

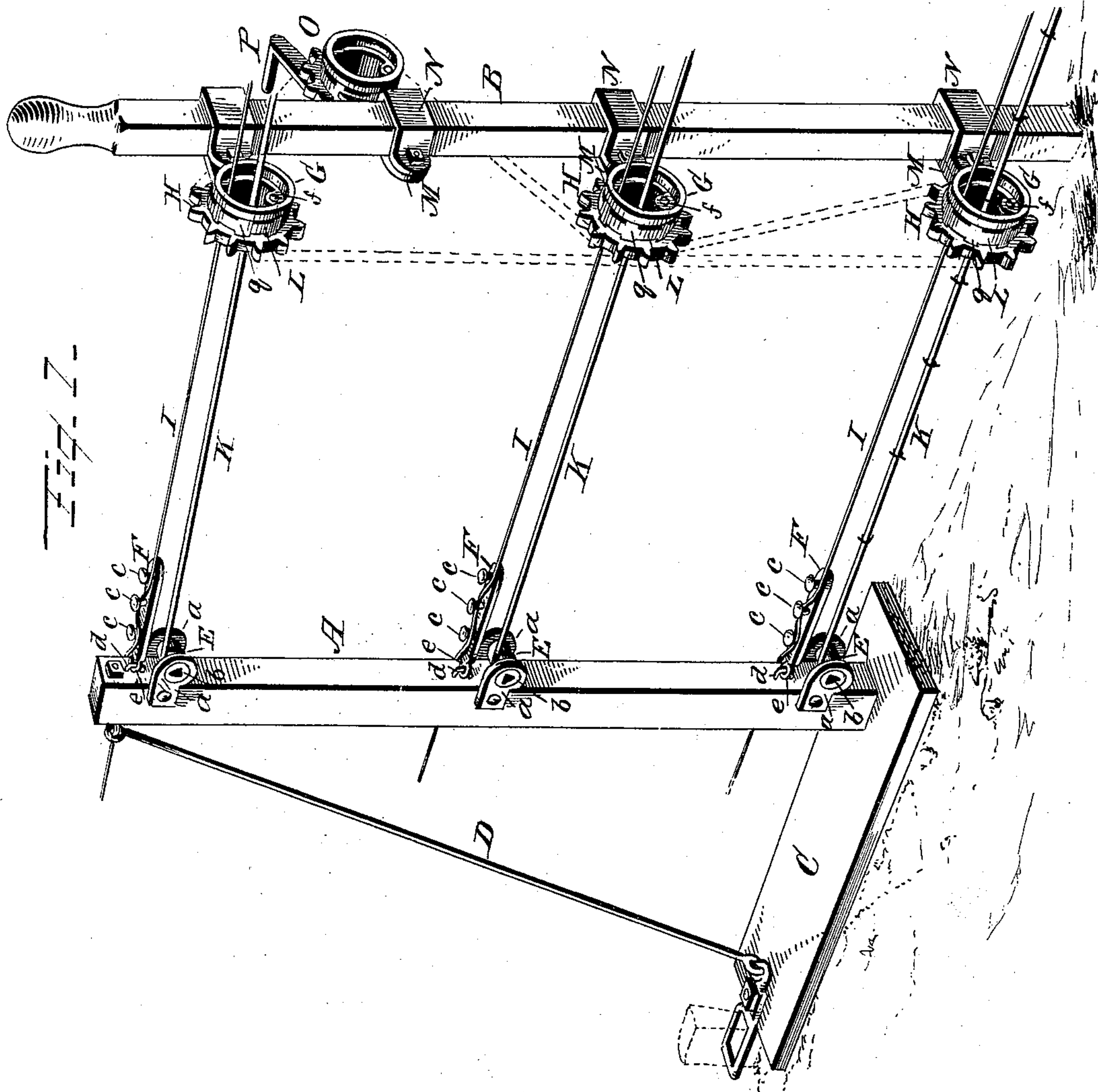
(No Model.)

2 Sheets—Sheet 1.

J. W. MARTIN.
WIRE AND PICKET FENCE MACHINE.

No. 558,504.

Patented Apr. 21, 1896.



Witnesses
J. Williamson.
Geo. M. Copenhagen.

Inventor
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(No Model.)

2 Sheets—Sheet 2.

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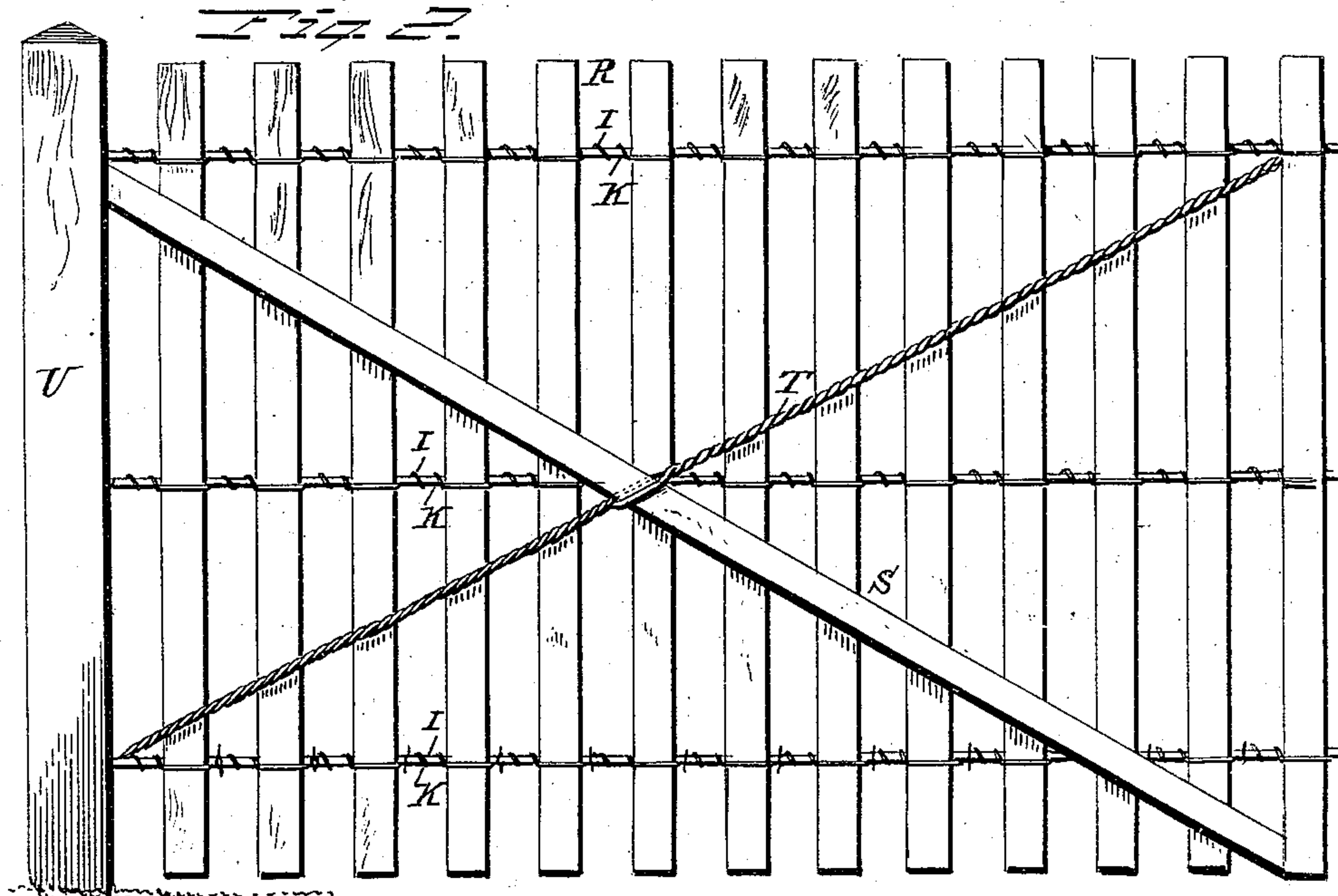


Fig. 2.

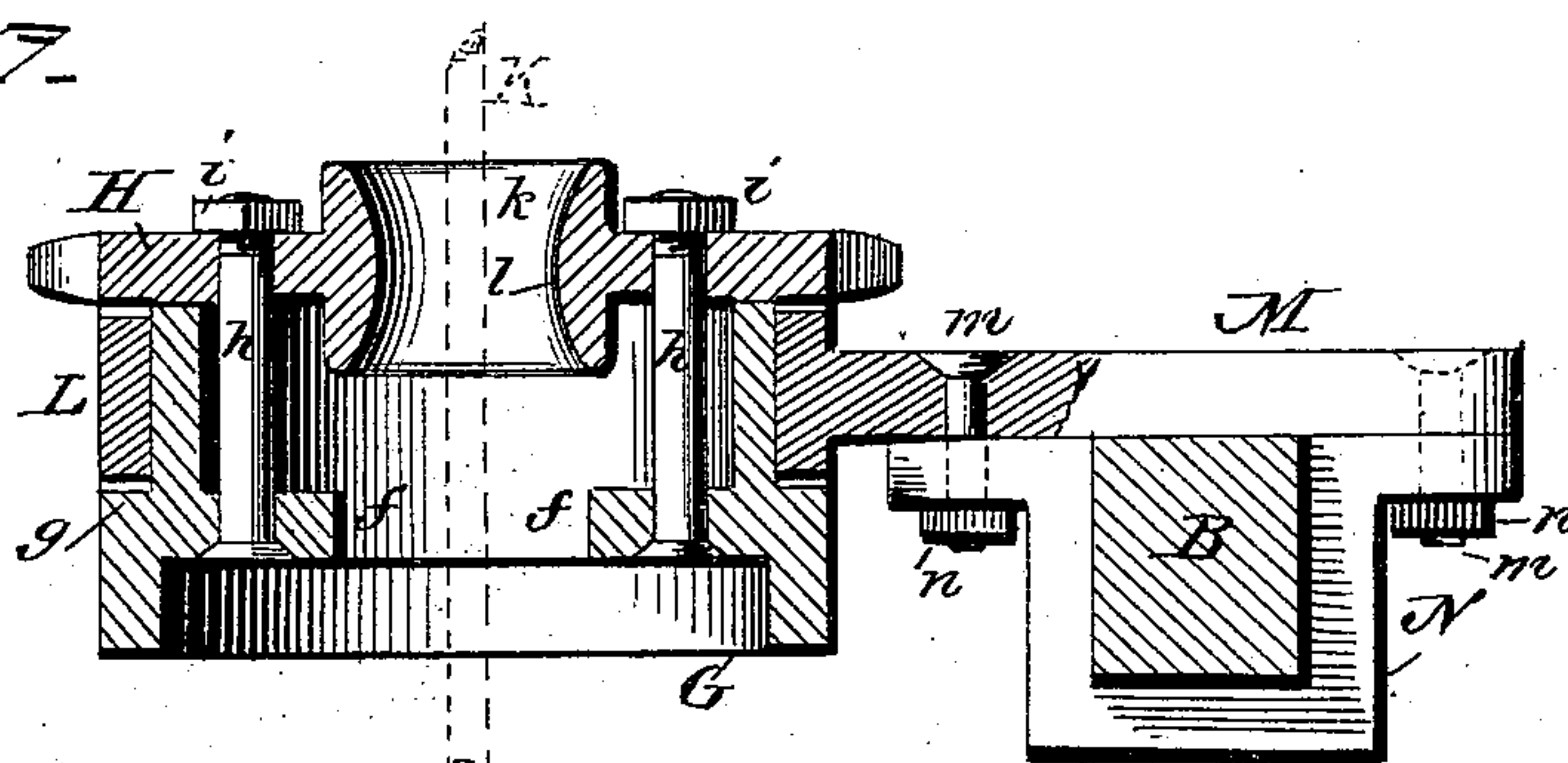


Fig. 3.

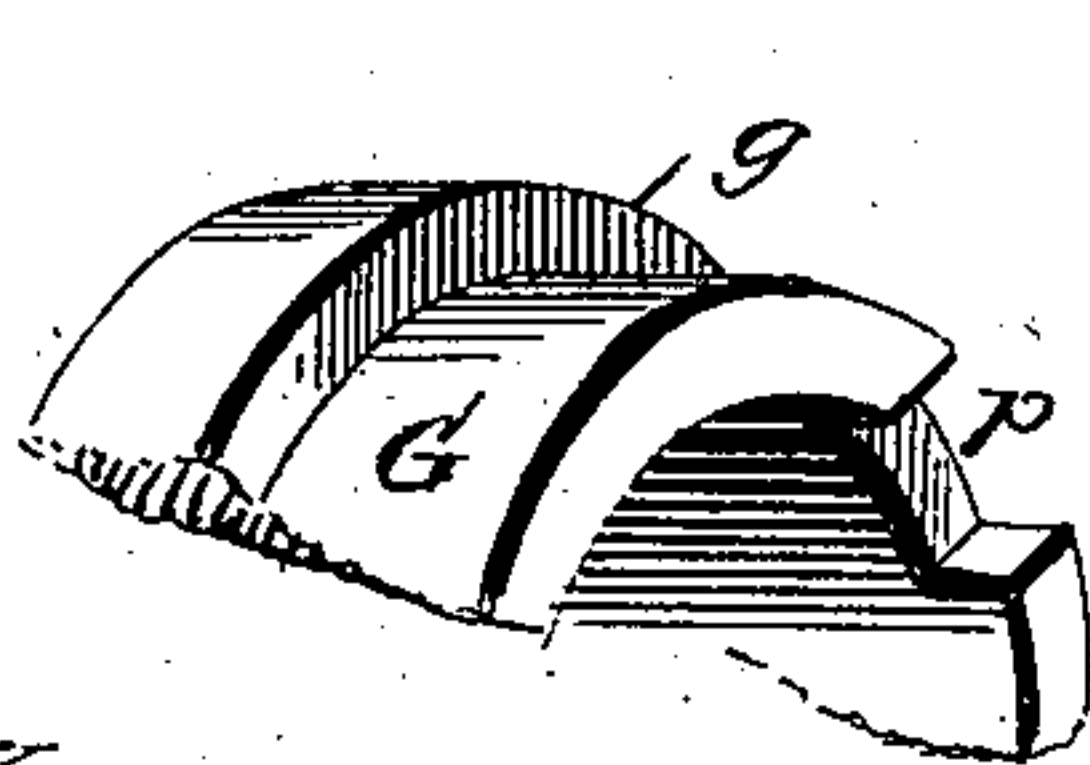
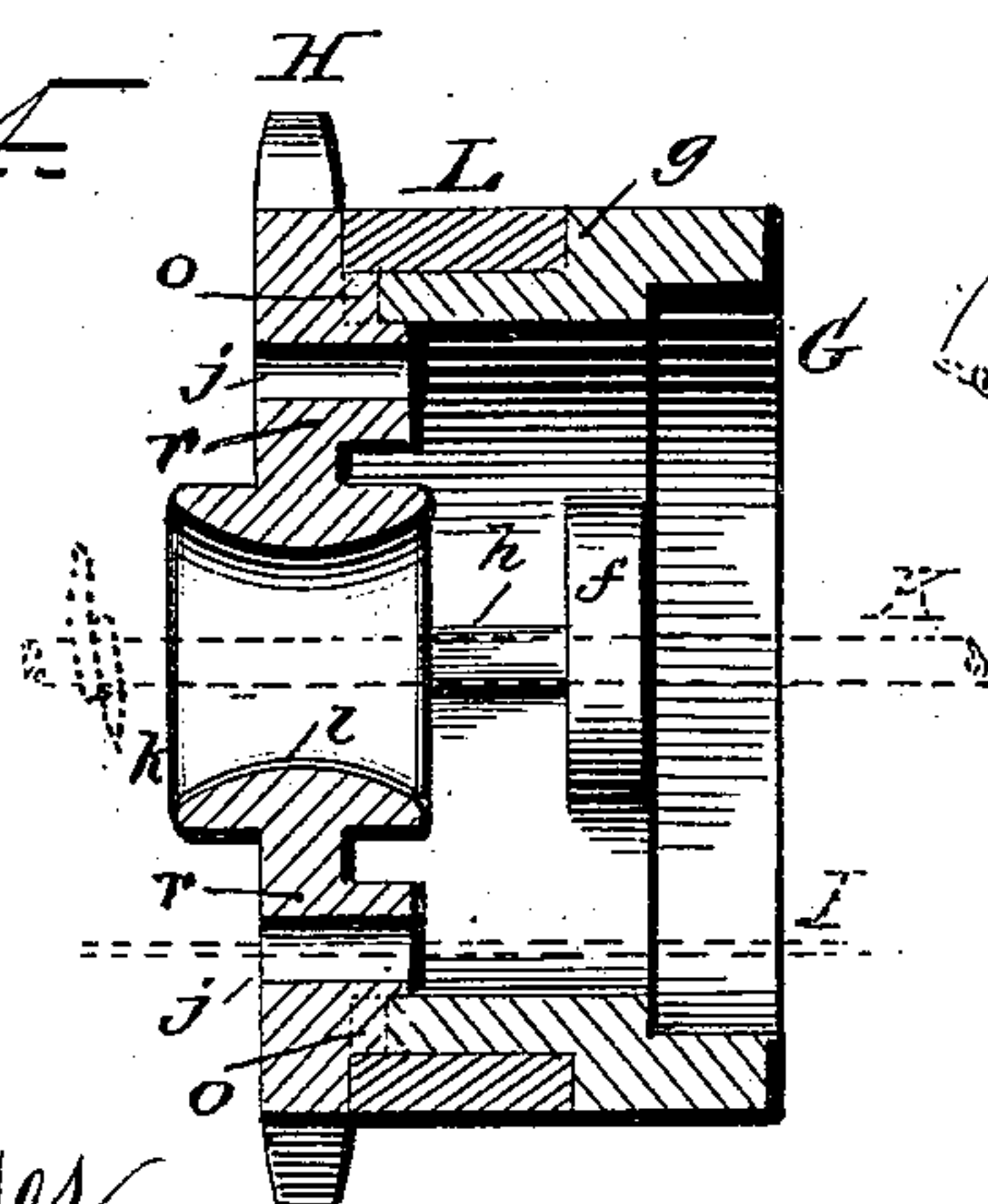


Fig. 5.

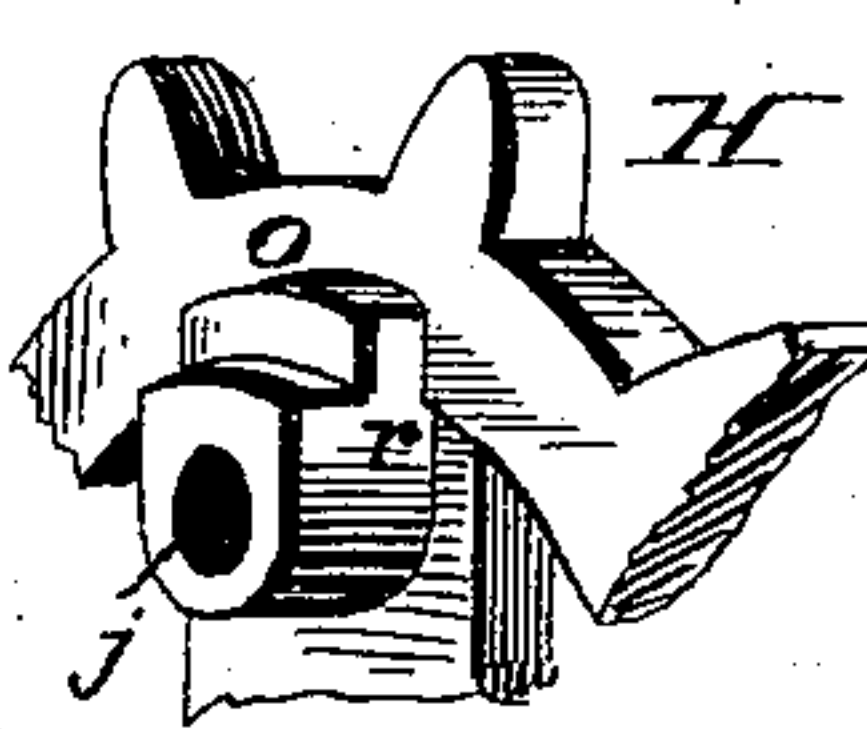


Fig. 6.

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UNITED STATES PATENT OFFICE.

JEROME W. MARTIN, OF NASHVILLE, TENNESSEE.

WIRE-AND-PICKET-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 558,504, dated April 21, 1896.

Application filed January 14, 1896. Serial No. 575,508. (No model.)

To all whom it may concern:

Be it known that I, JEROME W. MARTIN, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented certain new and useful Improvements in Wire-and-Picket-Fence Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has reference to that class of devices or machines for constructing wire-and-picket fences for which a patent was granted to me bearing date of October 17, 1893, No. 506,826.

It is the object of the invention to improve the construction of such device or machine to enable a perfect securing of the pickets to a main or horizontal wire by means of a twisting wire, which object is attained by a device or machine constructed substantially as shown in the drawings, and hereinafter described and claimed.

Figure 1 of the drawings represents a perspective view of a wire-and-picket-fence machine constructed in accordance with my invention, the sprocket-chain being shown in dotted lines; Fig. 2, a side elevation of one end of a fence constructed by the machine constituting my invention; Fig. 3, a horizontal section, on an enlarged scale, taken through the twisting device and the post to which said device is connected; Fig. 4, a vertical central section of the twisting device at the lower end of the post, showing the main barbed wire and the twisting wire in dotted lines as extending through the device; Fig. 5, a detail perspective view of a portion of the twisting device; Fig. 6, a similar view of a portion of the sprocket-wheel.

In the accompanying drawings, A B represent two upright posts to which the operating parts of the machine are connected, the former having a base or support C. The post A is connected with the support C by means of a suitable brace-rod D, which may be connected to the post and support in any suitable and well-known manner. I have shown, however, the same means for attaching the brace-rod to the post and support as are shown in

my former patent; but such means may be variously modified or changed without departing from the principle of my invention, and further description thereof is deemed unnecessary.

The post A has connected to its sides three sets of bearing-plates *a* for supporting the spools E, said spools having at one or both ends a flat-sided opening or socket *b* to receive a suitable crank-handle for turning said spools. The bearing-plates and spools are substantially the same in construction as those shown and described in my former patent, and suitable pawls and ratchets may be used with each spool to prevent the spools turning in opposite directions, as in my former patent. As any suitable means may be employed for this purpose, and as the pawls and ratchets are one of many ordinary means to attain this end, further illustration thereof in detail is considered unnecessary.

The tension-heads F, which are similar in construction to the heads employed in the machine embodied in my previous patent, are connected directly to the post A instead of to a short wire upon the spools.

The tension-heads F have buttons *c* upon their upper side, with which engage the twisting wires, as shown in Fig. 1 of the drawings. As will be noticed, the tension-heads are not rigidly connected to the post, but are connected in such a manner as to admit of the heads having a motion in both a lateral direction and up and down on the arc of a circle, thereby adapting itself to the position of the twisting wire when the machine is in operation.

The means preferably employed for connecting the tension-heads F to the post A consist of the staples *d*, which pass through the eyes *e* upon the ends of the heads, the staples being securely fastened to the post. This I consider the most simple means of attaining the end desired, although the head may be connected to the post in any other well-known and preferred manner that will admit of the free motion of the head, as hereinbefore described.

The twisting device consists of the cylinders G, having upon its interior projecting lugs *f* and upon its exterior the circumferential shoulder *g*. This cylinder G has con-

5 nected to it a sprocket-wheel H by means of
 the screw-bolts *h* and nuts *i*, said bolts ex-
 tending through the lugs *f* and through the
 rim of the sprocket-wheel, as shown in Fig.
 3 of the drawings. By means of the bolts
 and nuts a rigid connection is made between
 the cylinder and sprocket-wheel, so that when
 the sprocket-wheel is rotated upon its axis
 the cylinder will be carried around with it to
 10 effect the twisting of the wire. The sprocket-
 wheel H has one or more holes *j*, through
 which the twisting wire I extends, the main
 or horizontal wire K extending through the
 central opening *k*, which is formed with con-
 15 vex walls *l* to present less frictional surface
 to the wire when brought against the same.
 A bearing-ring L supports the cylinder G and
 is formed with a fastening-plate M, to which
 is bolted a clamping-yoke N by means of the
 20 bolts *m* and nuts *n*, the yoke embracing the
 post B, as shown in Fig. 3 of the drawings,
 thereby forming a perfect and rigid support
 for the twisting device. The sprocket-wheel
 II has lugs *o* upon its inner face, which lugs
 25 are diametrically opposite each other and fit
 in correspondingly-formed notches *p* in the
 rim of the cylinder G, so that the wheel will
 be seated in proper position to bring the bolt-
 holes in the wheel and the bolt-holes in the
 30 lugs on line with each other and also to take
 any lateral strain off the bolts by transferring
 it to the lugs during the rotation of the twist-
 ing device. The bearing-ring L has shoulders
q, which are certain distances apart and ex-
 35 tend around both the edges of the bearing-ring
 L, the purpose of which is to reduce the con-
 tacting or friction surface between the edges
 of the ring and the shoulder *q* of the cylin-
 der G and the face of the sprocket-wheel H.
 40 That portion of the sprocket-wheel II through
 which the holes *j* extend may be made much
 thicker, as shown at *r* in Figs. 4 and 5 of the
 drawings, thereby providing a longer bearing
 and support for the twisting wire which passes
 45 through it.

The several sprocket-wheels are operated
 by a suitable sprocket-chain engaging there-
 with, as shown in dotted lines of Fig. 1 of the
 drawings, and one of the twisting devices with
 50 sprocket-wheel may be employed simply as
 a driving-wheel, as shown at O, a suitable
 crank-handle P being attached for turning
 said wheel. If desired, however, a simple
 sprocket-wheel may be employed as a driving-
 55 wheel without having connected thereto the
 twisting device, as this would perform no
 function in connection with the sprocket-
 wheel when said wheel is used simply as a
 driving-wheel. Therefore any suitable con-
 60 struction of sprocket-wheel may be substi-
 tuted for that shown that will serve the pur-
 pose intended.

When the machine is ready for operation,
 the horizontal or main wires and the twisting
 65 wires will be in position, (shown in Fig. 1 of
 the drawings,) the ends of the main wire be-

ing suitably connected to the spools and the
 twisting wires engaging with the buttons on
 the tension devices, as shown. When the
 wooden pickets are in position and the twist- 70
 ing devices turned through the medium of the
 sprocket-wheels and chain, the wire I will be
 twisted around the main or horizontal wire K
 and around the pickets R, thereby holding
 said pickets in place on the horizontal or main 75
 wires.

I have shown in Fig. 2 of the drawings one
 end of a wire-and-picket fence as it would
 appear when constructed by my improved ma-
 chine, with the exception that the end of the 80
 fence will be strengthened by a diagonal brace
 S and a diagonal wire cable T, the end post
 of the fence being shown at U. The main or
 horizontal wire may be provided with barbs,
 or be composed of a cable of small wires, and 85
 any changes or modifications as would come
 within ordinary mechanical skill may be made
 without departing from the principle of my
 invention.

The shoulders or projections *q* upon the 90
 edges of the bearing-ring L form what I term
 "scalloped" edges to the ring to decrease the
 bearing-surface, as hereinbefore described.

Having now fully described my invention,
 what I claim as new, and desire to secure by 95
 Letters Patent, is—

1. In a fence-machine, a plurality of sta-
 tionary bearing-rings suitably connected to
 the post of the machine, twisting-cylinders 100
 supported in the rings, said rings having scal-
 loped edges, and sprocket-wheels detachably
 connected to the cylinders, the wheels upon
 their inner sides having enlargements and
 holes therethrough for the passage of the
 twisting wires, and lugs to engage with 105
 notches on the cylinders, and means for op-
 erating the sprocket-wheels, substantially as
 and for the purpose specified.

2. In a fence-machine, stationary bearing-
 rings, notched twisting-cylinders supported 110
 thereby, detachable sprocket-wheels pro-
 vided with enlargements upon their inner
 sides and holes therethrough for the passage of
 the twisting wires and lugs to engage with the
 notches on the cylinders, a plurality of spools 115
 for attaching thereto the main wires, a plu-
 rality of tension devices having buttons for
 connecting therewith the twisting wires, said
 tension devices being connected directly with
 the post of the machine as shown whereby the 120
 same will have a free motion to adapt them-
 selves to the position of the twisting wires
 when the machine is in motion, substantially
 as and for the purpose set forth..

In testimony that I claim the above I have 125
 hereunto subscribed my name in the presence
 of two witnesses.

JEROME W. MARTIN.

Witnesses:

ALEX. J. STEUART,
GEO. M. COPENHAVER.