is rounded or curved, serves for the curved bars C C′ to slide against, thereby steadying the gate when moving. The lower side of the sliding bar C is polished with moistened plumbago, which makes a smooth surface, that facilitates the sliding action of the curved bar C. The screw-bolt H and threaded nut assist in straining the wires *d*, and the bolt has a curved end, that is used as a latch, fitting over the plate N and into the socket N′ in post H′.

This gate is easily set up by slipping the flanges of the sockets on the brace-blocks D D′, then tightly inserting the ends of the curved bars C C′ in the receptacles L^2 L^2 of the flanged sockets L L′, the curved bar C being first linked with the flanged hanger E and the bars connected by the center bolt, F, and threaded nut F′. The ends of the wire strands *d* (four or more) are inserted through the blocks D D′ and uprights A B, and permanently fastened thereto by means of staples. The wedge J is driven into its recess between the flanges and brace-block D′ to first strain the wires, and then by turning the curved bolt H one or more times with a wrench the wires are easily and correctly regulated to the proper tension, leaving the bars C C′ in their curved position, as shown in Fig. 1, ready to be easily

adjusted by the bolt and nut F F′, for altering the tension of the wires by hand, as may be required for cold or warm temperature of atmosphere after the gate is in use.

As a matter of economy the gate can be easily attached to most any kind of fence-posts, as shown in Fig. 1, being very light. It is opened by lifting on the handle P, sliding it back, and swinging it around, and it is at liberty to be raised above obstructing snow, &c.

Straight wooden bars could be used in gates of this class, and by the assistance of wedges or screws made to strain the wires; but such bars, without further protection, would be liable to warp out of position. For this reason I apply the double curved bars C C′, that brace each other, and by which the exact tension of the wires can be easily regulated by hand at any time after the gate is set up, and the ends of the bars are kept in place and protected by the flanged sockets, which strengthen the frame of the gate and assist in forming an economical, light, and substantial gate.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The improved gate described and shown, consisting of the uprights A B, carrying the brace-blocks D D′, nut and curved screw-bolt H, tongue-flanged sockets L L′, wedge J, wires *d*, curved and flexible bars C C′, bolt and thumb-nut F F′, and link-hanger E′ E, attached to post G, all combined and arranged as set forth.

JOHN F. HANNA.

Witnesses:
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