

(No Model.)

2 Sheets—Sheet 1.

L. R. COWLES & S. D. BUTTZ.

WIRE FENCE MACHINE.

No. 353,206.

Patented Nov. 23, 1886.

Fig. 1.

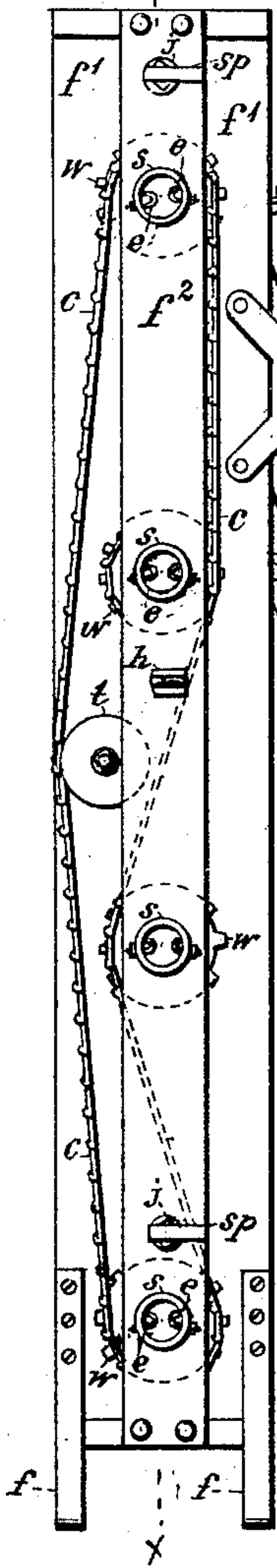


Fig. 2.

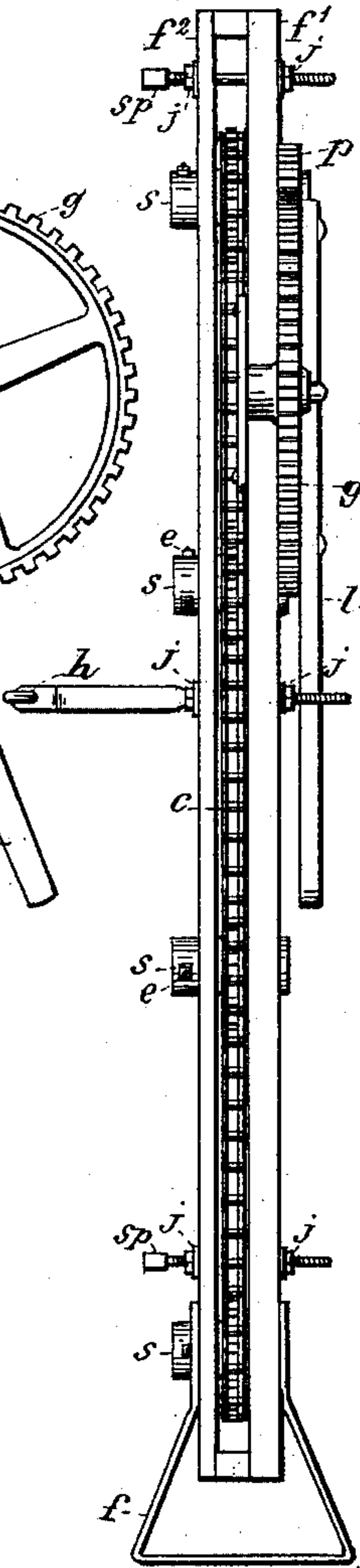


Fig. 3.

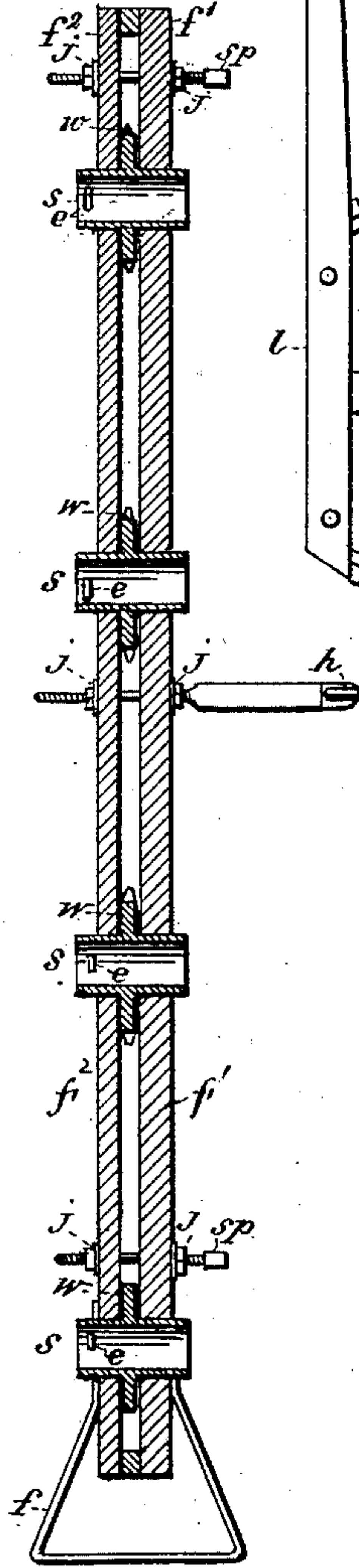


Fig. 4.

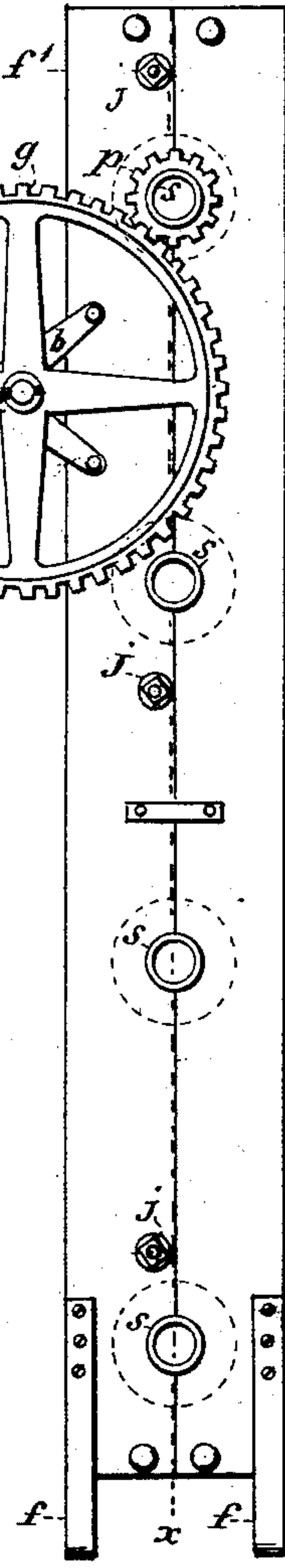


Fig. 6.

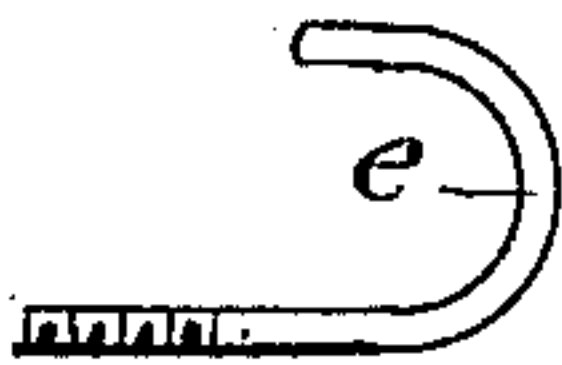
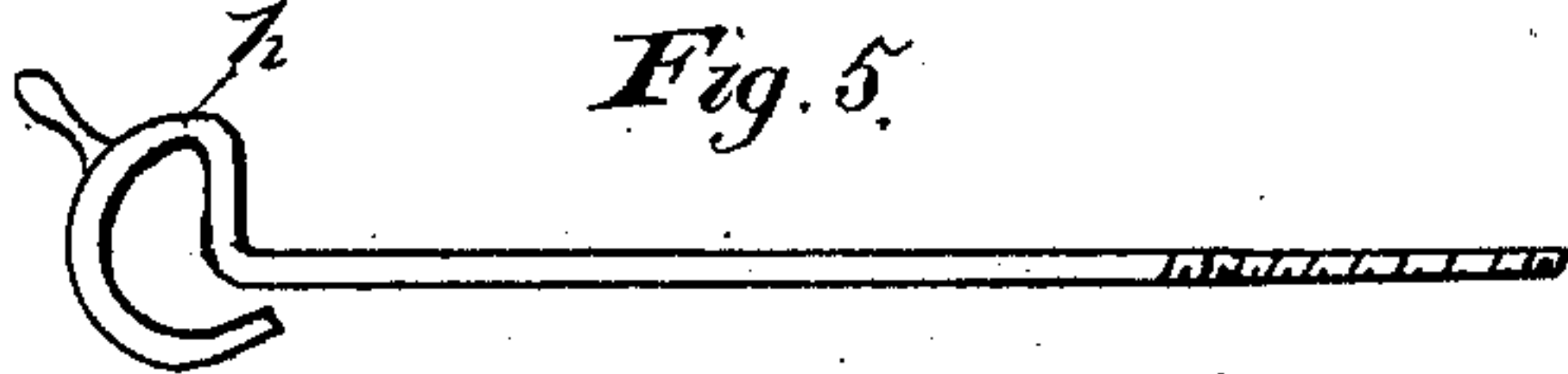


Fig. 5.



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2 Sheets—Sheet 2.

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Fig. 7.

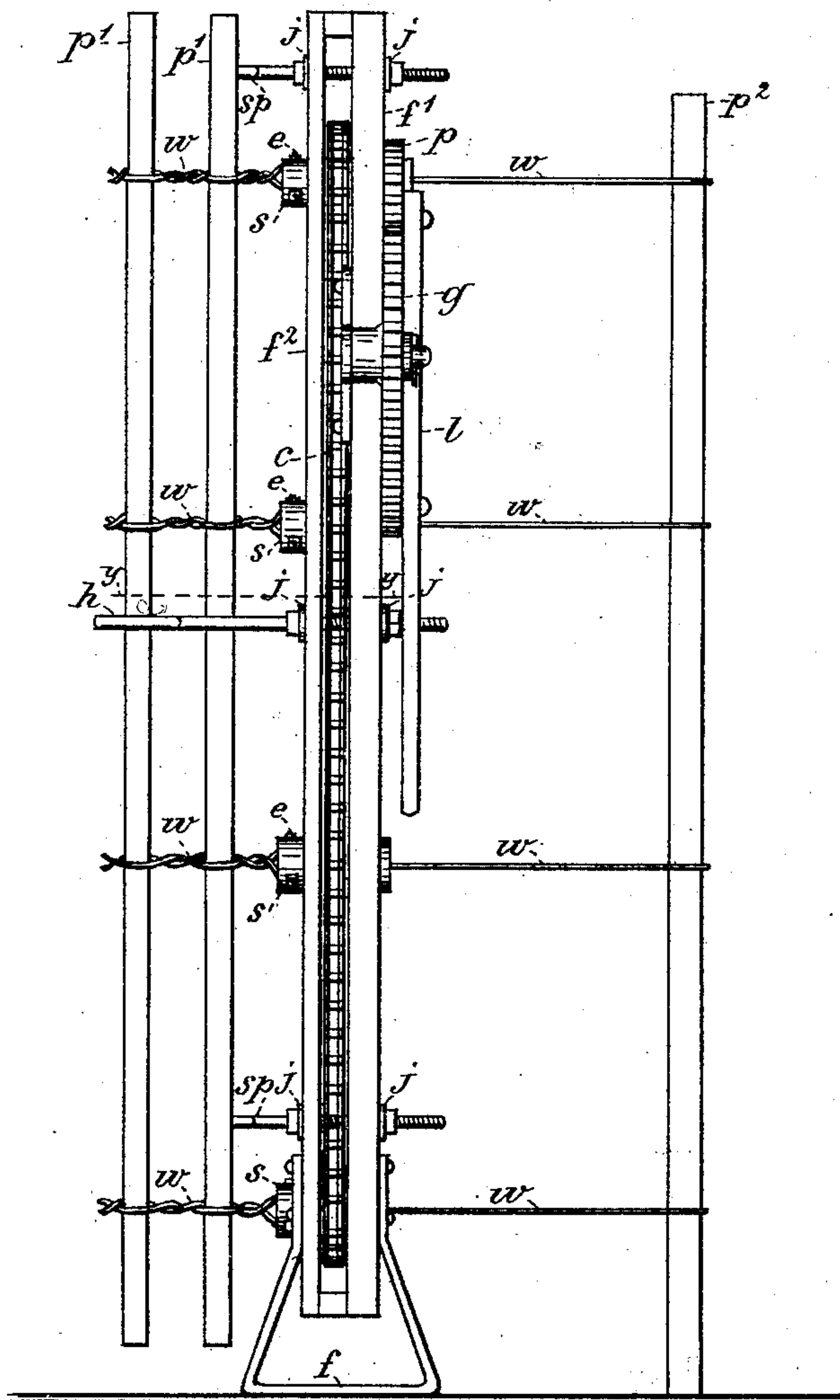
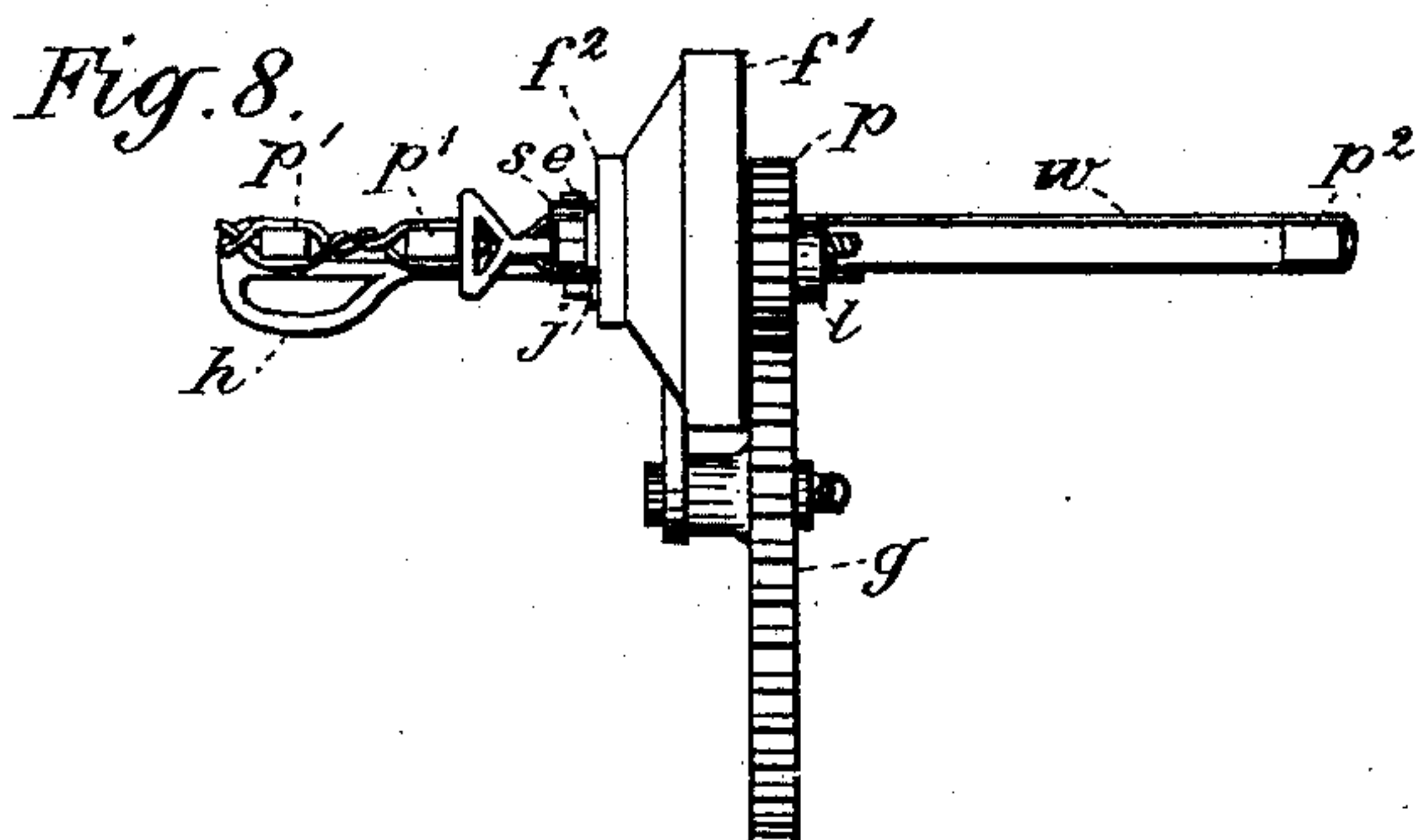
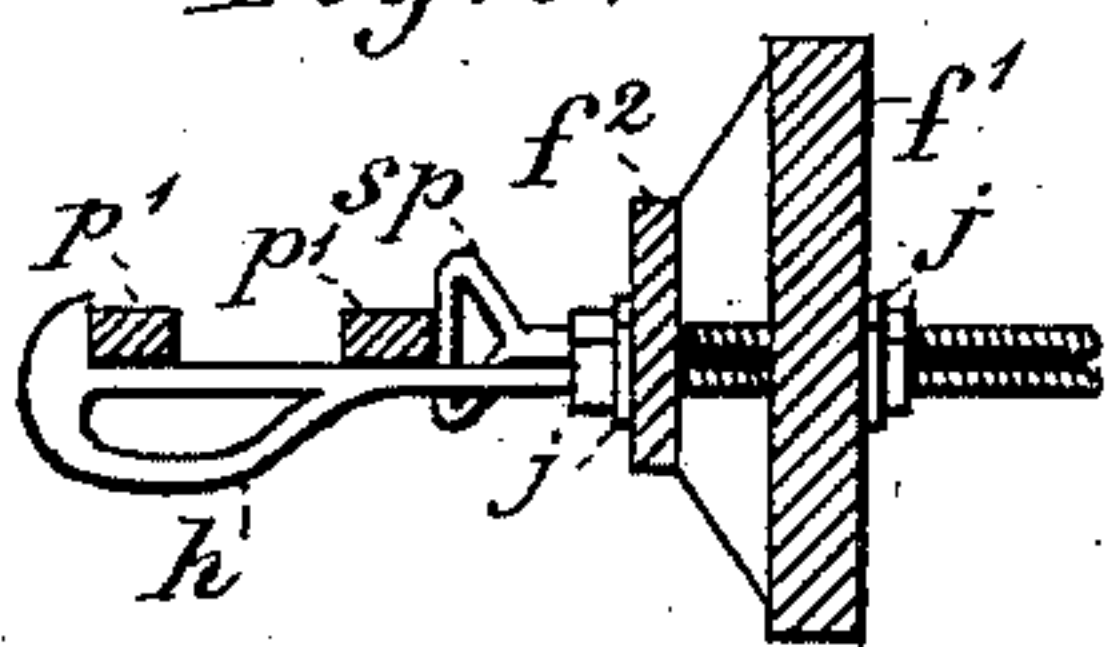


Fig. 9.



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UNITED STATES PATENT OFFICE.

LEWIS R. COWLES AND SAMUEL D. BUTTZ, OF NEAR CLIFFORD, INDIANA.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 353,206, dated November 23, 1886.

Application filed April 16, 1886. Serial No. 199,059. (No model.)

To all whom it may concern:

Be it known that we, LEWIS R. COWLES and SAMUEL D. BUTTZ, residing near Clifford, Bartholomew county, Indiana, have made certain new and useful Improvements in Wire-Fence Machines, a description of which is set forth in the following specification, reference being made to the accompanying drawings, in the several figures of which like letters represent like parts.

Our invention relates to the construction of a field-machine for twisting wires about the slats of a combined fence, and will be understood from the following description.

In the drawings, Figure 1 represents a side view of our device toward the line of fencing. Fig. 2 is an edge view. Fig. 3 is a vertical section on the line $x x$, Fig. 1. Fig. 4 is a side view opposite to the view shown in Fig. 1. Fig. 5 is a plan view of the spring hook or latch. Fig. 6 is a plan view of the removable eye. Fig. 7 is a side view of the device, similar to that shown in Fig. 2, with the wires connected to the starting-post, and two of the pickets in position as woven in by the machine, showing the relative position with respect to the beaters and spring latch or hook. Fig. 8 is a top view of Fig. 7. Fig. 9 is a top view on the line $y y$, Fig. 7.

In detail, $f^1 f^2$ are two parts composing the frame-work, one side fastened together by straps, as shown. Holes are made through these to receive the hollow flanges or sleeves s of the twisters, on the central portion of these sleeves sprocket-wheels w being mounted, and on the outside of the upper sleeve a small pinion, p , is mounted, so that its teeth will engage with the segmental gear-wheel g , whose axle has bearings in a bracket, b , and to which is connected a lever, l , for operating the mechanism.

The several sprocket-wheels are connected by a drive-chain, c , which also passes over a tightening-pulley, t , located midway of the frame. By moving the lever up the pinion p is revolved, and the motion is transmitted by the drive-chain to the twisters, and a reverse movement of the lever causes them all to revolve in an opposite direction.

sp are beaters or stops, against which the slats are placed before the twisters are revolved.

h is a spring hook or latch consisting of a hook-head with spring-shank terminating in a shouldered bolt, which passes through the frame, and is secured by a nut on each side. This hook snaps over the picket last secured by the twist of the wires, and holds the frame of the machine in such a position that the beaters abutting against the picket last inserted hold it up against the bight of the wire, in position to be secured by twisting the wires.

e are removable eyes, formed staple-shaped, one arm shorter than the other, and the end of the long arm passes through the lip of the flange and is secured by a nut. By loosening this nut the eye may be wholly removed, and spliced wires may then be easily passed through the hollow core of the sleeve.

The frame-work stands on feet conveniently made of strap-iron, and may be made in two parts, as shown, or in any other convenient form.

The beaters sp terminate in bolt ends, which pass through the frame and are threaded, a jam-nut, j , being placed on each side, and by loosening one nut and screwing up the other the beaters may be adjusted to different lengths, as desired. The spring-latch is secured to the frame in a similar way, and is also adjustable as to length.

Our device operates as follows: The wires w are fastened to the starting-post p^2 , (shown in Fig. 7,) and pass thence through the eyes of the twisters, also shown in Fig. 7. A picket, p^1 , is then inserted between the wires, its edge resting against the beaters sp and its side against the spring-hook h . By means of the lever l the gear-wheel g is raised, causing the pinion p to revolve and the twister t , to which it is attached, and this motion is carried by the sprocket-chain ch to each of the twisters, all of which revolve, and the wire is twisted a sufficient number of times, generally twice, the machine drawn back a little, another slat inserted between the wires, and the slat previously twisted is carried up against the end of the hook h , which springs back a little to allow its hook to spring over the picket, the two pickets then being in the position shown in Figs. 7, 8, and 9. The operation of twisting is repeated as often as desired.

We are aware that the use of gear and

sprocket wheels and chains for revolving the twisting mechanism is not new, and do not broadly claim the same as our invention.

What we do claim, however, and desire to secure by Letters Patent, is the following:

1. In a wire-fence machine, a series of revolving twist-ers having bearings in the sides of a frame-work, the central portions of these twist-ers carrying sprocket-wheels mounted thereon, a drive-chain belt connecting these sprocket-wheels, a pinion mounted on the axis of the upper sprocket-wheel and adapted to mesh with a gear-wheel mounted on an axle having bearings in a part connected with the frame, a lever for revolving such gear-wheel connected therewith, and removable eyes connected with the twist-ers, all combined substantially as described.

2. A wire-fence machine provided with twist-ers revolving on axles having bearings in a frame-work, and provided with removable loops or eyes for carrying the wire, in combination with mechanism for revolving the twist-ers, and the spring-hook *h*, substantially as shown and described.

3. In a wire-fence machine, a series of twist-ers revolving on axles having bearings in the frame-work, and provided with removable eyes for carrying the wire, in combination with actuating mechanism, substantially as described.

4. In a fence-machine, a series of revolving twist-ers having bearings in the sides of a supporting-frame, the central portions of these twist-ers carrying sprocket-wheels, a drive-chain belt connecting such sprockets, a pinion mounted on the axis of one of the sprockets and meshing with a gear-wheel mounted on an axle having bearings in a part of the frame-work, to which is secured a lever or handle for actuating the revolving mechanism, the beaters *sp*, and spring-latch *h*, all combined substantially as described.

In witness whereof we have hereto set our hands this 9th day of April, 1886.

LEWIS R. COWLES.
SAMUEL D. BUTTZ.

Witnesses:

C. P. JACOBS,
HATTIE MURRY.