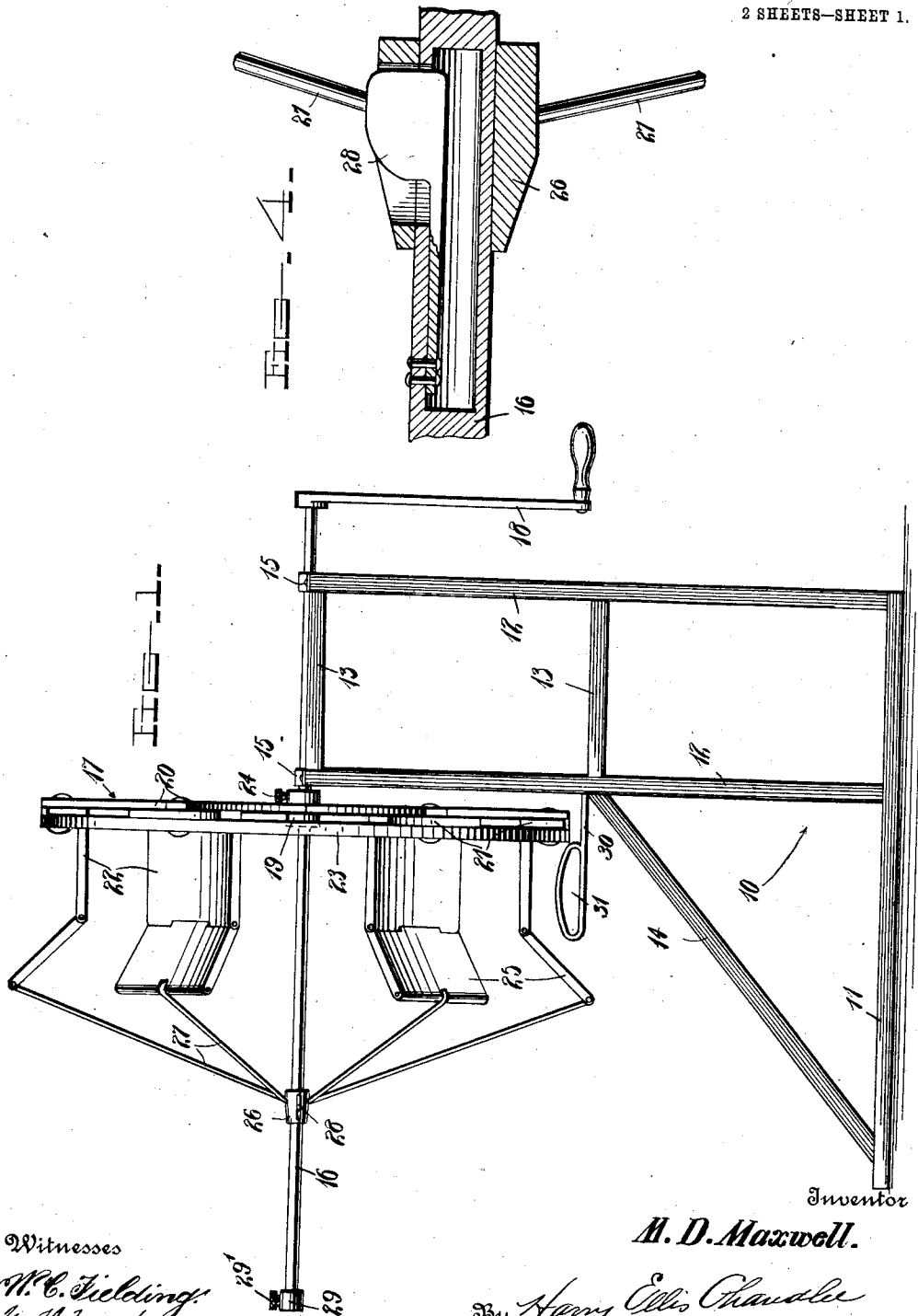


1,037,950.

M. D. MAXWELL.
REEL.
APPLICATION FILED NOV. 13, 1911.

Patented Sept. 10, 1912.
2 SHEETS—SHEET 1.



Witnesses
M. C. Fielding
W. H. Woodman.

Inventor
M. D. Maxwell.
By Harry Ellis Chandler
Attorney

M. D. MAXWELL.

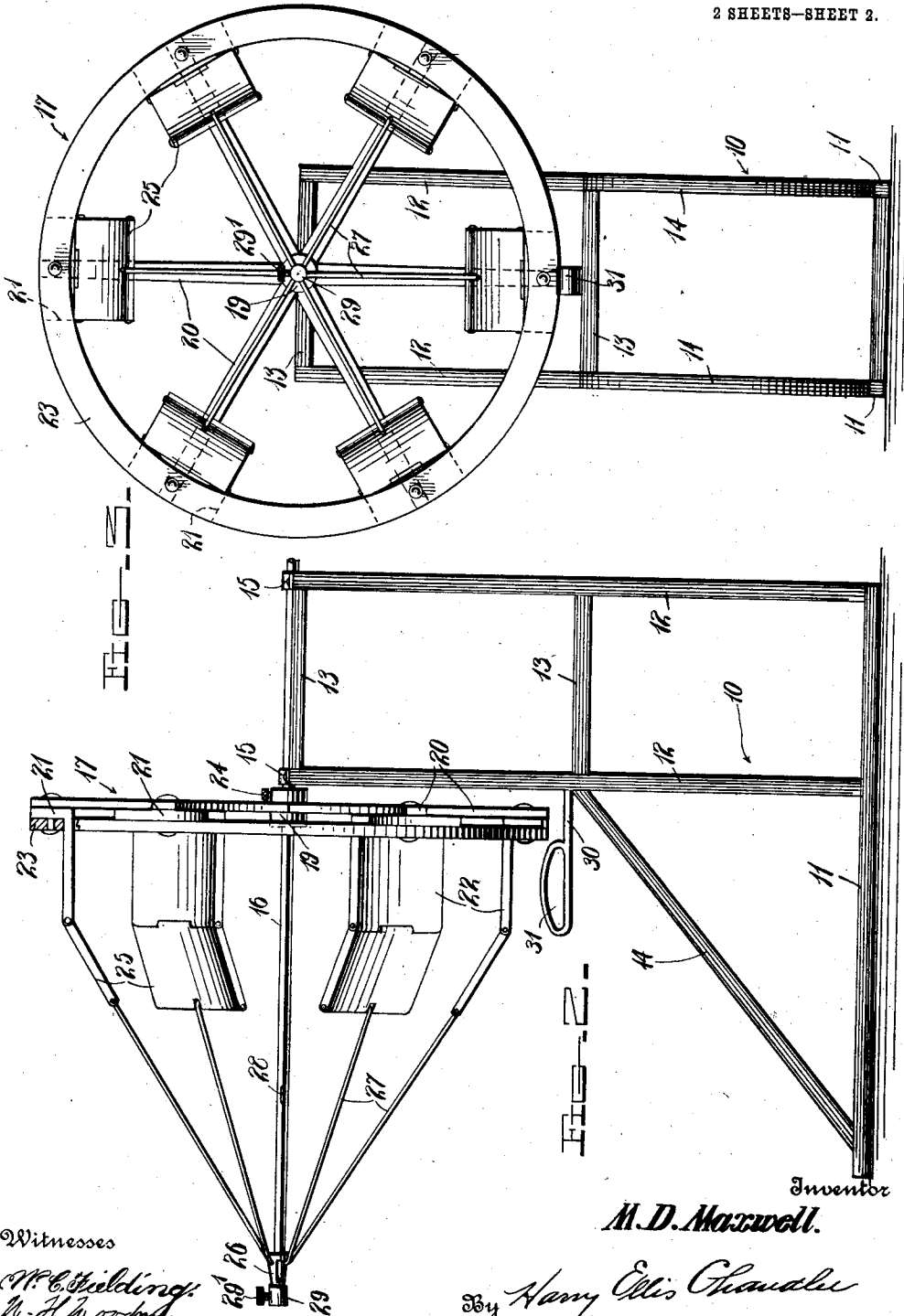
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UNITED STATES PATENT OFFICE.

MARION D. MAXWELL, OF HENDERSON, IOWA.

REEL.

1,037,950.

Specification of Letters Patent.

Patented Sept. 10, 1912.

Application filed November 13, 1911. Serial No. 660,054.

To all whom it may concern:

Be it known that I, MARION D. MAXWELL, a citizen of the United States, residing at Henderson, in the county of Mills and State of Iowa, have invented certain new and useful Improvements in Reels, of which the following is a specification.

My invention relates to new and useful improvements in reels for winding wire and the like, and the object of my invention is to improve the construction and increase the efficiency of reels employed for the above described purpose.

A further object of my invention is to provide a reel so formed, that the wire when wound thereon may be readily removed.

With these and other objects in view, my invention will be more fully described, illustrated in the accompanying drawings which show a preferred embodiment of my device and then specifically pointed out in the appended claim which is attached to and forms a part of my invention.

In the drawings, Figure 1 is a side elevation showing the reel in condition for use. Fig. 2 is a similar view showing the reel in position for the removal of the wire coiled thereon. Fig. 3 is a front elevation. Fig. 4 is a fragmentary detail partially in section, showing how the keeper ring is held against outward movement upon the shaft, thereby holding the hinged arms in operative position.

Referring more specifically to the drawings, in which similar reference numerals designate corresponding parts throughout, 10 designates in general the supporting frame of the reel which may be formed either of wood, or of metallic tubing as preferred and which consists of a rectangular base member 11 provided at one end with upwardly extended standards 12 which standards, form the corner posts of the frame and which are braced to each other by means of suitable braces 13 and to the base of the frame by means of diagonal braces 14. Suitable bearings 15 are carried by the frame and journaled in these bearings is a shaft 16 adapted to receive the reel which as a whole is designated by the numeral 17, said shaft extending in parallel spaced relation to the base 11 and being provided at one end with a hand crank 18.

The reel, which as a whole has been designated by the numeral 17 consists of a hub 19 having a plurality of radially extending

spokes 20 upon the outer end of each of which is secured an L-shaped plate 21, the laterally directed arms 22 of said plate forming the body or wire supporting portion of the reel as will be hereinafter apparent. An annular plate 23 surrounds these arms and is firmly secured by bolts or other preferred means to the plates 21 by the same bolts which secure said latter plates to the spokes. The hub 19 is provided with a bore whereby it may be mounted upon the shaft 16 and a set bolt 24 is provided for detachably securing said hub against rotation upon the shaft. As shown the arms 22 are hinged intermediate their length whereby the outer portions 25 of said arm may be swung outwardly to form holding fingers for preventing the displacement of the coiled wire from the reel, said outward swinging of the fingers being accomplished by means of a ring or runner 26 which is slidable over the shaft and which is operatively connected to the free ends of the fingers by means of brace rods 27. The hinged joints of these arms are so constructed as to limit the outward swinging of the fingers 25 and the shaft 16 is provided intermediate its length with a spring catch 28 adapted to normally prevent outward movement of the runner upon the shaft, said catch being so constructed that it may be forced into the shaft to permit the outward movement of the runner when desired. The free end of the shaft is provided with a detachable stop collar 29 normally held in position by means of a set nut 29'. A rod 30 carried by one of the braces 13 extends outwardly beneath the reel and terminates in a guide loop 31 through which the wire to be wound is passed, said loop thus serving to properly guide the wire as it comes to the reel.

In operation one end of the wire is secured to the reel when the wire is wound upon the reel in the customary manner. When the wire has been so wound the resulting coil may be readily removed by moving the runner 26 outwardly past the catch 28 thereby swinging the engaging fingers 25 inwardly to release the coil as shown in Fig. 2 of the drawings. Because of this construction wire coiled upon my reel may be readily removed for storage, leaving the reel free for future use, and may be readily replaced on the reel and unwound therefrom when it is to be used. By releasing the set bolts 24 and 29' the entire reel may be readily re-

moved from the shaft to permit a spool of wire being positioned thereon.

From the foregoing description it will be apparent that I have provided an extremely
5 simple and efficient form of reel and one from which the coiled wire may be readily removed.

It will of course be understood that minor changes in details of construction may be
10 made if desired, without in the slightest degree departing from the spirit of my invention.

What I claim is:—

A device of the character described, comprising a supporting frame, a shaft jour-
15 naled in said frame, and a reel detachably secured on said shaft, said reel comprising a hub, radially extending spokes, a rim secured to said spokes, laterally directed arms car-
20 ried by said spokes and hinged intermediate

their length to form retaining fingers, a runner slidably mounted on said shaft, connecting rods operatively connecting said runner and the outer ends of the hinged portions of said arms, said runner being movable to
25 swing the retaining fingers inwardly with respect to the shaft to form with the rods a conical centering member for positioning the wire, said runner also being movable
30 away from the hub to swing the fingers outwardly with respect to the shaft to retain the wire, and means for locking the runner to maintain the fingers in said latter position.

In testimony whereof I affix my signature, 35
in the presence of two witnesses.

MARION D. MAXWELL.

Witnesses:

M. S. STURGEON,
H. A. WORKMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."