

(No Model.)

W. P. PUTNAM.

CURTAIN FIXTURE.

No. 256,736.

Patented Apr. 18, 1882.

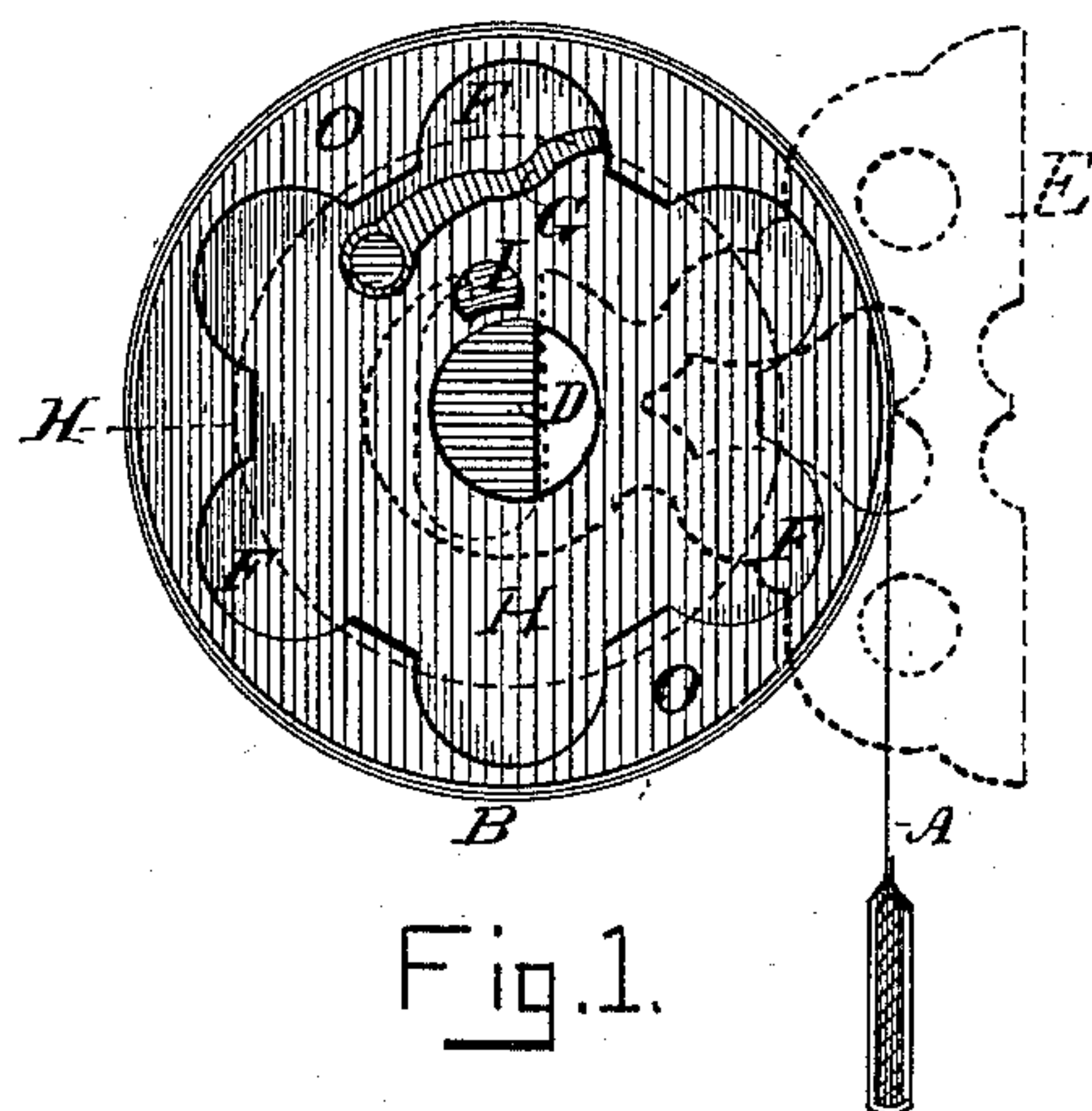


Fig. 1.

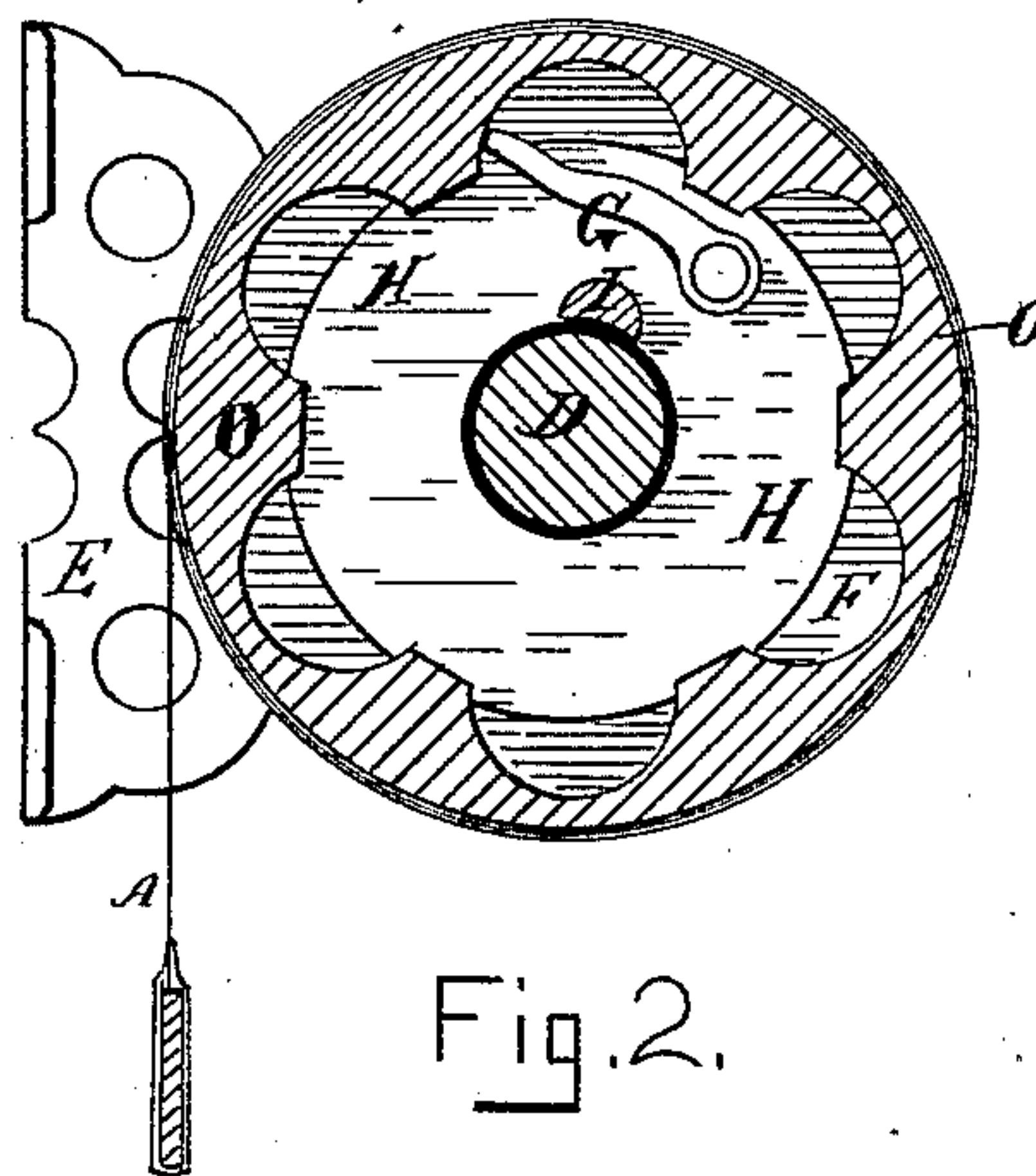


Fig. 2.

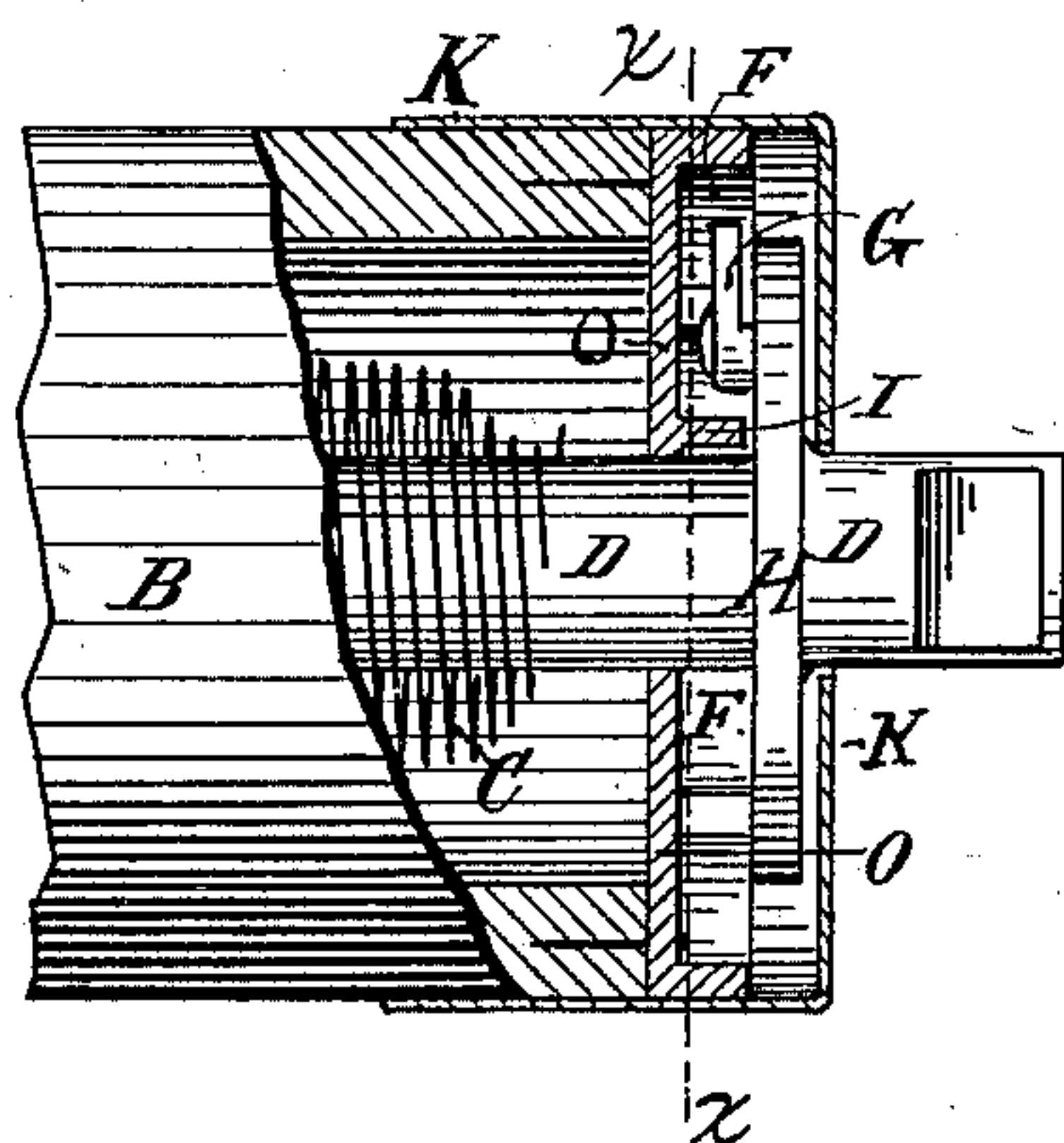


Fig. 3.

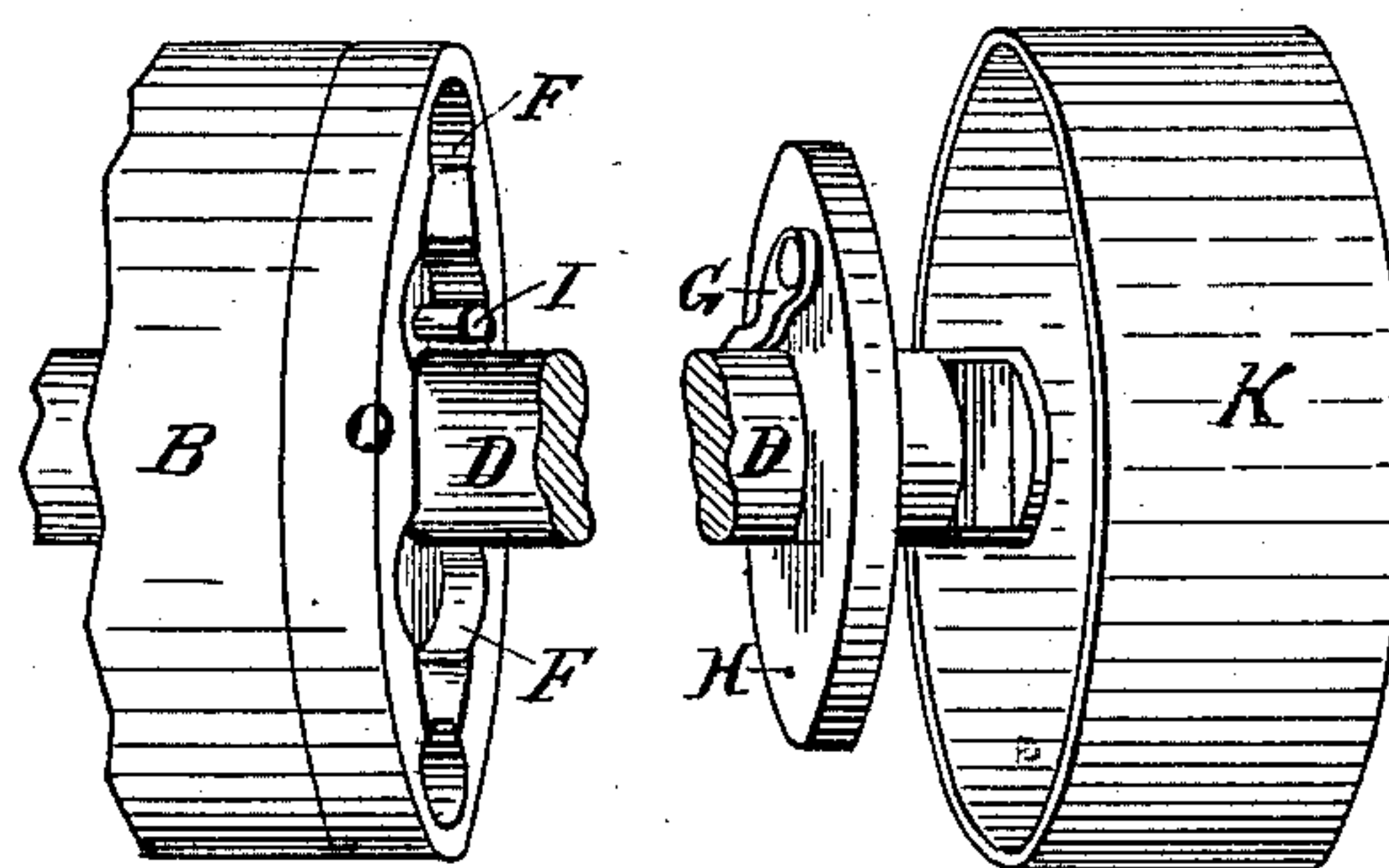


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

WENDELL P. PUTNAM, OF WATERTOWN, MASSACHUSETTS.

CURTAIN-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 256,736, dated April 18, 1882.

Application filed January 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, WENDELL P. PUTNAM, a citizen of the United States, residing at Watertown, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Curtain-Fixtures; and I do hereby declare that the same are fully described in the following specification and illustrated in the accompanying drawings.

It is well known as a serious objection to stop-fixtures arranged to lock when manipulated slowly that should the shade slip from the hand of the operator before being fully locked, it will fly and continue to roll up until the power of the spring is exhausted.

The object of my improvement is to remedy this and provide a stop-fixture which may be readily run up and down at a moderate speed without locking, but which will effectually prevent the shade, under the tension of the spring, from running clear up to the top of the window when inadvertently released in an unlocked condition.

My invention consists in a spring curtain-roller, carrying a recessed cap, having near its center a pawl-lifting projection, as will be described, in combination with a spindle passing through said cap and provided with a pivoted pawl, so arranged as to be gently lifted by the projection in the cap when the roller is rotated at moderate speed around the spindle held stationary in the brackets, and to be forcibly thrown up into engagement with the recess or teeth of said cap when the roller is rapidly rotated. From this it will be obvious that while the roller is mounted in its brackets my locking devices engage only when the rotation is rapid, and that the roller is not locked with a slow movement. This result is the exact reverse of the ordinary action of stop-fixtures.

The pivoted pawl and the ratchet-teeth or recesses of the end cap serve also as a lock to prevent uncoiling of the operating-spring in case the spindle is removed from the bracket without previous locking, since the rotary impulse at once imparted by the spring to the spindle will throw the free end of the pawl centrifugally outward into engagement with the recesses in the cap. I do not, however, at this time claim centrifugal locking by means

of a pivoted pawl, broadly, since in a joint application for patent recently made by me and one Frank M. Kelley a similar pawl was employed to engage with the wall of the spring-chamber or end cap to lock the spindle to the roller. Such apparatus being destitute of the notches or recesses in the cap, and also of the pawl-lifting projection near its center, could not operate as a stop-fixture for the mounted roller, and hence said lock was not operative under all circumstances, both when mounted in the brackets and when removed therefrom.

The drawings illustrate my invention, Figure 1 being an end view of the roller as mounted in its brackets and locked. Fig. 2 is a cross-section, at $x x$, Fig. 3, through the end cap, looking toward the bracket seen in Fig. 1; Fig. 3, a side view, partly in section, to exhibit the locking device; and Fig. 4 shows the parts of the locking device detached. In Fig. 1 the bracket and the collar H are indicated by dotted lines, as though transparent.

The shade A is mounted upon the roller B, which has the usual operating-spring, C, surrounding the spindle D, which is held, a given side uppermost, by the bracket E in the ordinary manner.

A cap, O, is secured to the end of the roller, so as to revolve with it around the spindle D, which forms a bearing for the cap and roller. The cap has a peripheral flange, within which is formed a recess, F, or a series of recesses, to receive the toe of the locking-pawl G, which is pivoted to a collar, H, or some equivalent projection on the spindle, so as, when engaged with the recesses F, to stop the upward movement of the shade.

Within the cap and near to its bearing upon the spindle there is formed a projecting lug, I, which extends outwardly, about parallel to the spindle, sufficiently far to lift the pivoted pawl G with each rotation of the roller. This pawl is so located and shaped as to be struck about midway of its lower edge by the lug I, while its pivot is just out of the track of said lug in its rotary movement. This arrangement of parts permits the lug to lift the pawl without striking its pivot, so that free rotation of the roller in either direction is assured.

The end of the roller may be inclosed in a ferrule, K, concealing the locking devices.

When the curtain is drawn downward the pawl, although lifted by the lug I, is dormant, and does not resist rotation; but when the spring carries the shade upward rapidly the
5 lug strikes the pawl suddenly and forcibly, and throws it up far enough to catch in one of recesses F and prevent further rotation in that direction until the shade is drawn slightly
10 down, to permit the toe of the pawl to be disengaged. Slow upward movement, however, as already stated, does not engage the pawl in the recess.

I claim as my invention—

1. A spring-actuated curtain-roller carrying
15 an end cap, having one or more recesses in the inner wall of its peripheral flange and a pawl-lifting lug near its center, in combination with

a central spindle provided with a pivoted pawl adapted to be lifted by the lug into engagement with the recess in the end cap during a
20 quick upward movement of the shade, for the purpose set forth.

2. The spindle D and the pivoted pawl G, supported thereon, in combination with the spring-actuated roller B, carrying the recessed
25 end cap and its lug I or equivalent devices, for the purposes set forth.

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

WENDELL P. PUTNAM.

Witnesses:

A. H. SPENCER,
E. A. PHELPS.