(No Model.)

E. HUTSON.

WIRE FENCE MACHINE.

No. 405,094. Patented June 11, 1889.

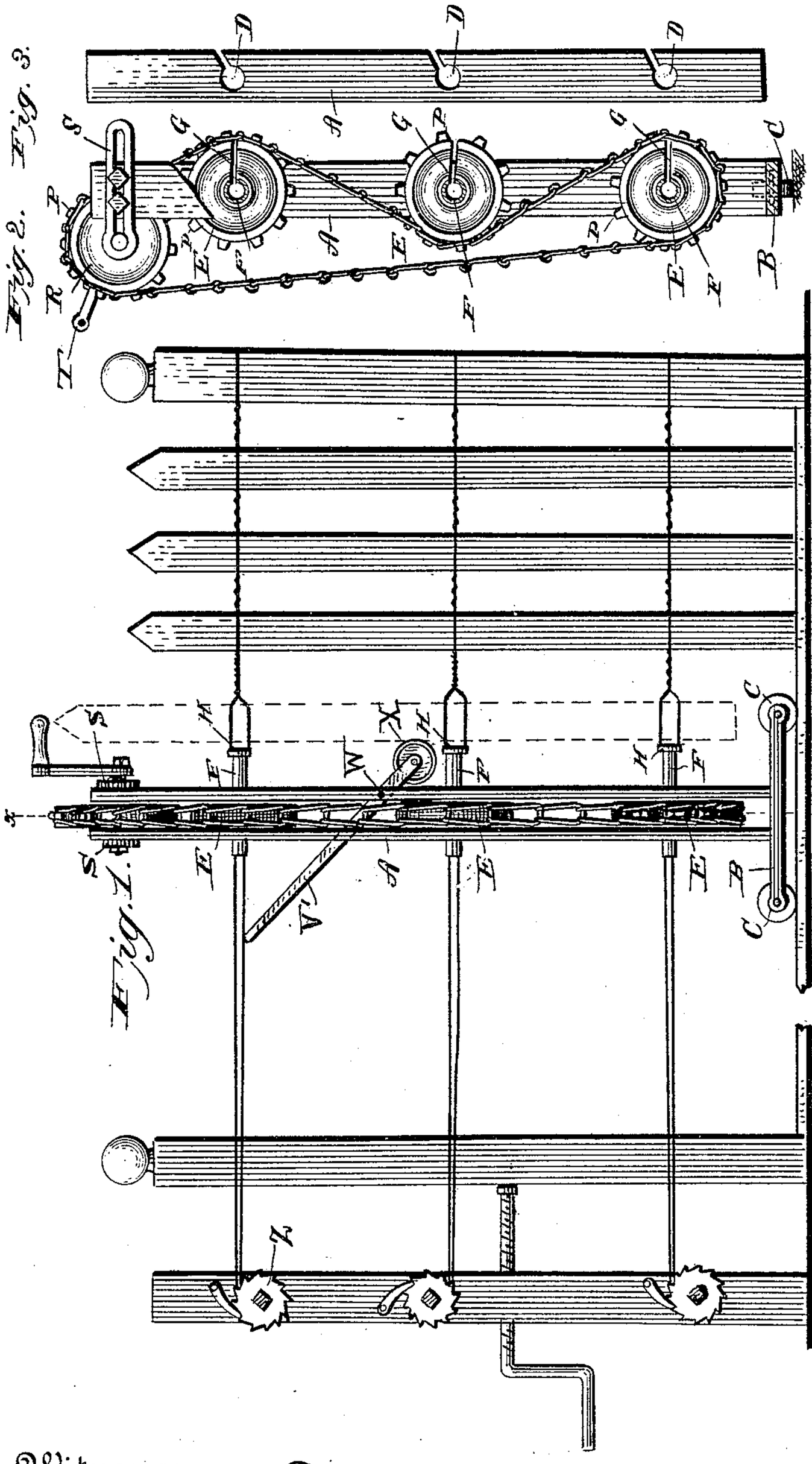

Fig. 1.

Fig. 2.

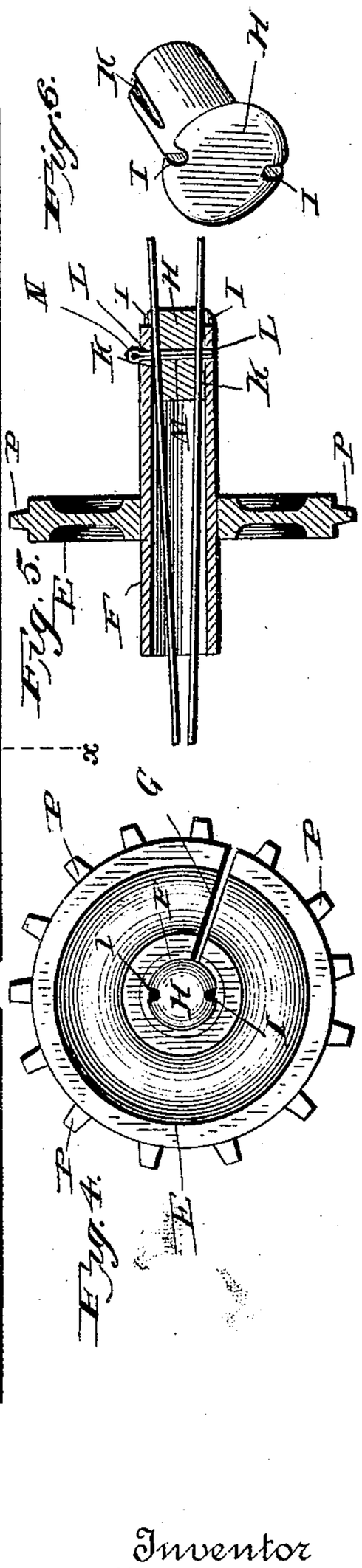

Fig. 3.

Fig. 5.

Fig. 6.

Fig. 4.

Witnesses
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UNITED STATES PATENT OFFICE.

EZRA HUTSON, OF FAIRPORT, NEW YORK.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 405,094, dated June 11, 1889.

Application filed April 12, 1889. Serial No. 306,983. (No model.)

To all whom it may concern:

Be it known that I, EZRA HUTSON, of Fairport, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Wire-Fence Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 represents a side elevation of a fence in course of construction and a similar view of my improved machine in connection therewith, the parts being in operative position. Fig. 2 represents a vertical sectional view taken in the plane indicated by dotted line *x x* on Fig. 1. Fig. 3 represents a side elevation of one of the uprights of the machine; Fig. 4, a side elevation of one of the twisting-wheels detached; Fig. 5, a sectional view of the plug in connection with one of the twisting-wheels. Fig. 6 is a detail perspective view of the plug.

This invention relates to an improved machine whereby the horizontal binding-wires may be twisted around the successive palings of a fence in building the same; and it has for its objects to so construct the twisting devices and their supporting-frame that the machine may be readily applied to the wires at any point when strung and drawn taut in the usual manner, so as to secure the palings at proper intervals, as more fully hereinafter specified.

The above-mentioned objects I attain by the means illustrated in the accompanying drawings, to which reference is had by letters, and A indicates the frame of my machine, which consists of two parallel uprights mounted upon a base B, which is provided with wheels C in order that it may be readily moved at proper periods while building the fence. The said uprights at suitable points corresponding to the positions of the binding-wires of the fence are provided with bearings D for the journals of the twisting-wheels, hereinafter described, and with lateral slots leading from one edge of this frame to each bearing for the insertion of the wires, as more fully hereinafter explained.

The letter E indicates the twisting-wheels, any number of which may be employed, according to the character of the fence to be constructed. Each wheel is constructed of metal, which is cast upon a hollow longitudinally-slotted shaft F, the wheel during the casting being formed with a coincident slot G, extending from its center to its periphery, for the insertion of the wires to be twisted. The hollow slotted shaft projects at each side of the wheel, forming journals which set in the bearings D, before mentioned. The shaft of each wheel at one end projects beyond its bearing, as shown in Fig. 1 of the drawings, forming a seat for a flanged plug H, which is provided with diametrically-opposite slots or recesses on the flange, as indicated by the letter I, and with longitudinal grooves K, extending from near said slots or recesses in the flange to the end of the plug, for the purpose hereinafter explained. The shafts are also provided with transverse apertures L and the plug with a coincident aperture M, through which a split pin N may be passed to hold the plug in place.

The respective twisting-wheels are provided with sprockets P on their peripheries, over which passes a sprocket-chain, as shown in Figs. 1 and 2 of the drawings. The said chain also passes over a sprocket driving-wheel R, from which the several wheels derive their motion when the machine is in operation. The said wheel is mounted on a journal which is adjustably secured in a slotted bracket S, attached to the frame of the machine, so that the slack of the chain may be easily and conveniently taken up. The said driving-wheel is also provided with a crank T, by means of which it may be operated.

The letter V indicates a lever fulcrumed to the frame A at the point W. This lever at one end is provided with a wheel X, which may be brought to bear against the edge of the paling to be secured to the wires, so as to force it snugly into the angles of the diverging wires about to be twisted on the opposite edge of the paling, and at the same time advance the machine to the proper position to set the next succeeding paling.

The operation of my invention will be readily understood in connection with the

above description, and is as follows: The wires are fastened to the post in the usual manner, and are strung horizontally and drawn taut by any suitable means, preferably by a mechanism indicated by the letter Z in the drawings. A paling being placed between the wires, the machine is advanced to proper position and the wires are inserted therein. The plugs are then inserted in their seats and the wires spread apart and dropped into the longitudinal grooves and the recesses in the flanges of the plugs. The confining-pin is then inserted, when by turning the driving-shaft the wires are simultaneously twisted, securing the paling in place between the wires. This operation is repeated successively until the fence is completed, the machine being moved back after each operation to the proper position to commence anew.

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

1. The combination, with the slotted twisting-wheel and its longitudinally-slotted shaft, of the flanged plug having diametrically-opposite slots in the flange and longitudinal grooves leading from said flange to the end of the plug, the plug being adapted to fit in one end of the hollow shaft and receive the wires for the purpose of twisting the same, substantially as specified.

2. The combination, with the supporting-frame having bearings and lateral slots leading thereto, of the slotted shafts, the slotted sprocket-wheels, their longitudinally-slotted hollow shafts and the longitudinally-grooved plugs, the sprocket-chain, and the adjustable sprocketed driving-wheel, the whole arranged to operate substantially as specified.

3. The combination, with the frame of the machine and the twisting-wheels and plugs, of the lever fulcrumed to the frame and provided with a wheel at one end, which may be brought to bear against one edge of the rail to force the same into the angle of the diverging wires, substantially as specified.

4. The combination of the frame having laterally-slotted side bars, the driver R, adjustable brackets S, and carriage B, with the slotted sprocket twisting-wheels E, their longitudinally-slotted hollow shafts F, the plugs H, and the lever V′, all as and for the purpose set forth.

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

EZRA HUTSON.

Witnesses:
T. H. ALEXANDER,
C. W. SEVILLE.