

C. H. MILLER.
CURTAIN-FIXTURE.

No. 171,034.

Patented Dec. 14, 1875.

Fig. 1.

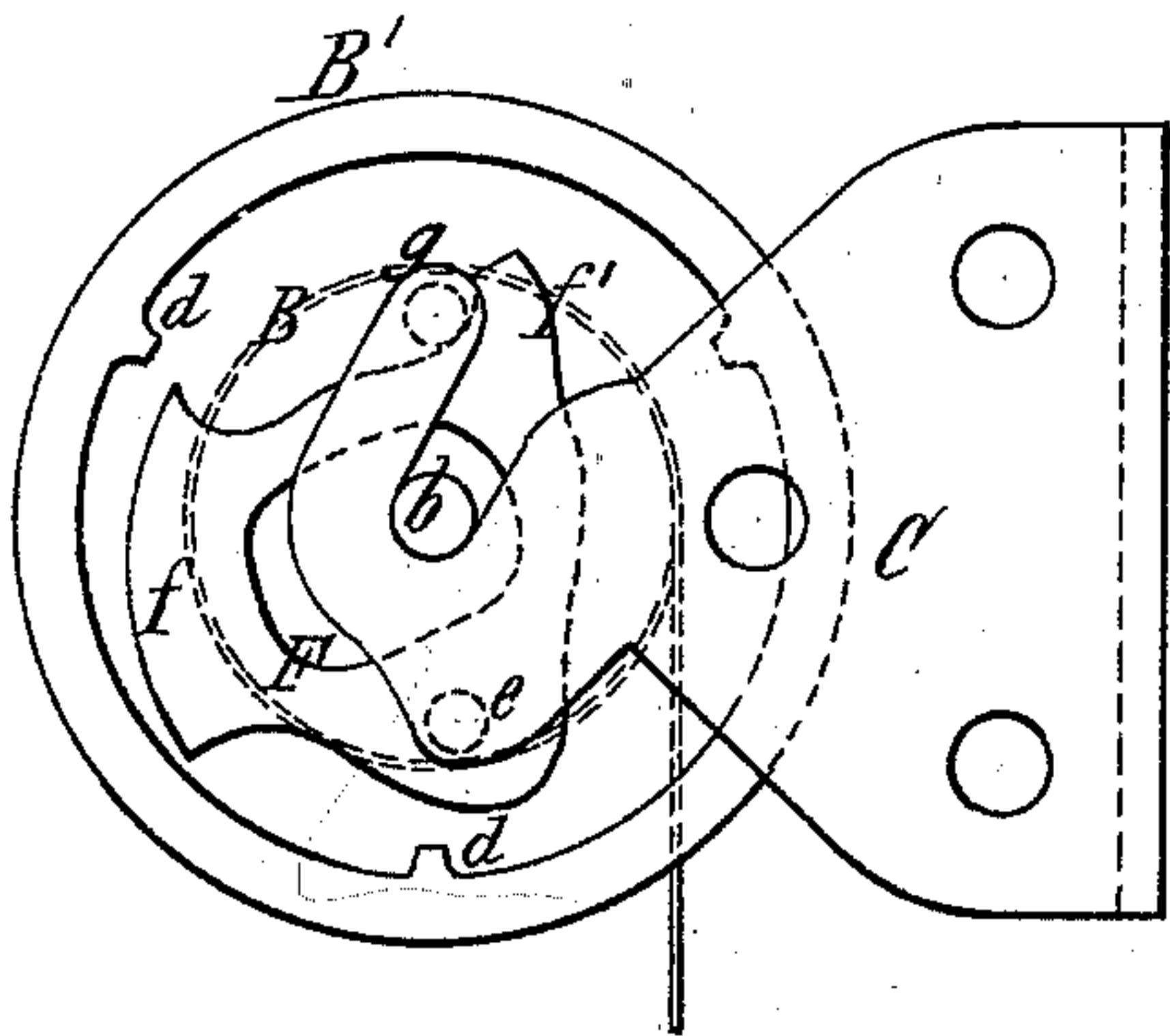


Fig. 2.

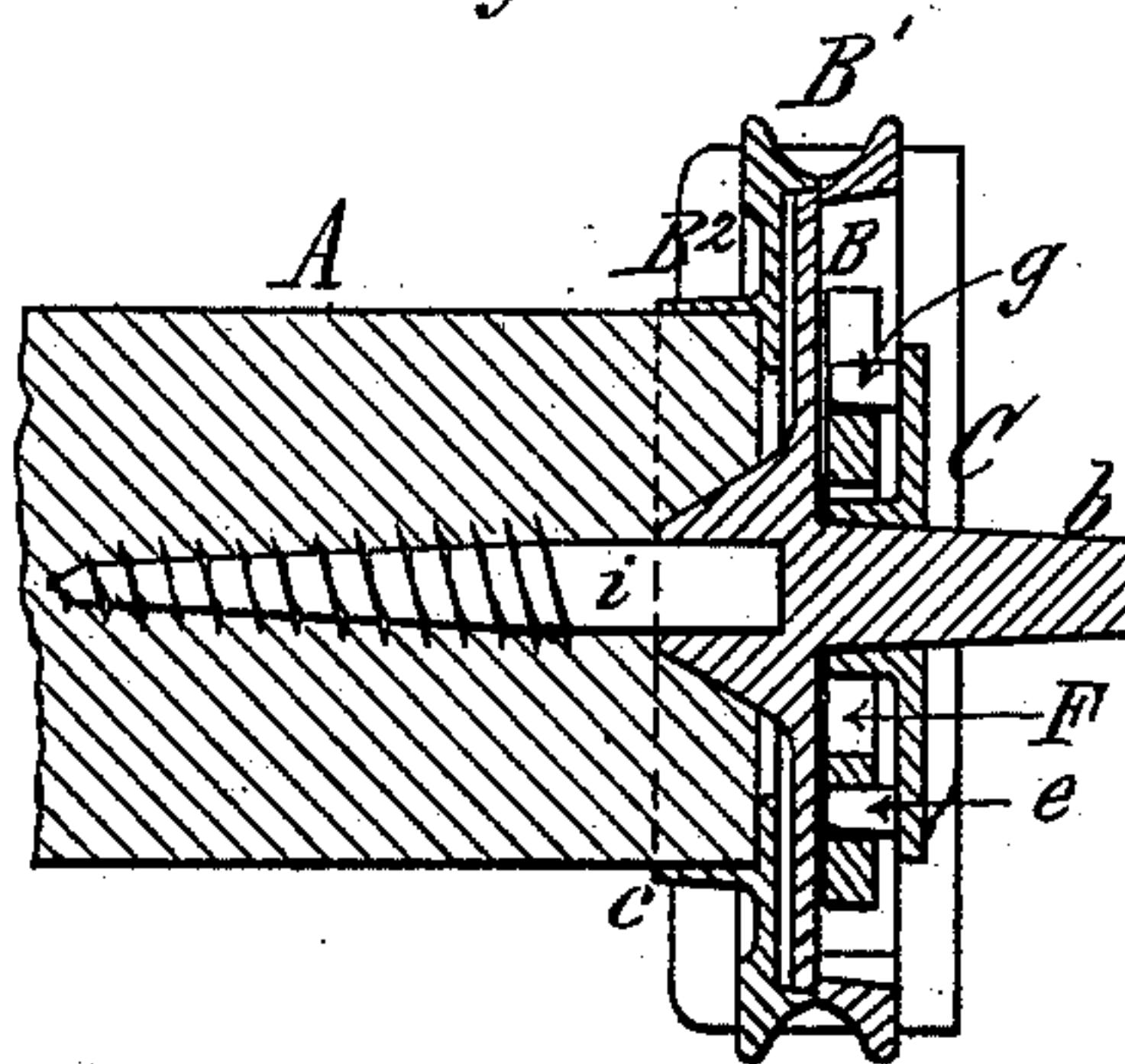


Fig. 3.

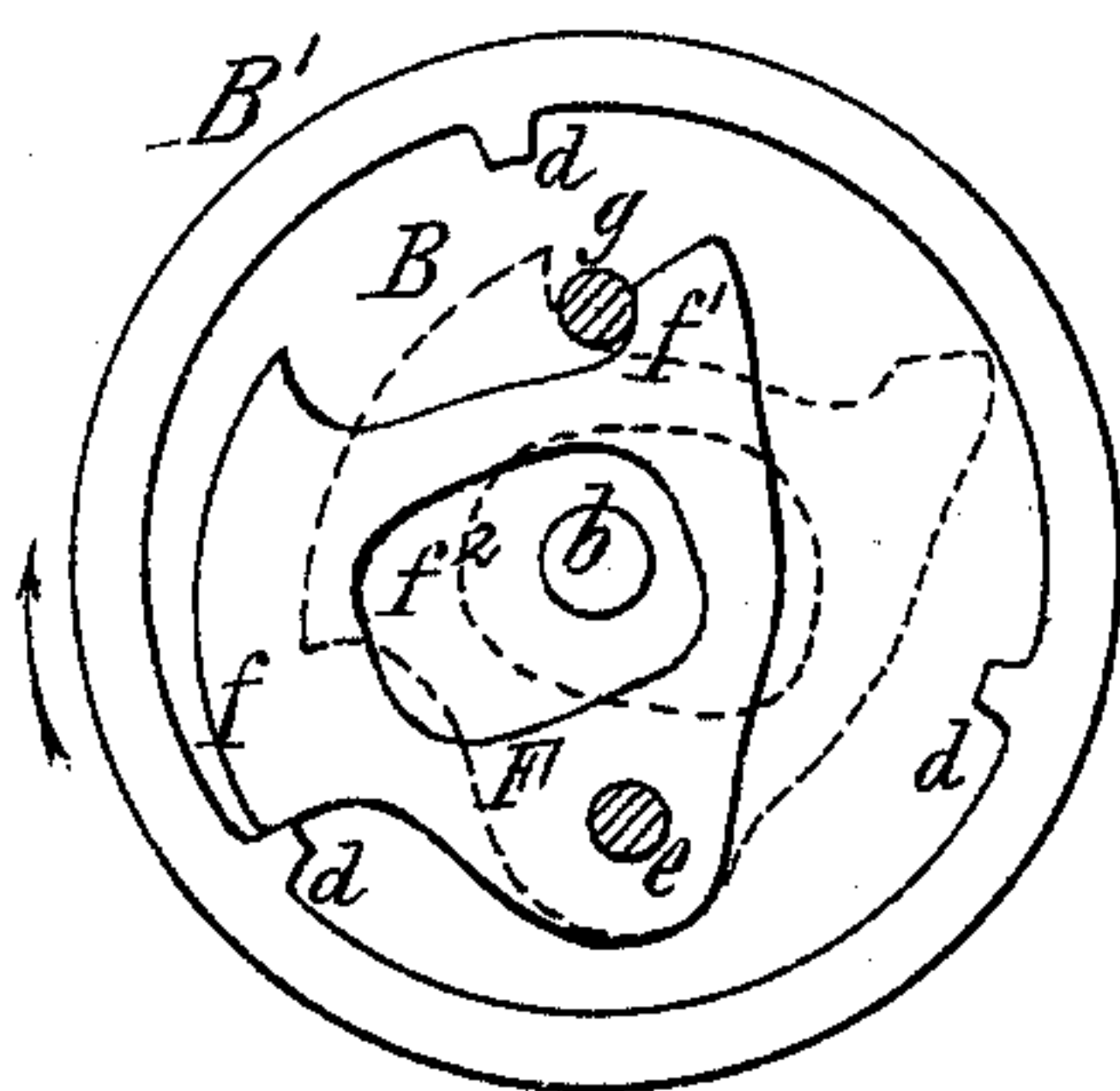


Fig. 4.

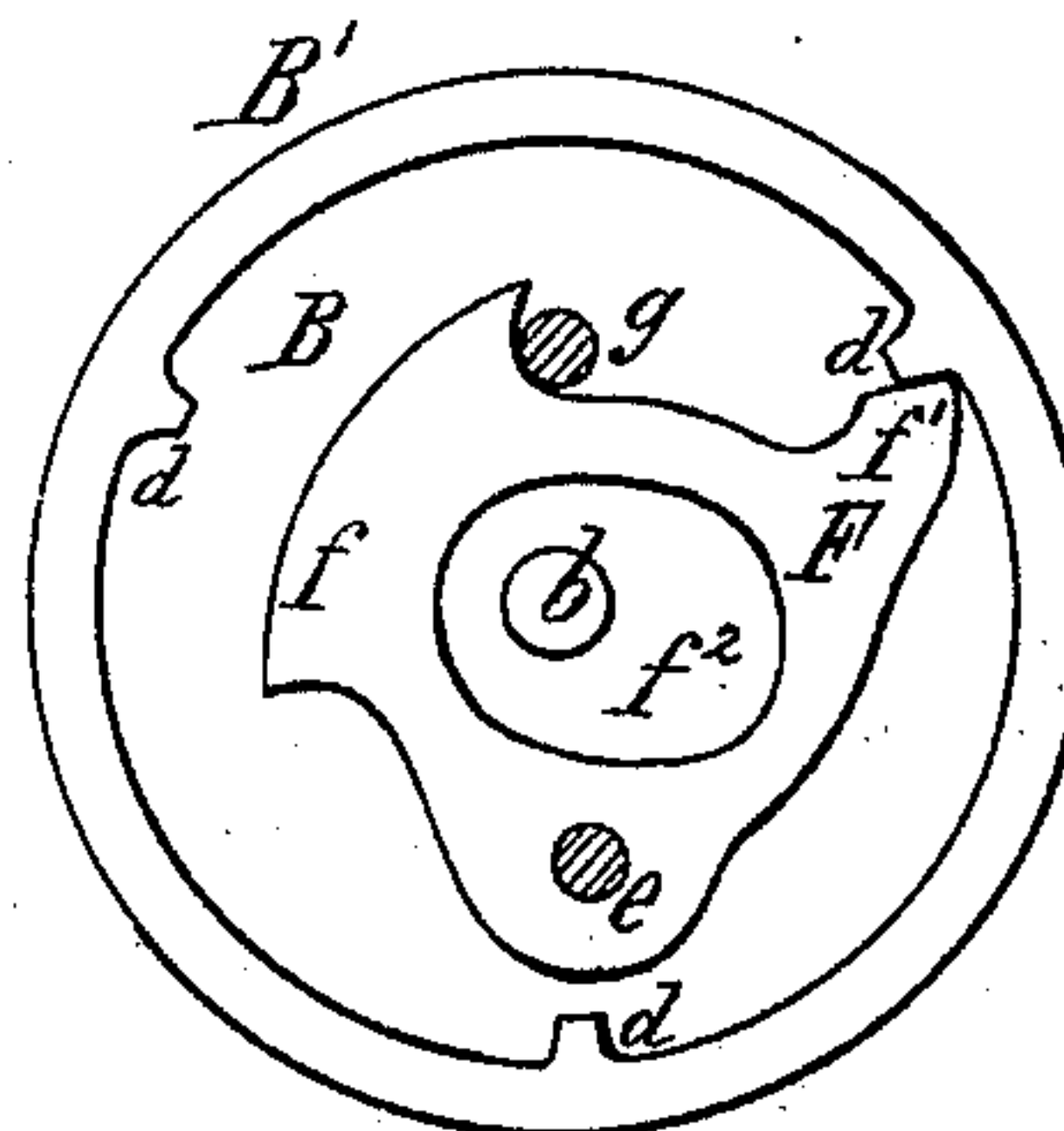
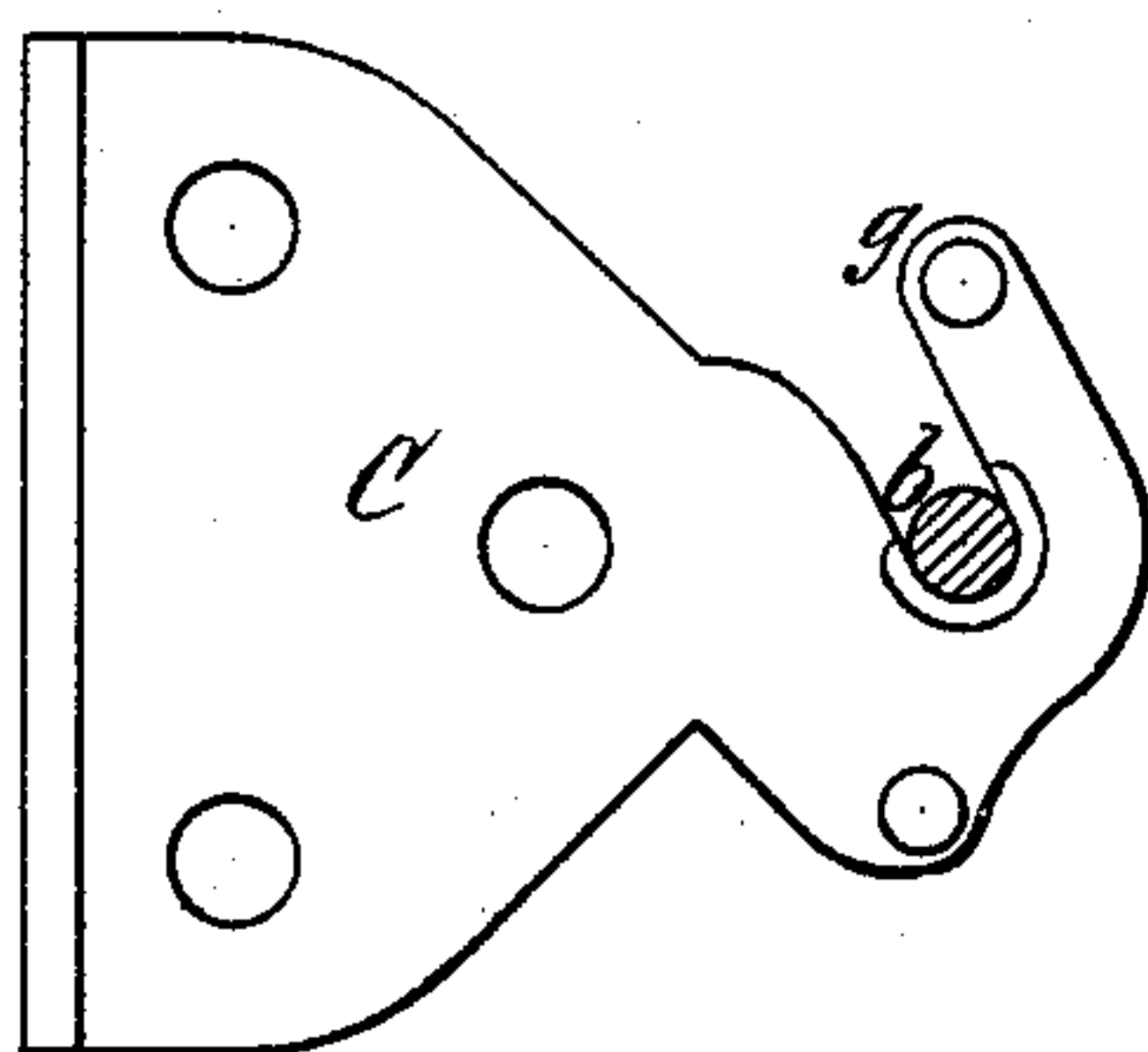


Fig. 5.



Edward Wilhelm
Jno. J. Donner } Witnesses

Charles H. Miller Inventor
by Jay Hyatt Atty.

UNITED STATES PATENT OFFICE

CHARLES H. MILLER, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF
HIS RIGHT TO WILLIAM MASSING, OF SAME PLACE.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **171,034**, dated December 14, 1875; application filed
April 26, 1875.

To all whom it may concern:

Be it known that I, CHARLES H. MILLER, of the city of Buffalo, in the county of Erie and State of New York, have invented certain Improvements in Curtain-Fixtures, of which the following is a specification:

My invention relates to that class of curtain-fixtures which are provided with an automatic catch or stop, which permits the curtain to be slowly unwound, but which engages when a sudden impulse or more rapid movement is imparted to the roller.

The nature of my invention will be fully understood from the following description:

In the accompanying drawing, Figure 1 is an end elevation of a curtain-roller, showing the catch disengaged. Fig. 2 is a vertical section thereof. Figs. 3 and 4 are end elevations, showing the catch in different positions. Fig. 5 is an inner view of one of the brackets.

Like letters of reference designate like parts in each of the figures.

A is the curtain-roller; B, the body of the cord-pulley; *b*, the journal-pin thereof; C, the bracket in which the same is supported, and B' the grooved rim of the pulley projecting outward beyond the face of the plate or body B, as clearly shown in Fig. 2. *d* represents projecting teeth or stops arranged on the inner side of the rim B' of the pulley. *e* is a pivot or fulcrum pin arranged on the bracket C below the journal-bearing, and projecting inwardly into the recessed part of the pulley. F is the safety-catch, arranged in contact with the body B of the pulley, and supported on the pivot-pin *e* of the bracket, as clearly shown in the drawing. The catch F is constructed with an overhanging portion, *f*, tending to hold the tooth *f*¹ of the catch away from the inner surface of the rim of the pulley, as clearly shown in Fig. 1. The catch F is provided with an opening, *f*², through which projects the journal *b* of the pulley. When the curtain-roller and pulley are slowly revolved in lowering the curtain in the direction of the arrow in Fig. 3, the stops *d*, in revolving, strike against the lower end of the overhanging part *f* of the catch and swing the latter on the pivot *e*, so as to clear the stops, but the gravity of the overhanging part *f* returns the

catch immediately to its former position, when the respective stop has passed by the catch. When the velocity with which the curtain is lowered becomes very rapid the impact which the catch F receives from the stops *d* striking its overhanging end causes the catch to be swung on the pivot *e*, so as to strike with the tooth *f*¹ against the inner surface of the rim, as shown by dotted lines in Fig. 3, when the stop nearest to the tooth *f*¹ will come in contact with the latter, as shown in Fig. 4, whereby the movement of the curtain-roller is arrested. The roller is, in this manner, securely held in this position until disengaged by slightly raising the curtain, when the overhanging weight of the part *f* of the catch will swing back the latter to its normal position. *g* is a stop-pin formed on the inner side of the bracket above the journal-box, and projecting inwardly, so as to engage in an elongated recess back of the tooth *f*¹ in the upper side of the catch E. The oscillations of the catch E are limited by the ends of the recess coming in contact with the pin *g*, so that the catch is held in either extreme position slightly away from the rim of the pulley, so as not to touch the same. The cord-pulley is, preferably, constructed in two parts, the plane of division running through the center of the groove, as clearly shown in Fig. 2. The part B² of the pulley next the curtain-roller is provided with a socket, *c*, for the reception of the latter, in the usual manner, while the outer part B of the pulley has cast with it axially a screw-bolt, *i*, which screws into the end of the curtain-roller, thereby securing at the same time both parts of the pulley together and to the curtain-roller. The inner part B² of the pulley is provided with a central opening for the passage of the screw-bolt *i* and the hub in which it is secured.

What I claim as my invention is—

The combination, with the curtain-roller and pulley B, provided with stops *d*, of the automatic safety-catch F, constructed with overhanging part *f*, and operating substantially as hereinbefore set forth.

CHARLES H. MILLER.

Witnesses:

JNO. J. BONNER,
EDWARD WILHELM.