(No Model.)

L. C. LOWDEN.

WIRE FENCE MACHINE.

No. 346,052. Patented July 20, 1886.

Fig. 1.

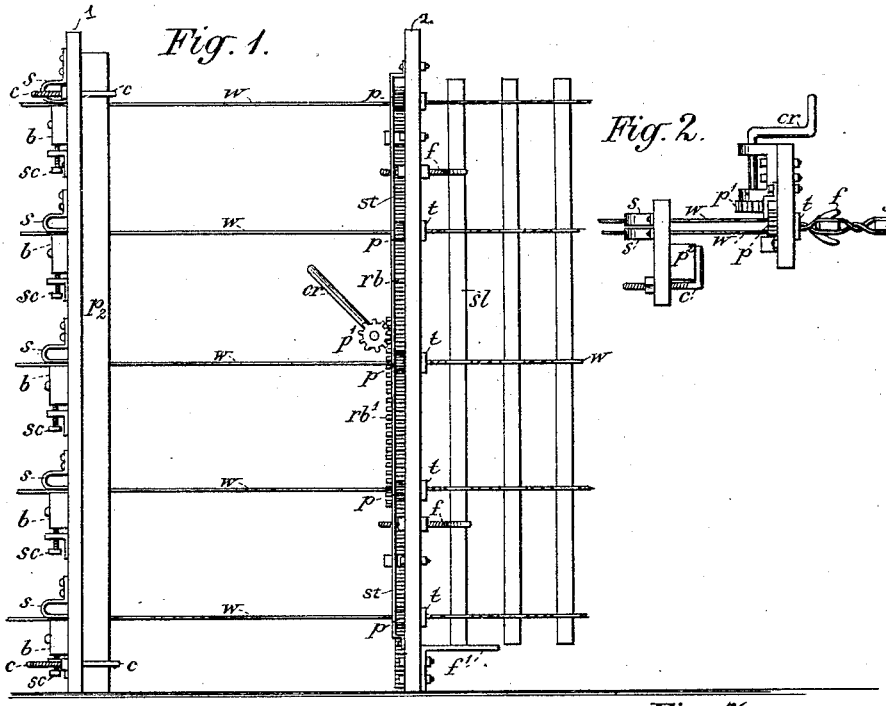

Fig. 2.

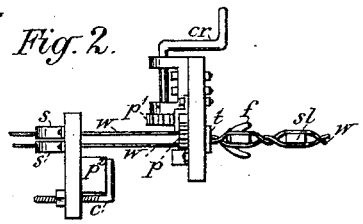

Fig. 3.

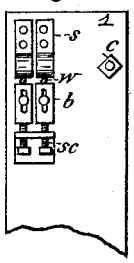

Fig. 4.

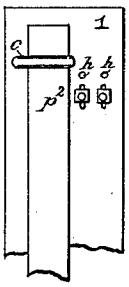

Fig. 5.

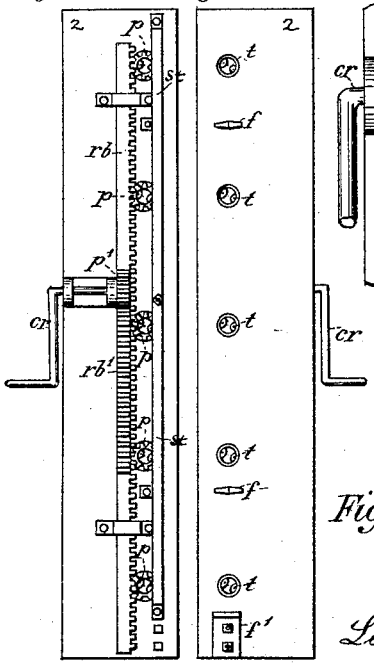

Fig. 6.

Fig. 7.

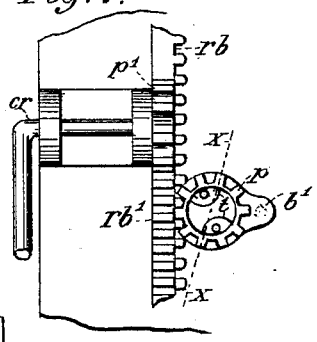

Fig. 8.

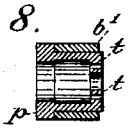

Fig. 9.

WITNESSES.

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UNITED STATES PATENT OFFICE.

LEONIDAS C. LOWDEN, OF LAWRENCE, INDIANA.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 346,052, dated July 20, 1886.

Application filed May 22, 1886. Serial No. 203,043. (No model.)

To all whom it may concern:

Be it known that I, LEONIDAS C. LOWDEN, a resident of Lawrence, Indiana, have made certain new and useful Improvements in Wire-Fence Machines, a description of which is set forth in the following specification, reference being made to the accompanying drawings, in the several figures of which like letters represent like parts.

My invention consists in the construction and arrangement of the several parts of a machine for twisting wires around wooden slats for fences, and in the tension device connected therewith, and will be understood from the following description.

In the drawings, Figure 1 is a side view of the complete machine as set up in the field for operation. Fig. 2 is a top end view of the same, the relative distance of the parts being diminished. Fig. 3 is a rear view of the tension device, showing the springs and guide. Fig. 4 is a front view of the tension-device frame, showing the clamp holding it to a post. Fig. 5 is a front side view of the twisting mechanism, showing the arrangement of the rack-bars and pinions. Fig. 6 is a rear view of the same. Fig. 7 is a detail view, on a larger scale, of a portion of the rack-bar, crank, and one of the pinions connected with the twisters. Fig. 8 is a section on the line *x x*, Fig. 7. Fig. 9 is a rear view of one of the twisters, showing the boxing.

In detail, 1 is an upright standard, on one side of which are springs *s*, whose lower portions curve outward and then inward toward the standard 1, and just below these springs are holes *h*, through which pass the wires *w* from the spools, as shown in Fig. 4. Below the wires are fixed slotted blocks *b*, through the slots of which bolts are screwed into the standard 1, and beneath these blocks, in a suitable frame-work, are mounted screws *sc*, for forcing the ends of these blocks up against the wires, and they are clamped between the blocks and the recurved ends of the springs. The standard 1 is intended to be secured to one of the fence-posts p^2 by means of the clamps *c*, which are simply bolts passing through the frame-work, the outer end being turned at right angles to pass around the posts, as shown in Fig. 2, and by means of nuts working on the outer end of the bolts of these clamps the standard may be drawn up closely and firmly to the fence-post. The wire *w* passes from the tension device through the twisters *t*, which are open on the outside, but on the inside have small ears having holes, through which the wires pass, as shown in Fig. 6. The inner ends of these twisters have bearings in boxings *b'*, as shown in Fig. 9, and pass through the standard 2, which forms the frame-work of the twisting mechanism. On the outer ends of these twisters are mounted pinions *p*, which are adapted to engage with the teeth of the rack-bar *rb*, which moves in suitable guides made of iron straps bolted to the frame-work, and this rack-bar in its central portion is double—that is to say, it has teeth upon one side to engage with the pinion *p'*, connected with the crank *cr*, which is mounted in suitable bearings bolted to the frame, as shown in Fig. 5. These twisters are kept in place in the frame by means of an iron strap, *st*, (shown in Fig. 5,) on one side, and also by the position of the rack-bars *rb*, which engage with the pinions of the twisters on the opposite side. By turning this crank the pinion on its inner end is revolved, and engages with the teeth on the side of the rack-bar which is marked *rb'*, causing the rack-bar *rb* to move up and down in a vertical plane, according to the direction in which the crank is revolved, and the edge teeth of the rack-bar engage with the pinions mounted on the twisters, revolving the latter, and twisting the wires around the slats beyond, as shown in Fig. 1. Each slat is supported in position for operation upon the step of the foot *f'*, which is bolted to the frame of the twisting mechanism, and near each end of the frame are secured adjustable guides or spacers *f*, whose outer ends are forked to receive the picket, as shown in Fig. 2, and whose inner ends are threaded to pass through the frame-work, and having a nut on the outside and a jam-nut on the inside of such frame-work, as shown in Fig. 1. By this means the spacer may be graduated to increase or lessen the distance between the slats and the standard of the twisting mechanism.

I am aware that machines for twisting wire around slats in which the twisters are revolved by means of rack-bars and levers are not new, and do not broadly claim the same as my invention; but

What I do claim, however, as my invention, and desire to secure by Letters Patent, is the following:

1. In a wire-fence machine, the tension device composed of the standard 1, the recurved springs *s*, bolted to the back side thereof, the adjustable slotted blocks *b*, secured below such springs, openings between the blocks and springs to admit the wires, and the clamp *c*, for securing the tension-frame to the post or other support, all combined substantially as described.

2. In a wire-fence machine, the twisting mechanism herein described, composed of the standard 2, the twisters *t*, one end of which has bearings in the boxings *b'*, the pinions *p*, mounted on the outer end of such twisters, the rack-bar *rb*, adapted to engage with the pinions *p*, and provided with the additional rack-bar, *rb'*, having teeth on its side, which engage with the pinion *p'*, mounted upon an axle connected with the crank *cr*, all combined substantially as described.

3. In a wire-fence machine, the twisting mechanism composed of the standard 2, having the twisters *t*, provided with eyes in the rear and pinions upon the front, revolving in suitable boxings mounted in the standard, the double rack-bar *rb rb'*, for transmitting power from a pinion connected with the crank to the pinions mounted on the twisters, the foot *f'*, for supporting the slats, and the adjustable forked spacers *f*, for bracing the slats while being operated upon, all combined substantially as described.

4. In a wire-fence machine, the tension device composed of the standard 1, having the springs *s* and the sliding blocks *b*, secured to the rear thereof, provided with clamps *c*, for holding the standard to a post or other support, the twisting mechanism composed of the standard 2, having twisters *t*, one end of which has bearings in the boxings *b'*, the pinions *p*, mounted on the outer end of such twisters, and revolving in suitable boxings connected with the standard, the double rack-bar *rb rb'*, for transmitting power from a pinion connected with the crank to pinions mounted on the twisters, the foot *f'*, for supporting the slats, and the adjustable forked spacers *f*, for bracing the slats while being operated upon, all combined substantially as described.

In witness whereof I hereunto set my hand this 8th day of May, 1886.

LEONIDAS C. LOWDEN.

Witnesses:
C. P. JACOBS,
HATTIE MURRY.