

No. 636,004.

Patented Oct. 31, 1899.

W. MILBRATH.  
WIRE REEL.

(Application filed July 5, 1899.)

(No Model.)

Fig. 1.

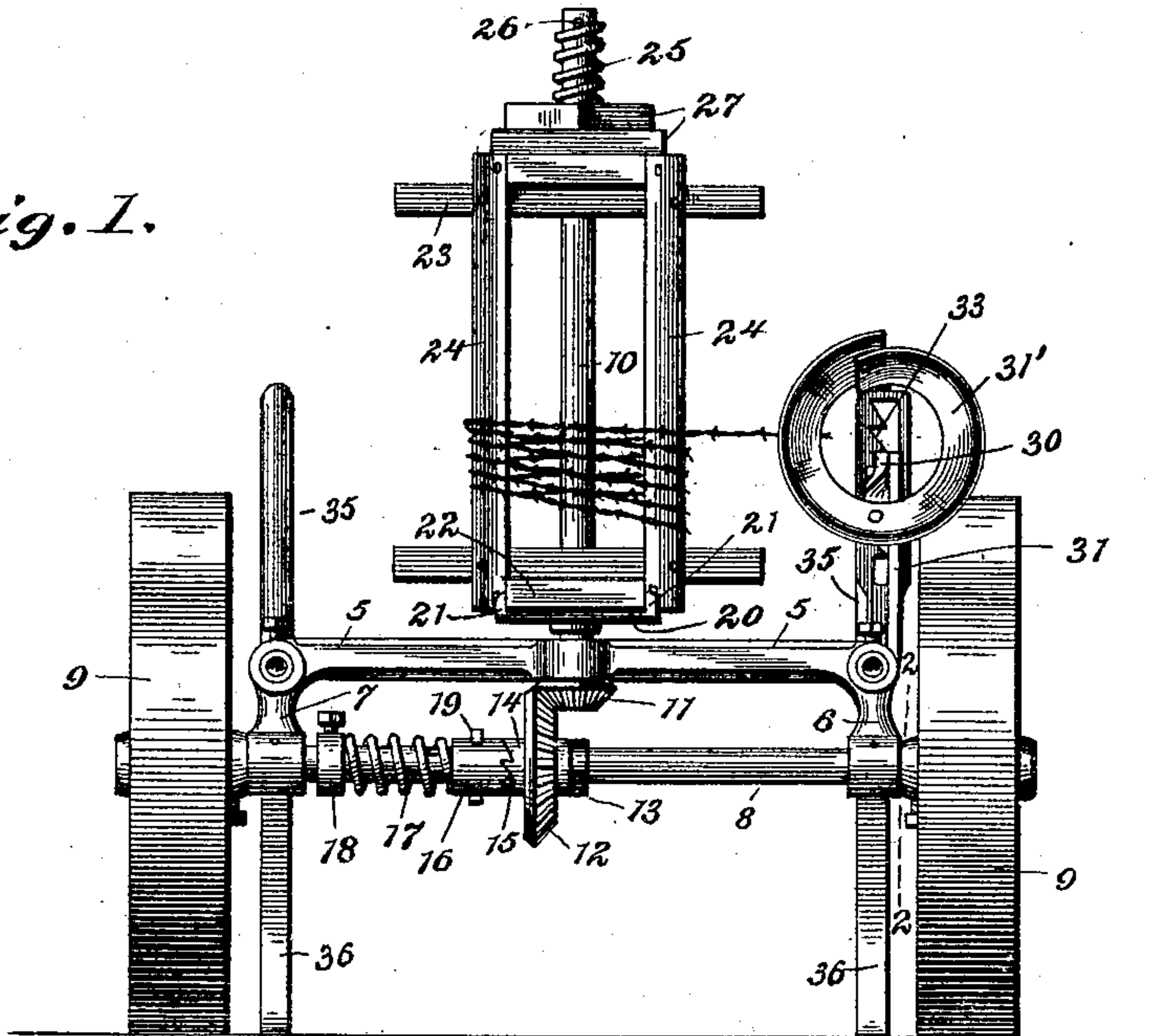
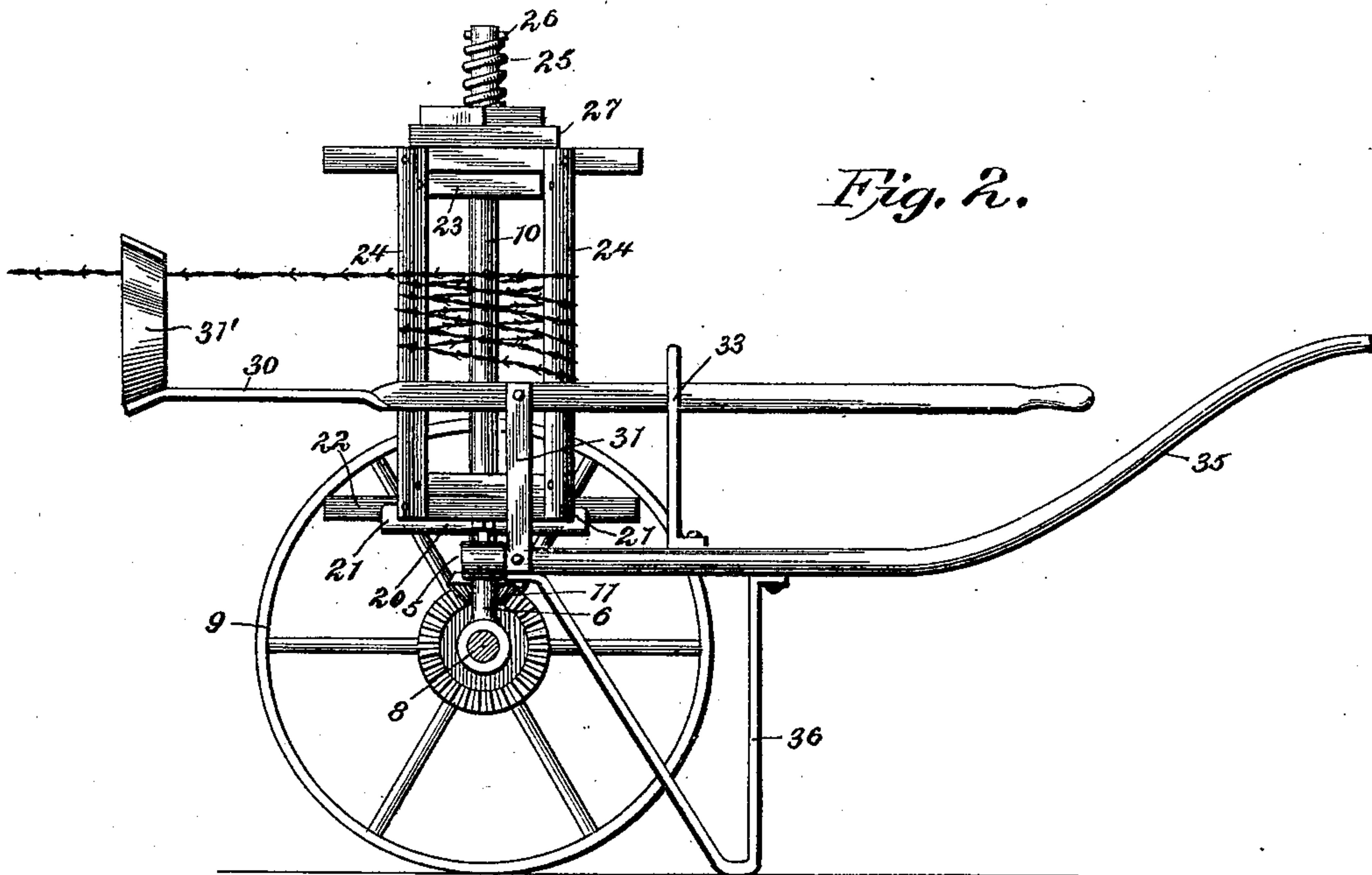


Fig. 2.



Witnesses

Howard D. Orr.

By his Attorneys,

Geo. H. Chandler.

William Milbrath, Inventor.

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

WILLIAM MILBRATH, OF LAKEFIELD, MINNESOTA.

## WIRE-REEL.

SPECIFICATION forming part of Letters Patent No. 636,004, dated October 31, 1899.

Application filed July 5, 1899. Serial No. 722,847. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM MILBRATH, a citizen of the United States, residing at Lakefield, in the county of Jackson and State of Minnesota, have invented a new and useful Wire-Reel, of which the following is a specification.

This invention relates to wire-reels; and it has for its object to provide a device of this nature which will automatically operate to wind a wire as it is moved therealong, and which, moreover, may be adjusted in such a manner that the reel proper will rotate independently to enable the wire to be drawn therefrom when desired.

The invention consists of a platform mounted upon wheels, which wheels are affixed to an axle having a gear thereon and adapted to be rotated with the axle through the medium of a clutch. This gear is a bevel-gear and meshes with a similar gear upon a vertical shaft carried by the frame and adapted to removably hold a reel. Thus when the clutch is in an operative position and the device is moved the reel will be forced to rotate to wind a wire or other similar body thereon, a guide being arranged to insure the winding of the body along the full length of the reel.

In the drawings forming a part of this specification, and in which like numerals of reference designate corresponding parts in the several views, Figure 1 is a front elevation of a reel constructed in accordance with this invention. Fig. 2 is a section on line 2 2 of Fig. 1, looking to the left, the reel proper and its operating mechanism being in elevation.

Referring now to the drawings, 5 represents a beam, in the depending ends 6 and 7 of which is rotatably mounted a shaft 8, having supporting-wheels 9 fixed thereto and rotatable therewith. Passed vertically through the beam 5 and in suitable bearings therein is a shaft 10, at the lower end of which and beneath the beam 5 is fixed a beveled gear 11, adapted to mesh with a similar gear 12 upon the shaft 8, and through the medium of which gears the shaft 10 is adapted to be rotated from the shaft 8 at times. The gear 12 is mounted loosely on the shaft 8 and is prevented from movement in one direction thereof by means of a collar 13, against which the gear abuts. The opposite end of the hub

14 of the gear 12 is provided with clutch-teeth 15, adapted for engagement by the similar teeth of a clutching member 16, slidably mounted upon the shaft 8 and held normally in engagement with the teeth 15 through the medium of a helical spring 17 upon the shaft 8, bearing at one end upon the clutch member and at the other upon a collar 18 upon the shaft. The clutch member 16 is movable from engagement with the hub of the gear 12 and may be held from such engagement through the medium of a pin 19, passed through alining perforations in the clutch member and shaft 8. As shown in Fig. 1 of the drawings, this pin may also be employed in connection with suitable perforations to hold the clutching-faces positively in mutual engagement.

Fixed to the shaft 10 is a plate 20, having upturned edges 21, adapted to receive between them the cross-piece 22 of a common form of wire-reel comprising an upper cross-piece 23 and connecting-slats 24. This reel is applied to the shaft 10 through the medium of alining perforations in the cross-pieces 22 and 23 and is held downwardly upon the plate 20 by means of a helical spring 25, adapted to inclose the upper end of the shaft and bear at one end upon a transverse pin 26 and at the other end upon washers 27 upon the upper end of the reel.

It will thus be seen that with the parts in the positions shown in Fig. 1 when the device is moved the reel proper will rotate and that if one end of a wire be fixed to said reel it will be wound thereon.

It will be noted that the reel or rotating winder is arranged vertically, and in order to cause the wire to distribute itself throughout the length of the reel a split ring having its ends overlapping is mounted upon a lever 30, pivoted to an upright 31, secured to a portion of the frame of the device. The wire in its passage to the reel passes through this split ring, which acts as a guide therefor, the ring having its forward end flared to prevent engagement of barbs with the outer edge thereof when the apparatus is used in connection with barb-wire. This ring 31' is adapted for vertical adjustment through the medium of the lever 30 and is held at different points in said adjustment through the



medium of a rack 33, with which the rear end of the lever is adapted to engage.

Connected with the ends of the beam 5 are rearwardly and upwardly extending handles 5 35, having supporting-legs 36, and through the medium of said handles the apparatus may be moved as desired.

From the above description it will be seen that a full reel may be placed upon the shaft 10 and that by disengagement of the clutching mechanism the apparatus may be moved to pay out the wire, or the apparatus may be fixed and the wire drawn therefrom.

It will be readily understood that in practice the specific construction and arrangement herein shown may be varied, and that various alterations may be made without departing from the spirit of the invention.

Having thus described the invention, what is claimed is—

1. A wire-reel comprising a platform, a vertical shaft rotatably mounted in the platform, a reel carried by the shaft, a gear upon the lower end of the shaft and beneath the platform, an axle journaled in the platform and 25 having supporting-wheels fixed thereto, a gear carried by the axle and adapted for engagement with the first-named gear, a spring-pressed clutch mounted upon the axle and 30 adapted for yieldable engagement with the

gear upon the axle, a vertically-movable lever fulcrumed upon the platform at the side of the shaft, and a guide carried by the lever and comprising a split ring having its ends overlapping.

2. A wire-reel comprising a platform, a vertical shaft rotatably mounted in the platform and projecting above and below the latter, a clamping-plate carried by the shaft above the platform and adapted to receive a reel, an axle journaled in the platform and having supporting-wheels fixed thereto, intermeshing gears carried by the axle and the lower end of the shaft, the gear upon the axle being loose, a spring-pressed clutch carried by 45 the axle and adapted for yieldable engagement with the gear of the axle, an upright upon the frame, a lever fulcrumed to the upright, a wire-guide carried by the lever and comprising a split ring having its ends overlapping, and a rack upon the platform adapted to receive the lever and to hold it at different points of its adjustment. 50

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 55 the presence of two witnesses.

WILLIAM MILBRATH.

Witnesses:

DANIEL TINUN,

C. M. TRADEWELL.