

J. DE ST. LEGIER & G. DAVIS.
MILK CAN.

No. 446,573.

Patented Feb. 17, 1891.

Fig. 1.

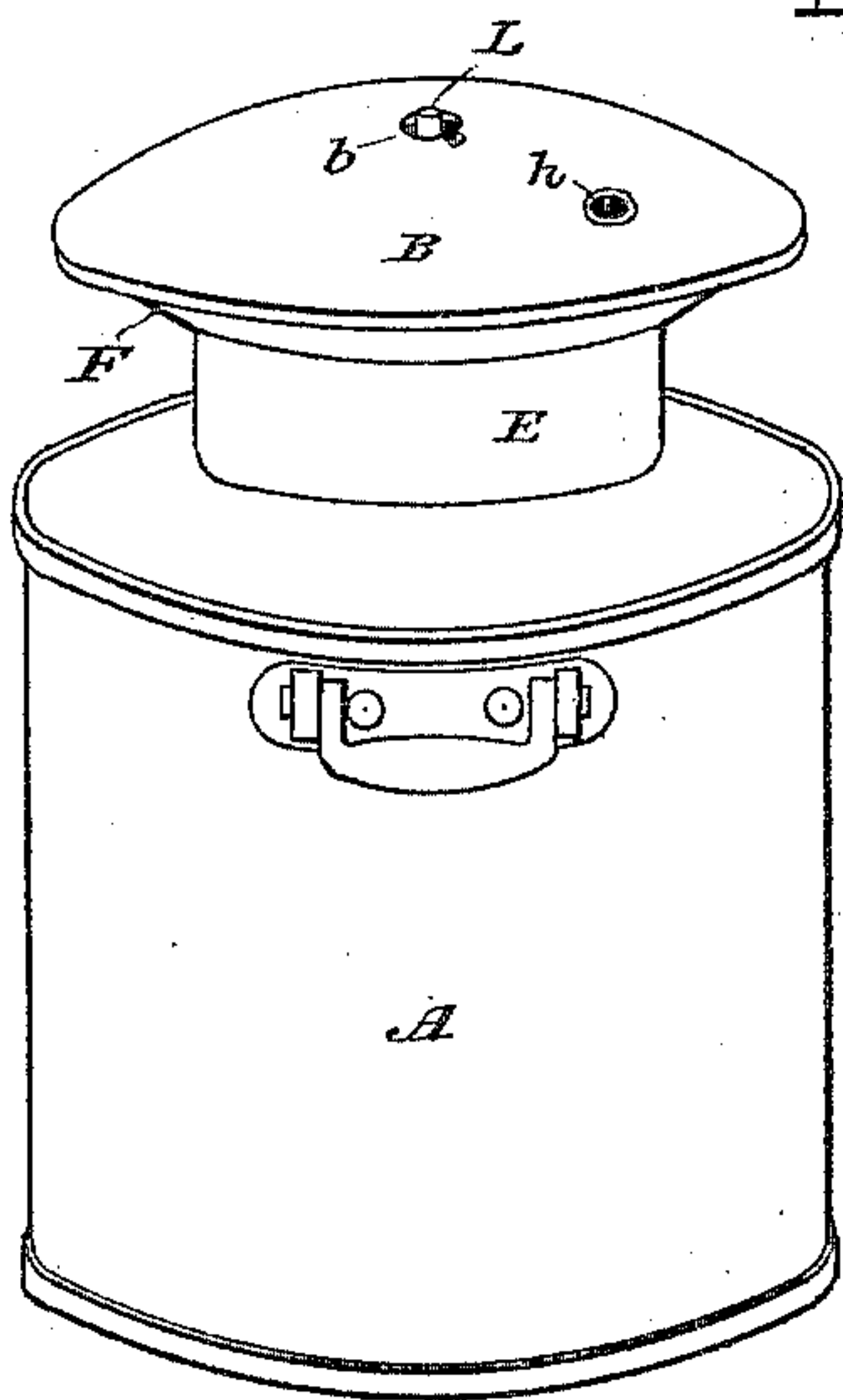


Fig. 4.

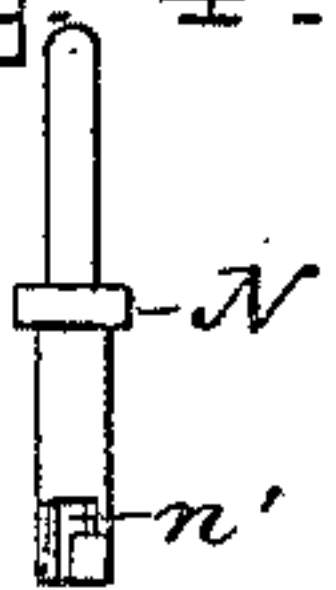


Fig. 2.

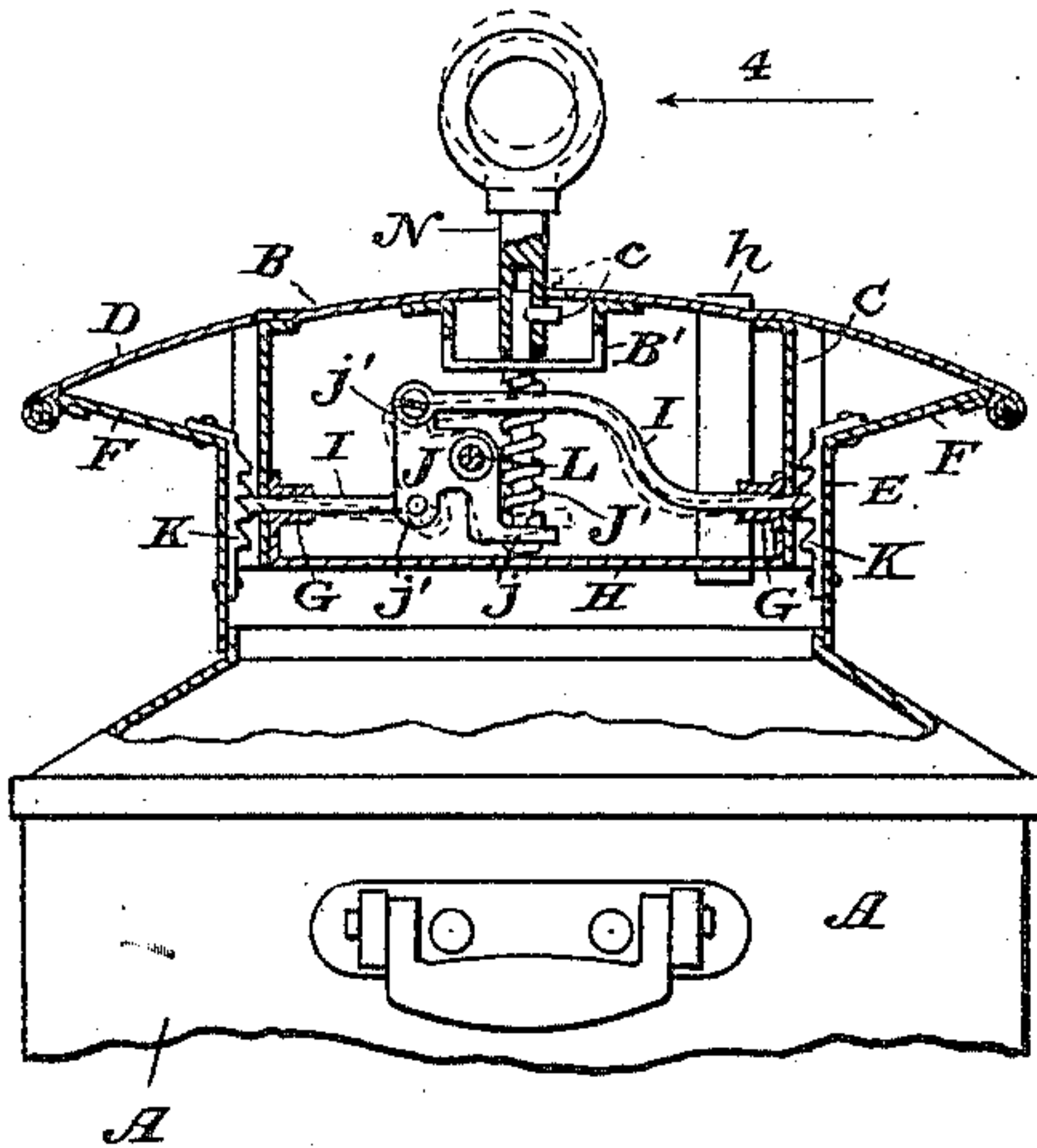


Fig. 3.

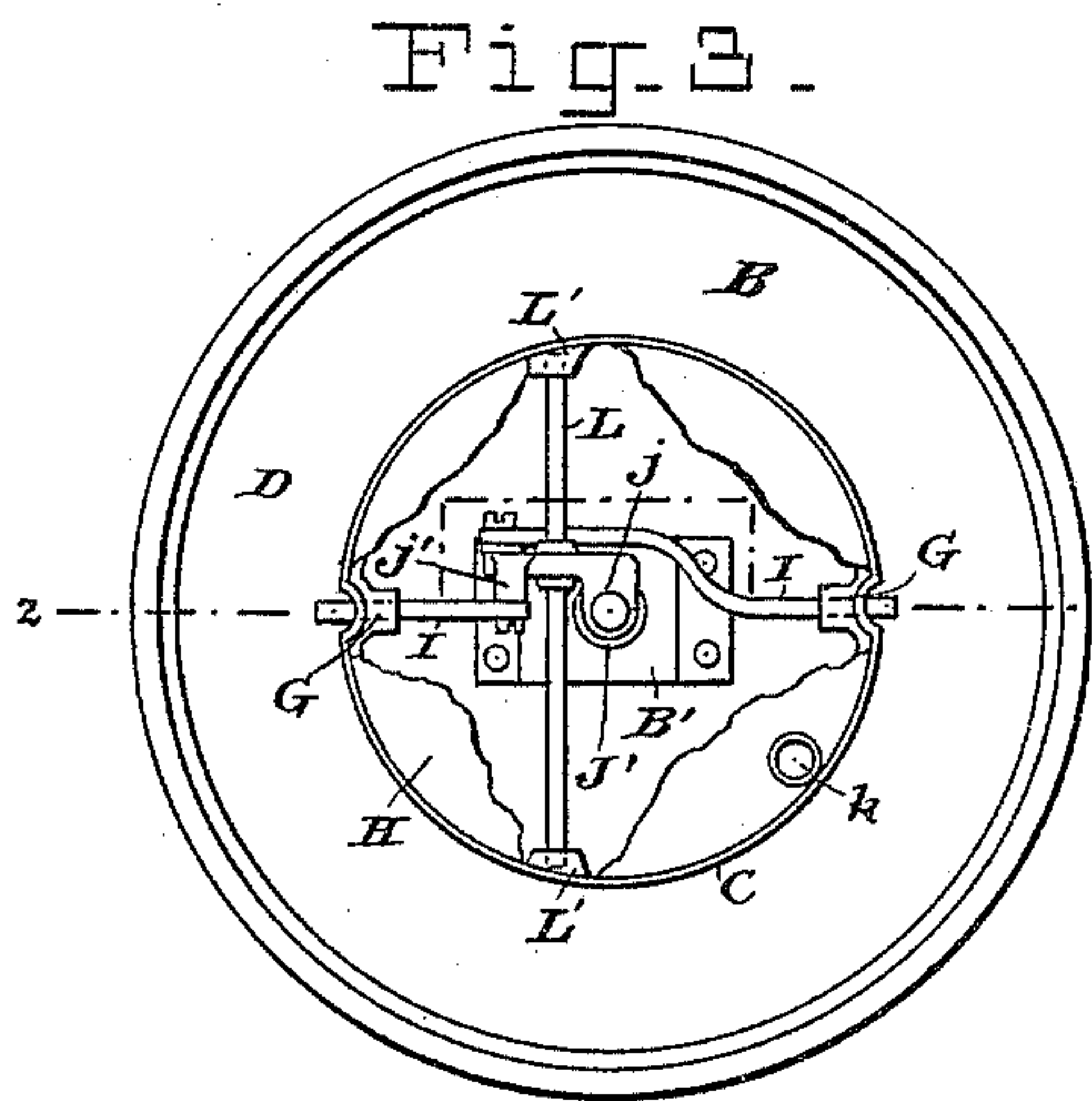


Fig. 5.

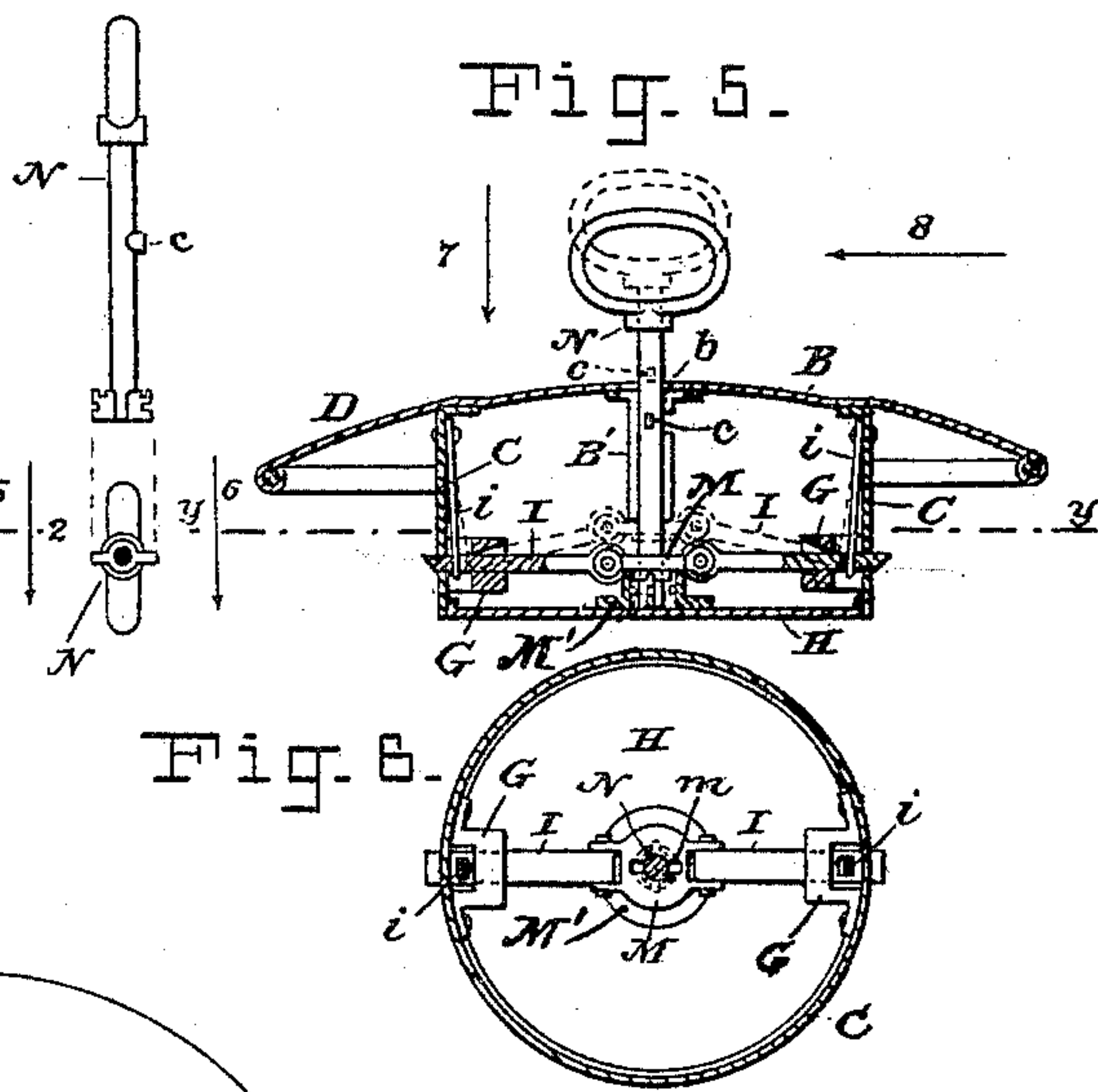


Fig. 6.

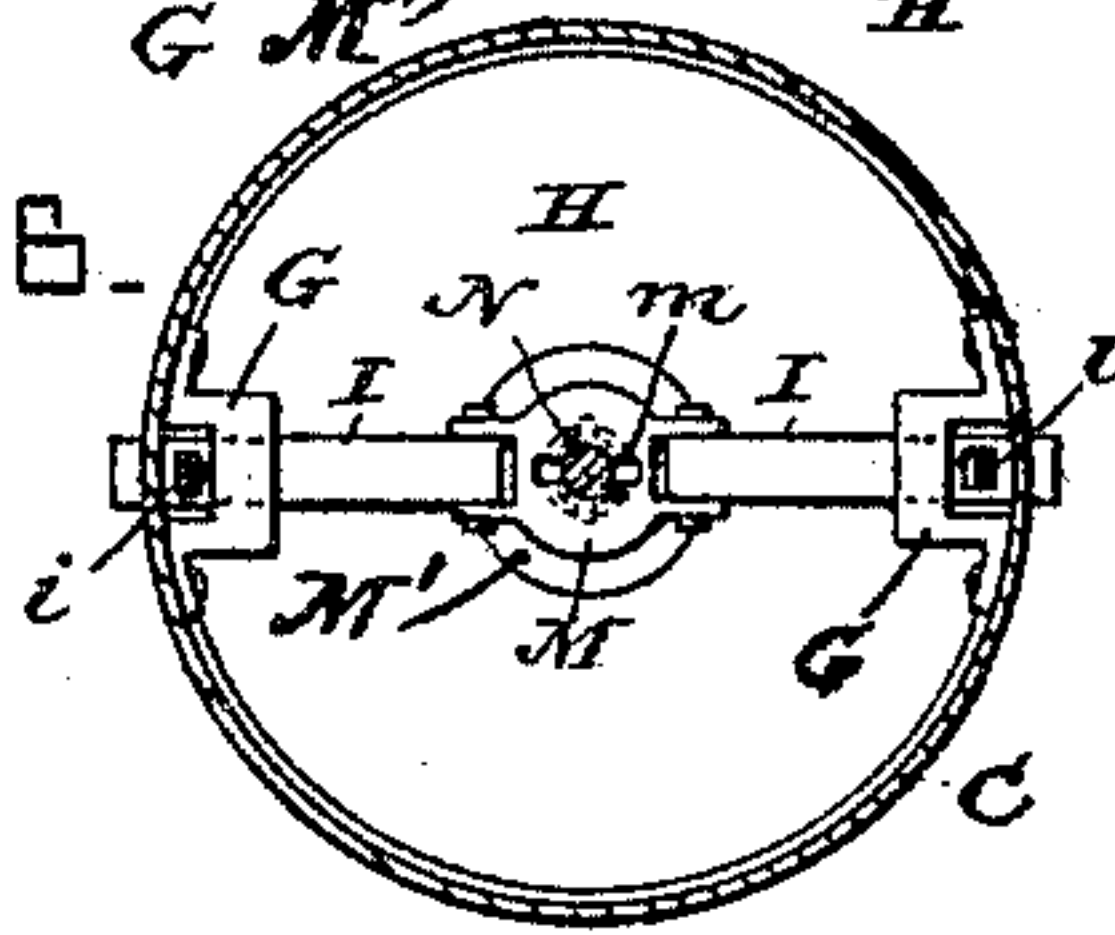
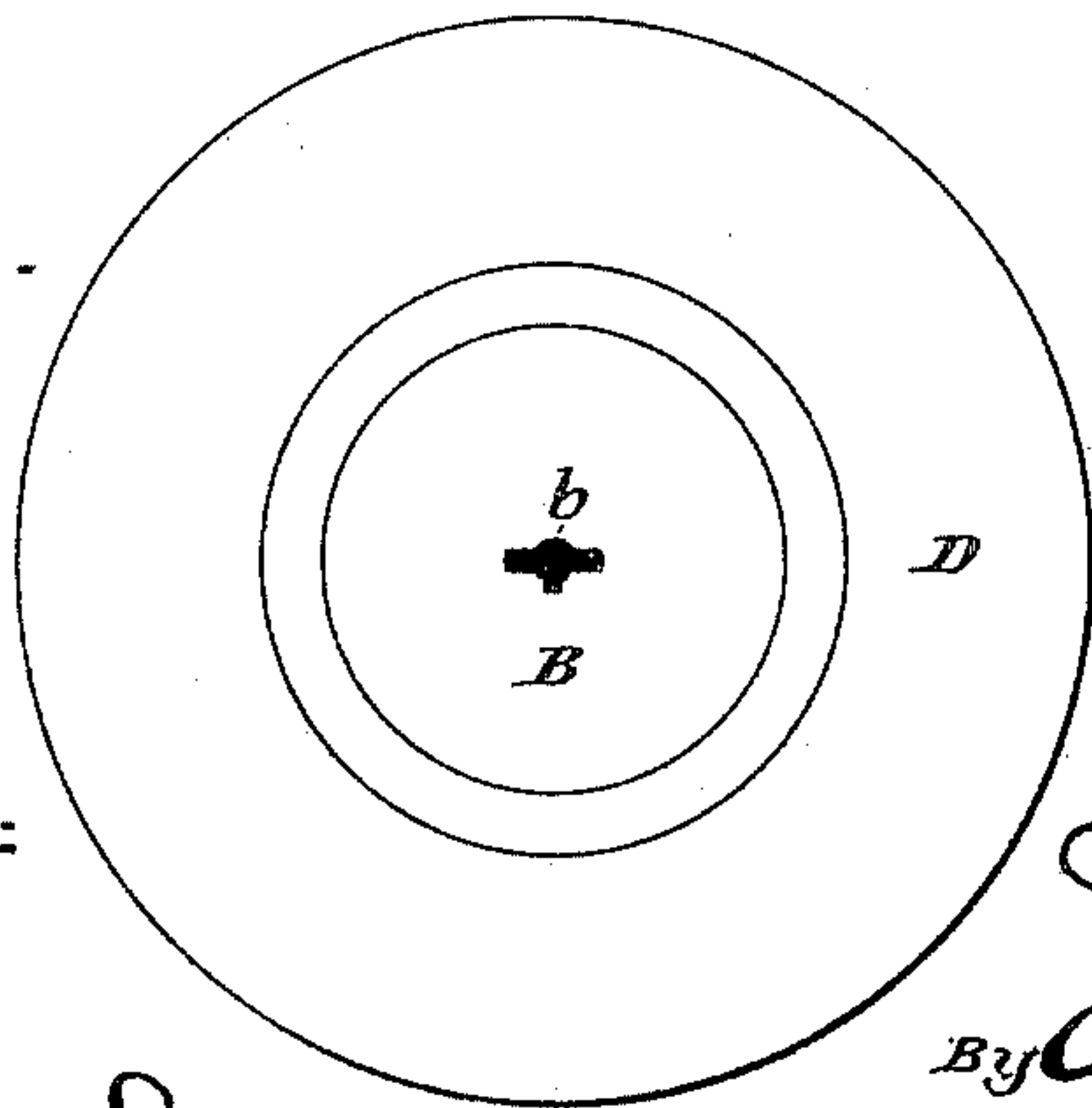


Fig. 7.



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Fig. 10.

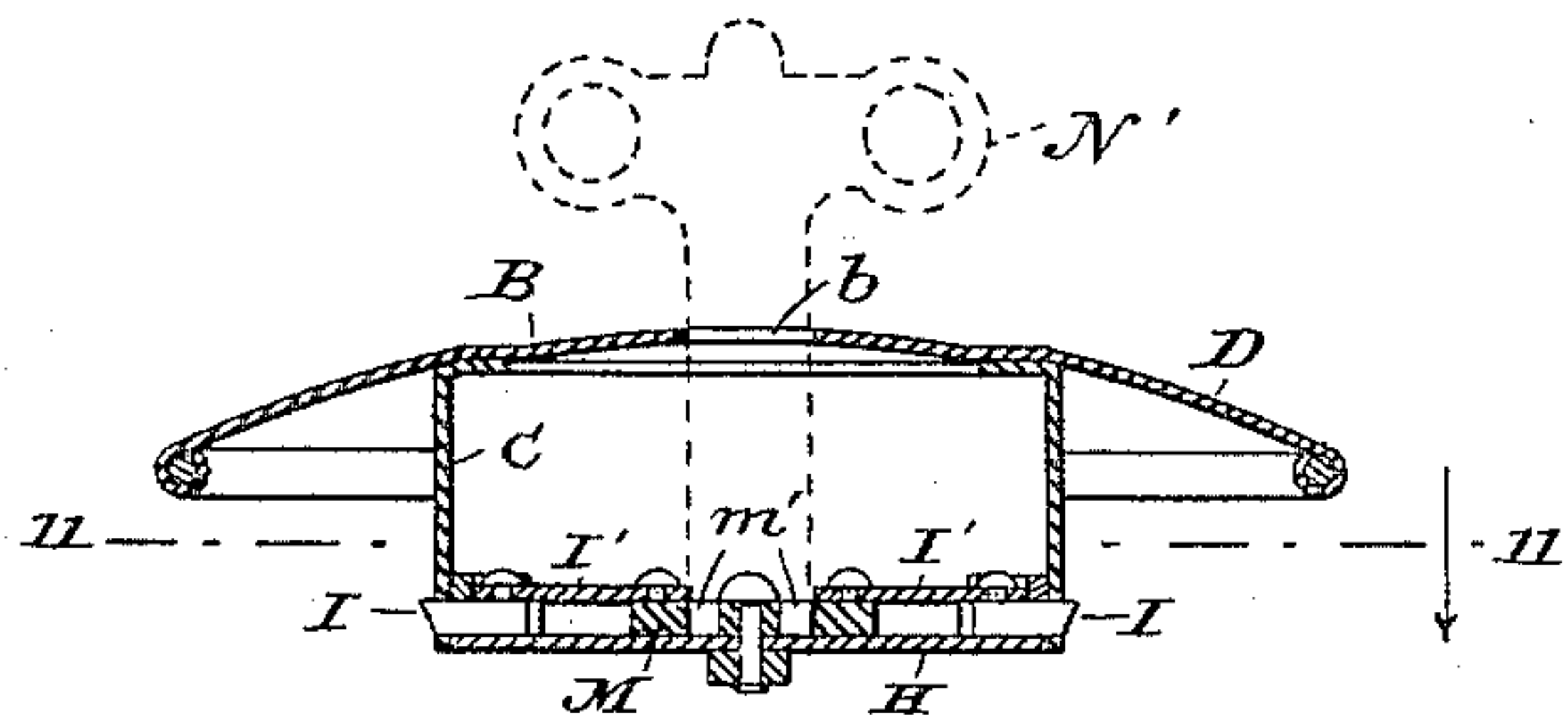


Fig. 9.

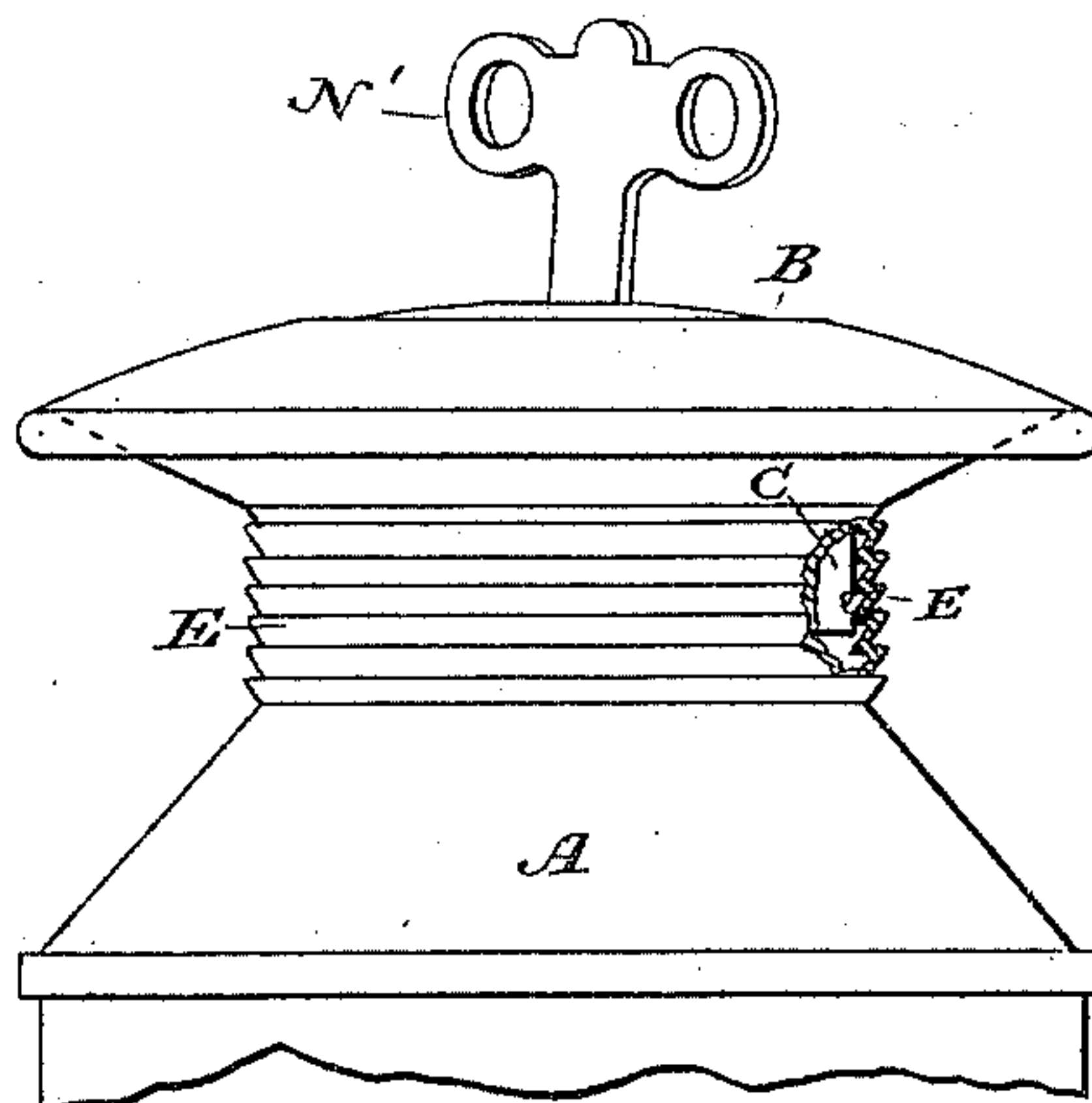


Fig. 11.

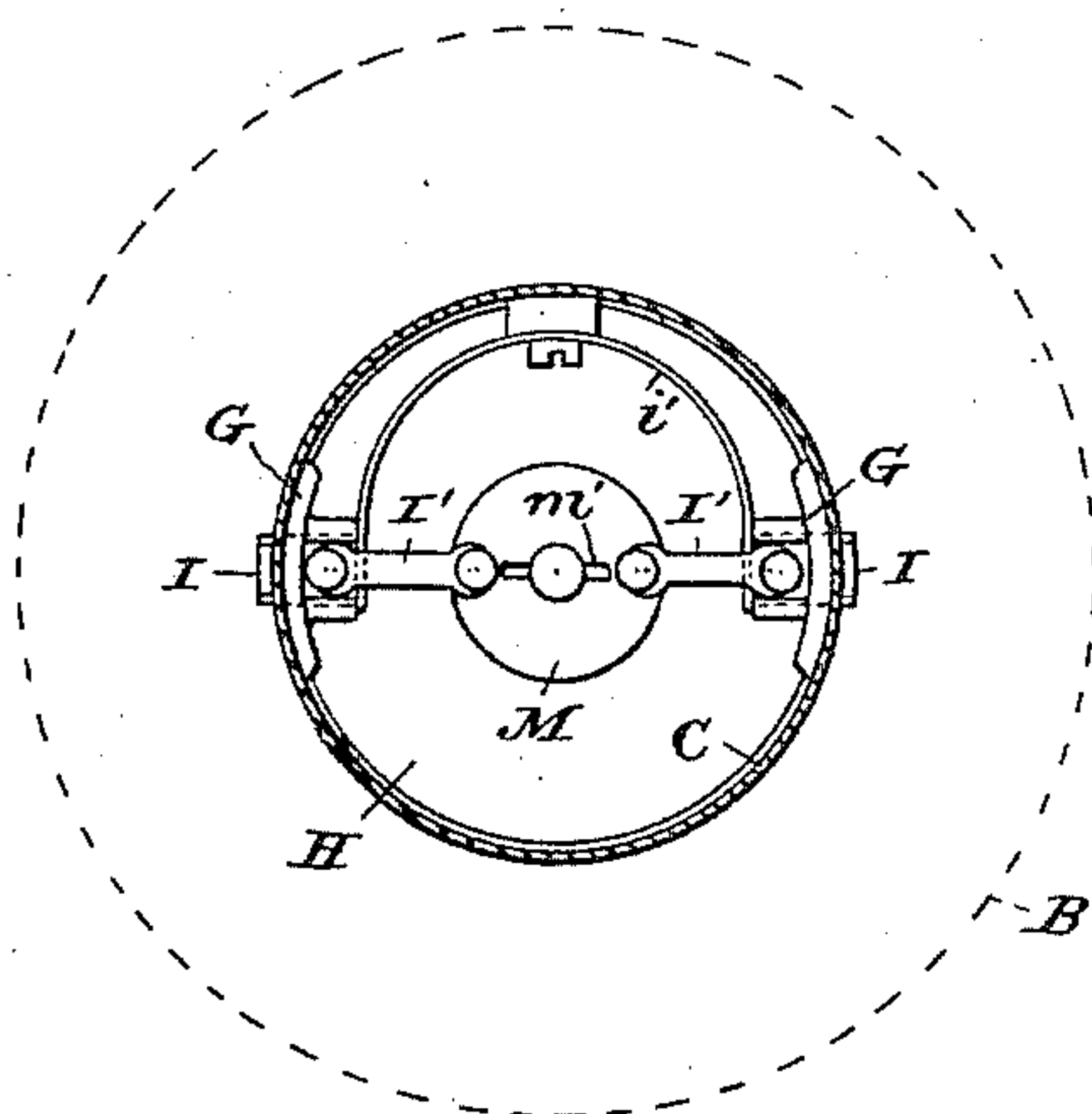


Fig. 12.

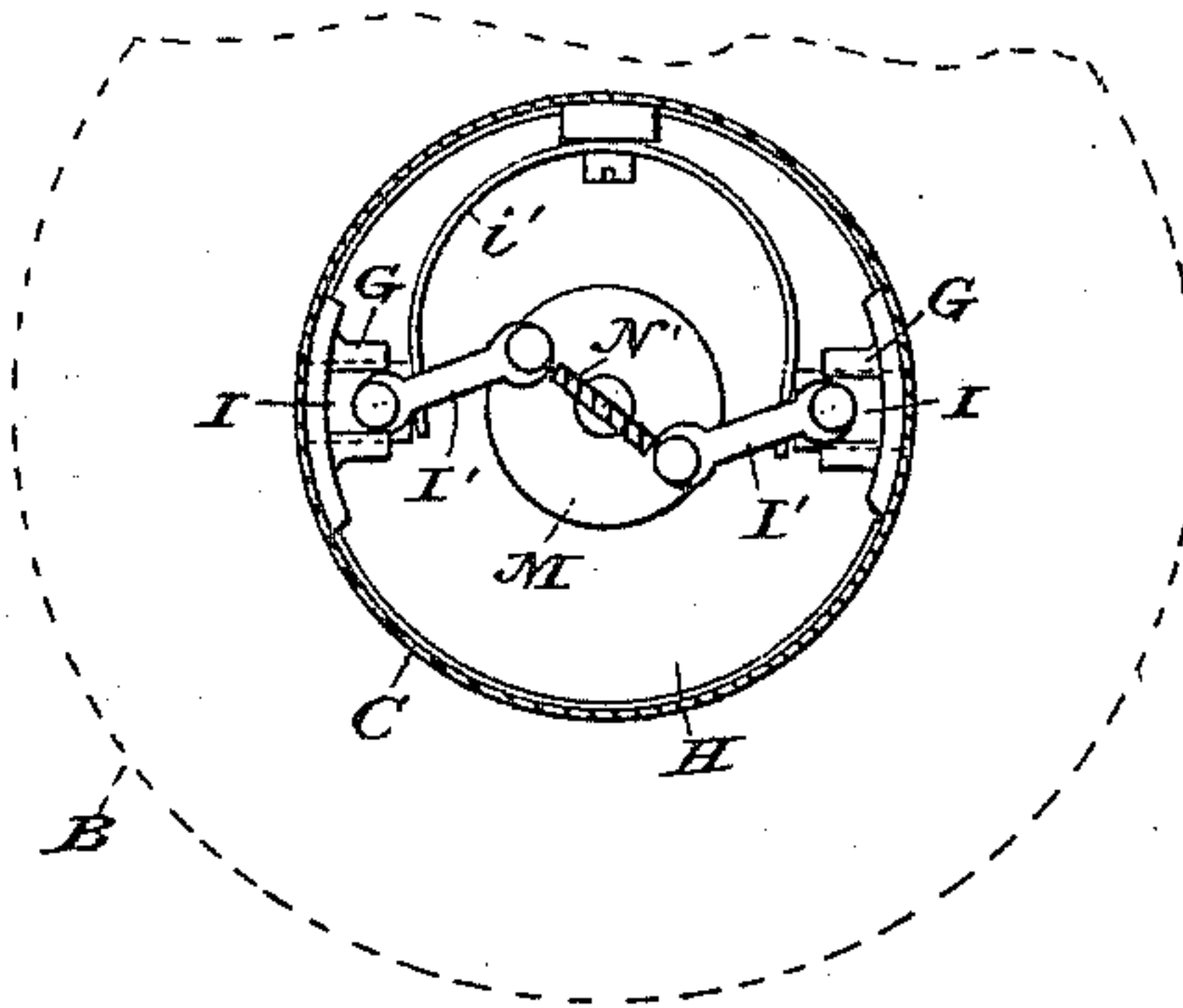


Fig. 14.

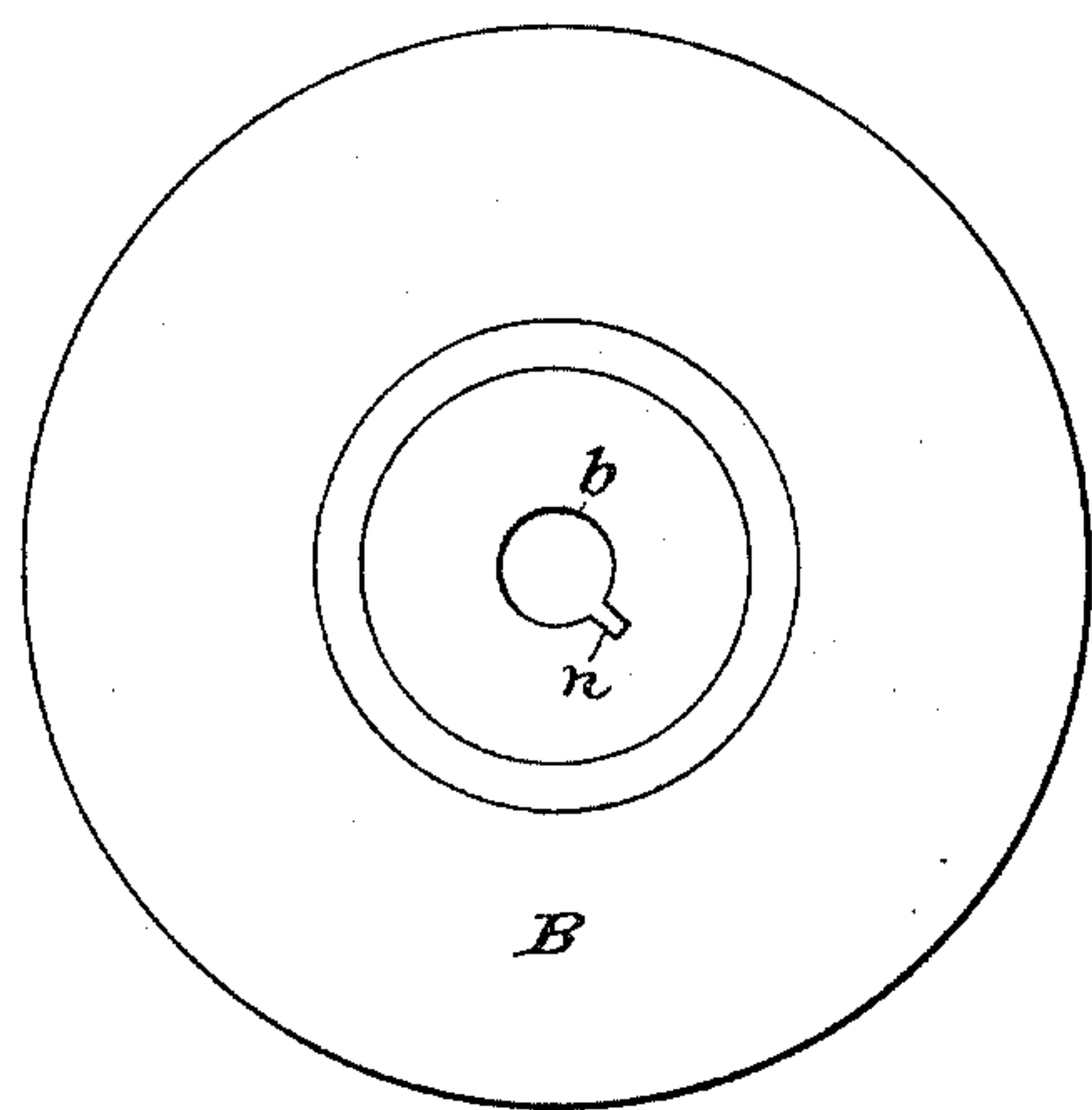
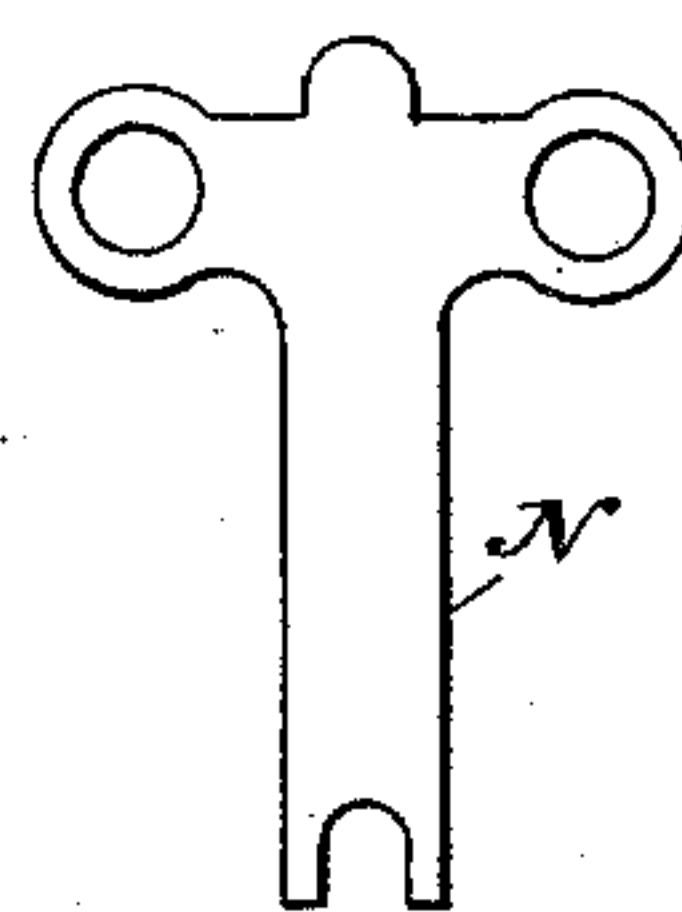


Fig. 13.



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UNITED STATES PATENT OFFICE.

JOHN DE ST. LEGIER AND GEORGE DAVIS, OF HICKSVILLE, NEW YORK.

MILK-CAN.

SPECIFICATION forming part of Letters Patent No. 446,573, dated February 17, 1891.

Application filed April 14, 1890. Serial No. 348,437. (No model.)

To all whom it may concern:

Be it known that we, JOHN DE ST. LEGIER and GEORGE DAVIS, of Hicksville, in the county of Queens and State of New York, have made certain new and useful Improvements in the Method of Fastening Lids on Milk-Cans; and we hereby declare the following specification to be a full and clear description of the same, reference being had to the annexed drawings.

Our invention relates to that class of cans such as are used for carrying milk which are provided with a lid designed to be readily removed and returned to the can when desired.

The object of our invention is to provide convenient and efficient means for securing or locking the lid in position on the can and readily releasing it when the proper key is used.

The invention is designed more particularly to prevent robbing or tampering with milk contained in cans when in transit; but it may be readily applied to other similar cases when it would serve a useful purpose.

Various modes of locking or fastening the lids of milk-cans to the can are at present employed, the principal ones consisting in the use of a padlock. In such cases the padlock or chain is often broken, it being exposed to view.

One feature of our invention is to have the locking device entirely hidden from view, thus requiring the greater portion of the can to be destroyed or broken before the lid will be removed without the employment of the proper key.

The drawings illustrate some of the ways in which our invention may be practiced; but various changes may be made in the particular form of construction of parts without departing from the spirit of the invention, the principle being applicable in many different forms.

Figure 1 is a perspective view showing outward appearance of can. Fig. 2 is a vertical cross-section of the top of can and lid containing locking mechanism. Fig. 3 is a top view with part of the lid broken away to show interior. Fig. 4 is an edge view of key used for the style of locking mechanism shown in Figs. 2 and 3. Fig. 5 is a vertical

cross-section of lid and a modification of the locking mechanism. Fig. 6 is a horizontal section on line *yy* of Fig. 5. Fig. 7 is a top view of Fig. 5 with key removed. Fig. 8 is a detail view of the key used with the locking mechanism shown in Fig. 5. Fig. 9 is a side view of the neck of can broken away so as to show the utilization of the corrugations of the neck as a ratchet. Fig. 10 is a vertical cross-section of a modification in arrangement to turning the locking-pawls; Fig. 11, a section through Fig. 10 on the line *xx*. Fig. 12 is same as Fig. 11 with the pawls in different position. Fig. 13 is a view of the key used in Fig. 9, and Fig. 14 is a top view of Fig. 9.

In the drawings, A is the body of the can, and B is the lid.

The lid has a deep rim C, and the top projects over to form a wide flange D, as in the general construction of milk-cans. The rim C in the lids of milk-cans is usually about four inches deep, and the neck of the can E is correspondingly long, so that the rim of the lid may have ample bearing-surface to retain it tightly in place. In practice the rim C of the general style of milk-cans is made slightly conical, so it will fit snugly within and bear against the inside of the neck E. Within the space surrounded by the rim C we place a locking mechanism, and inclose it by securing to the rim C a bottom or cap H, which is carefully soldered around the edges, so that no milk or fluid from the can will enter.

Projecting from the circumference through the rim C are the pawls I I, which take into a ratchet K on the inside of the neck E of the can. These pawls I are actuated and thrown out, preferably by a spring, which may be of different forms, and the pawls are withdrawn by means of a key inserted through an aperture in the top of the lid.

In Fig. 2 a construction is shown where the spring is central and acts on the pawls through the rod over which the key passes, being raised.

In the arrangement shown in Figs. 5 and 6 the springs are leaf-springs *ii*, one on each side, secured to the rim and actuating the pawls I I, which are hinged to a central key-plate M. The key-plate M is provided with a key-hole *a*, into which the key N (shown in Fig. 8) will pass on being inserted through

the opening *b* in the top of the lid. The key-plate *M* is arranged to rest upon a tubular support *M'*, which permits the bit of the key to pass through said key-plate and engage
 5 with the under side of said plate when the key is partly revolved and pulled upward. The key *N* is also provided with a small spur or projection *c* on its side, and the opening *b* in the lid is made in proper form to allow this
 10 spur to pass down when the key enters the lock.

In operation, when the key *N* passes into the lock and engages with the plate *M* by being one-quarter turned, the spur or projection
 15 *c* will come under the opening in the top of the lid, and by pulling the key upward the pawls will be withdrawn from the ratchet on the neck of the can and the lid then free to be removed, and a slight additional turn of
 20 the key will place the projection or spur *c* so it will rest on the top of the can and hold the pawls in such position until the key is removed.

Passing from the bottom plate of the lid or
 25 cover to the top thereof is a small tube or pipe *O*, which is intended to provide ventilation.

In some cases the neck of the can may be corrugated in the form shown in Fig. 9, and
 30 the corrugations will then serve as a ratchet for the locking-pawls *I I* to engage in instead of the ratchet *K*.

In the modification shown in Figs. 9 to 14 the key *N'* is intended to fit into the plate *M*,
 35 and the plate being swiveled the key will turn it.

The pawls *I I* being pivoted to arms *O*, which are pivoted to the plate *M* and move with it, the pawls are withdrawn, as shown
 40 in Fig. 12, when the plate is turned.

At the proper point in the cover a notch *n*

is made at the side of the key-hole, so that when the key is turned and the pawls withdrawn the key *N'* may be slightly tilted and will catch in the notch and hold the pawls
 45 withdrawn until the lid is removed.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a milk-can, the cover or lid *B*, having inclosed hinged bolts, a key-plate, and a lock-
 50 ing mechanism, substantially as shown and described, in combination with a ratchet which is a part of or secured to the cover encircling neck of said can and working together
 55 to lock the lid to the can, substantially as described.

2. In a milk-can, the lid *B*, provided with a cap or bottom *H*, soldered to its rim *C*, a plate *M*, pivoted to the bottom *H* and to laterally-projecting arms or pawls extending
 60 through the rim of the lid and engaging in a ratchet secured to the cover encircling neck of the can, and means for operating said plates, substantially as and for the purpose shown and described. 65

3. The locking-pawls *I I*, attached to mechanism for operating the same and inclosed within the cover or lid of a milk-can, in combination with the corrugated neck of said
 70 can, as and for the purposes shown and described.

4. The lid or cover *B* with inclosed locking mechanism, said lid having a key-hole or opening *b*, as shown, in combination with a key provided with a spur or projection *c* to
 75 catch on the outside of the lid, substantially as shown and described.

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