(No Model.) 2 Sheets—Sheet 1.

J. H. HOLBROOK.

TWINE REEL.

No. 360,440. Patented Apr. 5, 1887.

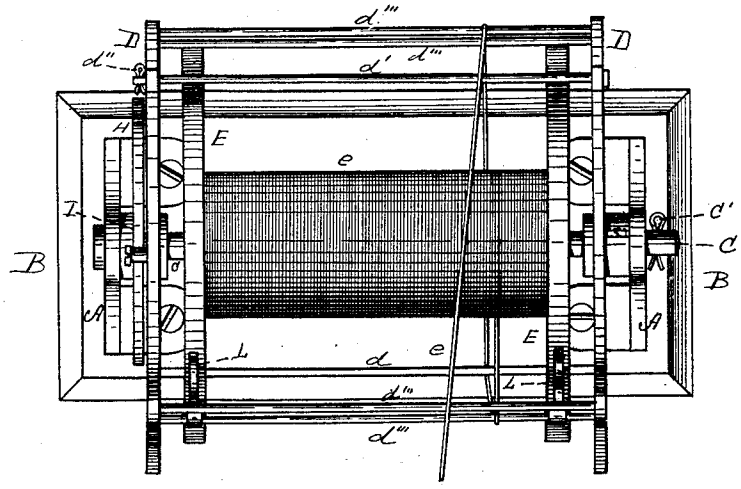


Fig. 1.

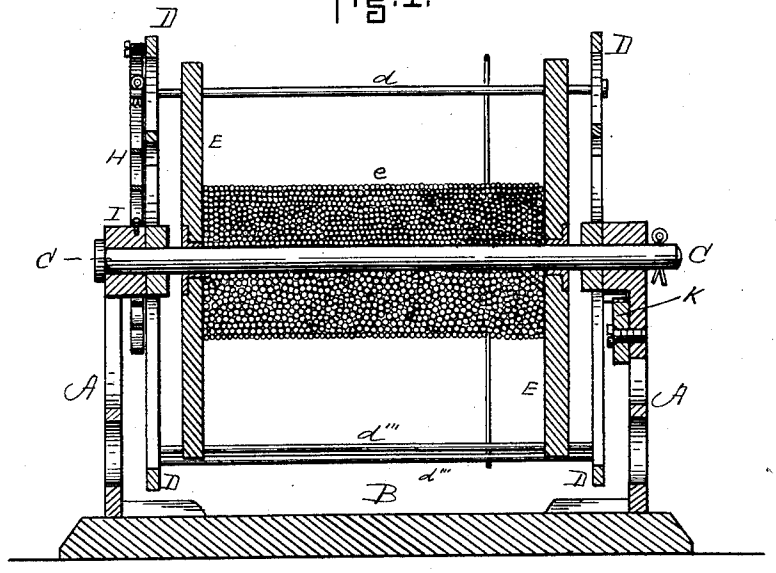


Fig. 2.

WITNESSES.

J. M. Hartnett.

B. W. Williams

INVENTOR.

James H. Holbrook

By his Atty.

Henry W. Williams

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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TWINE REEL.

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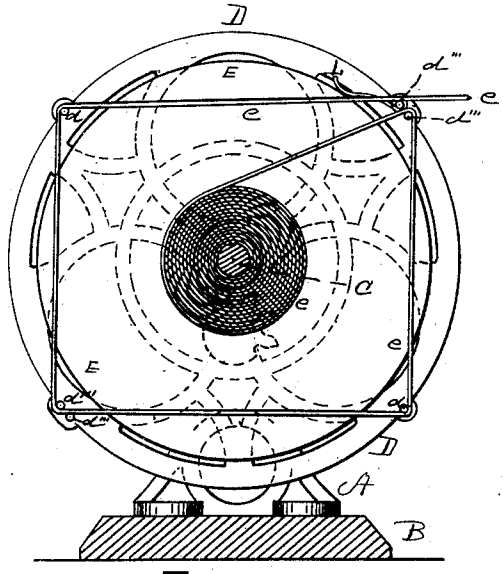


Fig. 3.

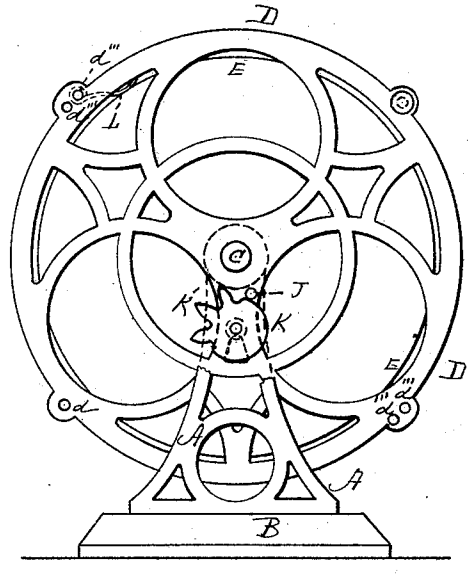


Fig. 4.

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UNITED STATES PATENT OFFICE.

JAMES H. HOLBROOK, OF BOSTON, MASSACHUSETTS.

TWINE-REEL.

SPECIFICATION forming part of Letters Patent No. 360,440, dated April 5, 1887.

Application filed December 11, 1886. Serial No. 221,260. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. HOLBROOK, of Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Twine-Reels, of which the following is a specification.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a plan view of a twine-reel embodying my invention. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse vertical section. Fig. 4 is an end elevation with a portion of the frame broken out.

A A are standards, adapted to rest upon a store-counter or other convenient support, in the drawings being represented as secured to a base, B. These standards support an axle, C, upon which are loosely placed a small reel consisting substantially of the two wheels D, connected by the horizontal rods or bars *d*, and, within said reel, the bobbin E, upon which is wound the twine *e*. A coiled spring, H, is connected at one end to one of the wheels D, and at its other end to the hub I, rigidly secured to one of the standards. In operation, when the twine is pulled and unwound from the bobbin, the reel is rotated against the power of the spring, and when the twine is cut off the spring rotates the reel in the opposite direction and winds the slack around it, as seen in Fig. 3.

In order to limit the number of rotations of the reel when the slack is being wound, a horizontal pin, J, (see Fig. 4,) is inserted in one of the wheels D and engages the spur-wheel K, pivotally secured to the inner side of the corresponding standard A. This wheel has three teeth, K′, the remainder of its circumference being plain. When the twine is pulled upon, the reel will make three revolutions, during each of which the pin J actuates one tooth K′. At the end of the third revolution the pin strikes the plain portion of the wheel K and the reel is stopped; but the bobbin is free to unwind until the amount of twine desired has been taken from it. When the twine is cut off, the reel makes three revolutions in the opposite direction and stops at the third, thus preventing the twine from becoming tangled, as is the case when the wheel is allowed to rotate freely to its full extent and then reciprocate until it gradually comes to a stop.

In order to prevent the bobbin from turning too freely within the reel and thus tangle the twine, one or more spring-brakes, L, have one end rigidly secured to one of the bars of the reel, while their free ends rest on the peripheries of the flanges of the bobbin.

To remove the bobbin, the axle C is withdrawn by taking out the split pin C′, and the rod *d*′, Fig. 1, which is not rigid in the wheels D, is removed by lifting out the split pin *d*″. Two of the rods (those marked *d*‴) are placed very near together in order to guide the twine as it is withdrawn.

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

In a twine-reel, the combination, with the axle C, the bobbin E, and reel *d d*, adapted to rotate thereon, and spring H, of the standard A, provided with the spur-wheel K, having a portion of its circumference plain, and an engaging-pin, J, secured to said reel, substantially as and for the purpose set forth.

JAMES H. HOLBROOK.

Witnesses:
W. C. LEWIS,
HENRY W. WILLIAMS.