(No Model.)

G. H. SHELLABERGER.

MACHINE FOR MANUFACTURING FENCES.

No. 298,032. Patented May 6, 1884.

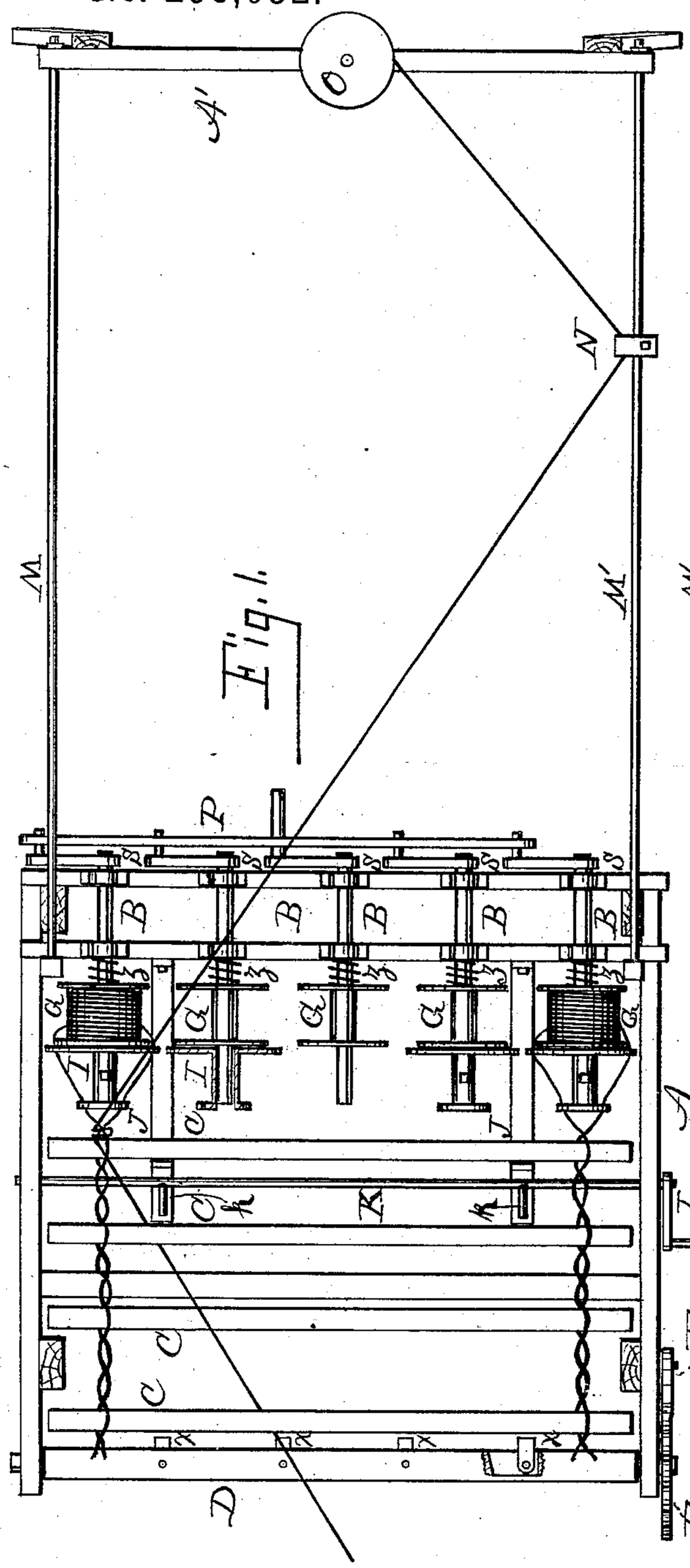

Fig. I.

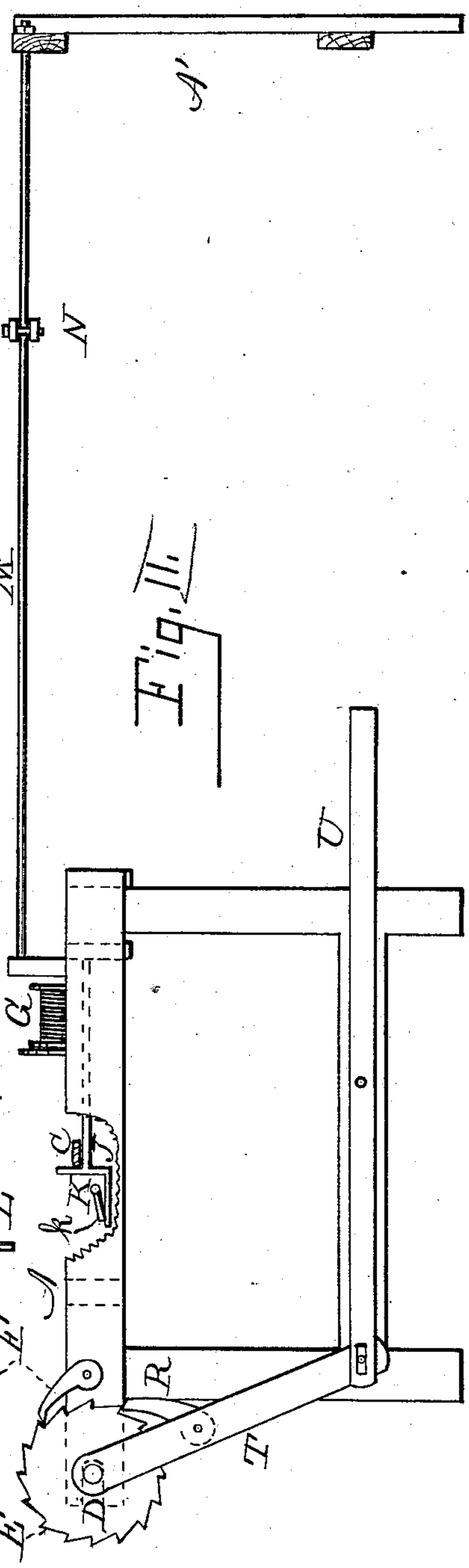

Fig. II.

WITNESSES:

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MACHINE FOR MANUFACTURING FENCES.

SPECIFICATION forming part of Letters Patent No. 298,032, dated May 6, 1884.

Application filed February 1, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. SHELLABERGER, a citizen of the United States, residing at Mount Vernon, in the county of Knox and State of Ohio, have invented a certain new and useful Improvement in Machines for Manufacturing Fences; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in a machine for manufacturing picket fencing by interweaving palings into strands of wire, and a device connected therewith to guide a longitudinal wire while the same is being interlaced with the palings, and attached to the upper and lower strands, to stiffen the panels.

The mechanism is illustrated in the accompanying drawings, in which Figure 1 is a plan view of the machine. Fig. 2 is a side elevation.

Similar letters refer to similar parts throughout both views.

A is the frame, which consists of side rails, cross-pieces, and legs to hold the operating mechanism at a suitable altitude.

A′ is a frame to support a spool for the diagonal wire, and is attached to the machine-frame by the rods M M′. The spool O is supported centrally on the cross-piece of this frame.

N is a guide, which has a hole in one end for the wire to pass through, and the other end has a slot to embrace the rod M′, which it freely traverses, and to which it is held by a pin. The wire is interlaced diagonally with the palings. The wire being in position, said palings are alternately placed above and below the same, and twisted over the bottom and top strands, thus stiffening the several panels. The guide N moves with the wire, and thereby keeps the same at the same angle while it is being worked into the panels. When the diagonal wire is carried across the panel, it is fastened; then the guide is transferred to the opposite rod, M, where it is held until, in the progressive construction of the panel, the opposite side has been reached, when the transfer is again made, and so on continuously as the work progresses.

In the plan view, Fig. 1, the drawing is fragmentary, and some parts are omitted entirely, to avoid confusion.

B are shafts supported in suitable bearings on the cross-pieces of the frame. To the rear ends are attached the cranks S, and these are connected by the bar P. To the central crank is attached a handle, for the operator to turn the machine.

The fencing produced by the machine has five strands of wire, into which the pickets or palings are interwoven, and only two strands are illustrated. On the inner ends of the shafts are put, first, the spiral springs Z, then the spools G, and, lastly, the guides I, which are held to the shafts by a set-screw. There are two wires wound side by side onto the spools. These wires pass through opposite orifices in the two flanges of the guide. Two spring-arms, J, are bolted to the cross-piece of the frame, a side view of the ends of which is shown at Fig. 2. The arms have a vertical projection, against which the paling rests, and a horizontal projection beneath, against which the arms *k* of the shaft K have a bearing. Without the frame is attached a crank to oscillate the said shaft. This device is used to depress the arms, so that the interwoven paling may pass.

In open bearings in the end of the frame is supported the shaft D, which is made of a square bar of iron, with slots in one side, within which are pivoted the plates *x*. Upon this shaft is wound the fencing as it is prepared by the machine, the paling being placed over the plates to hold the same in position during the winding. To detach the coil of fencing from the shaft, the same is taken out of its bearings, and as the shaft is being withdrawn the plates fall within the slots, and the same is readily removed. The ratchet-wheel E is attached to the end of the shaft, and F is a fixed pawl which engages the teeth of the same. The teeth are also engaged by the pawl R, pivoted to the arm T, supported on the end of the shaft outside of the ratchet-wheel. Movement is communicated to arm T by the foot-lever U, pivoted to the side of the frame. The operation is thus: The two wires from the spools are passed through the orifices of the

guides and attached to the shaft D. A paling is placed between the wires on the arms J, and one or two turns are given to the spools. The paling is then disengaged, and the shaft is turned to move the fencing the distance of one paling, and the diagonal wire being interlaced therein as the work progresses, as heretofore specified. As the wires are drawn from the spool, the requisite tension is given by the spiral coil, which presses the spool against the surface of the wire-guide.

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

1. The combination of the shafts B, frictional springs Z, spools G, and guides I with crank S and bar P, or equivalent mechanism for operating the same, substantially as set forth.

2. The combination of the spring-arm J, having a vertical projection above and a horizontal projection below, and the shaft K, with bearing-arms, as a device for holding and freeing the palings, substantially as set forth.

3. The combination of the wire-spool O, rods M M′, and transferable guide N, for the purpose of directing a wire diagonally into position to be interlaced with the fencing-panels, substantially as set forth.

4. In a machine for the manufacture of fencing, the spool G, carrying two wires supported on a horizontal shaft, and with guides, as set forth, to direct the wires to the palings, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

GEORGE H. SHELLABERGER.

Witnesses:

E. F. SHELLABERGER,

J. B. WAIGHT.