(No Model.)

J. J. DARDEN.

WIRE FENCE MACHINE.

No. 460,565. Patented Oct. 6, 1891.

Fig. 1.

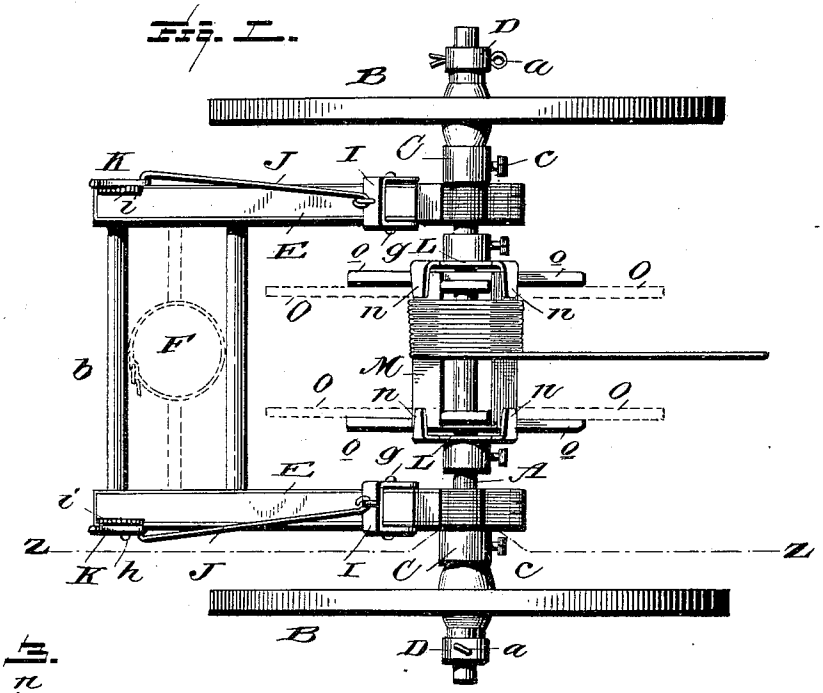


Fig. 3.

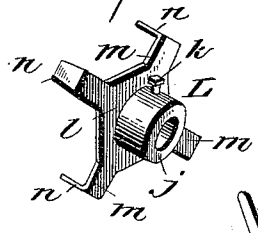
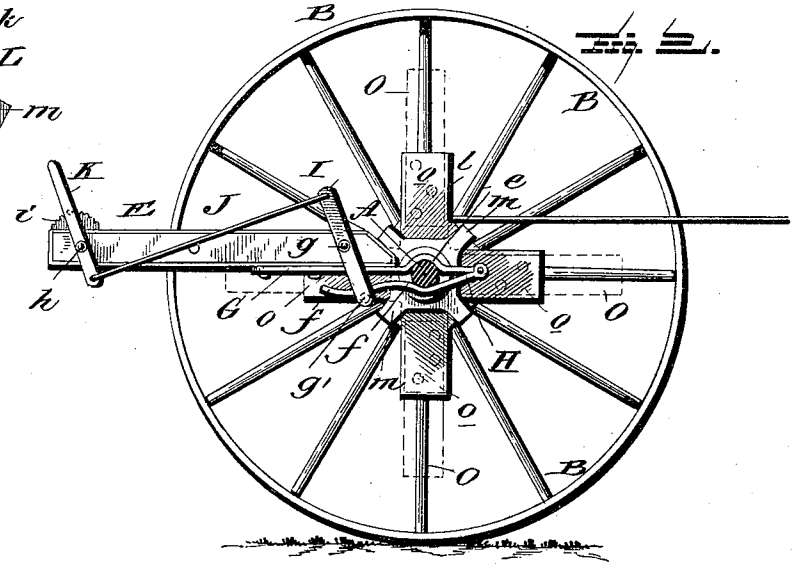


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN J. DARDEN, OF GIDDINGS, TEXAS.

WIRE-FENCE MACHINE.

SPECIFICATION forming part of Letters Patent No. 460,565, dated October 6, 1891.

Application filed May 20, 1891. Serial No. 393,426. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. DARDEN, a citizen of the United States, residing at Giddings, in the county of Lee and State of Texas, have invented certain new and useful Improvements in Wire-Fence Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention relates to certain new and useful improvements in wire-fence machines; and it has for its objects among others to provide an improved machine for this purpose which shall be simple, cheap, and durable, and in which provision is made for the ready removal of the reel or spool and the placing of another upon the axle when desired. I provide for the regulation of the tension on the axle, so that the unwinding of the wire from the reel or spool may be adjusted. I provide for the rewinding of the wire from a fence onto the spool or reel.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a top plan view of my improved machine. Fig. 2 is a longitudinal vertical section on the line *z z* of Fig. 1. Fig. 3 is a perspective view of one of the reel or spool clamps removed.

Like letters of reference indicate like parts throughout the several views where they occur.

Referring now to the details of the drawings by letter, A designates the axle, which may be of any approved form, and B are the wheels, also of any well known or preferred construction.

C are collars, sleeved on the axle and provided each with a set-screw *c*, said collars being designed to be slipped upon the axle and secured there by the set-screws inside of the hub of the wheel, which latter bears thereagainst, as seen in Fig. 1. D are similar collars sleeved upon the axle outside of the wheels, and these collars are provided each with a hole, through which and through coincident holes in the axle pass the spring-metal keys *a*, as shown in Fig. 1. The wheels are confined between the collars C and D, as seen in Fig. 1.

E are the shafts, connected at their forward ends by the cross-bar *b*, and at a proper distance to the rear there is another cross-bar *d*, the distance between the two cross-bars being sufficient to provide room for the person of the operator, suitable harness or attaching belt F being provided for the purpose of securing the same to the body of the operator. Such contrivance is shown in Fig. 1 by dotted lines. To the under sides of the shafts at the rear ends thereof are attached the metal bars G, which extend rearward and are provided with curved portions *e* to fit the axle, as seen best in Fig. 2, and to the rear ends of these bars or plates are hinged in any suitable manner the plates H, which extend forward beneath the axle, as seen in Fig. 2, and are curved or formed with cam-surface *f*, as shown best in Fig. 2, being curved between the ends to receive the axle. Pivoted, as at *g*, to the shafts are the yokes or bifurcated arms I, which at their lower ends are connected by the cross bars or rollers *g'*, which are designed to ride upon the under face of the plates H, and their upper portions are each pivotally connected with one end of a link J, the other end of which is connected with the hand-lever K, which is pivoted at *h* to the forward end of the shafts, and is provided with suitable means to engage a notched segment *i* on the shafts for the purpose of holding the parts in their adjusted positions.

L are clamps, formed with hub portions *j*, sleeved upon the axle and designed to be secured thereto by the set-screws *k*, as shown in Figs. 1 and 3. Each of these clamps has a body portion *l*, from which extend the radial arms *m*, the ends of which are turned inward to form the clamping-jaws *n*, as seen in Figs. 1 and 3.

M is the spool or reel. It is formed with heads to be slipped on the axle and the radial arms *o*, which serve to retain the wire thereon.

In practice the operation is as follows: The

end of the wire N is attached in the desired place and the operator places himself in the harness, facing from the machine or forward, and then advances, drawing the machine with him, with the hands clasping the hand-levers K and shafts. The wire unwinds from the spool as the machine advances, and if allowed to run off too freely it would kink and interfere with the satisfactory operation of the machine; but by clasping the hand-levers the plates H will be pressed against the axle and act as a brake and regulate the unwinding of the wire from the reel or spool. If the wire becomes slack, greater pressure of the plates upon the axle will stop its revolving and the wire from running out, when the wire may be tightened up. To remove the spool or to place it upon the axle all that is necessary to do is to remove the shafts by pressing the upper ends of the yokes I rearward till the rollers at the lower ends disengage the plates H, when the shafts may be readily removed. Then withdraw the key *a* at one end of the axle, remove the collar D, then the wheel, then the collar C, and next the clamp L, when the spool may be slipped on or off, as the case may be.

When it is desired to tear a fence down and respool the wire, an empty spool is placed upon the axle, and as wire loosely wound, as it will be when thus wound, will require more room on the spool than at first, I attach in any suitable manner the bars O to the radial arms *o* of the spool to increase the capacity of the spool. These bars serve two functions: first, to increase the holding capacity of the reel or spool, and, second, as hand-levers by which the spool may be turned. One end of the wire being attached to the reel or spool the operator fixes himself in the harness and facing the spool pushes the machine in that direction, and as the machine moves along the wire will be wound upon the reel or spool, as will be readily understood.

The device is simple, cheap, efficient, and durable, and the adjustment of the clamps provides for the accommodation of reels or spools of different lengths.

What I claim as new is—

1. The combination, with the axle and spool, of the shafts, the plates secured thereto and having curved portions to receive the axle, the plates hinged to said plates and having cam-surfaces, and the yokes pivoted to the shafts and having cross portions working over said cam-surfaces, as set forth.

2. The combination, with the axle, of the removable shafts, the plates secured thereto and having at their rear ends hinged plates with cam-surfaces, the pivoted yokes having cross portions acting on the cam-surfaces, the pivoted hand-lever, and the link connecting the lever and yoke, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN J. DARDEN.

Witnesses:
J. H. BOWERS,
J. E. GREEN.