No. 779,245. PATENTED JAN. 3, 1905.

C. W. STARK.

WIRE REEL.

APPLICATION FILED AUG. 3, 1904.

2 SHEETS—SHEET 1.

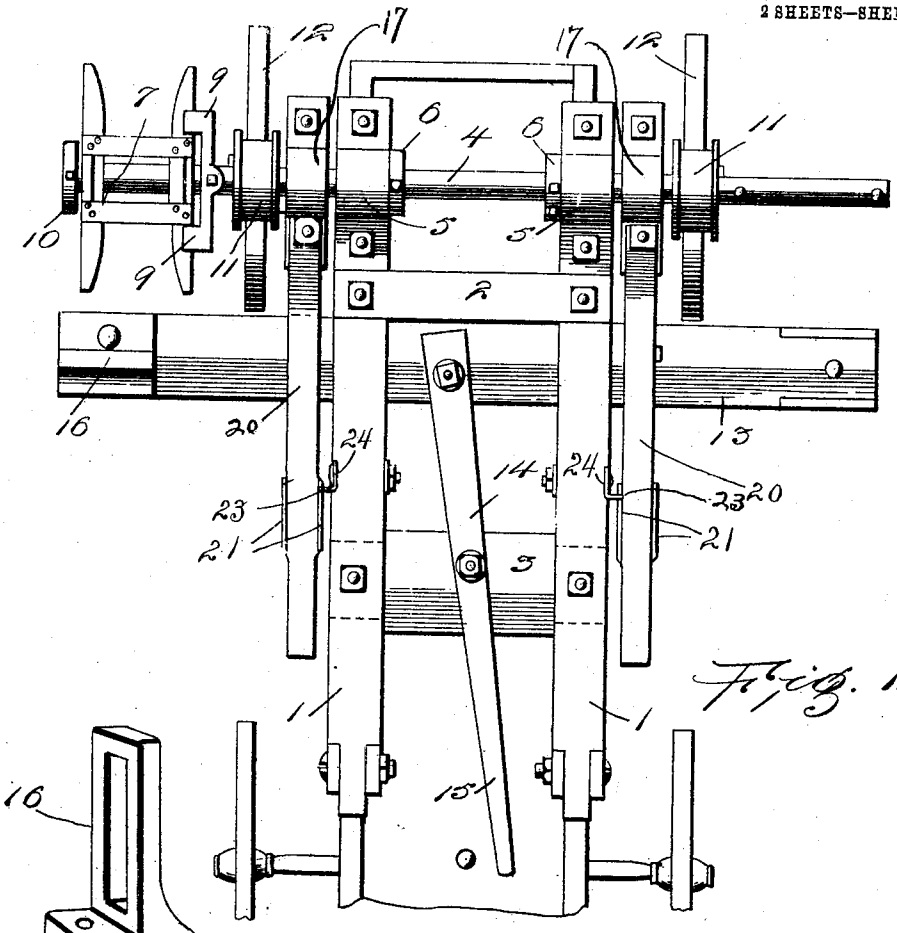
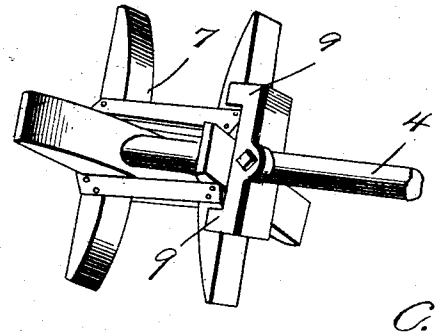


Fig. 1.

Fig. 5.

Fig. 4.



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2 SHEETS—SHEET 2.

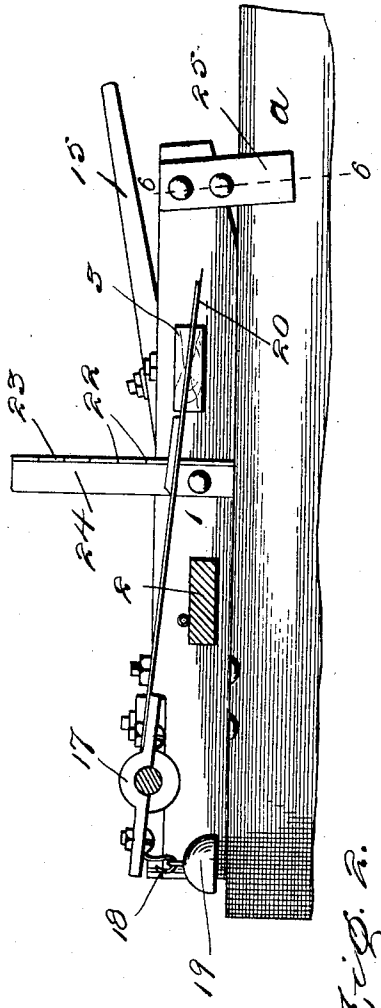


Fig. 4.

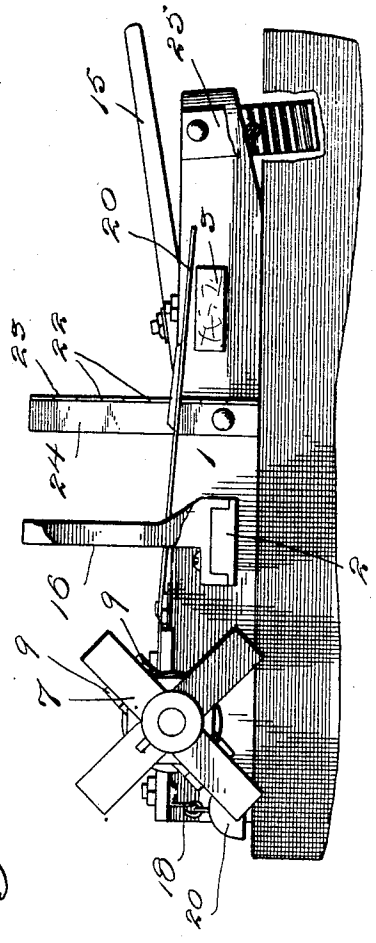


Fig. 5.

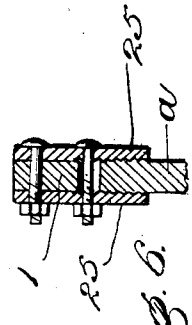


Fig. 6.

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UNITED STATES PATENT OFFICE.

CHARLIS W. STARK, OF MOUNTAIN LAKE, MINNESOTA.

WIRE-REEL.

SPECIFICATION forming part of Letters Patent No. 779,245, dated January 3, 1905.

Application filed August 3, 1904. Serial No. 219,384.

To all whom it may concern:

Be it known that I, CHARLIS W. STARK, a citizen of the United States, residing at Mountain Lake, in the county of Cottonwood, State of Minnesota, have invented certain new and useful Improvements in Wire-Reels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to devices for reeling or spooling barb or other wire.

It is unnecessary here to speak of the great difficulties met with in accomplishing the ends which this invention has in view. They are well known to farmers and all others who have had anything to do either with paying out or taking up and reeling wire that has been taken down.

This invention has for its object the provision of various practicable and efficient improvements whereby the work mentioned may be accomplished in a relatively satisfactory manner and with comparative ease and expedition.

The improvements will fully appear from the description hereinafter given, taken in connection with the annexed drawings, forming a part of this specification, and of which—

Figure 1 is a top plan view of the invention complete, showing parts of a wagon or other vehicle upon which it is arranged or with which it is associated when in use. Fig. 2 is a longitudinal section at the outer side of the half-box spring-lever. Fig. 3 is a side elevation. Fig. 4 is a detailed view of the reel and its clamp. Fig. 5 is a detail perspective view of the guide. Fig. 6 is a section on line 6 6 of Fig. 2, showing clamps engaged with the side of the wagon-body.

Like characters designate like parts or features wherever they occur.

In the drawings, 1 designates strong beams, which may be of wood and which extend longitudinally of the machine, being in the present case tied together by a stout cross-piece 2, bolted at its ends to the beams, and a metallic bar 3 toward the forward end, also bolted to the beams.

4 designates the main shaft, extending transversely of the beams 1 and having suitable bearings in the boxes 5 5 on the forward ends of the beams. Collars 6 6 may be fixed by set-screws or otherwise on the shaft 4 just inside the journal-boxes 5 to prevent the shaft from having endwise movement imparted to it. The outer ends of the main shaft are adapted to receive the reel or spool 7; but in order to hold the said reels from turning on the shaft the latter is provided with strong spool-holders firmly secured to the shaft and provided with outwardly-extending flanges 9, which are adapted to grip the arms of the spools and hold them firmly in place. Collars 10 may also be provided on the ends of the shaft set closely to the spools or reels and fixed in place by set-screws to assist in holding the reels or spools in position.

11 11 designate drive-wheels firmly secured upon the main shaft at a suitable distance apart. The said drive-wheels are shown as flanged at their outer sides; but they may be otherwise constructed to adapt them to be placed on the wheels of a wagon or other vehicle and driven by frictional contact therewith. Portions of wagon or other vehicle wheels are designated by the numerals 12 12.

13 designates a bar arranged in suitable guideways so that it can be moved back and forth to a limited extent transversely of the machine by means of a lever 14, pivoted at its inner end on the said movable guideways and also pivoted at a point farther back on the cross-piece 3, so that the operator by taking hold of the free extended handle 15 may shift the bar 13, which is provided at its ends with substantial wire controllers or guides 16 and lay the wire on the reels in an orderly and desired manner.

17 desigates a half-box adapted to fit over the main shaft, which half-box is provided on its under side at its forward end with a hook 18 to receive a weight 19 of any suitable size in order to bear the drive-wheels down on the wagon-wheels and to apply friction to the main shaft so that it may run smoothly and reel the wire with practically even tension. The half-box has a spring-lever 20 attached to its rear end, which lever extends rearwardly substantially parallel to beams 1 and has at a

suitable point upturned flanges 21 on each of its sides, which may be made to engage either of the kerfs or notches 22, formed in the flanges 23 of the uprights 24, attached at their lower ends to the beams 1. The spring property of the lever 20 is employed with the weight to prevent the half-box from being held down too rigidly on the main shaft, and the means for locking or latching the free arm of the lever down are made in order that it may operate automatically and not require manual attention all of the time. It is obvious that the half-box may be placed on the main shaft adjacent to either drive-wheel 11, with its spring-lever extending rearwardly outside of either beam 1, and also that a reel or spool may be placed on either end of the main shaft or on both ends at the same time and wire may be wound on each if the latter is far enough apart. The same thing applies to unwinding the wire. When winding or reeling one spool at a time, the half-box and spring-lever should be placed on the opposite side of the machine in order to preserve a more even weight and make the machine run smoothly.

The rear ends of the beams 1 1 are provided with clamps 25, whereby the beams may be secured to the side boards *a* of the wagon-box. The said clamps are roughened in their inner sides in order to make them take good hold on the said sides of the box.

The mode of operation of the machine has been quite fully disclosed in setting forth its construction and the relationship of the parts to each other; but it may be added that in use the machine will be placed on a wagon-box in such position that the drive-wheels 11 11 will rest on the tires of the hind wheels of the wagon. The clamps 25 may then be secured to the side-boards *a* of the wagon-box, as described, and as it will appear from the drawings they may be. The half-box may then be arranged in proper place on the main shaft, with its attached weight in position and the spring-lever pushed down to force the drive-wheels into engagement with the wagon-wheels and the spring locked down by making it to engage with one of the kerfs of the uprights secured to the beams 1. The ends of the wire regulators or guides are connected with the reel, when the horses may be started and driven along the wire with the effect of spooling or reeling it in good shape.

Of course a wire controller and guide 16 will be placed on each end of the shifting bar 13 when two rails are operated at a time.

I do not confine myself to the exact form of details of construction when those may be varied in form and arrangement without departing from the spirit of the invention.

I claim as my invention the following:

1. The combination, with the two stout longitudinal beams, of clamps at one end for securing the beams on the top of a wagon-box, the main shaft adapted to receive a spool or reel on each end thereof, driving-wheels on the main shaft to engage the wheels of a vehicle, and a half-box, weight, and spring-lever to bear on the main shaft.

2. The combination with longitudinal beams having means for securing them upon a wagon-body, of a shaft journaled transversely of the beams and projecting at both ends therebeyond, driving-wheels fixed upon the end portions of the shaft in position to bear upon the wheels of the vehicle, a half-box disposed removably upon the shaft adjacent to a driving-wheel, a weight attached to the half-box at one side of the shaft, a spring-lever secured to the half-box at the opposite side of the shaft, means carried by each of the beams for holding the lever against upward movement when correspondingly located, a reel removably mounted upon one end portion of the shaft and adapted for mounting upon the opposite end portion and removable means for holding the reel upon the shaft.

3. The combination with the two stout longitudinal beams, provided with clamps at one of their ends, bearings for the main shaft at the other ends, and transverse bars for holding the bearings in proper place, of the main shaft, driving-wheels and reels carried thereby, and means for bearing on the main shaft.

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

CHARLIS W. STARK.

Witnesses:
J. H. DICKMAN,
J. J. REIMER.