(No Model.) 2 Sheets—Sheet 1.

H. CARTER.

MACHINE FOR WEAVING CROSS WIRES IN WIRE FENCES.

No. 498,459. Patented May 30, 1893.

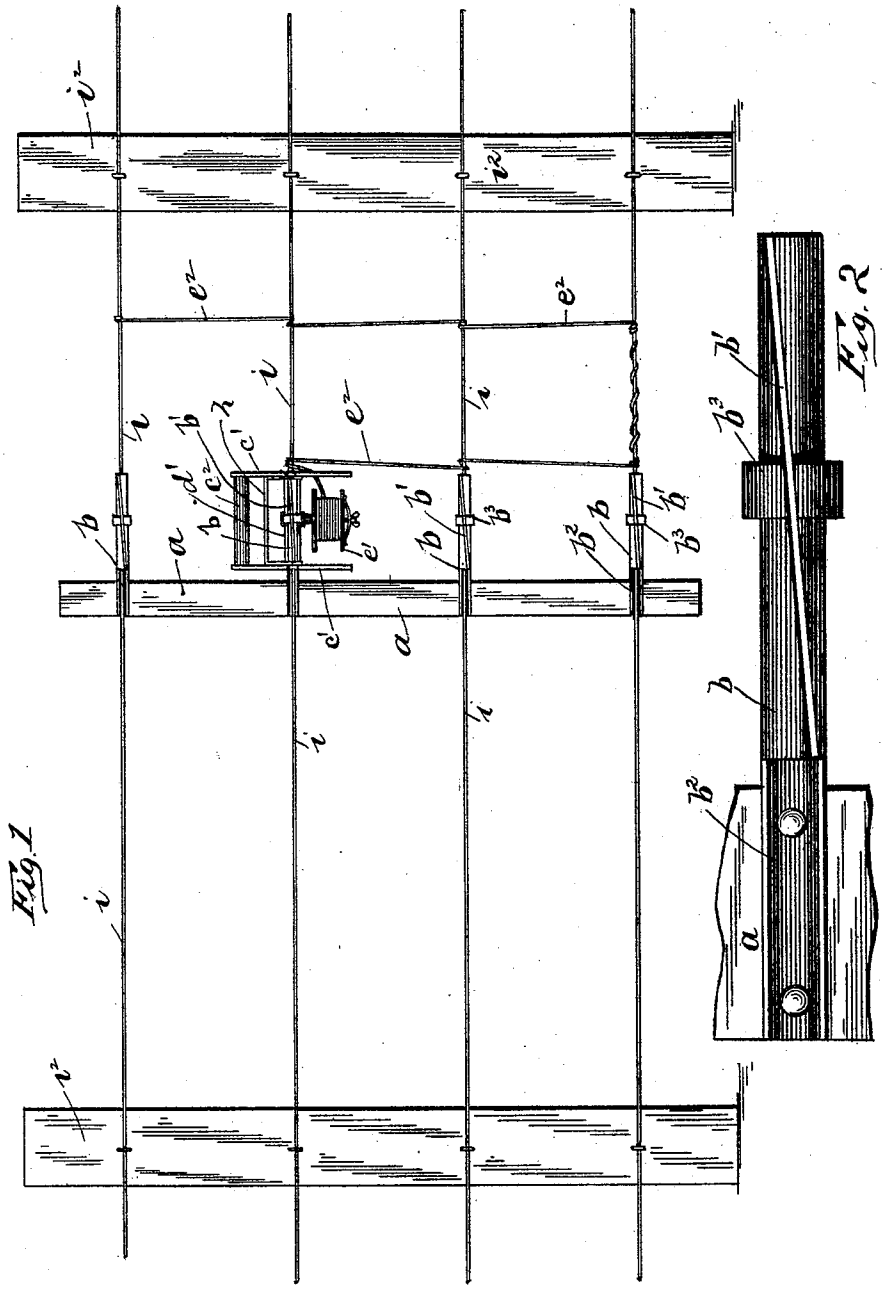

Fig. 1

Fig. 2

WITNESSES:

H. B. Bradshaw

A. L. Phelps

INVENTOR

Herman Carter

BY Staley & Shepherd

ATTORNEYS

(No Model.) 2 Sheets—Sheet 2.

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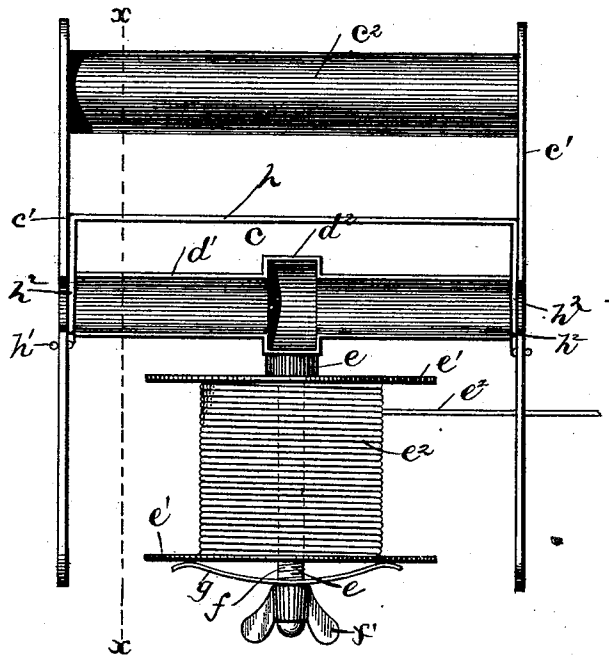

Fig. 3

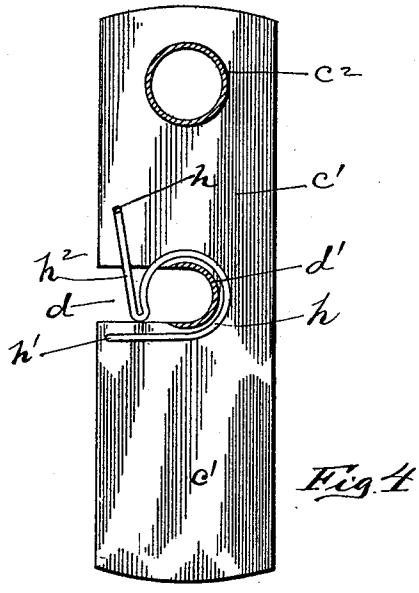

Fig. 4

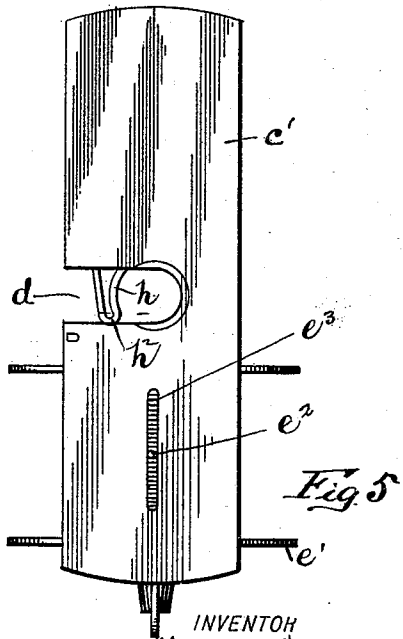

Fig. 5

WITNESSES:

H. B. Bradshaw

A. L. Phelps

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UNITED STATES PATENT OFFICE.

HERMAN CARTER, OF DERBY, OHIO.

MACHINE FOR WEAVING CROSS-WIRES IN WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 498,459, dated May 30, 1893.

Application filed January 5, 1893. Serial No. 457,344. (No model.)

To all whom it may concern:

Be it known that I, HERMAN CARTER, a citizen of the United States, residing at Derby, in the county of Pickaway and State of Ohio, have invented a certain new and useful Improvement in Wire-Fence Machines, of which the following is a specification.

My invention relates to the improvement in that class of wire fence making devices which are adapted for use in weaving or securing in place the cross wires of a fence.

The objects of my invention are to provide a simple, neat and reliable device of this class, by means of which the weaving of the cross wires in a fence may be readily and easily accomplished; to so construct said device as to facilitate its removal from one horizontal wire to another with loss of but little time and to produce the same in an inexpensive and reliable form and to produce other improvements which will be more specifically pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in elevation of one panel of a wire fence, showing my improved machine thereon in position for operation. Fig. 2 is a detail view in elevation of one of the frame supporting arms. Fig. 3 is a side elevation of one of the bobbin frames. Fig. 4 is a sectional view on line x—x of Fig. 3; and Fig. 5 is a view of said bobbin frame taken at right angles with that shown in Fig. 3.

Similar letters refer to similar parts throughout the several views.

In carrying out my invention I employ, as hereinafter described, a sliding vertical standard a to the forward face of which are secured laterally projecting arms b, the distance between said arms corresponding with the distance between the horizontal wires of the fence with which they are adapted to be used as hereinafter described. Each of these arms has its outwardly projecting portion of the tubular form shown, said tubular portion having formed throughout its length, on one side thereof, a diagonal slotted opening b'. The shank or inner end portion of each of the arms b which is indicated at b^2 forms the remaining unslotted portion of the arm and may be flattened or semi-tubular and is secured as shown, to the standard a.

In the construction of the tubular portion of each of the arms b, I provide at a suitable point therein an enlargement or internal offset, indicated at b^3.

c represents a bobbin or spool carrying frame, which as shown in the drawings consists of two suitably shaped parallel side frame pieces c' which are connected at corresponding ends by a cross piece or handle portion c^2.

As shown at d, I form in each of the side frame pieces c' and in the forward edge thereof, near the centers of their lengths recesses or incisions, the inner ends of which are rounded as shown. The inner rounded ends of these recesses d are connected by a transverse semi-tubular arm or seat piece d'. This seat piece d', I provide with an enlargement d^2 which corresponds with the enlargement b^3 of the arm b and is of such size as to receive and form a seat for the latter. With the seat piece d' is rigidly connected a spool shaft or spindle e upon which is mounted loosely a wire spool e', the latter adapted to have wound or coiled thereon a supply of wire indicated at e^2. From this spool the wire e^2 leads outward through the slotted opening e^3 in one of the side frame pieces c' of the bobbin. As shown at f I thread the outer end portion of the spindle e and provide the latter with a thumb nut f'. Between this thumb nut and the outer end of the spool e', I provide an outwardly bowed spring strip g, which through contact with said nut f' is adapted to exert a spring pressure upon the spool end.

h represents a spring latch wire which extends transversely between the side pieces c' of the bobbin, parallel with the seat piece d'. The end portions of the wire h are as shown in the drawings at h^2, bent to cross the recesses d of said side pieces over the mouth of the seat piece d' and having thus crossed said recesses, said wire end portions are doubled back, passed about said seat piece and secured at their extremities to the side pieces c', as indicated at h'.

In order to illustrate the operation and use of my improved weaving device, I have shown in Fig. 1 of the drawings, a panel of wire fencing, of which i, i represent the horizontal parallel wires thereof and i^2 the usual fence posts.

In utilizing my device for the purpose of

joining said horizontal wires with the cross wires, I produce a connection of the fence wires *i* and standard *a* at the desired point by forcing said wires *i* through the diagonal slot *b'* of the tubular portions of the arms *b*, thus causing said wires to run through said tubular arm portions. This having been accomplished, I press the portions h^2 of the wire latches *h* of the bobbin frame, back until the recesses *d* are unobstructed thereby and insert through said recesses and into said seat piece *d'* the desired one of the arms *b*. As will readily be seen, the entrance of the enlargement b^3 of the tubular portion of said arm within the enlargement d^2 of the seat piece *d'* must result in preventing any tendency of said seat piece or bobbin frame from slipping horizontally on said arm.

The spool or bobbin frame having been mounted as above described upon one of the arms *b*, the outer end of the wire e^2 is passed through the slotted opening e^3 of the frame piece *c'* after which said wire end is affixed to that fence wire *i* upon which said bobbin is mounted. The wire e^2 may now be given one or more turns about the wire *i* by rotating the bobbin frame upon the arm *b*, the desired number of times. This having been accomplished the bobbin frame may be removed from said arm by drawing the same laterally from the latter. The frame may then be carried downward or upward as desired, to the next succeeding fence wire *i* and mounted upon the arm *b* thereof, in the manner before described. In this movement of the frame it is evident that the spool *e'* will be rotated by the withdrawal of the wire e^2 therefrom and that said wire e^2 will thus be in position to be wound about the wire *i*, to which it is carried. In rotating the bobbin frame about or upon the arm *b*, it will be seen that the tubular portion of said arm will serve as a spindle bearing for the seat portion *d'* of said bobbin frame.

Owing to the use of the spring strip *g*, it will be seen that the spool *e'* will be permitted such longitudinal movement upon its spindle as it may require, while said spring will serve to normally press said spool inward. From the construction and method of operation described, it will be seen that the process of introducing and securing the cross wires in a fence may be made exceedingly simple and that the same may be accomplished with ease and rapidity. It is evident that the standard *a* may readily be removed from connection with the horizontal fence wires by bending said wires sufficiently to admit of their passage through the diagonal slots of the arms *b*.

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

1. In a wire fence machine the combination with the standard *a* and its arms *b* having tubular projecting portions, of a supply wire carrying bobbin frame adapted to be detachably supported on and rotate about one of said arms *b*, substantially as specified.

2. In a wire fence machine, the combination with the standard *a*, its arms *b* having tubular projecting portions and inclined slots in said tubular portions, of a supply wire carrying bobbin frame adapted to be detachably supported on one of said arms *b*, substantially as and for the purpose specified.

3. In a mechanism for weaving cross wires in a fence, a movable bobbin frame consisting of the recessed side pieces *c'*, a transverse piece connecting said side pieces at the inner ends of said recesses, spring latches *h* normally closing, as described, said recesses, a spool *e'* journaled within said frame, and an outlet e^3 in one of the pieces *c'*, substantially as and for the purpose specified.

4. In a wire fence machine of the class specified, the combination with a standard *a* and arms *b* projecting therefrom, of a bobbin frame having recessed side pieces *c'* as described, a concave seat piece connecting said side pieces, said frame recesses and seat piece adapted to receive one of said arms *b* and a wire spool journaled within said bobbin frame, substantially as and for the purpose specified.

HERMAN CARTER.

In presence of—
BELLE CARTER,
MAGGIE CARPENTER.