

(No Model.)

W. L. YOUNG.
WIRE ROPE DRUM REEL.

No. 348,943.

Patented Sept. 7, 1886.

Fig. 1.

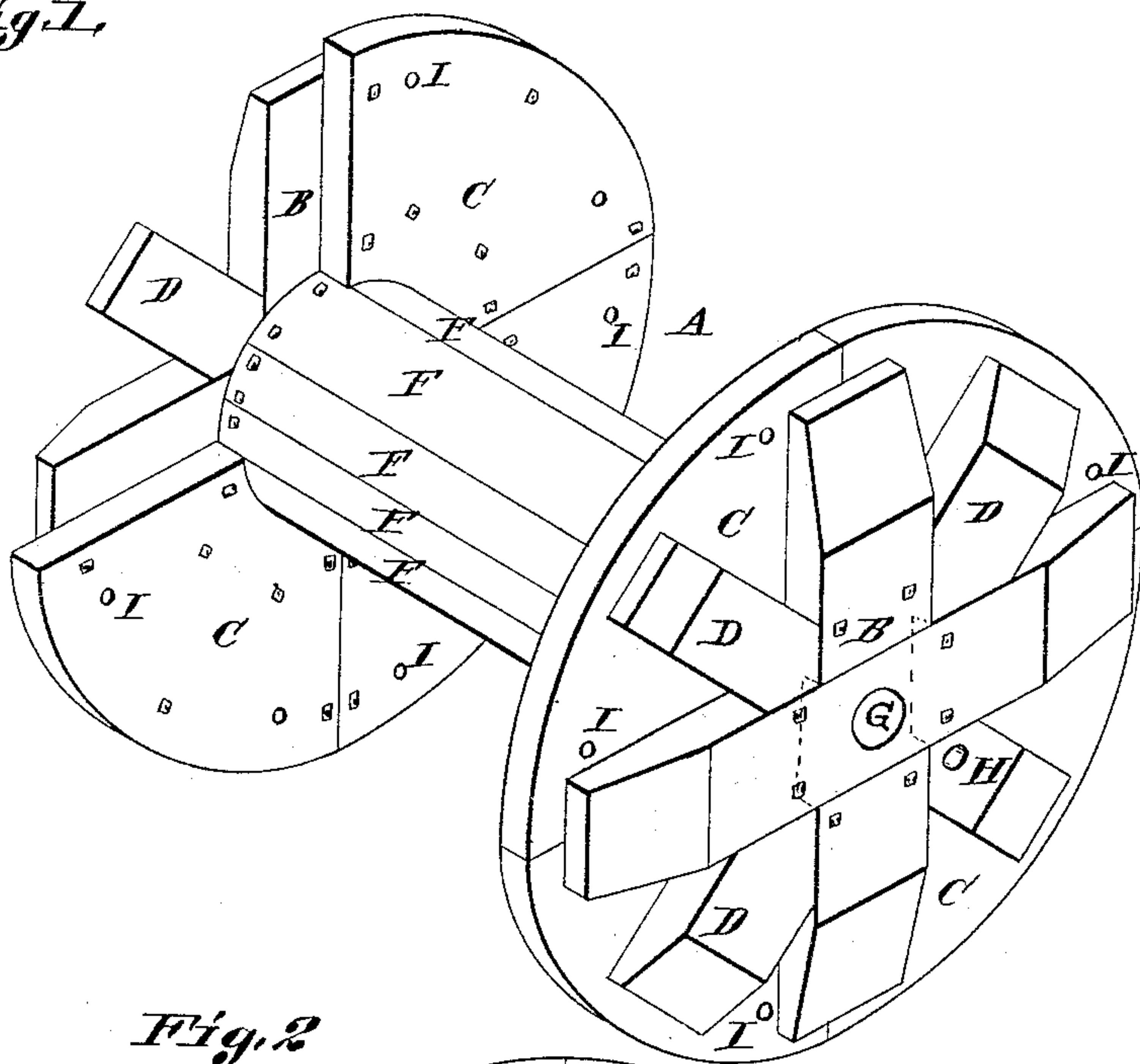


Fig. 2

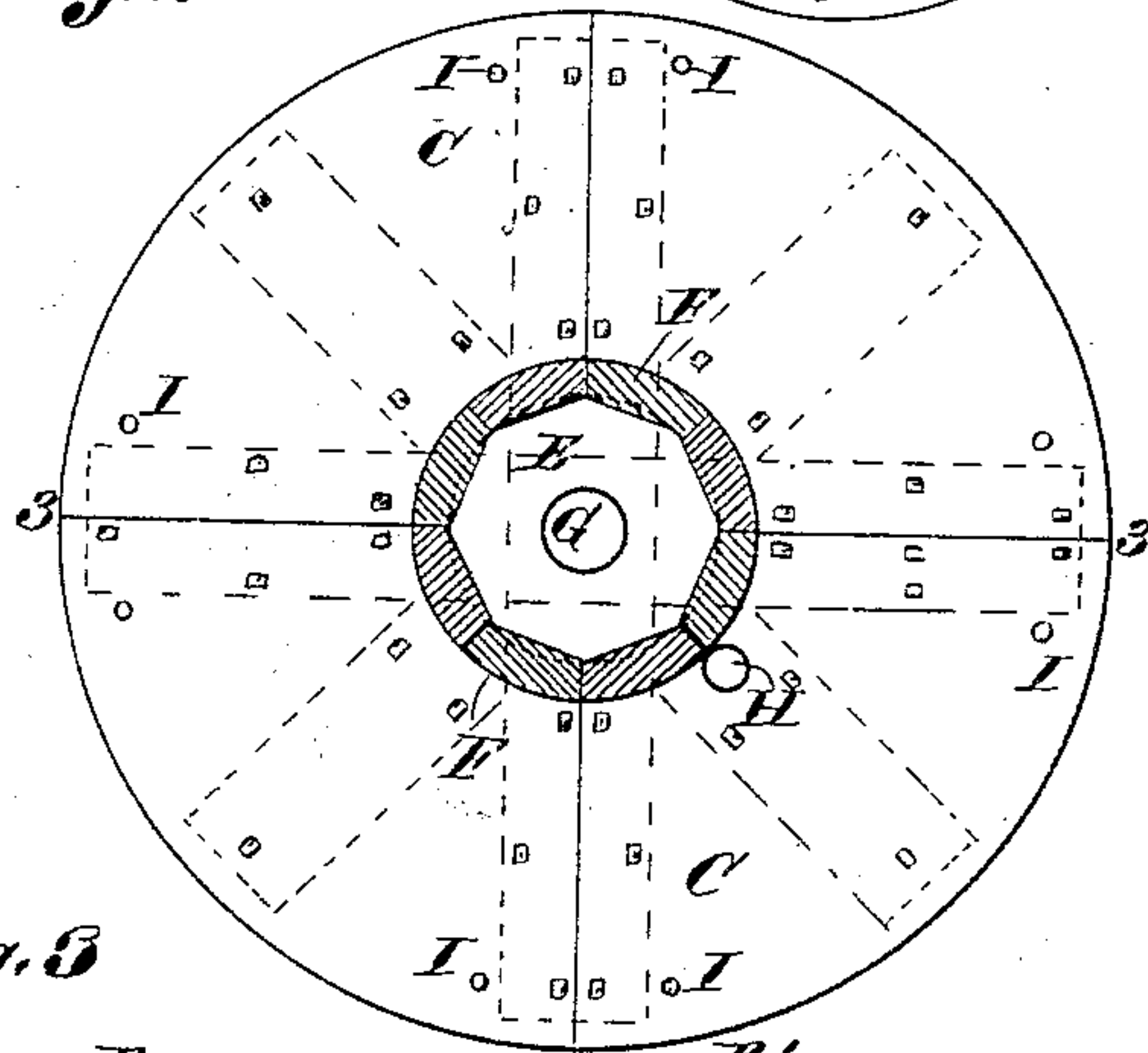
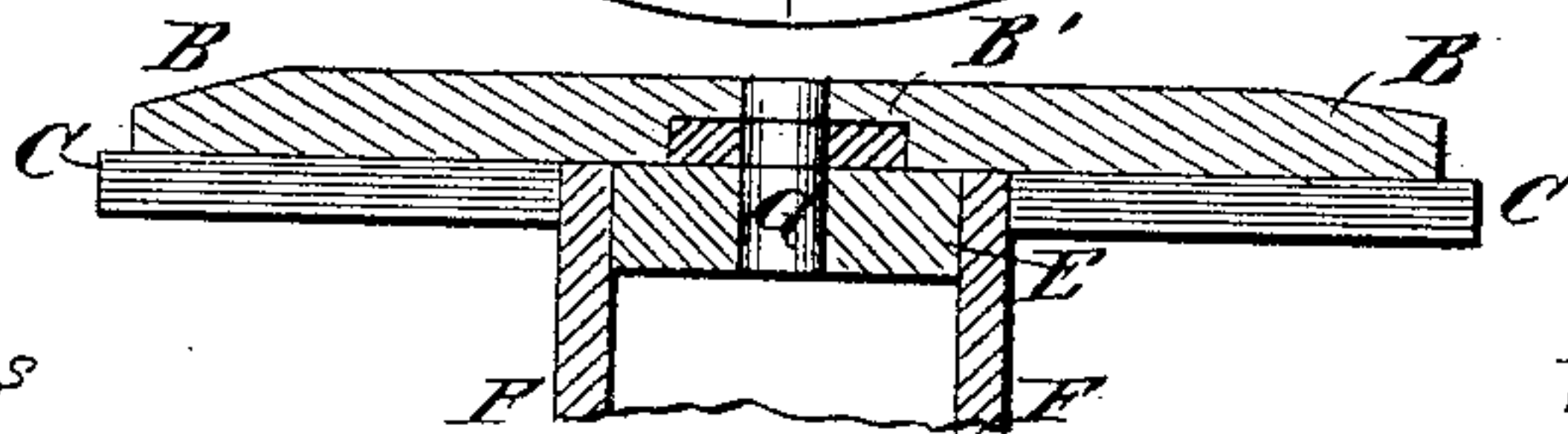


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM L. YOUNG, OF ST. CHARLES, MISSOURI.

WIRE-ROPE DRUM-REEL.

SPECIFICATION forming part of Letters Patent No. 348,943, dated September 7, 1886.

Application filed July 2, 1886. Serial No. 206,989. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. YOUNG, of St. Charles, in the county of St. Charles and State of Missouri, have invented certain new and useful Improvements in Wire-Rope Drum-Reels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a perspective view of my reel, part removed to show the spider-frame with the manner of attaching sections of the end disks to said frame and of securing the section-strips of the drum. Fig. 2 is a transverse view on line 2 2, Fig. 3, showing one of the reel-heads, the octagonal drum-disks, and cross-section of the drum; and Fig. 3 is a vertical section taken on line 3 3 through one of the heads and part of the drum.

My invention relates to improvements in wire-rope reels; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, in which similar letters of reference indicate like parts, A represents my improved wire-rope drum-reel; B, the spider-bracket frames to which the end disks, C, are secured, and B' the joint at which the bracket-strips are halved together.

D are battens for re-enforcing the head-disks and to secure them from splitting when the loaded reels are handled.

E are the octagonal drum-disks, to which the sectional strips F of the drum are secured.

G is the journal-bearing on which the reel rotates in the process of filling or discharging.

H is a perforation through one of the end disks, that acts as a holdfast for the wire rope or cable in the initial start in winding, and I are perforations near the periphery of the head-disks, through which ropes or wires are passed to firmly secure the heads to each other after the filling of the reel, and insure the safety of the package when roughly handled in shipping.

One important feature in my improvement is that it is a circular drum-reel, instead of a pin or bar skeleton reel, and in consequence cannot kink the wire rope or cable.

It is well known that the kinks formed on the wire rope in reeling, as it passes over the pins or bars of skeleton reels, are a great in-

jury to the wire rope and a fruitful source of trouble and hindrance to the operatives in stretching the rope. It is found that when kinks are once formed and tightly clamped by the winding of the rope on the reel, it is almost impossible to reduce the kink and reproduce the smooth undeviating surface that once existed in the rope.

In construction, the drum-disks, which have an octagon instead of a circular form, are connected by strips of the right width to cover the octagonal sections at their periphery. The strips are left flat on the inside to firmly fit the octagonal surface of the disk, and are machine-dressed on the outside, (previous to attachment,) to present a perfectly-circular outline to the drums when they are seated and secured in position. The spider-brackets, formed in strips halved into each other, are then securely nailed or bolted to the drum-disk, and the quarter-sections of the head-disks secured by the same means to the brackets. The supplemental bracket strips or battens are then secured (half-way between the main strips of the spider-bracket) to the head-disks, to re-enforce the same and prevent their splitting at their periphery. The reel then receives its center bore to form its shaft-bearing, and the perforations H and I are made in its head-disks, as heretofore described, the functions of which perforations are hereinafter explained in reference to its operation, and the reel is finished, ready for use.

The operation of the reel is as follows: Having been placed on its spooling-shaft, the initial end of the wire rope or cable is passed through the hole H in one of the heads of the reel, and is bent round, so as to grasp its hold thereof, which will generally be found to produce sufficient tension to retain the wire rope in place on the drum until the tension around the drum itself is initiated. When preferred, a small staple may be driven over the wire rope (near its end) into the spider-frame adjacent to the hole through which it has been passed. The reel is then turned on its shaft in the usual manner of filling reels, and when filled a wire or cord is passed through the holes I, near the periphery of the disks. Thus connecting the heads they are made to brace each other, and the laden reel (which frequently carries a weight of from four to five

thousand pounds) is thus protected from breakage in the course of the rough handling it sometimes receives while shipping and in course of erection. It will thus be seen that
5 my wire-rope drum-reel embraces practical features both for the preservation from injury of the wire rope or cable in the process of reeling and the production of a strongly-braced and easily-constructed reel.

10 I claim as my invention—

1. In wire-rope reels, the combination of the octagonal drum-disks E, the covering drum-strips F, curved on the outside, the spider-bracket frame B, and end disks, C, arranged
15 to present a smooth drum-surface for reeling the wire rope, all substantially as described, and for the purpose set forth.

2. In wire-rope reels, the drum-shaft arranged to connect the reel-heads and present

a smooth curved drum-surface for reeling the 20 wire rope, in combination with the spider-bracket frame with re-enforcing battens B, all substantially as described, and for the purpose set forth.

3. In wire-rope reels, the winding-drum 25 with its octagonal drum-head disks and laterally-curved strips F, in combination with the re-enforced reel-heads, the perforations H, for the initial attachment of the wire rope, and holes I, for the passage of tie-wires, all ar- 30 ranged to re-enforce the reel and present a smooth curved drum-surface for reeling, substantially as described, and for the purpose set forth.

WILLIAM L. YOUNG.

In presence of—

BENJN. A. KNIGHT,
SAML. KNIGHT.