

(No Model.)

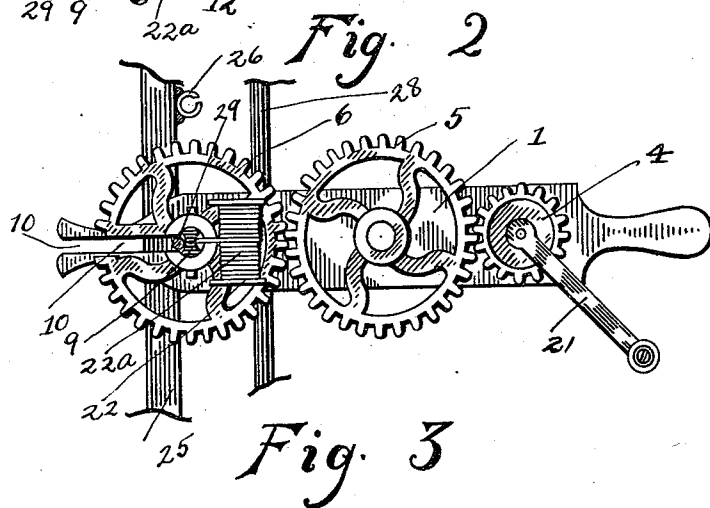
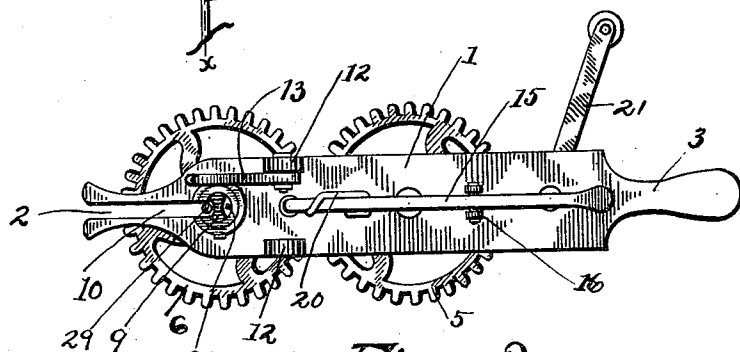
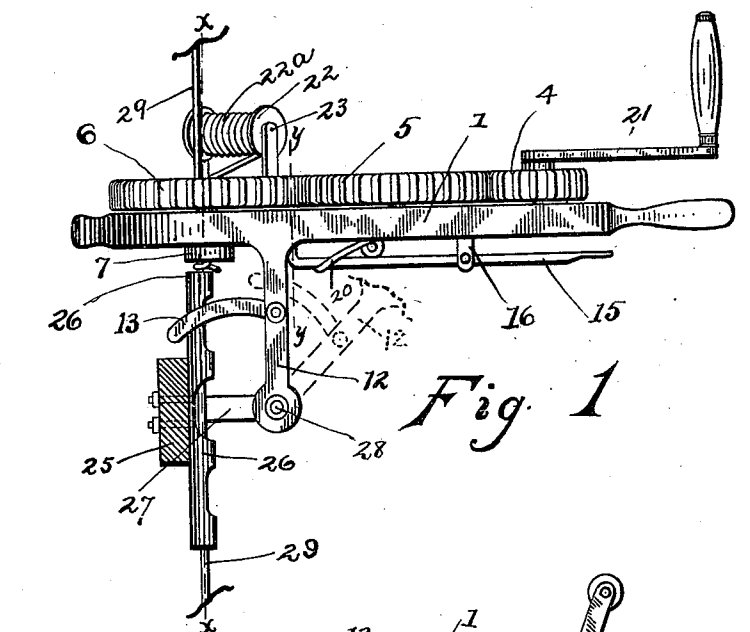
2 Sheets—Sheet 1.

H. CARTER.

MACHINE FOR WEAVING CROSS WIRES IN WIRE FENCES.

No. 561,965.

Patented June 16, 1896.



Witnesses
Laurence L. Barnard
A. L. Phelps

Inventor
Herman Carter
By his Attorney
C. C. Shepherd

(No Model.)

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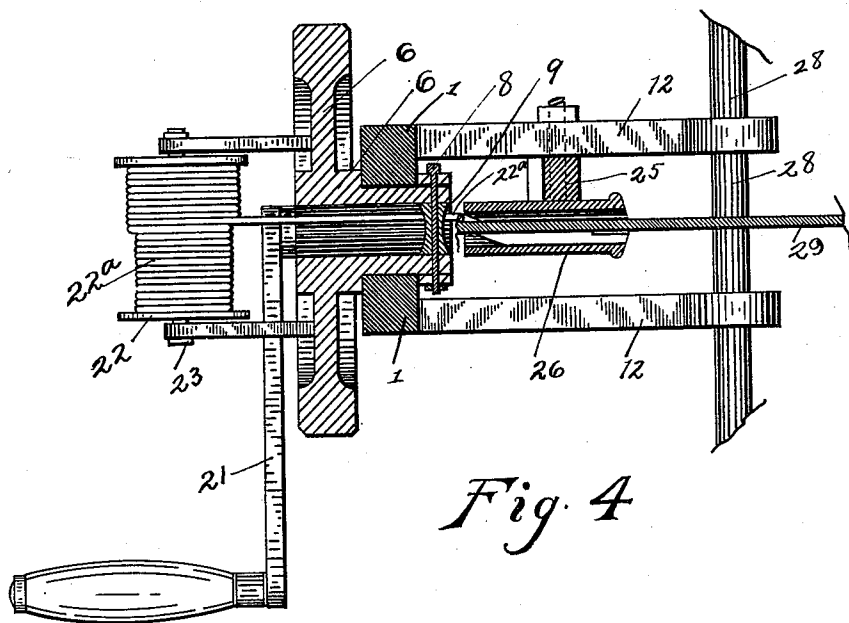


Fig. 4

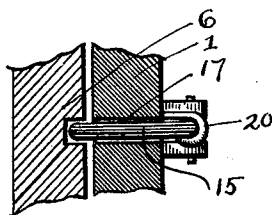
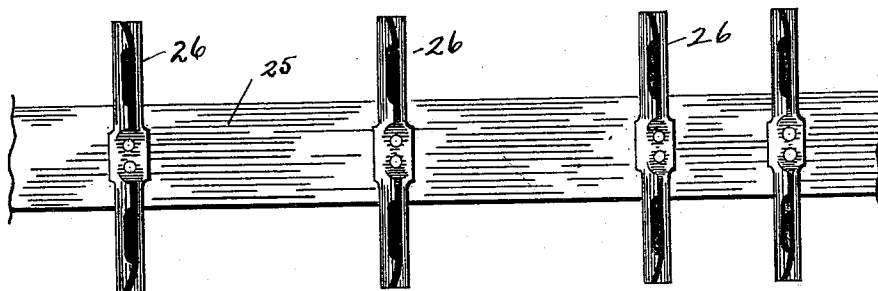


Fig. 6

Fig. 5

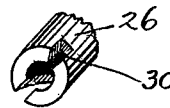


Fig. 7

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UNITED STATES PATENT OFFICE.

HERMAN CARTER, OF MOUNT STERLING, OHIO.

MACHINE FOR WEAVING CROSS-WIRES IN WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 561,965, dated June 16, 1896.

Application filed March 9, 1896. Serial No. 582,470. (No model.)

To all whom it may concern:

Be it known that I, HERMAN CARTER, a citizen of the United States, residing at Mount Sterling, in the county of Madison and State of Ohio, have invented a certain new and useful Improvement in Machines for Weaving Cross-Wires in Wire Fences, of which the following is a specification.

My invention relates to the improvement of machines for weaving cross-wires in wire fences; and the objects of my invention are to provide a simple, reliable, and inexpensive device of this class by means of which the uniting of the cross-wires with the longitudinal wire may be accomplished in a neat, rapid, and effective manner, and to produce improvements in the details of construction and arrangement of parts, which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the machine, showing a cross-section of the standard and showing the machine in position for forming a connection of the vertical and horizontal wire. Fig. 2 is an inner side view of my machine. Fig. 3 is an outer side view of the same. Fig. 4 is an enlarged sectional view on line *x x* of Fig. 1. Fig. 5 is a detail view in elevation of a portion of the longitudinal wire-supporting standard. Fig. 6 is an enlarged sectional view on line *y y* of Fig. 1, and Fig. 7 is a detail view in perspective of one end of one of the standard-arms.

Similar numerals refer to similar parts throughout the several views.

1 represents the main frame of my improved weaving-machine, which, as indicated in the drawings, is in the form of an oblong bar, said bar having its outer end bifurcated, as indicated at 2, and having its inner end terminating in a suitable handle, as indicated at 3. On the outer side of the frame-bar 1 and near the handle termination thereof is journaled a pinion-wheel 4, the teeth of the latter meshing with the teeth of a gear-wheel 5, which is also journaled on said bar in front of said pinion.

In front of the pinion 5 and gearing therewith is journaled a gear-wheel 6, the latter being provided with a central tubular shaft or hub portion 7, which is journaled in the

bar 1, said tubular shaft or hub extending through said bar, as shown more clearly in Fig. 4 of the drawings. Through the outer end of this inwardly-extending hub passes a pin 8, and on the central portion of said pin within said hub is loosely mounted a roller 9. As indicated at 10, the gear-wheel 6 is provided with a recess which extends through the periphery of said wheel and to the center thereof, a continuation of said recess being formed throughout the length of the hub or shaft 7.

The frame-bar 1 is provided on its inner side with upper and lower outwardly-projecting arms or brackets 12. To the under side of the upper arm 12 is affixed one end of a forwardly-extending and inwardly-curved supporting-finger 13. 15 represents a stop-rod or catch, which is fulcrumed at 16 on the inner side of the frame-bar 1 in the rear portion thereof, and which has its forward out-turned end portion passing through an opening 17 in the frame-bar 1 at a point opposite the gear-wheel 6. At a point diametrically opposite the recess or slotted opening 10 of said wheel 6 the latter is provided in its rim portion with a socket 19, with which said out-turned end of the latch-rod 17 is adapted to engage when said socket is opposite the opening 17 of the frame. In order to insure the dropping of the latch into said socket, I provide a spring 20, one end of which is connected with said rod and the remaining end of which is connected with the frame-bar, the tendency of said spring being to force the forward end of the latch-rod into said wheel-socket.

As indicated at 21, the pinion 4 is provided with a crank-handle which is mounted on the shaft of said pinion, and by means of which the latter is rotated.

22 represents a wire-holding reel, which is journaled between bracket-arms 23, which project in the usual manner from the gear-wheel 6, this reel being adapted to hold the cross-wire supply.

The device above described is adapted to be used in conjunction, in the manner hereinafter set forth, with a vertical standard 25, said standard being substantially as that shown at *a* in my former patent, No. 498,459, dated May 30, 1893. As set forth in said

former patent, this standard 25 is provided at desirable intervals on its face with transverse semitubular arms 26, said arms, as shown in my present invention, differing somewhat in form from those shown in said former patent, although adapted for substantially the same purpose. From the upper and lower portion of the standard are extended bracket-arms 27, in the outer ends of which are journaled the ends of a vertical shaft 28, the latter being thus supported from and in a position parallel to said standard. On this vertical shaft 28 are journaled the outer ends of the frame-arms 12, the latter being adapted to slide on said shaft.

As set forth in my said former patent, the standard-arms 26 act as guides for the longitudinal fence-wires which are indicated at 29. One or more of the upper arms 26 are provided on their forward ends with transverse recesses or notches 30, the latter being shown more clearly in Fig. 7 of the drawings.

In utilizing my device the weaver and its framework 1 is adapted to be the desired height with relation to the standard 25 by so swinging said weaver on its shaft 28 as to cause its curved finger 13 to rest upon the desired one of the arms 26, as indicated more clearly in Figs. 1 and 4 of the drawings. In this manner the weaver is supported in the position shown in Fig. 1—that is, in position for forming the connection of the horizontal and vertical wires, with its frame-bar 1 in position at right angles with the direction of the arms 26, and with the hollow shaft or hub 7 in line with the arm on which said finger bears.

Assuming that the finger 13 is resting upon that arm 26 which is provided with the notch 30, and that the longitudinal or lateral wire 29, which passes through said arm 26, has been made to enter and pass through the hollow hub or shaft 7 through the medium of the bifurcation 2 and recess 10 of the frame and outer gear-wheel, the end of the wire 22^a, which is carried on the reel 22, is made to pass through the hollow head or shaft 7, after which it is caught in the notch 30 of said arm 26. The parts being in this position, it is evident that a rotary movement of the crank-handle 21 will impart through the gearing of the wheels 4, 5, and 6 a rotary movement of the latter. As indicated in the drawings, the wires 29 and 22^a are made to pass on opposite sides of the roller 9, with the result that when said wheel 6 is rotated one of said wires coils about the other at a point between the hub 7 and arm 26. By pressing the handle end of the latch-rod 15 toward the frame-bar it is evident that the desired number of rotations may be imparted to the wheel 6. In order to insure a stoppage of the wheel 6 in such position as to cause the bifurcation 10 and recess 2 to register with each other, the latch-rod may be released and its outturned end allowed to drop into the socket 19 of the wheel-rim.

The parts being in the last-named position

and the desired connection having been made in the manner described between the two wires, the weaver, supported by the hand, is turned inward in the direction indicated by the dotted lines in Fig. 1 of the drawings. Having been thus turned inward, the weaver is allowed to slide down the rod 28, when it is again turned outward to its former operative position, the finger 13 being allowed to rest on the next succeeding arm 26. In this swinging movement of the weaver it is obvious that a sufficient portion of the wire 22^a is unwound from the reel 22 to not only relieve said wire 22^a from tension, but to supply a sufficient quantity thereof for use in connection with the next succeeding longitudinal wire with which the vertical wire is connected in the manner above described.

In the manner above described it is evident that the vertical wires may be successively connected with the longitudinal or lateral wires of a fence.

The employment of the spring-actuated latch-rod 15, adapted to engage, as described, with a socket in the wheel 6, which is diametrically opposite the wheel-recess 10, provides means for automatically stopping said wheel in a position for the withdrawal of the lateral wire therefrom.

It will be observed that the construction and operation of my improved weaving-machine is simple and positive and that the same may be utilized in a rapid and effective manner.

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

1. In a mechanism for uniting the vertical and horizontal wires of a fence the combination of a weaver-body, a wheel 6 journaled thereon, a cylindrical shaft in said wheel, a slotted opening and cross-pin in said shaft as described, a recess in said wheel, a corresponding recess in the end of said weaver-body and a wire-carrying reel journaled from said wheel, said weaver-body being rotatively and movably supported adjacent to the line of horizontal fence-wires and means for rotating said wheel, substantially as specified.

2. In a mechanism for uniting the vertical and horizontal wires of a fence, the combination with a weaver-body, a recessed wheel 6 journaled thereon, a cylindrical shaft in said wheel having a slotted opening communicating with said wheel-recess, a cross-pin in said shaft, a recess in the end of the weaver-frame with which the wheel-recess is adapted to register, of a standard 25, a vertical shaft supported from and adjacent to said standard, horizontal wire-receiving arms 26 at intervals on said standard, a rotating and sliding connection between said weaver-body and said vertical shaft and a curved finger projecting from an arm of said weaver-body and adapted to bear on the desired one of said arms 26 and means for rotating said wheel 6, substantially as and for the purpose specified.

3. In a mechanism for uniting the vertical and horizontal wires of a fence, the combination with a standard 25, a series of wire-receiving arms horizontally secured thereto, and a vertical shaft 28 supported in front of and adjacent to said standard, of a weaver-body, arms 12 projecting therefrom and mounted as described on said shaft 28, a finger 13 extending from one of said arms 12 and adapted to bear upon one of said arms 26, a rotating tubular shaft mounted in said weaver-body, a cross-pin in said shaft and a wire-carrying reel rotating with said shaft, substantially as specified.
4. In a mechanism for uniting the horizontal and vertical wires of a fence the combination with the body 1, a wheel 6 journaled thereon, a tubular shaft in said wheel, a slotted opening in said shaft, a recess in said wheel as described and a corresponding recess in said body 1, a socket in the rim of said wheel diametrically opposite and in line with said wheel-recess, a wire-carrying reel upon said wheel, a spring-actuated catch-rod fulcrumed to said body 1 and adapted to engage with said wheel-socket and means substantially as described for supporting said reel-body in a rotatable and sliding position adjacent to a line of horizontal fence-wires, substantially as and for the purpose specified.

HERMAN CARTER.

In presence of—

C. C. SHEPHERD,
J. WESTLEY FISHER.