

(No Model.)

W. M. BARGER.
REEL CARRIER.

No. 567,213.

Patented Sept. 8, 1896.

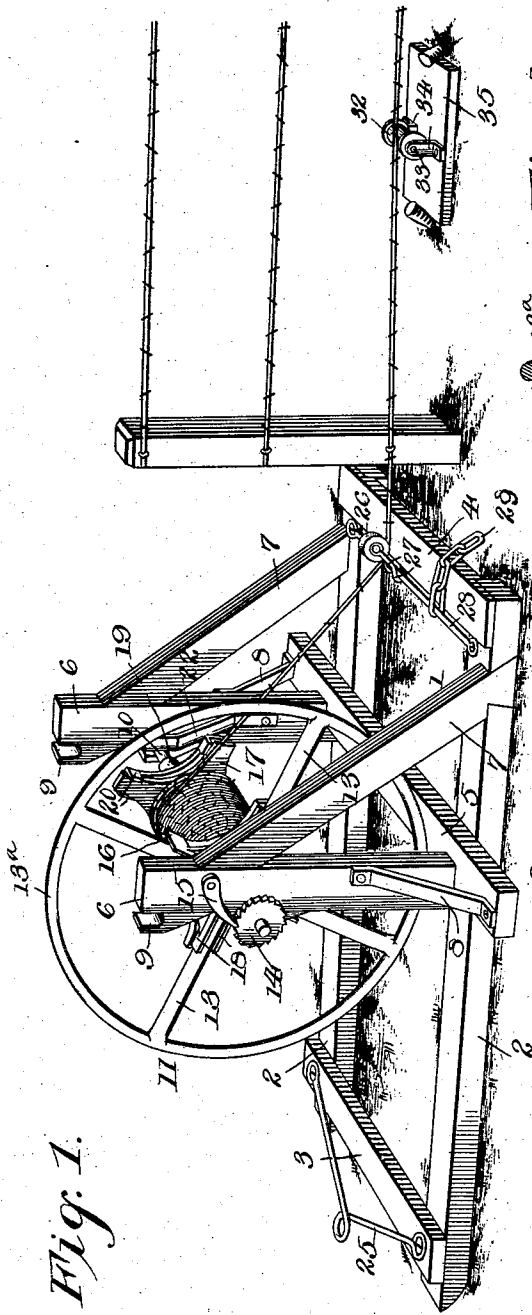


Fig. 1.

Fig. 4.

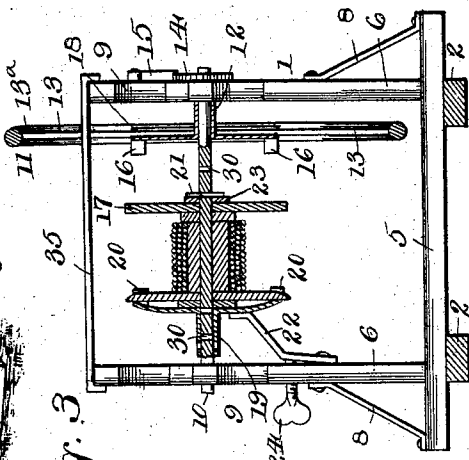


Fig. 3.

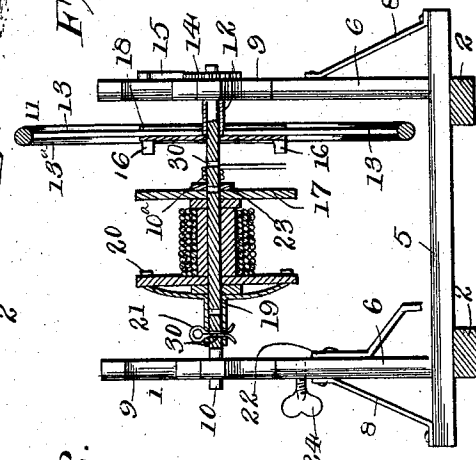
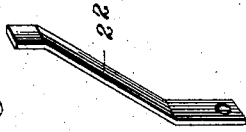


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM M. BARGER, OF WEBSTER CITY, IOWA.

REEL-CARRIER.

SPECIFICATION forming part of Letters Patent No. 567,213, dated September 8, 1896.

Application filed August 13, 1895. Serial No. 559,162. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. BARGER, a citizen of the United States, residing at Webster City, in the county of Hamilton and State of Iowa, have invented a new and useful Reel-Carrier, of which the following is a specification.

The invention relates to improvements in reel-carriers for unwinding, rewinding, and stretching fence-wires.

The object of the present invention is to improve the construction of the reel-carrier or machine for stretching or removing fence-wire shown and described in Patent No. 520,475, granted me May 29, 1894, and to provide a simple and inexpensive one adapted to receive the ordinary construction of spool, and capable of adjustment to enable the spool to be fixed to or revolved loosely on the shaft for rewinding wire on it or unwinding wire from it.

A further object of the invention is to enable a fence-wire to be readily stretched to the desired tension, and to be securely held while stapling or otherwise fastening it to a fence-post.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a reel-carrier constructed in accordance with this invention, the parts being arranged for winding wire. Fig. 2 is a vertical transverse sectional view, the parts being arranged for stretching a fence-wire. Fig. 3 is a similar view, the parts being arranged for unwinding wire for fence-building. Fig. 4 is a detail perspective view of the brake.

Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a supporting-frame provided with runners 2, which are connected by end bars 3 and 4, and which form the base of a supporting-frame. The runners are connected by an intermediate cross-bar 5, and have rising from them standards 6, which are supported by inclined braces 7, disposed longitudinally of the supporting-frame, and short braces 8 are arranged at the outer sides of the standards, and are secured to the same

and to the ends of the transverse bar 5; but the construction of the supporting-frame may be varied, if desired.

The standards are provided with bearings 9, located at different elevations, and adapted to receive a transverse shaft 10, which has fixed to it a hand-wheel 11, located adjacent to one of the standards. The hand-wheel comprises a hub 12, spokes 13, which are bolted or otherwise secured to the hub, and a rim 13^a, which may, if desired, be dispensed with. The hand-wheel is separated from the adjacent standard by an intervening space, and the shaft has mounted on it, at the outer face of such standard, a ratchet-wheel 14, which is engaged by a pivoted pawl 15 to prevent the shaft from slipping and slackening a wire when stretching and stapling the same. The pawl is pivoted at a point between the adjacent bearings, and is adapted to engage the ratchet-wheel when the shaft is arranged in either set of the bearings 9.

The hub 12 of the hand-wheel is provided at its inner side with lugs 16, arranged in pairs and preferably disposed at diametrically opposite points to receive and engage the crossed end bars of a wire-receiving spool 17, and the hub is provided at its outer side with flanges 18, located at opposite sides of and adapted to support the spokes.

The shaft is detachably mounted in its bearings to enable the spool to be readily replaced thereon and removed therefrom, and the spool is adapted to be rigidly connected with the shaft in rewinding and stretching fence-wire and to be arranged to revolve loosely on the shaft in unwinding the wire for fence construction. In reeling off fence-wire the shaft and the hand-wheel remain stationary, and they are maintained stationary, while the spool is being revolved, by the pawl and ratchet before described.

In rewinding wire on the spool the latter is arranged to be engaged by the lugs of the hub of the hand-wheel at one end of it, and its other end is engaged by an adjustable hub 19, having radial arms and provided at the outer ends of the arms with lugs or flanges 20; arranged in pairs and adapted to engage the cross-bars of the adjacent end of the spool. This adjustable hub 19 is moved inward into engagement with the spool, and

is secured in that position by a split key or pin 21, which is passed through a perforation of the shaft and also through a corresponding perforation of a cylindrical extension or collar of the hub 19. The hand-wheel is then rotated to rewind the wire.

In unwinding wire in constructing fences the adjustable hub is moved outward toward the adjacent standard against an approximately Z-shaped brake 22, and the spool is correspondingly moved and is placed in engagement with the lugs of the adjustable hub, which is free to rotate on the shaft, the pin 21 having been previously removed from the cylindrical extension or collar. The spool is retained in its engagement with the adjustable hub by the pin or key 21, which is inserted through a perforation of the shaft and is located between the hand-wheel and the spool, and the washer 23 is interposed between the pin or key and the spool.

The rotation of the spool in unwinding is governed by the approximately Z-shaped brake, which is interposed between the adjustable hub and the adjacent standard, and which is disposed substantially vertically. The brake is pivoted at its lower end to the standard, and its upper portion or arm engages the adjustable hub, and this engagement is regulated by a set-screw 24, mounted on a standard in a suitable threaded opening and having its inner end engaging the lower portion of the brake, whereby the latter is forced into contact with the hub. When only a short stretch of fence is to be erected, the supporting-frame is anchored by driving a stake or the like through an eye of a bail 25, secured to the front end of the supporting-frame, and the person building the fence then takes hold of the wire and by pulling on it causes the spool to rotate and the wire to unwind. When the wire is to be stretched a great distance, it is secured at one end of the fence, and a horse or other draft-animal is coupled to the bail, and the supporting-frame is drawn along the line of the fence, thereby unreeling the wire.

After the wire has been unreeled, it is stretched preparatory to stapling or otherwise securing it to a fence-post. To prepare the apparatus for stretching, after the parts have been arranged for unreeling and that operation completed, the brake is first swung downward out of the way, and the pin or key is removed from the perforation adjacent to the hand-wheel and is passed through the perforation of the cylindrical extension or sleeve of the adjustable hub and through a corresponding perforation of the shaft. This keys the hub to the shaft, and care should be taken to maintain the spool in engagement with the lugs of the adjustable hub. The hand-wheel is then rotated to rewind and tighten the fence-wire, and when the slack is nearly all taken up the wire is lifted over the inner end of the spool, or the end adjacent to the plane of the fence, and is placed on the shaft at 10°

in the space between the spool and the hand-wheel, or between the adjustable hub and the adjacent standard, according to which side of the machine is next to the fence, and is wound around the shaft, whereby the fence-wire may be stretched to the desired tension without liability of injuring the spool. The pawl is engaged with the ratchet-wheel after the wire has been stretched to the proper tension to hold it at that tension until the operator has stapled or otherwise secured the wire to a fence-post, after which the pawl is disengaged. The hand-wheel is then turned backward and the wire unwound from the shaft and replaced on the spool.

The wire may be wound around the shaft and stretched at either end of the spool, according to the position of the apparatus with relation to the fence, the cylindrical extension or collar of the adjustable hub being of sufficient length to permit a wire to be wound around it.

The bearings 9 are provided to enable the shaft to be arranged at the proper elevation for stretching the upper wires of a fence, and the lower wires are stretched by means of an adjustable pulley 26, under which the fence-wire is passed, as illustrated in Fig. 1 of the accompanying drawings, and which is provided with a pair of hooks 27, adapted to engage a transverse bar 28 of the supporting-frame or any one of the links of a chain 29, connected with the transverse bar 28, and adapted to permit the pulley to be arranged at the desired elevation to position the fence-wire properly and to enable the wires to be stretched close to the ground to make what is known as a "hog-tight fence." The shanks of the hooks 27 are located at opposite sides of the pulley, and are connected by a spindle on which the pulley rotates, and the pulley by having a pair of hooks is adapted to be readily placed over a wire and connected with the supporting-frame.

In order to accommodate spools of different sizes, the shafts are provided with series of perforations 30, located adjacent to each end of the spool, for the reception of the pin or key.

In rewinding or stretching wire it often happens that it is drawn across a hill or elevated portion of the ground, and to prevent the wire from cutting into the latter it is supported at such points by rollers or pulleys 32, journaled on shafts 33, arranged in bearing-brackets 34 of a suitable supporting-base 35. This supporting-base is designed to be suitably anchored by means of pegs or the like driven into the ground and located at the ends of the base.

When a wire is being unreeled, the upper ends of the standards are supported and are prevented from spreading by a stay-rod 35, arranged on the upper edges of the standards, and having its ends bent downward at right angles and arranged on the outer faces of the standards. The angularly-bent ends sup-

port the standards, and the brake may be applied to the desired degree without liability of the standards being forced outward or sprung.

- 5 It will be seen that the reel-carrier is simple and comparatively inexpensive in construction, that it may be readily arranged for unwinding wire from spools of the ordinary construction, or for rewinding it on the same, 10 or for stretching a fence-wire, and that in unwinding wire from a spool the rotation of the spool and the unwinding of the wire may be readily regulated.

Changes in the form, proportion, and the 15 minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

- 20 1. In a machine of the class described, the combination of a frame, a horizontal shaft journaled thereon, a wire-receiving spool adjustably mounted on the shaft, a hand-wheel mounted on the shaft at one end thereof and 25 adapted to engage the spool in rewinding or stretching wire, a hub arranged at the other end of the shaft and adapted to engage the spool in unreeling, a resilient brake pivotally mounted on the frame adjacent to said hub, 30 adapted to beswung upward into engagement with the same in unreeling wire and capable of being swung downward out of the way when the spool is adjusted to the other end of the shaft for stretching or rewinding wire,

and an adjusting-screw arranged on the frame 35 engaging the brake and adapted to force the same against the hub to retard the rotation of the spool during the operation of unreeling wire, substantially as described.

2. In a machine of the class described, the 40 combination of a frame, a horizontal shaft journaled thereon, a hand-wheel fixed to the shaft at one end thereof and provided with spool-engaging lugs 16, arranged in pairs, a hub arranged on the shaft at the other end 45 thereof and provided with spool-engaging lugs, and a spool mounted on the shaft, capable of lateral adjustment or movement thereon to engage either the wheel or the hub, said spool exposing a portion of the 50 shaft, when in engagement with the hub, to permit the wire to be passed over one end of the spool between a pair of arms of the same, and arranged on and wound around the shaft 55 in the space between the end of the spool and the contiguous standard, whereby the wire is adapted to be unreeled from a spool and stretched on the shaft without removing the spool therefrom, and without subjecting 60 the same to the strain incident to stretching the wire, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM M. BARGER.

Witnesses:

G. H. RITENOUR,
P. M. BANKS.