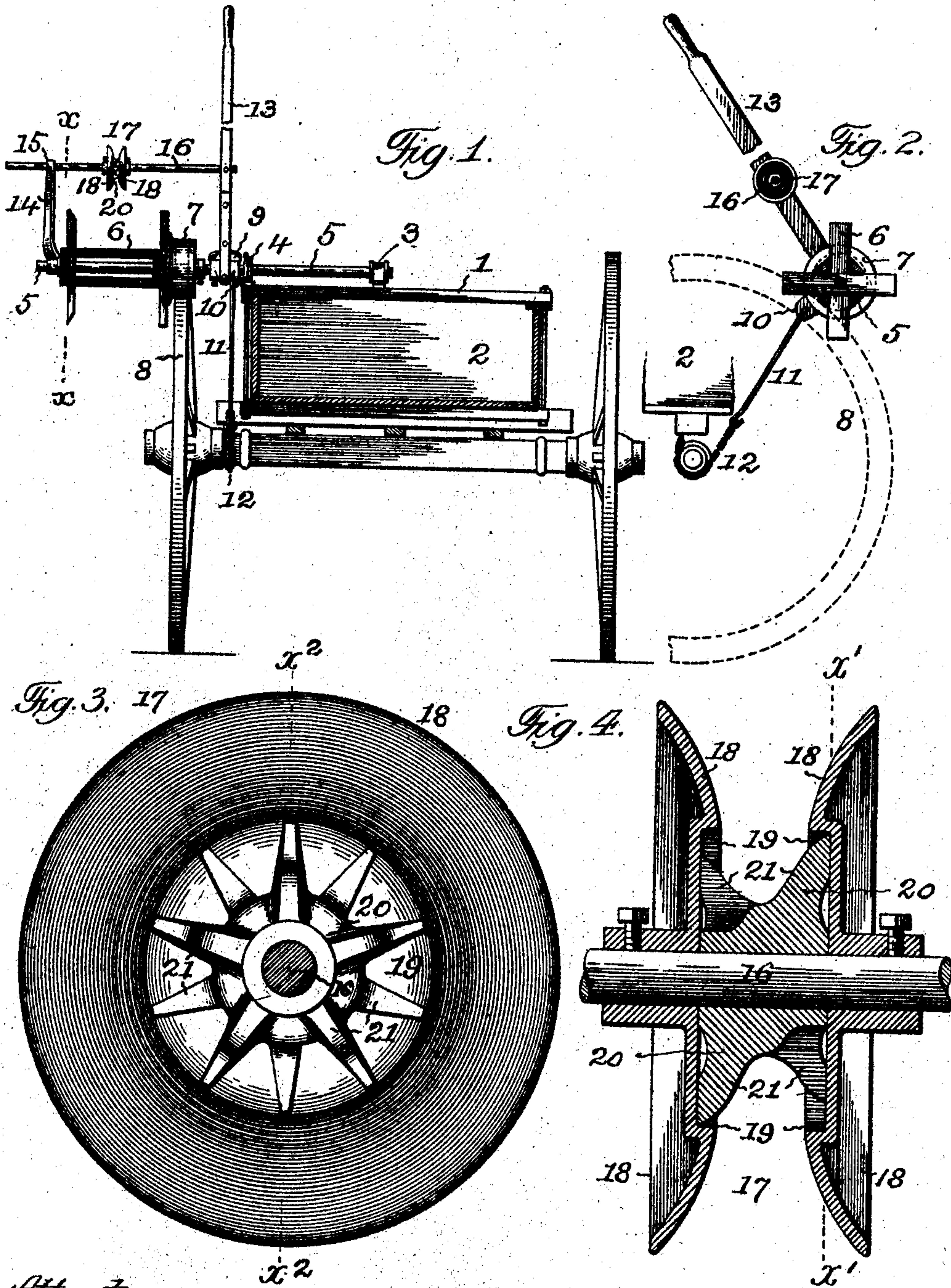


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PATENTED MAR. 13, 1906.

W. W. LINCOLN.  
REELING MACHINE.  
APPLICATION FILED DEC. 23, 1904.



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# UNITED STATES PATENT OFFICE.

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## REELING-MACHINE.

No. 815,184.

Specification of Letters Patent.

Patented March 13, 1906.

Application filed December 23, 1904. Serial No. 238,053.

*To all whom it may concern:*

Be it known that I, WARD W. LINCOLN, a citizen of the United States of America, and a resident of Rock Falls, in the county of Whiteside and State of Illinois, have invented certain new and useful Improvements in Reeling Mechanisms, of which the following is a specification.

This invention relates to that class of reeling mechanisms intended for attachment to a wagon and adapted to have operative connection with and be driven by one of the wagon-wheels; and the present improvement has for its object to provide a simple and efficient structural formation and combination of parts by which an even and uniform reeling of the barbed or other wire upon the spool or reel can be controlled by the operator in a ready and convenient manner and with which the climbing and lateral disengagement of the wire from the guiding means of the mechanism during the reeling operation is prevented in an effective manner, all as will hereinafter more fully appear.

In the accompanying drawings Figure 1 is a general elevation illustrating the present reeling mechanism in place upon a wagon, the wagon-body being shown in section. Fig. 2 is a transverse sectional elevation of the same on line  $x x$ , Fig. 1. Fig. 3 is an enlarged detail transverse section at line  $x' x'$ , Fig. 4, of the wire-guiding means of the mechanism. Fig. 4 is a detail longitudinal section of the same at line  $x^2 x^2$ , Fig. 3.

Similar numerals of reference indicate like parts in the different views.

Referring to the drawings, 1 is a cross-timber secured to the top of the wagon-body 2 and provided with brackets 3 and 4, arranged in separated relation and adapted to support the reel-carrying shaft 5, arranged to overhang at one side of the wagon-body, as shown, and which is connected to the brackets 3 and 4 in any usual manner which will permit of a semirotary movement and a limited vertical adjustment for purposes hereinafter stated. In the particular construction shown in Fig. 1 said shaft is loosely connected at its inner end to the bracket 3 and midway its length is guided in the vertically-elongated bracket 4.

6 is the wire reel or spool, mounted to rotate upon the overhanging portion of the shaft 5 and secured against endwise movement on said shaft by any usual means.

7 is a friction drum or pulley secured to

the inner end of the reel 6 in adjacent relation to a wheel 8 of the wagon, so that it may be brought into frictional engagement therewith to impart positive rotation to the reel, as hereinafter set forth.

9 is a hub having bearing upon the shaft 5 adjacent to the friction-drum 7 aforesaid and provided with a crank-arm 10, which in turn is connected by a link 11 and flexible connection 12 with an adjacent part of the wagon, preferably the axle-skein of the wagon-wheel 8, as illustrated in Fig. 1.

13 is a hand-lever pivotally attached to the hub 9 and adapted when moved in one direction in a longitudinal plane to impart a semirotary adjustment, so that the crank-arm 10, pulling against the wagon-axle through the link 11 and flexible connection 12, will move the friction-drum 7 into forcible frictional contact with the tire of the wagon-wheel 8 to cause a positive rotation of the wire-reel, and when moved in an opposite direction in such longitudinal plane to release said drum from such frictional engagement. Such lever, through its pivotal connection with the hub 9, is also adapted to have a lateral movement for the purpose hereinafter set forth.

14 is a vertical standard secured to the outer end of the shaft 5 and having a guide-eye 15 at its upper end for supporting one end of the non-rotatable carrying-rod, which carries the guiding means of the reeling mechanism.

16 is the carrying-rod above referred to arranged in parallel relation to the reel 6 in a plane above the same. Such rod has sliding movement at one end in the eye 15 of the standard 14 and at its other end is attached to the hand-lever 13, so that a lateral movement of said lever will impart a lengthwise reciprocation to said rod.

17 is a wire-guide secured to and reciprocating with the carrying-rod 15 and adapted to receive the wire and guide the same to the reel, so that the uniform reeling of the wire can be manually controlled by a manipulation of the lever 13 to move the guiding means from one end to the other of the reel, as required.

A material part of the present invention consists in a simple and efficient formation of the guiding means aforesaid whereby climbing and lateral disengagement of the barbed or other wire from said guiding means is pre-



vented and involves a structural formation and combination of the sheave parts, as follows: 18 represents a pair of opposed cone-shaped stationary disks having attaching-hubs by which they are fixedly secured to the non-rotatable carrying-rod 16 and formed with opposed central and circular recesses 19, as shown in Fig. 4. 20 is a guide mounted on the rod 16 between the disks 18 and capable of free and independent rotation on said rod, with its respective ends occupying the recesses 19 of the disks, so that there will be no liability of the wire passing over the guide becoming accidentally caught between either end of said guide and the adjacent face of one or the other disk. Such guide is preferably formed by a series of curved prongs 21, extending in opposite directions from a central hub, the prongs on one end having a staggered or alternated relation to the prongs on the other end of the guide, as shown in Figs. 3 and 4. As so arranged the series of prongs provides a grooved way or channel for containing the wire in its passage over the guide. In the present improved construction the guide forms the sole bearing for the wire in its passage between the non-revoluble side disks constituting side guards to prevent, in a very perfect manner, the climbing and lateral disengagement of the wire from its normal position on the guide, and which is a serious defect in the ordinary form of guiding means in which the parts revolve as a whole.

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

1. In a reeling mechanism, the combination of a support, inner and outer brackets arranged in separated relation upon the support, a shaft mounted in the brackets, overhanging the support, loosely connected to the inner bracket and guided midway of its length in the outer bracket, a wire-reel journaled on said shaft, a friction-drum secured to said reel, and adapted for frictional engagement with a wagon-wheel or the like, a hub having a crank-arm and secured to said shaft, a flexible connection for the crank-arm, and a hand-lever connected to said hub and adapted to impart a semirotary adjustment to the same, substantially as set forth.

2. In a reeling mechanism, the combination of a support, a shaft attached thereto and adapted for vertical adjustment, a wire-reel journaled on said shaft, a friction-drum secured to said reel and adapted for frictional engagement with a wagon-wheel or the like, a crank-hub secured to said shaft and having link connection with a stationary point, a guide-carrying rod arranged in parallel relation above the reel, a guide carried by said rod, and a hand-lever connected to said hub and adapted to impart a semirotary adjustment to the same and a reciprocating move-

ment to the guide and rod, substantially as set forth.

3. In a reeling mechanism, the combination of a support, a shaft attached thereto and adapted for vertical adjustment, a wire-reel journaled on said shaft, a friction-drum secured to said reel and adapted for frictional engagement with a wagon-wheel or the like, a crank-hub secured to said shaft and having link connection with a stationary point, a guide-carrying rod arranged in parallel relation above the reel, a guide carried by said rod, a vertical standard secured to the shaft aforesaid and forming a guide for one end of said guide-carrying rod, and a hand-lever connected to said hub and adapted to impart a semirotary adjustment to the same and reciprocating movement to the guide and rod, substantially as set forth.

4. The combination in a wire-reeling mechanism, of the character herein described, of a revoluble reel and a wire-guiding means comprising a non-rotatable carrying-rod, a pair of disks fixedly secured to said rod, and a rotary guide arranged upon said rod intermediate of said disks, substantially as set forth.

5. The combination in a wire-reeling mechanism, of the character herein described, of a revoluble reel and a wire-guiding means comprising a non-rotatable carrying-rod, a pair of disks fixedly secured to said rod, and a rotary guide arranged upon said rod intermediate of said disks and comprising a central hub and curved prongs in staggered relation on said hub, substantially as set forth.

6. The combination in a wire-reeling mechanism, of the character herein described, of a revoluble reel and a wire-guiding means comprising a non-rotatable carrying-rod, a pair of disks fixedly secured to said rod in separated relation and formed with central circular recesses in their opposed faces, and a rotary guide arranged on said rod intermediate of said disks and with their ends fitting the recesses in the disks substantially as set forth.

7. The combination in a wire-reeling mechanism, of the character herein described, of a revoluble reel and a wire-guiding means comprising a non-rotatable carrying-rod, a pair of disks fixedly secured to said rod in separated relation and formed with central circular recesses in their opposed faces, and a rotary guide arranged on said rod intermediate of said disks and with their ends fitting the recesses in the disks the said guide comprising a central hub and curved prongs in staggered relation on said hub, substantially as set forth.

Signed at Rock Falls, Illinois, this 20th day of December, 1904.

WARD W. LINCOLN.

Witnesses:

J. O. WAGLEY,  
E. A. HUELLEN.