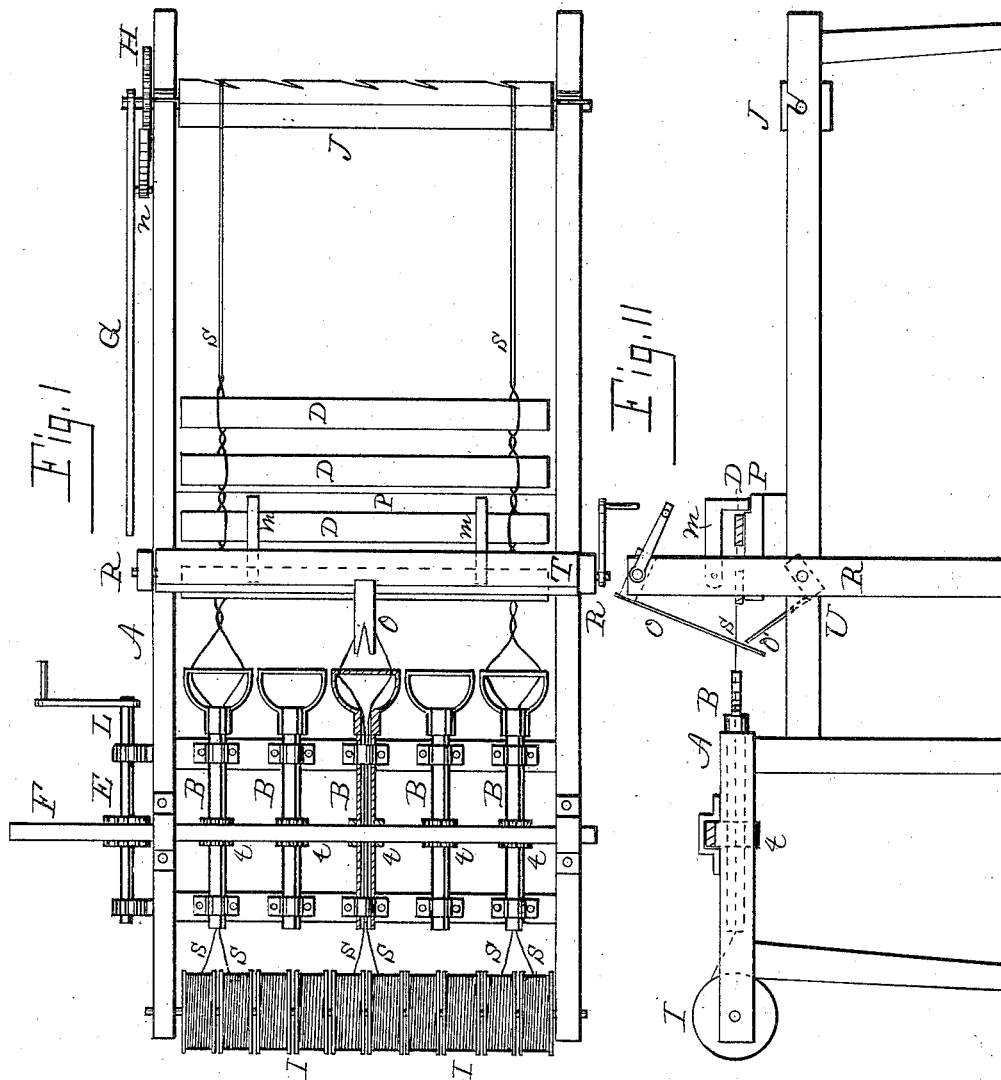


(No Model.)

D. YOUNG.
FENCE MAKING MACHINE.

No. 301,315.

Patented July 1, 1884.



WITNESSES:

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DAVID YOUNG, OF PIQUA, OHIO.

FENCE-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 301,315, dated July 1, 1884.

Application filed March 21, 1884. (No model.)

To all whom it may concern:

Be it known that I, DAVID YOUNG, a citizen of the United States, residing at Piqua, in the county of Miami 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 a machine for manufacturing fences, in which the wires to embrace the slats are fed through a hollow shaft from spools in fixed positions, said shaft being carried by a rack alternately to and fro by engaging a pinion of said shaft, thereby alternating the direction of the twist between the slats forming the panel, and a device for holding the slats while the wires are being twisted; and the objects of the improvements are to twist the wires so snugly as to lessen the sagging of the panel, and to relieve the machine of much dead-weight, as is the case when the spools are carried on the shafts. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a plan of the fencing-machine. Fig. II is a side view of the same.

Similar letters designate like parts throughout the several views.

A is the frame, consisting of two side rails, cross-pieces, and legs to support the operative mechanism at a suitable height. The series of hollow shafts B are supported in bearings on the cross-pieces on the front end of the frame. On these shafts are a series of pinions, *t*, about midway between the cross-pieces of the frame. Directly over these pinions and engaging therewith is the rack F, which is supported in boxings on the top of the side rails of the frame. The shaft L, carrying the pinion E, is supported in bearings on the left side of the frame. This pinion likewise engages the rack, and by which means the rack is made to traverse to and fro. A crank is attached to the shaft for the purpose of this operation. The hollow shafts have expanded

heads, with orifices for the wires to pass through, which serve to keep the wires sufficiently apart to make it convenient to enter the wooden slats D. Five separate strands of wire are usually used in forming the fencing-panels, but only the outside ones are illustrated in Fig. 1. A little forward of the twisting-cranks is a device for pressing the slats into the wire strands. The posts R, attached to the sides of the frame, support the shafts T and U on pivots within the same. The upper shaft, T, carries a series of notched arms, O, and the lower shaft, U, carries a series of arms, O', also notched. The lower is embraced by the upper, and may be thrown outward by a spring, or may be so suspended as to fall outward by gravity. These are operated by a crank attached to the pivot of the upper one, and the office is to press the slat forward, after its insertion, against the twist in the strands, and so hold said slat until the twisting is completed before the same. The effect of this is to make the twisting more snugly to the slats, thereby producing a firmer panel.

P is a platform to hold the slat D, and *m* is a catch to hold against the presser-arms during the operation of twisting the wires S, and said catch is operated by hand.

J is a shaft, on which the fencing is rolled as the work progresses. The wires are secured in the notches of the same. This winding-shaft has bearings within notches of the frame. Outside of the frame is attached a ratchet-wheel, H, and to the pivot of the shaft is attached the lever G, which carries a pawl, *n*, which is used in rotating this shaft, and a fixed pawl (not shown in drawings) is used to hold said shaft. The spools of wire I may be supported on a rod in the ends of the frame, or have an independent support, as the wires are only wound off of the same as required for use by the machine.

The operation may be described thus: The wire-spools are suspended on shafts. From abutting spools two wires are taken and passed through a shaft and the orifices of the expanded head, thence carried to be fastened in the notches of the winding-shaft at the rear end. A slat is placed between the wires on the platform P; then the crank is turned which moves the rack; one or two twists are given; another

slat is placed in, and the crank is turned in an opposite direction, thus alternating the twist between each succeeding slat, and so on continuously. In twisting, the wires cross and recross in opposite directions within the shaft; but they are so held that they do not become entangled. As before described, the closing-up device aids in more snugly binding the slats by the wires.

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

1. The combination of the closing-arms O O' on shafts T and U, platform P, and arresting-arm *m*, substantially as described.

2. The combination of the rack F, hollow shafts B, with pinions and expanded heads, the closing-arms O O' on shafts T and U, platform P, and arresting-arm *m*, substantially as described.

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

DAVID YOUNG.

Witnesses:

LINNESS JOHNSTON,
J. H. HATCH.