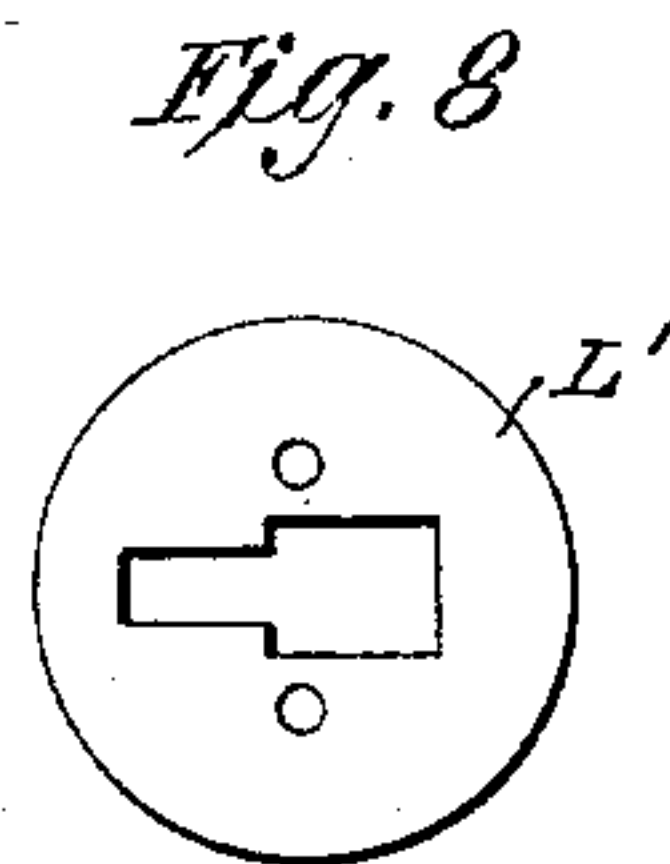
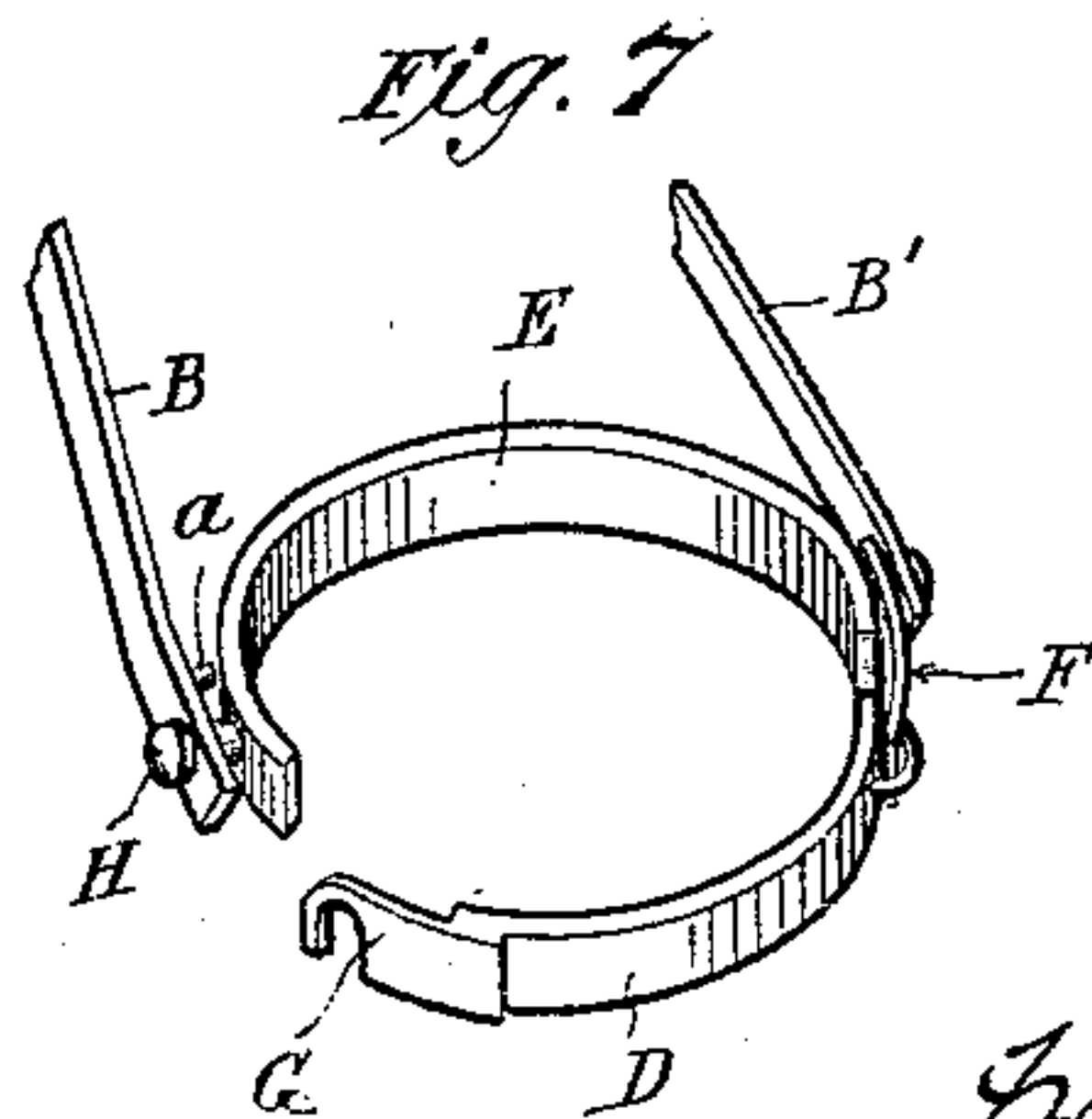
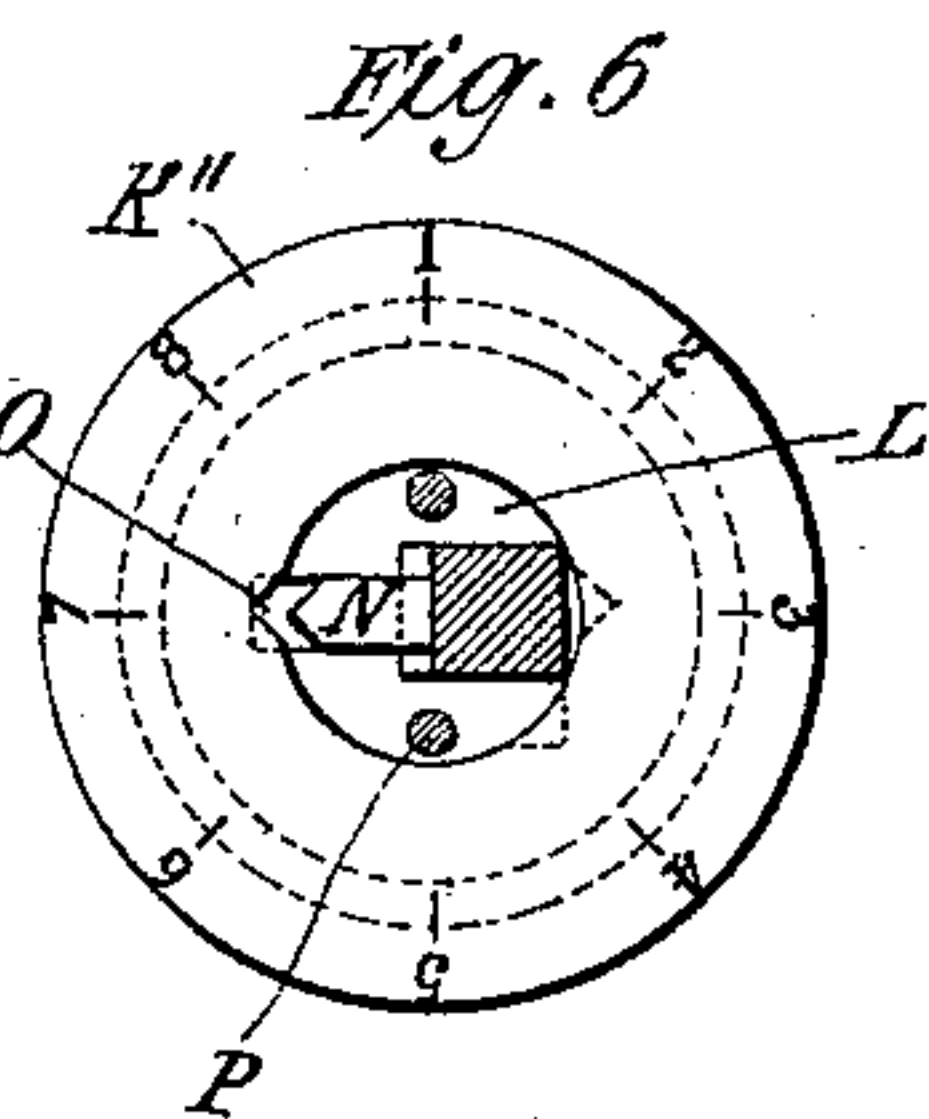
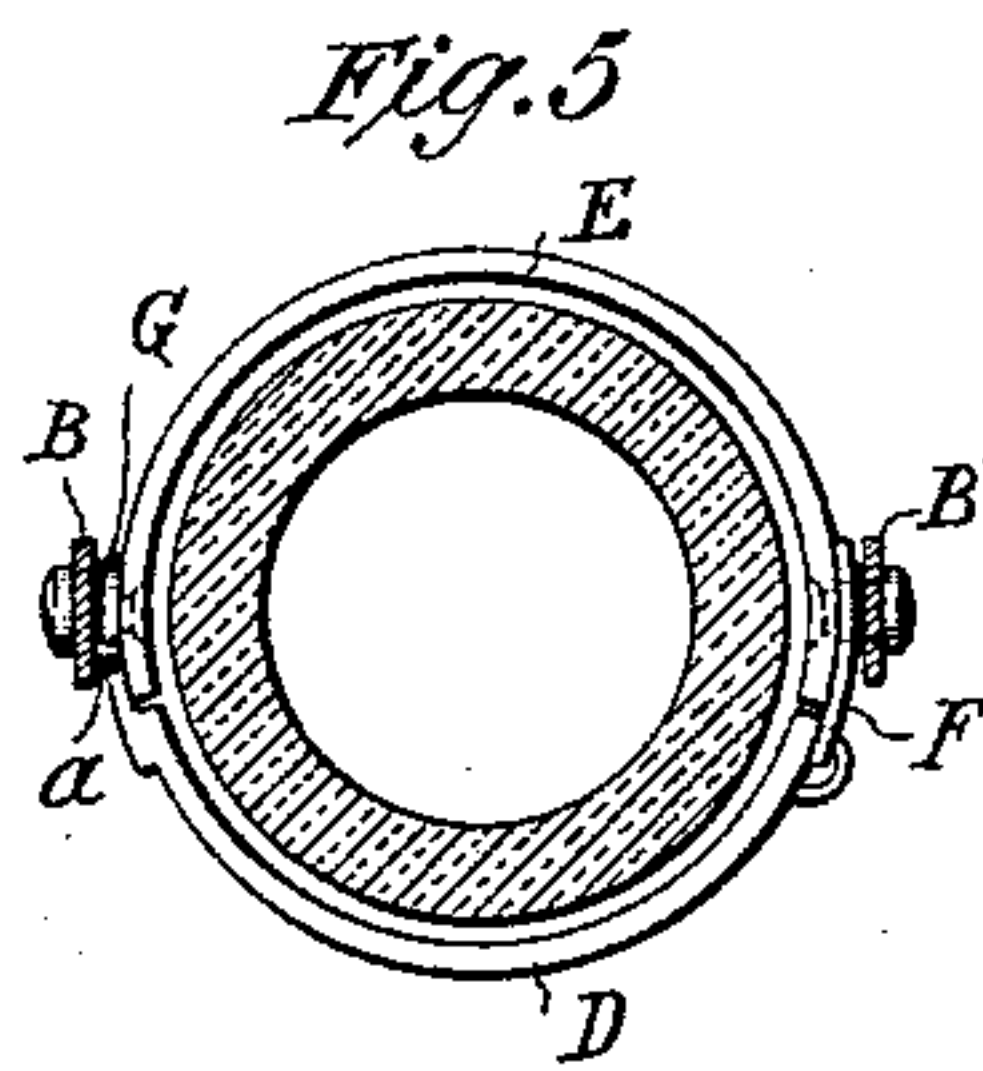
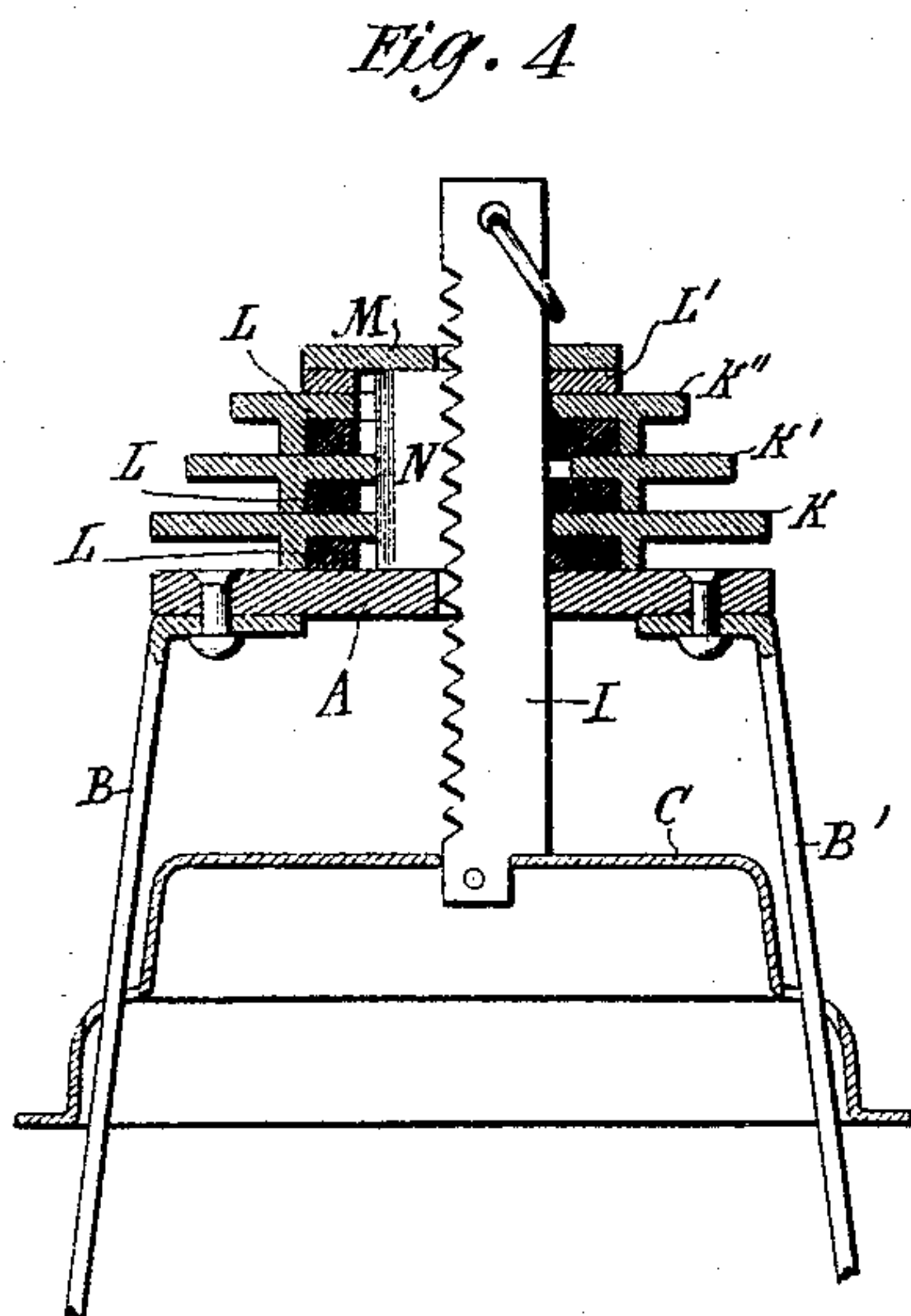
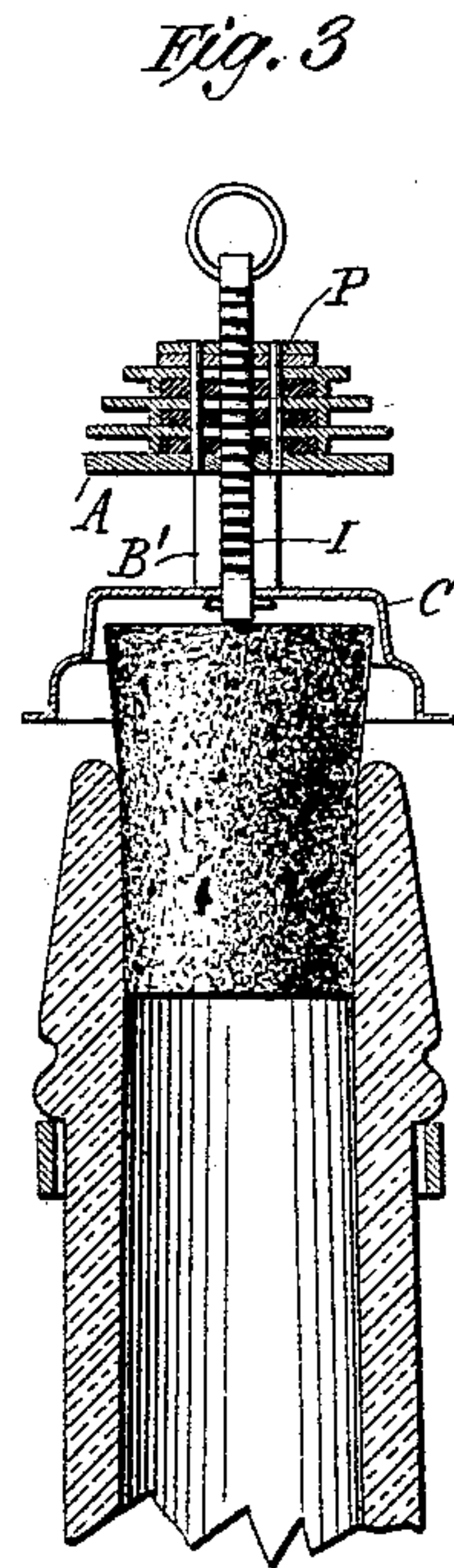
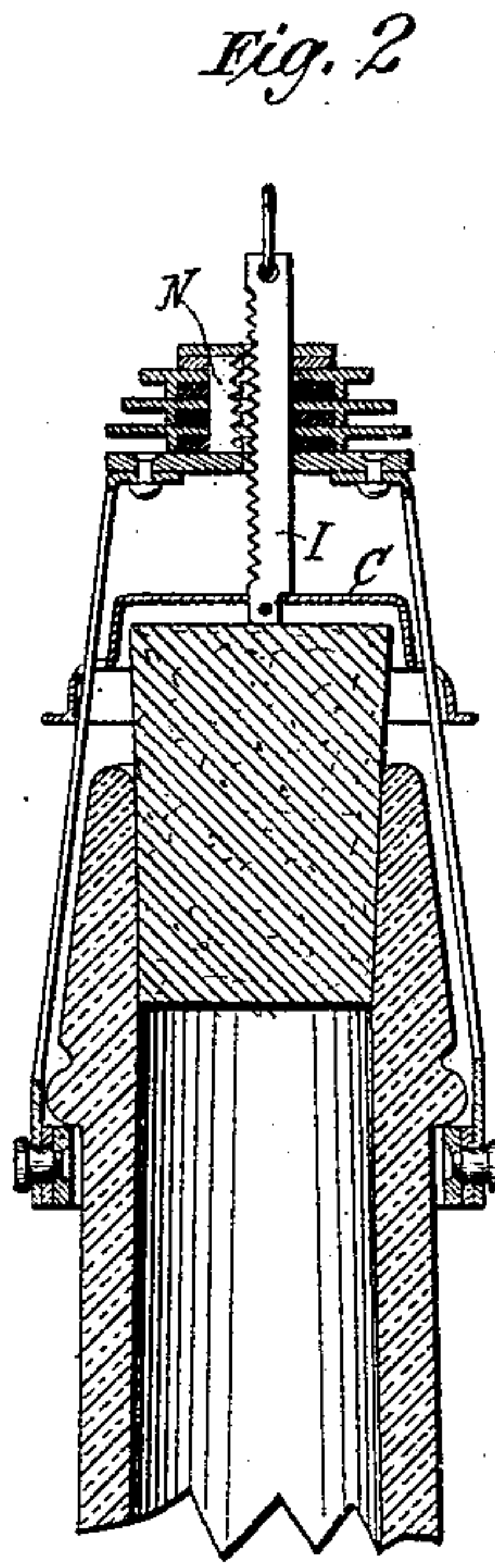
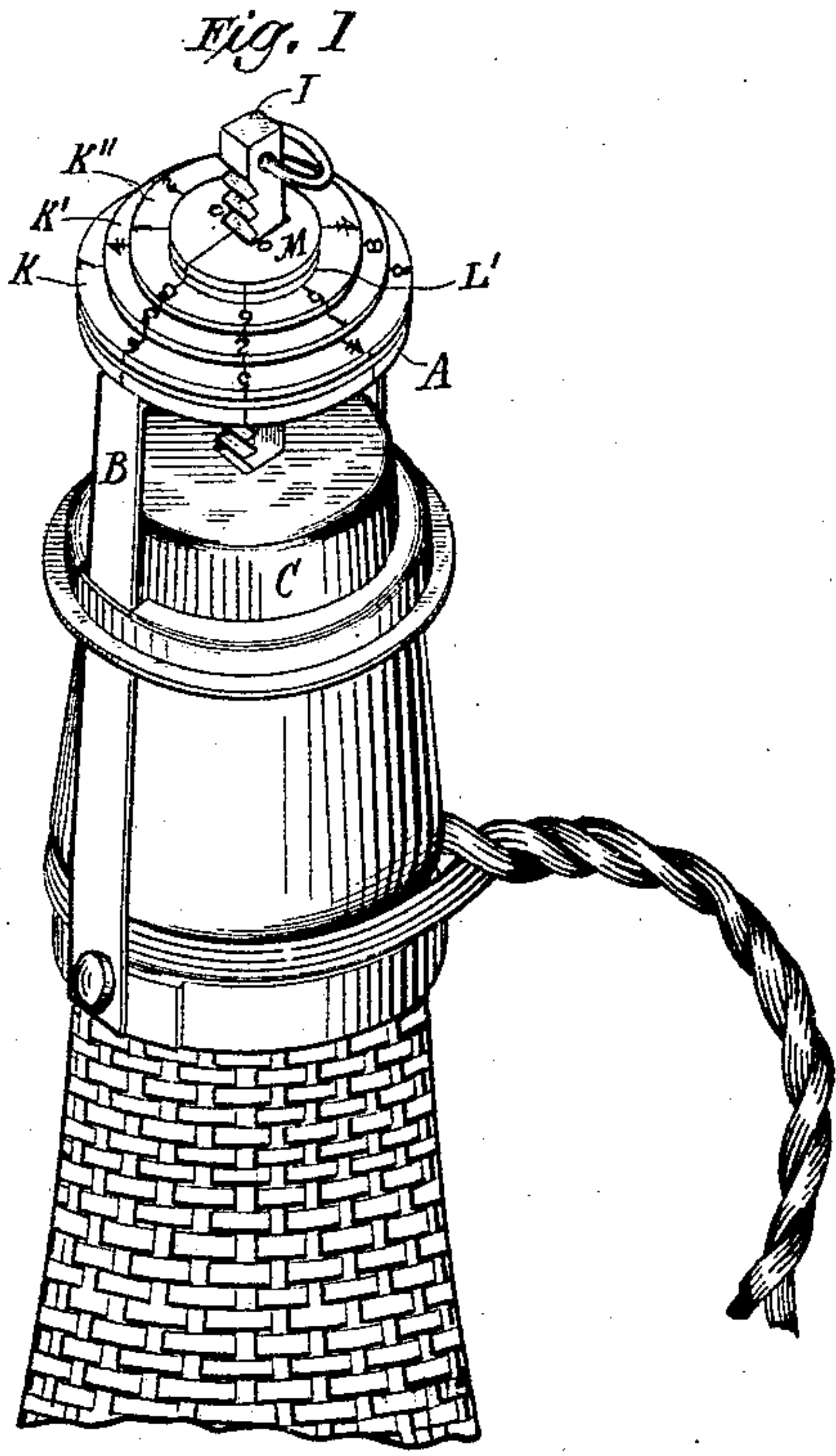


(No Model.)

F. JORDAN.
STOPPER LOCK FOR BOTTLES.

No. 487,748.

Patented Dec. 13, 1892.



Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK JORDAN, OF NEW YORK, N. Y.

STOPPER-LOCK FOR BOTTLES.

SPECIFICATION forming part of Letters Patent No. 487,748, dated December 13, 1892.

Application filed March 8, 1892. Serial No. 424,128. (No model.)

To all whom it may concern:

Be it known that I, FRANK JORDAN, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Stopper-Locks for Bottles, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My invention is an improved device for attachment to the neck of a bottle, jar, demijohn, or the like, and adapted to serve as a secret locking device for preventing the removal of the stopper and abstraction of the contents of the said bottle or other vessel by unauthorized persons or those not acquainted with the secret of the lock.

The improvements which form the subject of my invention reside in the assemblage in co-operative relations of a frame or bow provided with means for attaching it to the neck of a bottle, a combination-lock carried by the bow, and a serrated stem or rack-bar carrying a cap or plate for abutting against or covering the stopper and adapted to be locked down or unlocked and raised by the proper and predetermined alignment or adjustment of the plates comprised in the combination-lock.

The invention further involves improvements in the construction and arrangement of the devices constituting the combination-lock and in the special construction whereby the device as a whole is capable of being readily attached to any ordinary bottle or, when unlocked, of being detached therefrom.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved stopper-lock applied to a demijohn. Fig. 2 is a vertical central section of the same attached to a bottle-neck. Fig. 3 is a section of the locking device at right angles to that of Fig. 2. Fig. 4 is an enlarged sectional detail of the lock. Fig. 5 is a view of the part used for securing the lock to the neck of a bottle, the latter being shown in section. Fig. 6 is a horizontal section of the lock, taken between two plates. Fig. 7 is a perspective view of the collar or device for securing the

lock to the bottle-neck, and Fig. 8 is a view of one of the plates or washers of the lock.

A is a plate or disk to which the side bars B B' are connected, these parts forming a frame or bow that supports the operative parts of the device. The bars B B' extend through openings in a cap or cover C, that is adapted to fit down over a stopper, and these ends are pivotally connected to the collar, by means of which the bow and its connected parts are secured to the neck of a bottle or similar receptacle. The collar is preferably made in two main parts D and E, as shown more clearly in Figs. 5 and 7, the part D being connected to the part E at one end by a link F or similar device, which permits universal movement of the parts D and E with respect to one another, and provided at the other with a hook G, that engages with the rivet or stud H, by which the bar B is secured to the collar. A stud or pin *a* is set in the said bar B, by means of which the hooked end of the part D is held down in engagement with the stud H when the bars B B' are in an upright position. To the cap C, which is movable freely along the bars B B', is secured a notched or serrated bar I, that extends up through an opening in the plate A, on which, and in operative combination with the said bar I, is a combination-lock, by means of which the rack-bar and cap may be locked in any desired position on the bars B B'.

The details of the construction of the combination-lock may be varied in many particulars; but I have devised for the present purpose a cheap, simple, and yet effective lock, which is constructed as follows: K K' K'' is a series of three or more plates with flanges or circular recesses on their under sides and preferably of graduated size, the lowest plate being of greatest diameter. Between these plates and in the recesses therein are other plates or washers L. Over the uppermost plate K'' is a plate L', corresponding in shape to the washers L, and over this a plate M with an opening therein of a size that permits the rack-bar I to move freely through it. The washers L L' have square openings, through which the rack-bar I may pass, which openings are narrowed and extended on the side

of the serrations in the bar to admit a key or plate N with serrations that mesh with those on the rack-bar I and allow for a play or movement of the key away from the rack-bar sufficient to carry it out of engagement therewith.

The plates K K' K'' have circular openings of such diameter as to partially cover the narrow ends of the slots in the washers L and prevent the disengagement of the key N from the bar I; but each of said plates is provided with a notch O, and when all these notches are brought into alignment over the said slots the key N may be moved back from the bar I, unlocking the same.

The parts of the lock are held together by pins or bars P, that extend up through the washers L L' and the top and bottom plates A and M.

The device is used and applied as follows:
The collar D E is placed around the neck of the bottle below the shoulder and the end G caused to engage with the stud H. The bow is then turned to bring the cap C over the mouth of the bottle, in doing which the pin a is carried up over the hooked end of the part D. The rack-bar I is then depressed until the cap C is brought down sufficiently close to the stopper to prevent the withdrawal of the latter, and the plates K K' are then turned to break the combination and force the key N into engagement with the rack-bar, thereby locking the same against movement. To open the bottle, the plates of the lock are set by the aid of distinguishing lines or marks thereon to the proper combination and the rack-bar drawn up. The shape of the bottle should be such that the movement of the rack-bar forces back the key into its grooves or seat.

The device above described is applicable to many different shapes and sizes of bottle and requires no special form of stopper. I am aware that stopper-locking devices are not new and that combination-locks as well as key-locks have heretofore been employed for this purpose; but in all cases of which I am aware the lock was permanently secured to the bottle or the stopper formed a part of the lock.

My improvement is designed to provide a stopper-lock independent of both bottle and stopper which may be applied to different bottles and different corks or stoppers without change.

What I claim is—

1. The combination, with a collar embracing the neck of a bottle and a plate connected to the collar by side bars pivoted thereto, of a cover or cap independent of and adapted to fit over the stopper and provided with open-

ings through which the side bars extend, a serrated bar connected with the cap and passing up through the plate, and a series of plates containing notches, and intermediate washers containing slots surrounding the serrated bar, forming therewith a combination-lock, as herein set forth.

2. The combination, with a collar adapted to embrace a bottle-neck, of a plate pivotally connected to the same by side bars and adapted to swing over the cork or mouth of the bottle, a cap or cover movable on said side bars, a serrated bar or stem connected therewith and passing up through the plate, a series of annular plates containing notches, an intermediate series of washers containing slots, and a serrated plate or key contained in the slots and adapted to be held in engagement with the serrated bar by the annular disks when the notches therein are not in alignment with the slots in the washers, as set forth.

3. The combination, with the plate A and bars B B', pivotally connected to the neck of a bottle, of the cover C and serrated stem passing through the plate A, the flanged or recessed annular plates K K' K'', containing notches O, the intermediate slotted washers L, and the serrated plate or key contained in the slots and engaging with the serrated bar or stem, as set forth.

4. The combination, with the bow or frame carrying the stopper-lock, of the collar for embracing the neck of the bottle and to which the ends of the bow are pivotally connected, the said collar being composed of two connected parts, one provided with a stud or pin, the other formed with a hook adapted to engage therewith and to be locked in such engagement by the bow when turned at right angles to the collar, as set forth.

5. The combination, with the bow carrying a locking device and a cap or cover provided with a stem passing through the locking device, of a collar for embracing the neck of a bottle and composed of two parts having a universal movement with respect to each other, to one of which the bow is pivotally connected, one of said parts being provided with a stud, the other with a hook for engaging therewith, and a lug on the bow adapted to pass over the hooked portion of the collar and hold the same in engagement with the stud when the bow is at right angles to said collar, as set forth.

FRANK JORDAN.

Witnesses:

ROBT. F. GAYLORD,
PARKER W. PAGE.