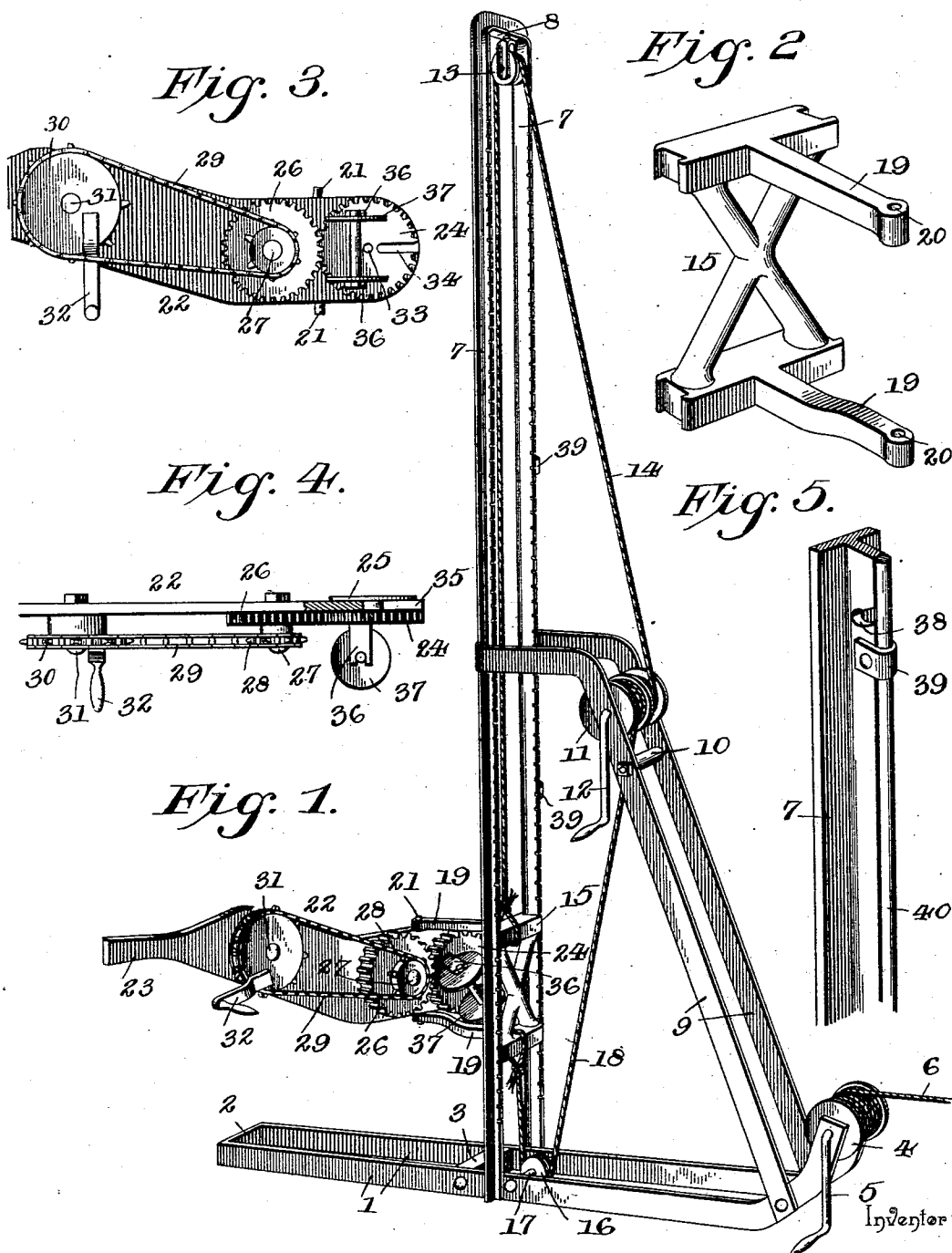


(No Model.)

E. ALLENSWORTH.
FENCE MACHINE.

No. 563,117.

Patented June 30, 1896.



Witnesses

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UNITED STATES PATENT OFFICE.

ELVIN ALLENSWORTH, OF MEMPHIS, MISSOURI.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 563,117, dated June 30, 1896.

Application filed December 26, 1895. Serial No. 573,349. (No model.)

To all whom it may concern:

Be it known that I, ELVIN ALLENSWORTH, a citizen of the United States, residing at Memphis, in the county of Scotland and State of Missouri, have invented a new and useful Fence-Machine, of which the following is a specification.

This invention relates to machines for constructing woven-wire fencing, and aims to provide a structure which can be readily moved along the prescribed line of fencing and adjusted to any elevation to suit the height of the line-wires to which it is required to bind the pickets.

Other objects and advantages are contemplated and will be obvious as the nature of the invention is unfolded, and to a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of a fence-machine constructed in accordance with this invention. Fig. 2 is a detail view of the vertically-adjustable carriage which bears the wire-twisting mechanism in the complete machine. Fig. 3 is a side elevation of the wire-twisting mechanism disconnected from its supporting-carriage, the outer end portion of the frame being broken away. Fig. 4 is a top plan view thereof, parts being broken away. Fig. 5 is a detail view showing a portion of the notched guide-bar and the relation of the clip and rod for securing the fence-wires in the notches.

The same numerals of reference denote corresponding and like parts in all the figures of the drawings.

The base of the machine comprises longitudinal side bars 1, extending in parallelism and having their front ends curved upward and their rear ends connected together by a transverse bar 2, and said bars 1 being braced

at intermediate points by transverse pieces 3. The side bars 1 form in effect runners upon which the machine slides when moved over the ground. A windlass 4 is journaled in the curved ends of the bars 1 and is supplied with a crank 5, by means of which it is rotated in its bearings to wind the rope or cable 6 thereon when it is required to advance the machine along the line of fencing. This rope or cable 6 is secured at one end to the windlass 4 and at its opposite end to a fence-post or other object, and by turning the windlass so as to wind the rope or cable thereon the machine will be advanced, as will be readily comprehended.

Vertical guide-bars 7 are secured at their lower ends to the longitudinal bars 1, and are connected at their upper ends by a cross-piece 8, and are stayed by brace-bars 9, which are attached at their lower ends to the longitudinal bars 1 near their front ends and to the vertical guide-bars 7 about intermediate of their ends, said brace-bars 9 being strengthened laterally by an intermediate transverse piece 10. A windlass 11 is journaled near the upper ends of the brace-bars 9 and is supplied with end and an intermediate annular flange to maintain the rope or cable in proper working position. A crank 12 is provided for rotating the windlass 11 in its bearings to wind the rope or cable thereon to secure the proper adjustment of the wire-twisting mechanism. A pulley 13 is secured midway of the cross-piece 8, and a cable or rope 14 passes thereover and is secured at one end to the windlass 11 and at its opposite end to the carriage 15, so as to elevate the latter when winding the cable or rope 14 upon the said windlass 11. A pulley 16 is located near the foot of the vertical guide-bars 7 and is mounted upon a transverse rod or pin 17. A rope or cable 18 is secured at one end to the windlass 11, and after passing beneath and around the pulley 16 has connection at its opposite end with the carriage 15, and is adapted to wind upon the windlass 11 in a reverse direction to the cable or rope 14, so that upon rotating the windlass 11 to wind the cable 14 thereon the cable 18 is proportionately unwound, and vice versa, thereby making provision for the ver-

tical movement or adjustment of the carriage 15. By rotating the windlass 11 in one direction the rope or cable 14 will be drawn upon and elevate the carriage 15 and the wire-twisting mechanism attached thereto, and upon rotating the windlass 11 in a reverse or opposite direction the rope or cable 18 will be drawn upon and the carriage 15 lowered, as will be readily understood.

10 The carriage 15 may be of any desired construction, and, as shown, comprises upper and lower transverse bars notched in their edges to receive the vertical guide-bars 7 and an intermediate connecting cross-piece for uniting the said upper and lower transverse bars. Arms 19 extend horizontally from the upper and lower bars of the carriage and have openings 20 in their outer ends in vertical alignment to receive trunnions 21 of the frame 22, to which are attached the elements comprising the wire-twisting mechanism.

The frame 22 is journaled near its inner end to the arms 19 of the carriage, and is provided at its outer end with a handle 23 to be grasped when it is required to swing the frame upon its journals or to hold it in working relation. The wire-twisting wheel 24 is journaled at the inner end of the frame 22, and a circular plate or disk 25 is bolted or otherwise secured to the hub of the part 24 and is arranged upon the opposite side of the frame 22 to that occupied by the wire-twisting wheel 24. An idler 26 is mounted upon a spindle or pin 27, projecting laterally from the frame 22, and meshes with the wire-twisting wheel 24, so as to transmit motion to the latter, and is provided on its outer side with a sprocket-pinion 28, which supports one end of a sprocket-chain 29, driven by means of a sprocket-wheel 30, mounted upon a spindle 31, projecting laterally from the frame 22, said sprocket-wheel 30 being provided with a crank 32, by means of which it is operated to impart motion to the wire-twisting wheel through the train of gearing just described.

The wire-twisting wheel 24 is provided with a central opening 33 and a radial slot 34, which terminates a short distance from the opening 33, and the frame 22 is provided at its inner end with a slot 35 to register and correspond with the radial slot 34, so as to admit of the line or fence wire entering the slot 34 of the wire-twisting wheel when it is required to wrap or twist the binding-wire around the said fence-wire. Parallel arms 36 project laterally from the wire-twisting wheel and are notched in their outer ends to receive the journals of the spool 37, upon which is wound the binding-wire, by means of which the pickets are secured to the fence-wires, said spool being held in place by the tension upon the binding-wire, as will be readily understood.

To use the present invention it is necessary to first stretch the line or fence wires and secure them to the fence-posts in the usual way, and the pickets are applied one at a time to

the fence-wires and are secured thereto by wrapping the binding-wire about the fence-wires upon opposite sides of the pickets. The wire-twisting mechanism is raised and lowered to correspond to the position of the several fence-wires by a proper manipulation of the windlass 11, as previously intimated, and after the wire-twisting mechanism is brought to a position opposite the fence-wire to which it is required to bind the picket the frame 22 is swung horizontally, so as to stand at right angles to the line of fencing, and the wire-twisting wheel 24 is moved until the slot 34 therein registers with the slot 35, when the fence-wire will enter the slot 34, and upon rotating the wire-twisting wheel the binding-wire passing through the central opening 33 will be twisted or wrapped around the line-wire, as will be readily comprehended. After the binding-wire is properly twisted the slots 34 and 35 are brought into register and the frame 22 swung into a position about parallel with the line of fencing, thereby disengaging the wire-twisting mechanism from the fence-wire and admitting of the machine being advanced or the wire-twisting mechanism raised or lowered as required.

In some instances it may be desirable to secure the fence-wires to the framework of the machine, and provision is had for attaining this end by providing one of the vertical guide-bars 7 with a series of notches 38 at intervals in its length, into which the fence-wires are placed, and clips 39 are fastened to the notched guide-bar 7 at proper intervals to receive a rod or stout wire 40, which extends across the open ends of the notches 38, so as to secure the fence-wires after the latter have been placed therein.

Having thus described the invention, what is claimed as new is—

1. The herein shown and described fence-machine, comprising longitudinal side bars having their front ends curved upwardly, a windlass journaled in the said curved ends for winding a rope thereon to advance the machine, vertical guide-bars secured at their lower ends to the longitudinal bars, brace-bars connecting the aforesaid curved ends of the longitudinal bars with the vertical guide-bars intermediate the ends of the latter, a carriage slidably mounted upon the vertical guide-bars, a windlass journaled near the upper ends of the braces and formed with end and intermediate flanges, a cable secured to the carriage and passing around guide-pulleys at the upper and lower ends of the vertical guide-bars and adapted to wind upon the end portions of the windlass in reverse directions, and a wire-twisting mechanism having pivotal connection with the carriage and adapted to swing horizontally, substantially as and for the purpose set forth.

2. In a fence-machine, the combination of a framework comprising vertical guide-bars one of which is formed at intervals in its length with notches, clips secured to the

notched guide-bar at intervals in its length,
a rod to be passed through the clips and closing
the open ends of the notches, and a vertically-adjustable wire-twisting mechanism,
5 substantially as set forth for the purpose described.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in the presence of two witnesses.

ELVIN ALLENSWORTH.

Witnesses:

W. S. ALLPHIN,
O. E. McNAMAR.