

No. 628,977.

Patented July 18, 1899.

E. T. WRIGHT.
WINDING DRUM.

(Application filed Feb. 20, 1899.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1

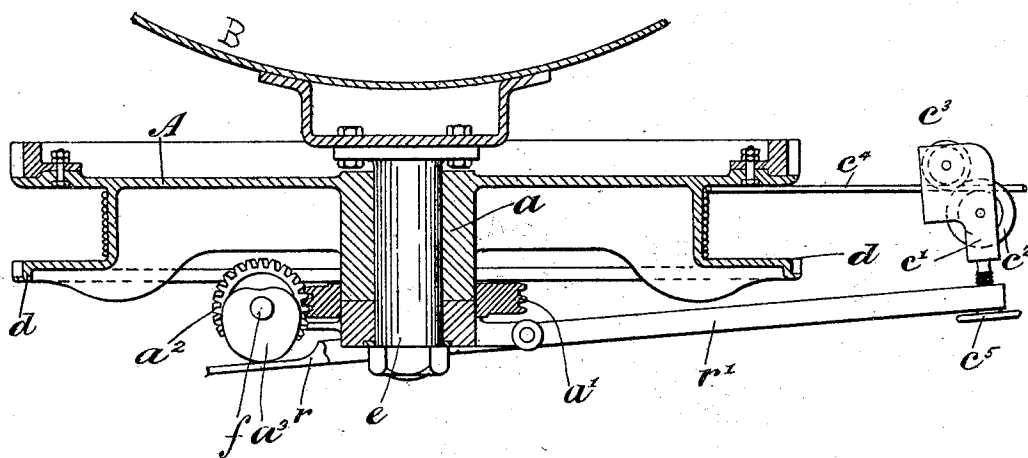
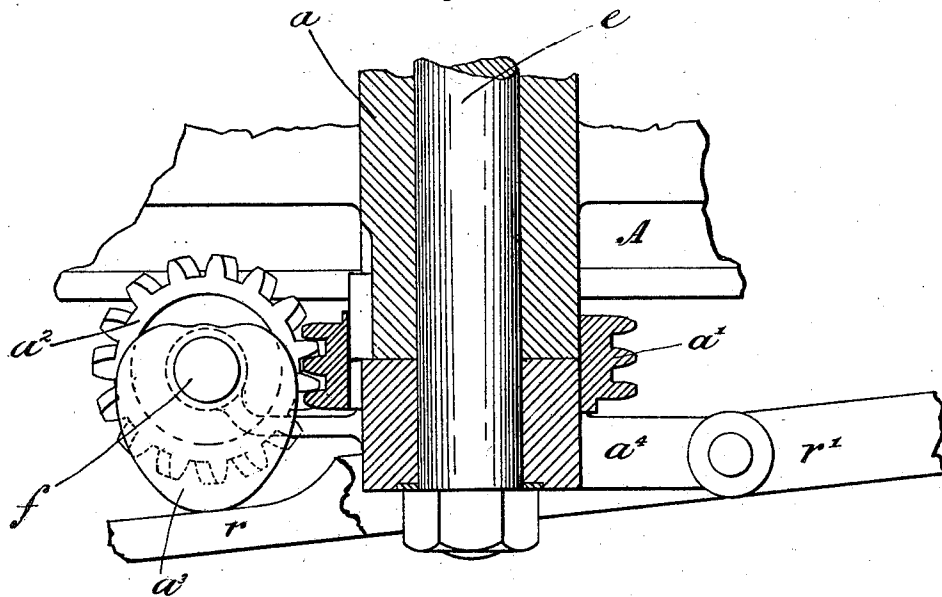


Fig. 2



Witnesses
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By his Attorney

UNITED STATES PATENT OFFICE.

EDWARD T. WRIGHT, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE O. S. KELLY COMPANY, OF SAME PLACE.

WINDING-DRUM.

SPECIFICATION forming part of Letters Patent No. 628,977, dated July 18, 1899.

Application filed February 20, 1899. Serial No. 706,155. (No model.)

To all whom it may concern:

Be it known that I, EDWARD T. WRIGHT, a subject of the Queen of England, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Winding-Drums, of which the following is a specification.

My invention consists in the construction of a winding-drum for use in connection with steam or other motive engines.

It particularly relates to a form of winding-drum for use with a traction-engine, and is adapted for use in moving plows, scrapers, or similar machines.

My object is to construct a drum by means of which the rope or other connecting device used in drawing the said machinery can be evenly and readily wound about the said drum while the scraper, plow, or similar machine is being drawn by the traction-engine or other motive power, the mechanism being so constructed and arranged that the same is adjustable to any desired position in use.

In the drawings, Figure 1 is a sectional view. Fig. 2 is a detail view of the worm-gearing and attachments, parts of same being broken away. Fig. 3 is a detailed view of the bottom of the drum and frame.

Like parts are represented by similar letters of reference in the several views.

In the said drawings, A represents the drum, which is formed with flanges d and is adapted to revolve about the bolt e , attached to the boiler or lower part of the engine through its hub a .

B represents the lower part of the traction-engine.

a' and a^2 constitute the worm-gearing, the worm or screw a' being keyed on the hub of said drum and adapted to move with it. The pinion a^2 is journaled on the shaft f . Rods r r' , as shown in Fig. 3, converge together at one end and by means of the screw c^3 , which is connected rigidly to the block c' , supporting the pulleys c^2 and c^3 , between which the rope c^4 or other attaching device moves, form an adjustable connection with said block c' . Said rods r r' are connected by the rod r^2 and constitute the frame or traveler for regulating the winding of said rope. Said traveler

is pivoted on the bar r^3 . The bar r^3 is supported at each end to the sleeve or hub a^1 , which is adapted to revolve independently of said drum-hub about the bolt e . The hub a^4 also supports the shaft f . At each end of the shaft f and adjacent to the said rods r r' is a cam a^3 . Said cams a^3 are formed of such shape that by contacting with the traveler, as shown in Figs. 2 and 3, they will cause the rope to travel from one side of said drum to the other. Said rods r r' converge together at one end with a screw-threaded hole for inserting the adjustable screw c^5 , which is connected to the block c' . To the block are pivoted the pulleys c^2 and c^3 , which engage the rope, as shown in Fig. 1, said block being adjustably mounted, so that the rope may be wound in any desired position without changing the position of the engine.

In operation it will readily be seen that the shaft f is revolved by reason of the pinion being geared with the drum a , which in turn is revolved by connection to the engine or other power for winding the rope c^4 . The cams a^3 by reason of their peculiar constructions will when the drum is revolved vary the position of the block c' with reference to said drum and will readily regulate the winding of the rope, so that it can be uniformly and evenly wound about the arm. By having the hub a^4 carry the entire mechanism upon the stud or bolt e the same is adjustable to any desired position without changing the relative position of the separate parts.

Having thus described my invention, I claim as follows:

1. The combination with a frame or support of a rope as an attaching device and a revolving drum for winding said rope, a traveler connected to said drum and means controlled by the movement of said drum for regulating the movement of said traveler for winding uniformly rope about said drum.

2. The combination with a frame or support of an attaching device, a revolving drum pivoted to said support, worm-gears operated by the movement of said drum, a traveler controlled by said worm-gears, and means for regulating the winding of the attaching device about the said drum.

3. The combination of a drum, a rope as an attaching device, a worm keyed on the bearing of said drum and adapted to move with said drum, a piston journaled on a shaft, and a cam at each end of said shaft, a traveler positioned to the other end of said cam connecting with the rope and adapted to regulate the winding of said rope about the drum.
4. The combination of a frame of support, a bolt secured to said support and a drum revolving about said bolt, a rope as an attaching device, a worm keyed on the bearing of said drum, cams journaled on a shaft and operated by the movement of said worm, a traveler consisting of rods converging at one end journaled to a bearing and independent of the bearing of the drum, and devices for connecting the traveler to the rope.
5. The combination with a revolving drum, of a traveler consisting of rods journaled to a bearing independent of said drum and re-

volving on the same axis thereof, an attaching device connected to said traveler, a block with pulleys engaging said attaching device and connected to one end of said traveler, and means for varying the position of said traveler.

6. The combination with a frame of support of a drum of shaft connected to said support, a rope as an attaching device, a worm revolving about the shaft, winding said rope, and means controlled by the movement of said drum for winding the rope evenly in any desired position while maintaining the relative position of said parts.

In testimony whereof I have hereunto set my hand this 13th day of February, A. D. 1899.

EDWARD T. WRIGHT.

Witnesses:

BORDER BOWMAN,
EARL G. WELCH.