

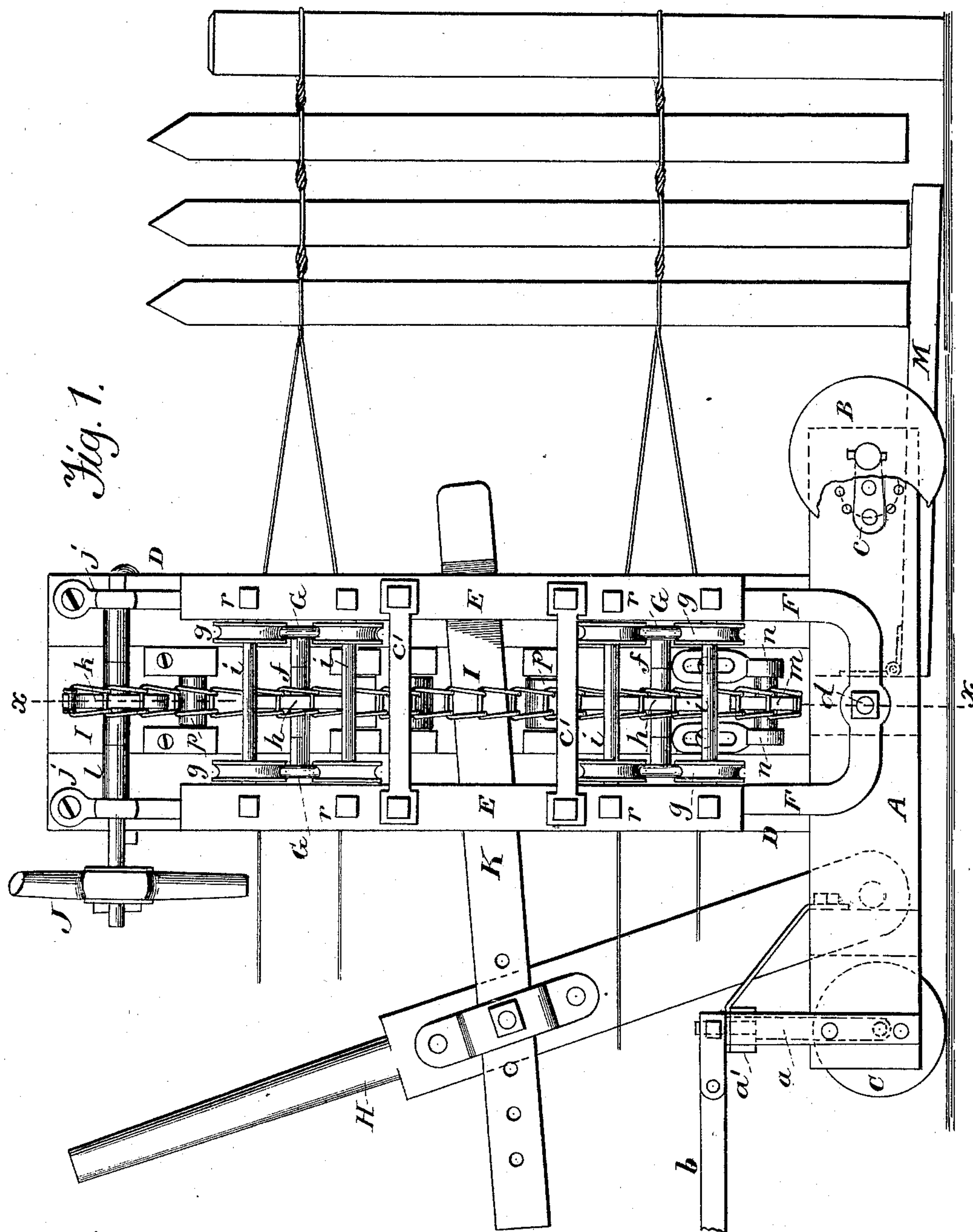
(No Model.)

2 Sheets—Sheet 1.

J. A. KRAMER.
PICKET AND WIRE FENCE MACHINE.

No. 418,194.

Patented Dec. 31, 1889.



Witnesses.
A. Ruppert.
H. A. Daniel.

Inventor.
John A. Kramer
Per
Thomas P. Simpson
att'y

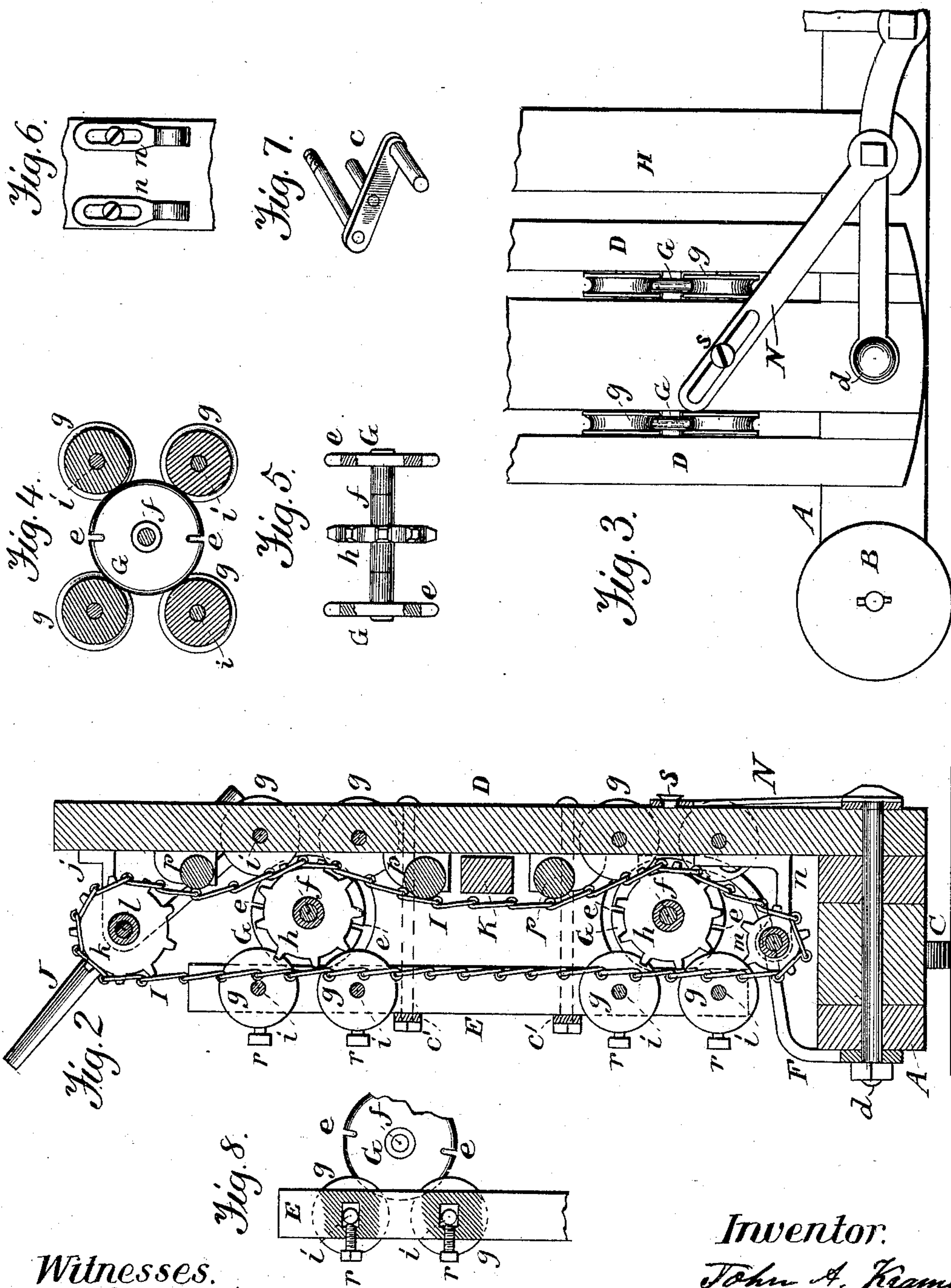
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UNITED STATES PATENT OFFICE.

JOHN A. KRAMER, OF LOUISIANA, MISSOURI.

PICKET-AND-WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 418,194, dated December 31, 1889.

Application filed September 28, 1889. Serial No. 325,353. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. KRAMER, a citizen of the United States, residing at Louisiana, in the county of Pike and State of Missouri, have invented certain new and useful Improvements in Machines for making Picket-and-Wire Fences; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to wire-twisting machines for the construction of fences of pickets and wire; and it consists in certain improvements in the construction of such machines, as hereinafter described and claimed.

In the drawings, Figure 1 represents a side view of a fence-machine provided with my improvements. Fig. 2 is a section taken on line *x x*, Fig. 1. Fig. 3 is a partial side view. Fig. 4 represents a twisting-wheel and supporting-wheels. Figs. 5, 6, 7, and 8 are detail views.

A designates a carriage forming the base of the machine, said carriage being provided with two wheels B at one end and one wheel C at the opposite end. The wheel C forms a guide-wheel and is provided with a stock *a*, which has a pivotal movement in a bar *a'* and has a tongue or draft bar *b* secured thereto.

The axles of wheels B are fastened to pivoted arms *c*, which are adjustably secured by bolts to the sides of the carriage, and either of said arms may be turned up or down and fixed in position, so that one of the wheels B will be lower than the other, this being necessary at times to keep the machine in a perpendicular position, as when moving on a hillside or inclined surface.

The main supporting part of the frame consists of the vertical side timbers D, the extremities of which are secured together, said timbers forming one side of the frame and being secured to one side of the carriage by a long bolt *d*, which passes through the carriage. The opposite side of the frame consists of the uprights E, which are connected by bars *c'*, and with intervening frame-work are secured to and carried by posts of the side D.

F indicates a brace which is secured at the center to a side of the carriage by the long bolt *d*, which is passed through the carriage, as before stated. The two parts of said brace F are curved upward and have their ends made fast to posts of the opposite side D, as shown. Thus the main frame, which carries the twisting mechanism, is supported by the bolt *d*, and when the machine is either ascending or descending an inclined surface the frame may be adjusted to a perpendicular position by loosening said bolt, turning the frame on the pivot formed thereby, and then tightening it.

Within the main frame are mounted two twisting devices, one being in the upper and the other in the lower part of the frame, at about the elevation, respectively, of the upper and lower rails of an ordinary picket fence. Each twister is formed of two wheels G, which are fixed to a shaft *f* and are severally provided with opposite incisions or notches *e* in their peripheries to receive the wires to be twisted. Each wheel G of a twister is supported and sustained by four grooved wheels *g*, which are on shafts *i*, having bearings in the frame, the peripheries of wheels G being in the grooves of wheels *g*. On each shaft *f* of the twisting-wheels is fixed a sprocket-wheel *h*. Another sprocket-wheel *k* is mounted above wheels *h*, in line with the same, the wheel *k* being fixed to a shaft *l*, which has bearings in brackets *j*, carried by the main frame, and is provided with a crank or hand lever J, by which said shaft may be turned. Another sprocket-wheel *m* is placed below the wheels *h*, in line therewith, and is fixed to a shaft which is provided with bearings *n*, which are adjustably secured to the main frame.

An endless chain I passes about the sprocket-wheels *k* and *m*, and is pressed into connection with the sprocket-wheels *h* on the twister-shafts by rollers *p*, which are journaled in bearings which are fastened to the main frame.

H indicates a lever, the lower end of which is pivoted to one side of the carriage. A horizontal plunger K extends through openings in the frame and is pivotally connected with the lever H, the purpose of the plunger being

to press the pickets and drive them severally in place as they are placed one at a time between the wires before the latter are twisted.

The wires, being fastened to a post at their proper elevations, corresponding with the levels of the twisting devices, respectively, are stretched over the line to be occupied by the fence and secured at their farther ends, the wires being passed through the machine, so that two wires will rest in the opposite notches of the wheels G of each twister. The pickets are then severally placed between the upper and lower wires, which are then twisted by the rotation of the twisting-wheels, which is effected by turning the crank J. Each picket, when placed between the wires, is driven back by means of the plunger K and lever H.

To place the wires in position in the twisters, loosen the tension of the endless chain and unhook the latter, when the wires may be passed into the twisters.

The shafts *i* of the wheels *g* may be pressed inward by means of the screws *r* in upright E.

The hinged piece M may be used as a rest for the pickets as they are severally placed between the wires. A slotted brace N serves to retain the supporting-frame in position,

said brace being adjustably secured at *s* by a screw.

I claim—

1. The combination, with a frame, of a series of twisting devices, each of which consists of two notched wheels which are provided with and fixed to a shaft, a series of grooved wheels on shafts which are carried by the frame, and mechanism for rotating said notched wheels, each of which is supported and sustained in position by four of said grooved wheels, substantially as and for the purposes described.

2. The combination, with a carriage which forms the base of the machine, of a main frame which is provided with a brace F and is pivotally connected by a bolt with said carriage, which latter is provided with wheels, the axles of which are severally adjustable in elevation, substantially as and for the purposes described.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN A. KRAMER.

Witnesses:

RAS PEARSON,
D. A. BALL.