(No Model.)

D. S. FRACKELTON.

MACHINE FOR FASTENING PICKETS TO FENCE WIRES.

No. 431,043. Patented July 1, 1890.

Fig. 1

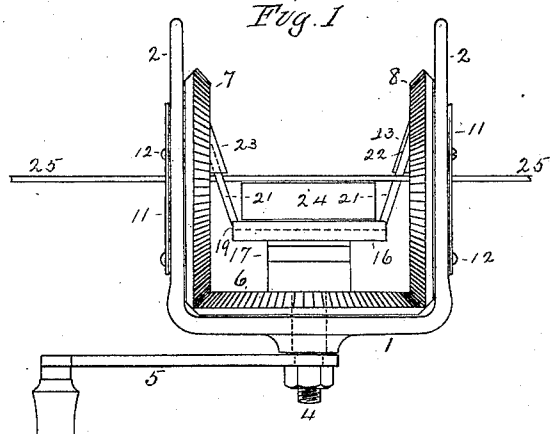


Fig. 4

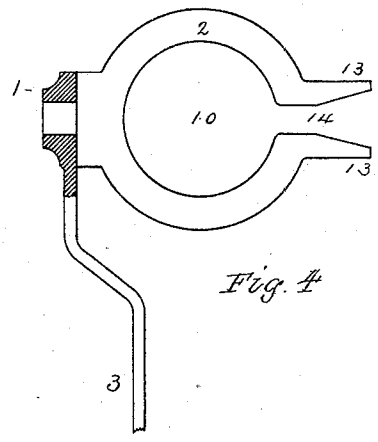


Fig. 2

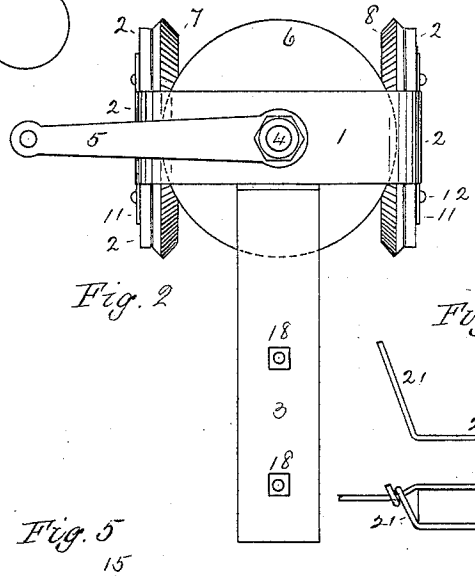


Fig. 3

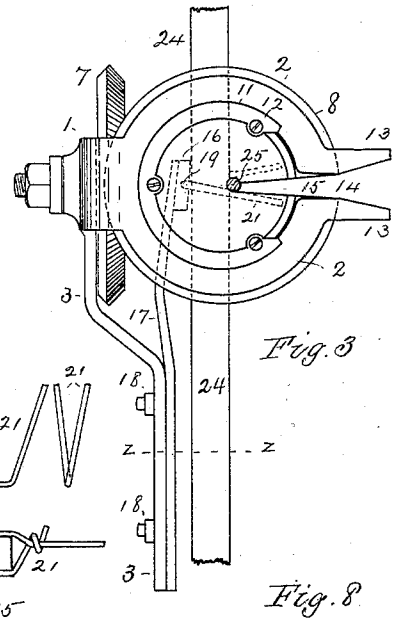


Fig. 9

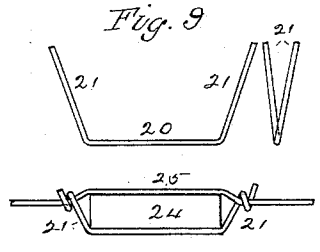


Fig. 5

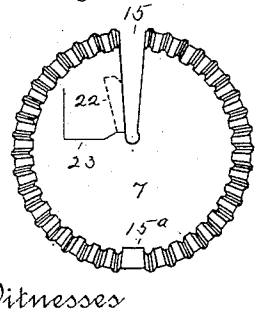


Fig. 6

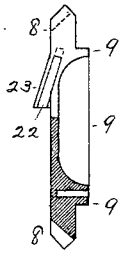


Fig. 7

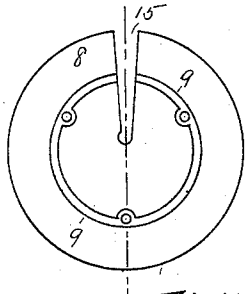
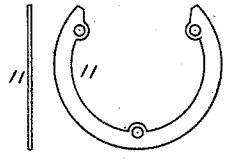


Fig. 8



Witnesses

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MACHINE FOR FASTENING PICKETS TO FENCE-WIRES.

SPECIFICATION forming part of Letters Patent No. 431,043, dated July 1, 1890.

Application filed February 10, 1890. Serial No. 339,848. (No model.)

To all whom it may concern:

Be it known that I, DAVID S. FRACKELTON, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Machines for Fastening Pickets to Fence-Wires, of which the following is a specification.

My invention relates to devices for fastening pickets to fence-wires by means of staples.

The object of the invention is the production of a convenient machine for constructing picket-and-wire fences, and also for replacing missing pickets in such fences by fastening them to the wires by bending suitable staples around the pickets and wires.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a top view of the machine in position to fasten a picket to a fence-wire, and shows also the fence-wire, the picket, and the staple. Fig. 2 is a side view, and Fig. 3 is a front view, of the same. Figs. 4 to 8, inclusive, show detached parts of the machine; and Fig. 9 is a top view of the picket and wire and staple, showing the latter in its original form, and also after it has been bent by the tool to fasten the picket to the fence-wire.

The frame of the machine, as illustrated in said drawings, consists of a body portion 1, having two parallel side pieces 2, extending at right angles therefrom, and a pendent bent portion 3. In the body portion 1 of the frame is a short spindle 4 in suitable bearings therein, having a crank 5 on its outer end for turning it. On the inner end of the spindle is carried a miter-wheel 6, in mesh with which are two similar wheels 7 and 8, that have bearings in the side pieces 2 of the frame. The gear-wheels 7 and 8 have short circular flanges 9, forming hollow trunnions on their backs, and these flanges extend into circular openings 10 in the side pieces 2, and are secured thereon to prevent displacement of the wheels by rings 11, attached by screws 12 to the wheels, and which overlap the exterior of the plates 2. The wheels 7 and 8 are thus permitted to rotate in the side pieces 2. It will be apparent that the turning of the crank 5 in either direction will rotate one of the wheels 7 and 8 in the same direction and the other in the opposite direction. The side pieces 2 have at their front margins projecting lips 13, between which is an opening 14, through which the fence-wire may enter the machine. In the gear-wheels 7 and 8 are slots 15 coincident with the plate-openings 14 and extending radially inward to points a little short of the axis of the wheels, so that the fence-wire will pass within the machine to the heads of the slots 15. Diametrically opposite the slots 15 are interdental spaces 15^a, corresponding in width with the mouth of the slots, and the gear-wheel 6 has at opposite points cogs to fit these openings, so that the wheels can be completely rotated, if desired.

The staple-holder consists of a head 16, carried by a spring-support 17, that is secured by bolts 18, or otherwise, to the pendent portion 3 of the machine. In the head 16 is a horizontal groove 19 for receiving the straight middle portion 20 of a staple. The staple is placed in the machine, to be held therein ready for use, by placing its middle portion in the groove of the carrier-head 16, and the lateral arms 21 of the staple are inserted in sockets 22, provided in lugs 23 on the inside of the wheels 7 and 8, and are held in such position by the pressure of the spring-support 17 against the body of the staple. These sockets are at opposite sides of the lugs 23, as shown in Fig. 1, so that upon turning the crank the ends of the staples will be carried in opposite directions by rotation of the wheels 7 and 8. When in place, the staple is in slightly-inclined position, so that one arm will be above and the other below the fence-wire, as indicated by dotted lines in Fig. 3.

In operation, a staple being in place in the machine, when it is desired to attach a picket to a wire, the picket 24 is placed in the machine, resting against the staple-carrier head 16, and the machine is held by grasping it and the picket on the line *z z*, and it is then presented to the fence-wire 25 and thrust forward until the wire is at the head of the slots 15. The crank is then turned, causing the wheels 7 and 8 to carry the fence-wire inward past the edges of the picket and toward its middle, and when in that position the wire is caught by the staple ends, which are being carried around in opposite courses, and is so

held by the twists of the staple ends around it. Thus when the operation is completed the fence-wire is bent around the picket sufficiently to prevent movement of the latter lengthwise of the wire, and the staple prevents movement in other directions. Force enough can be exerted on the machine to press the wires into the material of the picket, and thus insure entire rigidity of the parts upon completion of the operation.

Having described my invention, what I claim is—

1. In a wire-and-picket-fence machine, a frame, parallel separated gear-wheels and means for rotating them, slots and sockets provided in such wheels for receiving the fence-wire and staple ends, respectively, a spring-operated staple-carrier for holding the staples in position and providing space for the introduction of a picket between the staple and fence-wire, the devices being adapted in operation to bend the wire partially around the picket and to wind the staple ends on the wire when so bent, substantially as set forth.

2. In a machine for attaching pickets to fence-wires, a driving miter-wheel, parallel driven miter-wheels having hollow trunnions and having slots shorter than the radii of the wheels to receive the fence-wire, a spring staple-support, and means provided on the driven wheels for engaging the staple ends to carry them around and wind them on the wire, substantially as set forth.

3. In a hand-machine for attaching pickets to fence-wires, a frame providing bearings for the rotary devices and a handle for holding it and a picket in place, a spring staple-holder secured thereon, rotary devices for engaging the fence-wire and winding the staple ends thereon, and a crank for operating the same, substantially as set forth.

4. In a machine for fastening pickets to fence-wires, a frame, a staple-holder, parallel wheels having slots for receiving the wire, means provided on their adjacent faces for engaging the ends of a staple, and means for revolving the wheels to wind the staple ends around the wire, substantially as set forth.

5. In a machine for fastening pickets to fence-wires, a frame having a back and parallel side pieces at right angles thereto having corresponding circular openings, revolving wheels having bearings in such openings and having radial slots terminating short of the wheel-centers to receive the fence-wire, and projections provided on the inner faces of the wheels for engaging the staple ends to wind them on the wire, substantially as set forth.

6. In a machine for attaching pickets to fence-wires, a spring staple-supporter, rotary devices having means provided on their adjacent faces for engaging the staple ends to carry them in circular courses, and means for holding the fence-wire and picket in position, whereby the staple ends are wound on the wire and the picket is clamped between the wire and staple, substantially as set forth.

7. In a machine for attaching pickets to fence-wires, a spring staple-holder, rotary devices having projections on their faces adapted to engage the staple ends and carry them in circular courses, and having, also, slots shorter than their radii for engaging the fence-wire and bending it partially around a picket, whereby the picket may be clamped between the bent portion of wire and the staple and the staple ends wound on the wire to secure the picket, substantially as set forth.

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Witnesses:
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