

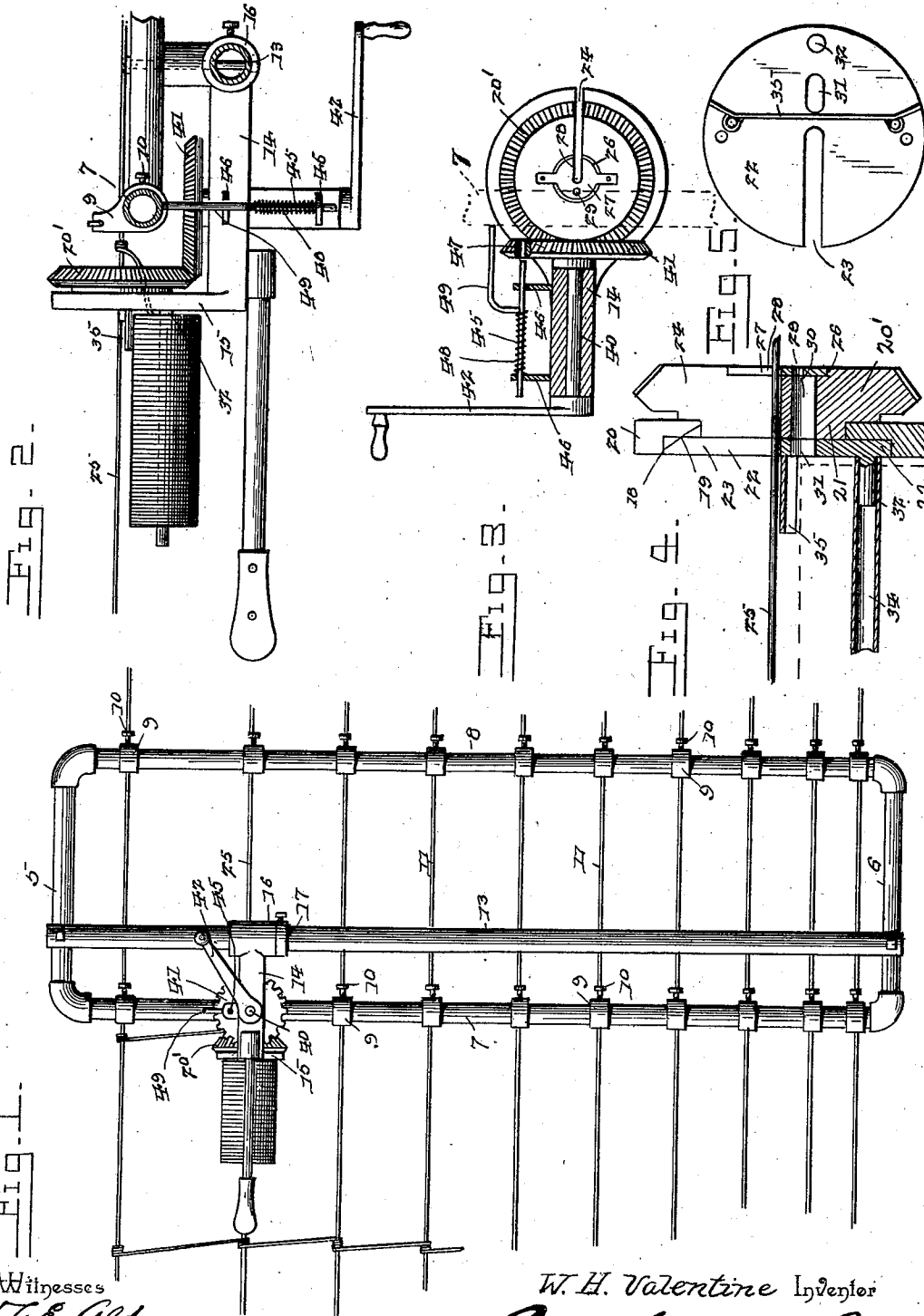
No. 664,985.

Patented Jan. 1, 1901.

W. H. VALENTINE.
WIRE FENCE MACHINE.

(Application filed Aug. 27, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. VALENTINE, OF SHELBY COUNTY, INDIANA.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 664,985, dated January 1, 1901.

Application filed August 27, 1900. Serial No. 28,215. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. VALENTINE, a citizen of the United States, residing in the county of Shelby and State of Indiana, have invented a new and useful Wire-Fence Machine, of which the following is a specification.

This invention relates to machines for making wire fences in general, and more particularly to the class of portable machines wherein the stay-wire is wound upon a spool and the spool is taken bodily around the strand-wires successively, one object of the invention being to provide a simple and cheap construction wherein the stay-wire will not interfere with the working parts and which may be quickly shifted from one strand-wire to another in the operation of application of the stay.

Further objects and advantages of the invention will be evident from the following description.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation showing the practical application of the machine in the manufacture of a fence. Fig. 2 is a top plan view of the working parts of the machine in position on a strand-wire, the supporting-frame for the machine being shown in section. Fig. 3 is a view showing the machine partly in section and partly in elevation and looking from the rear side of the machine. Fig. 4 is a section taken vertically through the winding-gear and showing a portion of its supporting-bracket. Fig. 5 is a face view of the rear plate of the winding or twisting gear.

Referring now to the drawings, the present machine includes a rectangular frame comprising top and bottom pieces 5 and 6 and side pieces 7 and 8, and on the side pieces of which are slidably disposed spacing-blocks 9, adapted to be held at different points of the side pieces by means of set-screws 10, as shown, said blocks being adapted for engagement over the wires 11 of a fence, to which the stay-wires are to be applied. A carrying-rod 13 is fixed to the upper and lower pieces 5 and 6 and stands vertical, and this rod carries the machine proper in a manner hereinafter described.

The machine proper comprises a bracket including two members, a body 14 and an arm 15, extending at right angles to the body, the body portion having a collar 16 at one end, which is slidably engaged with the carrying-rod 13, and below this collar there is disposed on the rod a collar 17, having a set-screw for clamping it in place to hold the collar 16 at different elevations, while permitting it to be swung on the rod as a pivot.

Through the arm 15 is formed an opening 18, the rear end of which is countersunk, as shown at 19. A radial slot 20 is formed in the arm, which is circular in form and leads from the periphery of the arm to the opening 18.

What is termed a "winding gear-wheel" 20' is provided and has a rearwardly-extending hub 21, which fits in the opening 18, and upon the rear end of the hub is fixed a circular plate 22, which fits in the countersink 19 and prevents outward movement of the gear 20' from the bracket-arm. The gear 20' and plate 22 have registering slots 23 and 24 therein, and as the gear, and therewith the plate, is rotated, the slots 23 and 24 are moved into and out of alinement with the slot 20 to permit engagement of said slots simultaneously with a strand-wire 25 of the fence to be provided with stays. A central opening 26 is formed in the gear 20', and a plate 27, of hardened steel, is disposed in this opening in the gear and flush with the face thereof, said plate having a slot 28, which registers with the slot of the gear, and having also a perforation 29 therethrough, which alines with perforations 30 and 31 in the gear 20' and plate 22. A pin 32 extends rearwardly from the plate 22 and is adapted to receive a hollow spindle 34, on which the stay-wire is wound, said pin being at one side of the center of the plate and beyond the perforation 31 therein, so that the wire from the spool may be threaded through the perforations 31, 30, and 29 and engaged with a strand-wire. If the gear 20' be then rotated, the spool of wire will be taken bodily around the strand-wire and the stay-wire will be wrapped thereon, it being understood that at this time the strand-wire is in the radial slot of gear 20' and the slots alined therewith.

To prevent winding of the wire from the

spool upon the strand-wire between the spool and the gear 20', a plate 35 is fixed at its edge to the rear face of the plate 22, the plate 35 being disposed to project rearwardly at right angles to the plate 22, between the spool and the center of the plate, through which is passed the strand-wire, this plate being adapted to catch any wrappings that may drop from the spool, and thus prevent them from wrapping about the strand-wire.

In order to rotate the wheel 20' and therewith the spool of stay-wire, a shaft 40 is journaled in the body 14 of the bracket and has a driving bevel-gear 41 at one end, which meshes with the gear 20', which is also a bevel-gear, the shaft 40 having an operating-crank 42 at its outer end. After the stay-wire has been given the desired number of wrappings about the strand-wire the bracket is swung outwardly to draw the machine from the strand-wire, and to permit this swinging of the machine it is of course necessary that the slots in the arm 15 and the plate 22 and gear 20' be in registry, and to insure this condition a trigger or bolt 45 is slidably mounted in uprights 46 on the body 14 of the bracket for engagement with a perforation 47 in the gear-wheel 41, said bolt being held yieldably in this position by means of a helical spring 48, which encircles the bolt and bears at one end against the outermost upright and at its opposite end against a finger 49 on the bolt. This finger 49 extends over and beyond the gear 41 in such position that when the bracket is pivotally swung to engage the slot of gear 20' with the strand-wire the end of the finger will strike the upright or side piece 7 and press the bolt rearwardly from engagement with the perforation in gear 41, and thus permit it to turn under the influence of the crank. When the bracket is swung back, the end of the bolt moves against gear 41, and when the said gear is rotated the bolt snaps into the perforation thereof.

It will be understood that in practice various modifications of the specific construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. In a fence-machine, the combination with a frame having a carrying-rod thereon, of a bracket pivotally mounted on the rod and

having a slotted arm, a winding-wheel mounted in the arm and having a radial slot disposed for alinement at times with the slot of the arm, means carried by the winding-wheel for holding a wire-spool, and a latch for holding the slots in alinement, said latch having a finger for engagement with a portion of the frame to move the latch from its engaged position when the winding-wheel is in operative position.

2. In a fence-machine, the combination with a supporting-frame, of a bracket slidably and pivotally connected therewith, said bracket having a slotted arm adapted to receive a strand-wire in its slot, a gear-wheel mounted in the arm and having a radial slot for alinement at times with the slot of the arm, a shaft journaled in the bracket, a gear carried by the shaft and meshing with the first gear, a crank connected with the shaft for operating the latter to drive the gears, the second gear having an opening therein, a bolt slidably mounted on the bracket and adapted for engagement with the opening to lock the second gear to hold the first gear with its slot in alinement with the slot of the arm, a finger on the bolt for engagement with a portion of the frame to retract the bolt when the frame is swung into operative position, and a spool-holder carried by the first gear.

3. A fence-machine comprising a bracket having a winding-gear mounted therein, a plate upon the rear of the winding-gear and having a pin to receive a wire-spool, a guard connected at its edge to the rear of the plate and lying transversely of the plate between the pin and the center of the plate, slots formed in the winding-gear and plate at the opposite side of the center of the plate from the spool-holding pin, said bracket having a slot for alinement with the slots of the gear and plate to permit entrance of a strand-wire thereto, said plate and gear having also alining perforations between the guard-wire and spool-holding pin to receive the end of the wire from the spool, and means for rotating the winding-gear.

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

WILLIAM H. VALENTINE.

Witnesses:

JNO. VALENTINE,

D. H. THOMPSON.