

(No Model.)

2 Sheets—Sheet 1.

J. B. CROWDER.
APPARATUS FOR HANDLING FENCE WIRE.

No. 555,849.

Patented Mar. 3, 1896.

Fig. 1.

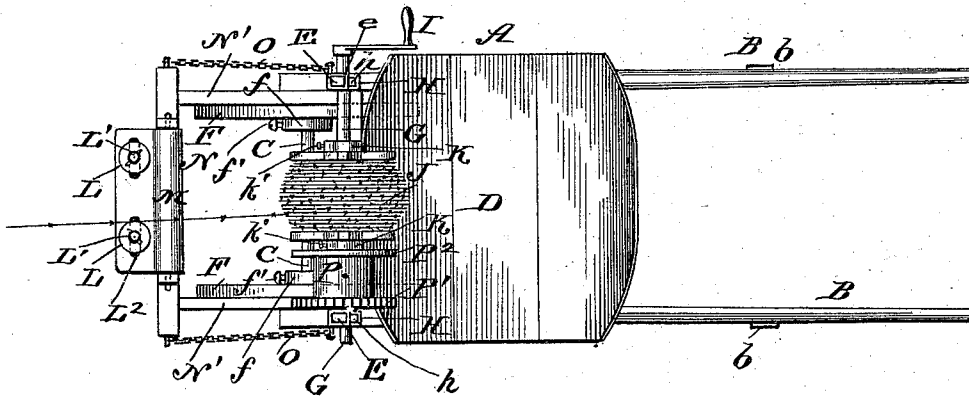


Fig. 2.

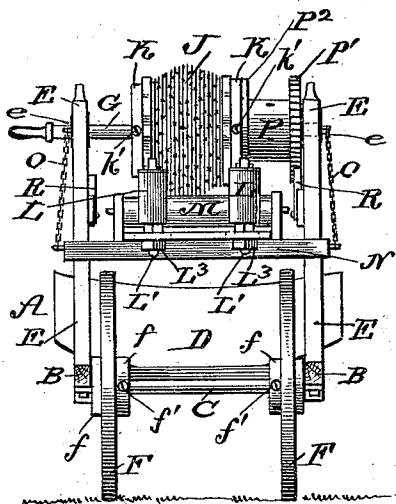


Fig. 3.

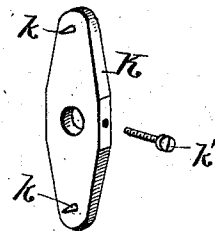


Fig. 5.

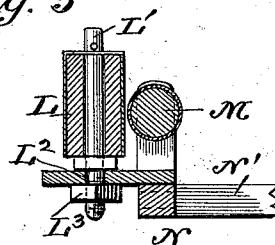
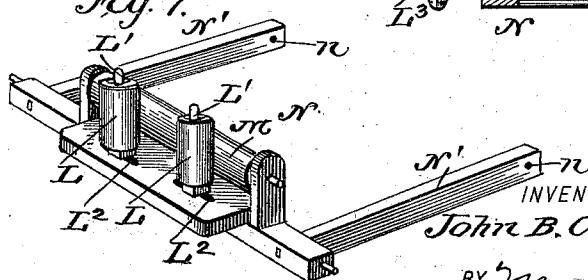


Fig. 7.



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R. B. Turpin.

INVENTOR:

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BY *Munn & Co.*

ATTORNEYS

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Fig. 4.

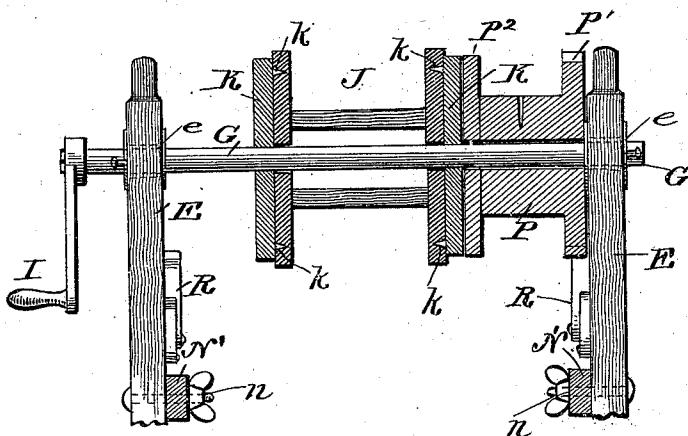


Fig. 6.

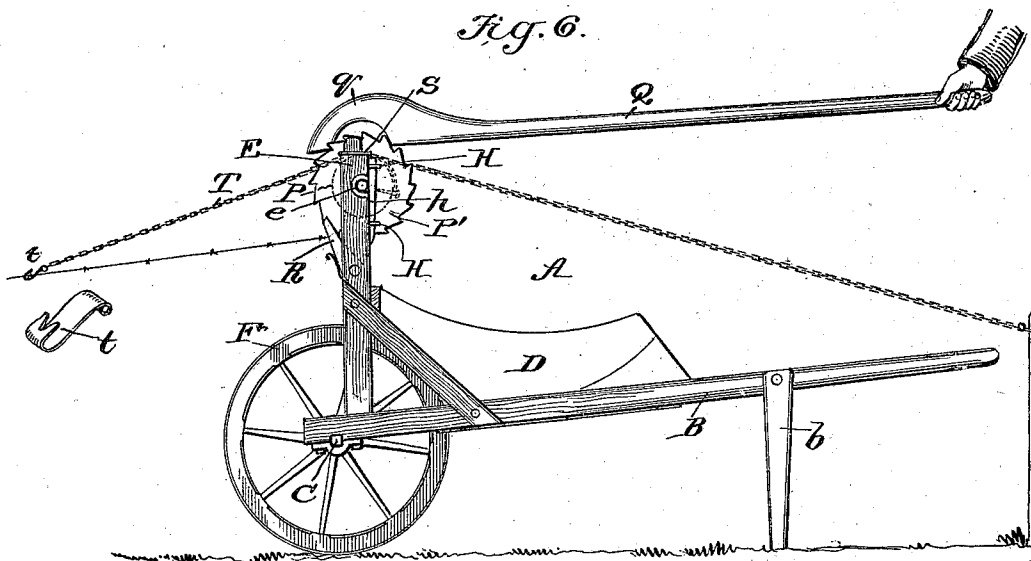
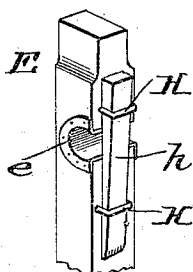


Fig. 8



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UNITED STATES PATENT OFFICE.

JOHN B. CROWDER, OF TALUCAH, ALABAMA.

APPARATUS FOR HANDLING FENCE-WIRE.

SPECIFICATION forming part of Letters Patent No. 555,849, dated March 3, 1896.

Application filed July 17, 1895. Serial No. 556,283. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. CROWDER, residing at Talucah, in the county of Morgan and State of Alabama, have invented a new and Improved Apparatus for Use in Handling Fence-Wire, of which the following is a specification.

My invention is an improved device for use in stretching and taking down fence-wire, and seeks to provide a simple and easily-manipulated construction by which the wire may be stretched to any desired degree in erecting the fence, and by which, when it is desired to take down the fence, the wire may be rewound upon its spool, so it can be conveniently moved to another place and be again stretched in place.

The invention consists in certain novel constructions, combinations, and arrangements of parts, as will be hereinafter described, and pointed out in the claim.

In the drawings, Figure 1 is a top plan view of a machine provided with my improvements. Fig. 2 is an end view thereof. Fig. 3 is a detail view of one of the spool-securing plates. Fig. 4 is a transverse section alongside the shaft. Fig. 5 illustrates in detail the manner of supporting one of the upright guide-rollers. Fig. 6 illustrates the operation of the improvement in stretching wire, and Figs. 7 and 8 are detail perspective views.

In carrying out my invention I provide a suitable carriage A, which may preferably be in the nature of a wheelbarrow, as shown, having handles B, a front axle C and a body D. This barrow is also provided near its front end with uprights E having bearings *e*. The handles B are provided with legs *b* pivoted to the handles so that they may be turned down for use or up out of the way when it is desired to lower the handles to the ground.

On the axle C, I journal the wheels F, secured in position, one at each end of the axle, by collars *f*. In using the machine to rewind the fence-wire upon the spools I set one of these wheels at each end of the axle and secure them by the collars *f*; but in the use of the barrow for ordinary purposes about the farm or plantation one of the wheels may be removed and the other shifted to the center of the axle, as in ordinary wheelbarrows, and secured in such position by the collars *f*, which

collars may be held in any position upon the axle by the set-screws *f'*.

The shaft G is journaled in the bearings *e* and held preferably so it can be easily removed for the purpose of applying or removing the wire-spool or other parts supported thereon, as may be desired. In the construction shown and as may be preferred the bearings are in the nature of notches formed in the rear side of the uprights E, and staples H H are provided—one above and the other below such notches—to receive the keys *h* by which the shaft is held removably in the bearings. At one end the shaft has a suitable crank-handle I by which it may be turned.

The spool J may be the ordinary spool upon which wire is reeled for shipment or storage, and this spool may in practice be slipped upon the shaft to about the center thereof, where it is held by means of the clamp-blocks K, fitted on the shaft on opposite sides of the spool and having spurs *k* to enter and clamp the spool and set-screws *k'*, by which they may be held from turning on the shaft. This construction, it will be understood, operates to clamp the wire-spool from endwise movement on the shaft, and also keys it against turning independently upon the shaft.

In guiding the wire to the spool in rewinding the wire thereon I prefer to employ the guiding devices (shown most clearly in Figs. 1 and 7) consisting of the vertical and horizontal guide-rollers L L and M, supported so they may be set vertically up or down to agree with the size of the spool, being adjusted up when the spool is small and down when the wire has been accumulated thereon in greater quantities, as will be understood from Fig. 1.

In supporting the guide-rollers it is preferred to mount them in a swinging frame N having arms N' pivoted at *n* to the uprights E, so the opposite ends may be raised or lowered for purposes before described. To secure this guide-frame in any vertical adjustment I provide a connection O between its outer swinging ends and the upper portions of the uprights E, which connection O may be a chain fitting at one or both ends over pins, so it may be set to hold the frame higher or lower, or the connection may be a strap, cord, or other suitable construction.

The upright guide-rollers L L are adjust-

able laterally, being to such end journaled on upright bolts L' , which extend through laterally-elongated slots L^2 in the frame and receive nuts L^3 on their lower ends, by which
5 they may be held in any desired lateral adjustment.

In the operation of rewinding, the man holding the handles of the wheelbarrow by turning the barrow first slightly to one side and
10 then slightly to the other can regulate the winding of the wire on the spool to secure the desired even laying thereof. The man turning the crank-handle not only winds the wire on the spool, but he also tends to move the
15 wheelbarrow forward by drawing upon the wire being rewound, and it is obvious that the man holding the handles can not only regulate the laying of the wire on the spool, but can also regulate the tightness with which the
20 wire is wound on the spool by resisting to a greater or less extent the forward motion of the barrow. In thus rewinding the wire the guide-rollers are important in directing the wire to the spool and also in aiding the opera-
25 tor at the handles in laying the wire smoothly and evenly, and are regarded as important features in such operation; but in the use of the invention as a wire-stretcher these guide-rollers are not employed, and may be either
30 dropped to their lowermost position or, together with their frame N , be entirely removed by releasing the pivot-bolts n .

For the purposes of a wire-stretcher I provide on the shaft G a drum P , having a
35 ratchet-ring P' at one end and a collar or flange P^2 at its other end, the drum preferably turning loosely on the shaft, and a lever Q , having a head q , is provided to engage and operate the ratchet-ring P' , a detent-pawl R
40 serving to prevent any back motion of the ring and drum, as will be understood from the drawings.

In stretching the wire a wire or other connection is made fast to a post or suitable fixture and has a loop or ring S , which is slipped
45 over the upper end of the upright E adjacent to the ratchet-ring and forms an anchor for the machine. A chain T , having one end fixed to the drum, is provided at its other end

with a grapple t to engage the fence-wire, and
50 the lever is applied to the ratchet-ring and operated to turn such ring in such manner as to wind the chain upon the drum, thus drawing the wire tightly toward the machine. It is manifest that great strain can be exerted
55 by such lever. In fact I find in practice that by it a man of ordinary strength can easily break the strongest wire now used in fence-building. The shaft being readily removable
60 may, when one end of the fence is reached, be reversed end for end to bring its ratchet-ring adjacent to the fence in laying and stretching the next strand, and for convenience I provide a detent-pawl R at each side
65 of the machine to engage with the ratchet-ring in either position thereof.

My invention will be found especially useful in removing wire fences from one place to another, as the handling of the old wire
70 strands is greatly simplified by rewinding them upon the spools, whence they may be taken in the ordinary manner in again erecting the fence at another point, and manifestly the shipment or cartage of the wire is facilitated by so rewinding.
75

In practice one man can build a fence, laying and stretching the wire without assistance.

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

The improved apparatus herein described consisting of the carriage provided near its front end with uprights having bearings, the shaft journaled therein, the spool supported
85 on said shaft, the drum having a ratchet, an operating-lever engaging said ratchet, the guide-frame side bars pivoted at their inner ends to the uprights so their outer ends may be adjusted up or down, link-like connections
90 for adjustably supporting the outer ends of said guide-frame and pins for engagement by the links of said connection substantially as shown and described.

JOHN B. CROWDER.

Witnesses:

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