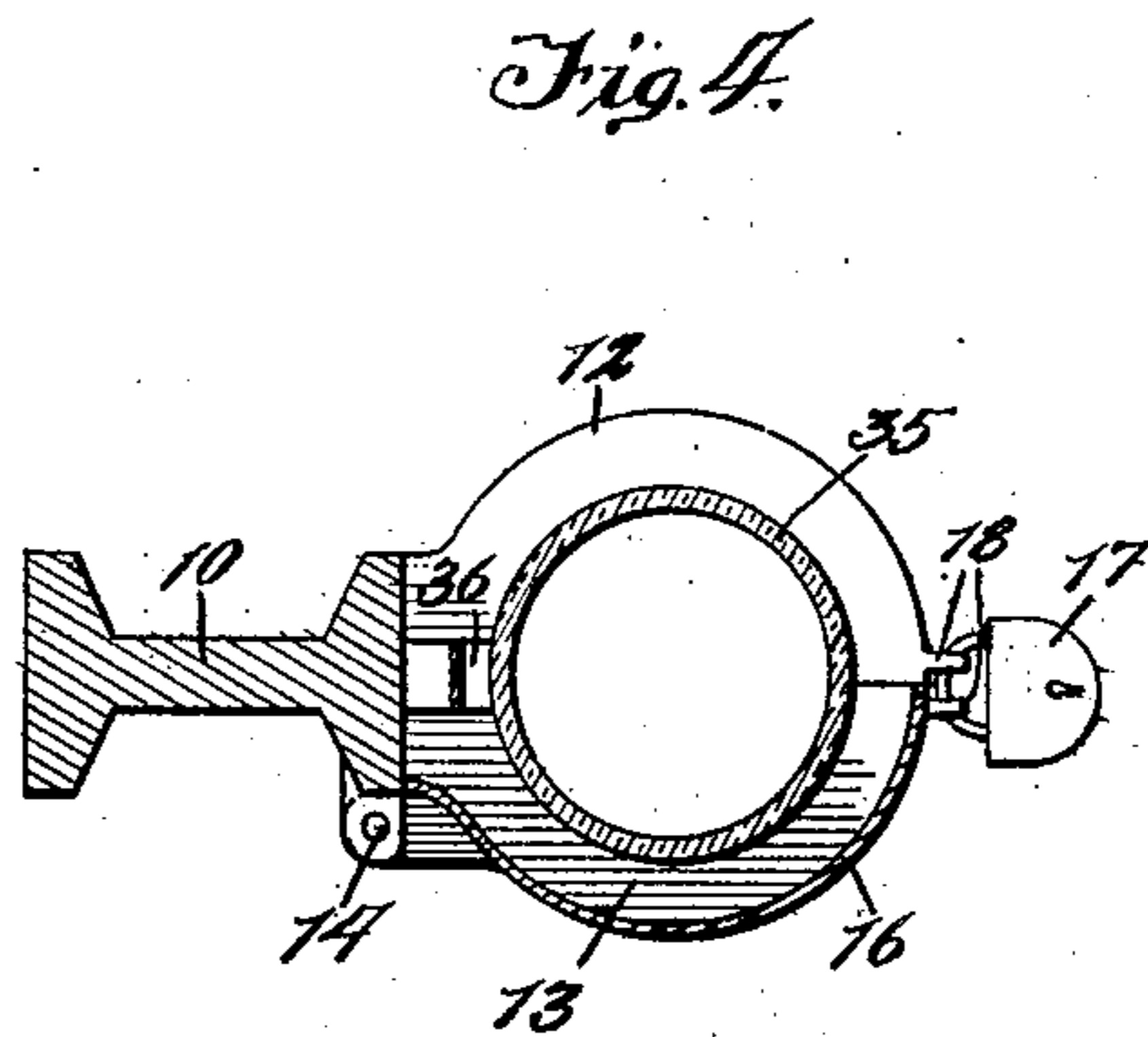
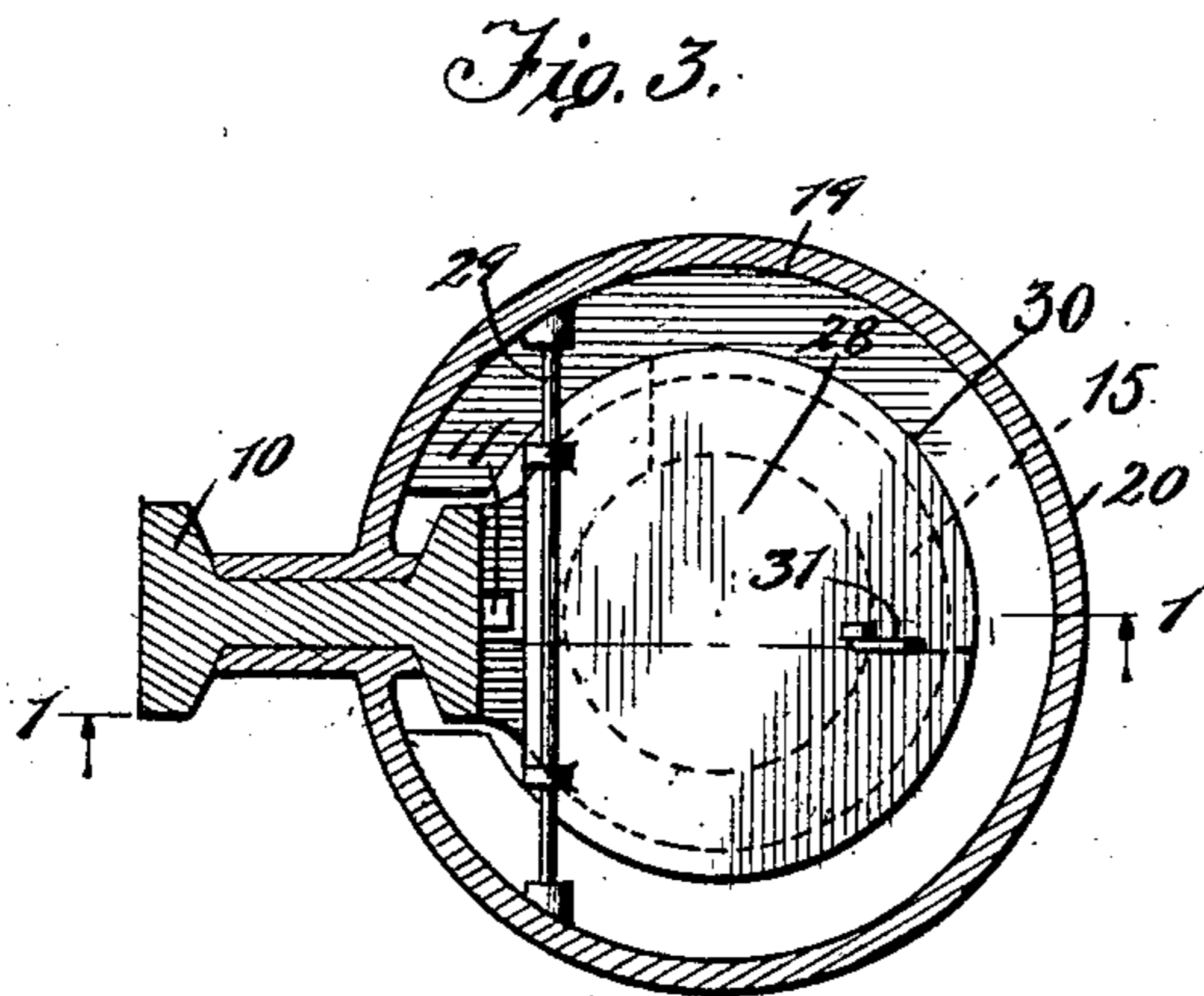
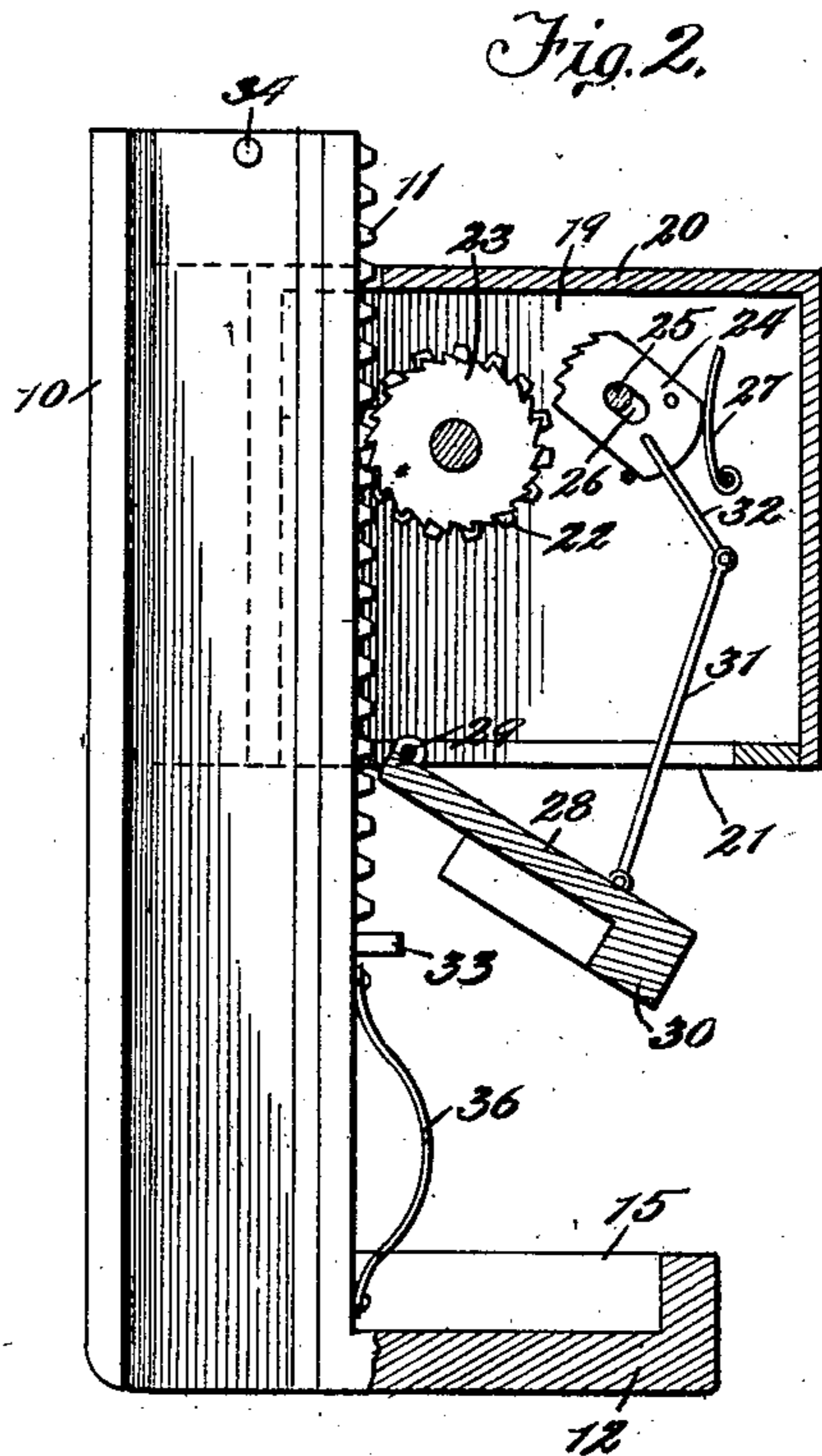
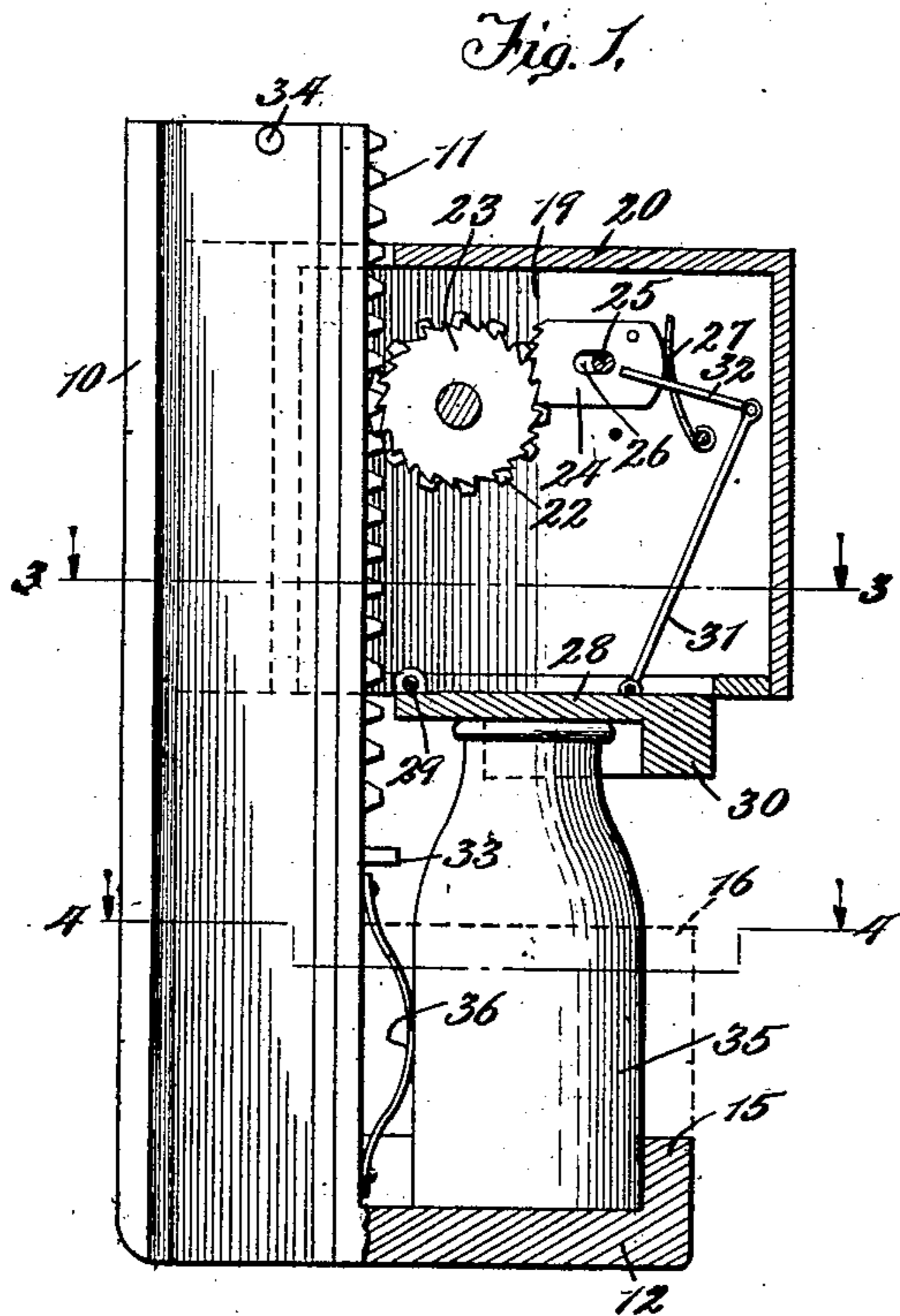


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SAFETY HOLDER OR RECEPTACLE FOR BOTTLES, PACKAGES, AND THE LIKE.  
APPLICATION FILED DEC. 19, 1908.

925,586.

Patented June 22, 1909.

2 SHEETS—SHEET 1.



Witnesses:

*Ed. D. Perry*  
*J. Gochum Jr.*

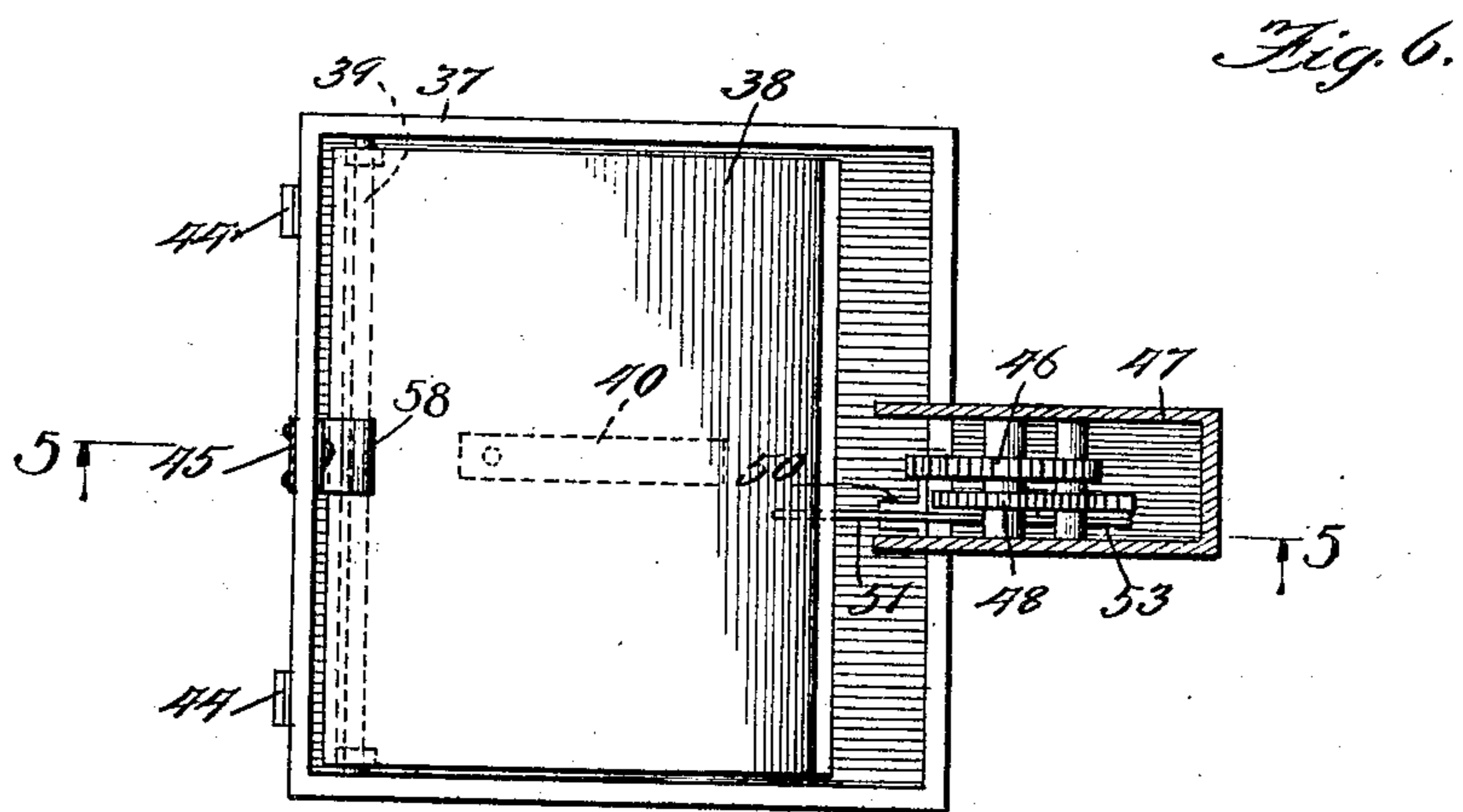
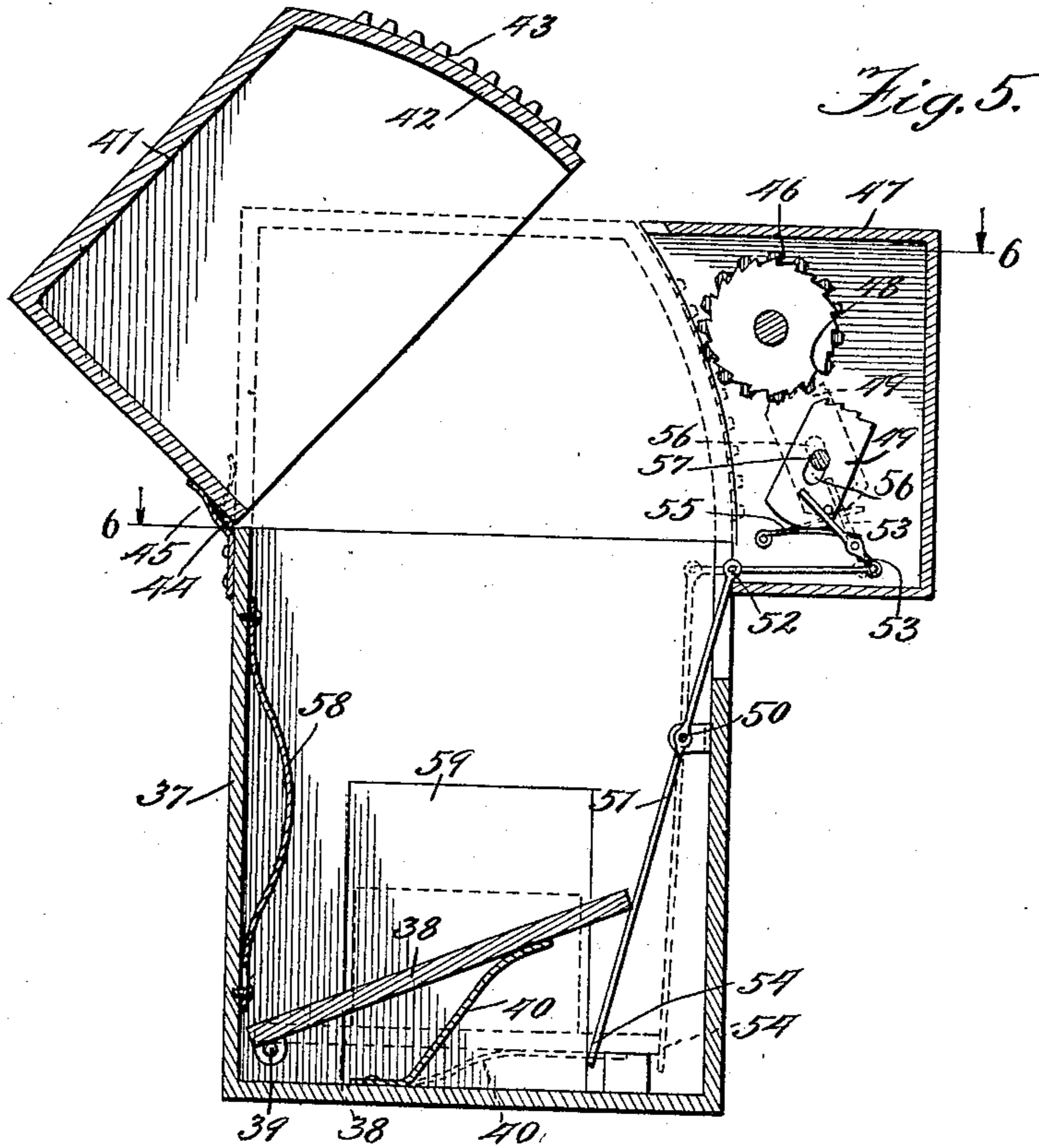
Inventor:

*S. C. Loomis*  
*By Edward H. Hoff*  
*Att'y*

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Witnesses:

*W. D. Perry*  
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# UNITED STATES PATENT OFFICE.

SAMUEL C. LOOMIS, OF CHICAGO, ILLINOIS.

SAFETY HOLDER OR RECEPTACLE FOR BOTTLES, PACKAGES, AND THE LIKE.

No. 925,586.

Specification of Letters Patent.

Patented June 22, 1909.

Application filed December 19, 1908. Serial No. 468,292.

*To all whom it may concern:*

Be it known that I, SAMUEL C. LOOMIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Safety Holders or Receptacles for Bottles, Packages, and the Like, of which the following is a specification.

This invention relates to improvements in safety holders or receptacles for bottles, packages or the like, and the primary object of the same is to provide an improved device of this character for receiving the bottle or package, and improved means for locking or securing the same against unauthorized removal.

A further object is to provide an improved device of this character which will normally remain unlocked when there is no article in the holder or receptacle and which will automatically lock when an article is placed therein.

A further object is to provide improved means whereby the article itself will serve as a means for automatically locking the device, and improved means whereby the removal of the article will automatically unlock the device.

To the attainment of these ends and the accomplishment of other new and useful objects, as will appear, the invention consists in the features of novelty in the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawings illustrating the embodiment of the invention and in which—

Figure 1 is a longitudinal sectional view on line 1—1 of Fig. 3 of an improved device of this character constructed in accordance with the principles of this invention and showing an article within the receptacle. Fig. 2 is a view similar to Fig. 1 showing the receptacle unlocked and with the follower partially raised. Fig. 3 is a sectional view on line 3—3 of Fig. 1. Fig. 4 is a detail sectional view on line 4—4 of Fig. 1. Fig. 5 is a longitudinal sectional view of a modified form of the invention. Fig. 6 is a detail sectional view on line 6—6 of Fig. 5.

Referring more particularly to the drawings and in the exemplification of the invention shown in Figs. 1 to 4, the numeral 10 designates a suitable support of any desired construction and may be secured at any desired point convenient for the owner. This

support is preferably provided with teeth 11 arranged along one edge thereof and projecting from the bottom of the support is an extension preferably in the form of a platform comprising sections 12, and 13. The section 12 is preferably rigid with the support 10 and the section 13 is preferably hinged as at 14 to move away from the section 12 to permit the article to be removed from the holder in a manner to be set forth. The section 12 is provided with an upwardly projecting flange 15 and if desired, the section 13 may be provided with a member 16 preferably in the form of a shield which extends for some distance above the top of the flange 15 on the section 12 so as to guide the article when being placed within the holder.

The two sections 12 and 13 are secured together in any desired or suitable manner, preferably by means of a suitable lock 17 engaging suitable eyes 18 on the sections 12 and 13.

Slidably mounted upon the support 10 is a follower 19 which is preferably in the form of a hollow casing of any desired size and configuration but is preferably provided with a closed top 20 and an open bottom 21. Rotatably mounted within the follower 19 is a toothed or gear wheel 22 which is adapted to engage the teeth 11 on the support 10 and secured for rotation with the toothed wheel 22 is a ratchet wheel 23.

A dog or pawl 24 is pivotally mounted as at 25 within the follower 19 and is adapted to engage the teeth of the ratchet wheel 23 to lock the ratchet and toothed wheel 22 against rotation. The dog 24 is provided with a slot 26 surrounding the pivot 25 by means of which the dog may be capable of longitudinal movement to permit the same to yield when the article is removed from the holder and an elastic member 27 may be provided for holding the dog in position.

A member 28 is pivotally supported as at 29 to the follower 19 and is of a configuration to substantially close the open bottom of the follower when the member is in engagement with and resting upon the article placed within the holder. This member 28 is preferably provided with a depending flange 30 at the forward edge thereof which coöperates with the upwardly projecting flange 15 on the section 12 of the supporting platform to hold the article against displacement.

In use and when there is no article upon the supporting platform, the member 28 will move downwardly about its pivot 29 into the position shown in Fig. 2 and through the medium of the link 31, which is connected to the member 28 by one extremity and to an arm 32 of the dog 24 by the other extremity, the dog will be moved about its point of pivotal support into an inoperative position and against the tension of the elastic member 27 thereby permitting the follower 19 to be freely raised or lowered upon the support 10, which movement in either direction will rotate the toothed wheel 22 and the ratchet wheel 23. If desired, a suitable projection 33 may be provided which is arranged within the path of the downward movement of the follower 19 to limit such movement and a similar stop 34 may be provided to limit the upward movement of the follower. The stop 33 should however be so located as to permit the follower 19 to move into close proximity to the supporting platform for locking a small article in the holder.

When the follower is unlocked, as shown in Fig. 2, it may be moved upon the support 10 to any desired height which will permit an article such as the bottle 35 to be inserted upon the supporting platform by passing one end over the flange 15 on the section 12 and when in position the follower may be released so that it will fall by gravity toward the bottle. During the descending movement of the follower, the member 28 will engage the upper end of the bottle and a further movement of the follower in the same direction will cause the member 28 to be moved about its pivot 29, which movement will rock the dog 24 about its pivot and into engagement with the teeth of the ratchet wheel 23, to lock the toothed wheel 22 against rotation and also the follower against movement in either direction. When the parts are in this position the bottle 15 will be automatically locked against unauthorized removal. When it is desired to remove the bottle the lock 17 may be detached and the section 13 of the supporting platform moved about its pivot 15, after which the bottle may be removed by sliding the same through the open side of the holder. When the bottle is removed the follower 19 will fall by gravity until its downward movement is arrested by the stop 33, which latter is arranged in such a position that during the downward movement of the follower, the stop will not engage the member 28.

A suitable spring 36 may be provided which is secured to the support 10 and is adapted to move the bottle 35 in a direction away from the pivot 29 of the member 28 and toward the flange 15 so as to properly position the bottle to be engaged by the member 28. Obviously any other article other than the bottle placed upon the plat-

form will operate to automatically lock the holder when the member 28 engages the article.

In the exemplification of the invention shown in Figs. 5 and 6 there is provided a receptacle 37 within which is arranged a platform 38 pivoted at one edge as at 39 and is normally held in a raised position by means of a suitable flexible member 40 such as a leaf spring and the platform is arranged within the receptacle adjacent the bottom and is adapted to receive the article placed thereon. The receptacle 37 is provided with a closure 41, one edge 42 of which is provided with rack teeth 43. The closure is hinged as at 44 and an elastic member 45 is provided which tends normally to hold the closure in a closed position.

Arranged adjacent the opening of the receptacle is a toothed wheel 46 which is rotatably secured within a casing 47 which has communication with the receptacle, and a ratchet wheel 48 similar to the ratchet wheel 23 is secured for rotation with the toothed wheel 46. A dog 49 similar to the dog 24 is provided for locking the toothed and ratchet wheels against rotation. Pivotal support within the receptacle 37 and intermediate its ends as at 50 is a link or lever 51, one extremity 52 of which is connected in any suitable manner to the arm 53 of the dog 49. The other extremity 54 of the link or lever 51 terminates adjacent the bottom of the receptacle and in proximity to the edge of the platform 38. An elastic member 55 is provided for holding the dog 49 in an inoperative position, which elastic member also serves as a means for holding the extremity 54 of the link or lever 51 within the path of the downward movement of the free edge of the platform 38 so that when the platform 38 is depressed about its pivot 39 against the tension of the elastic member 40, the free edge thereof will engage the extremity 54 of the link or lever 51 to rock the same about its pivot 50 to move the dog 49 into engagement with the ratchet wheel 48. This dog 49 is preferably provided with a slot 56 surrounding its pivot 57 to permit the dog to yield against the tension of the elastic member 55 and thereby permit the ratchet wheel 48 and the toothed wheel 46 to rotate under the influence of the rack 43 when an article is within the receptacle.

In operation and with this form of the invention the ratchet wheel 48 and toothed wheel 46 will be normally unlocked, thereby permitting the closure 41 to be freely opened or closed. When the closure is opened and the article deposited within the receptacle it will engage and rest upon the platform 38 to depress the same in the manner set forth and thereby throw the dog 49 into engagement with the ratchet 48 to lock the toothed wheel 46 against rotation. After

the parts have assumed this position and when the closure 41 is released, and in the event that the operator does not close the closure, the elastic member 45 will force the same into a closed position, thereby causing the rack teeth 43 to engage the toothed wheel 46. A further movement of the closure in the same direction will tend to force the toothed wheel to rotate, which movement is permitted by the yielding movement of the dog 49 accomplished through the medium of the slot 46. When the closing movement of the closure is arrested, the closure will be locked against movement in the opposite direction by means of the dog engaging the ratchet wheel. A spring 58 may be provided within the receptacle adjacent the pivot 39 of the platform 38 which tends to force the article deposited therein away from the pivot of the platform and toward the free edge thereof, thereby moving the load a greater distance from the pivot which will cause the platform to operate under a light load.

The receptacle 37 may be provided with a suitable door or closure 59 in one side thereof, which may be provided with an ordinary lock and through which the article may be removed from the casing by the owner when desired. After the article has been removed from the casing the platform 38 will be moved to the position shown in Fig. 5 by the elastic member 40, which movement will permit the elastic member 55 to move the dog 49 about its pivot and out of engagement with the ratchet wheel to unlock the closure 41 and to move the extremity 54 of the link or lever 51 into the path of the downward movement of the platform 38 so that the parts will be in a proper position to lock the closure when another article is deposited within the receptacle.

In order that the invention might be fully understood the details of the foregoing embodiments thereof have been thus specifically described, but

What is claimed as new is—

1. In a device for the purpose described, the combination of cooperating parts, one of said parts comprising a holder for the article, the other comprising a member movable toward and away from the holder for retaining the article therein, one of the parts being provided with spaced teeth, a toothed member supported by the other part for free pivotal movement and adapted to cooperate with and engage the said spaced teeth, means for locking said pivotal member against movement when the latter is in engagement with the teeth, and means engaged by the article for actuating the said locking means.

2. In a device for the purpose described, the combination of cooperating parts, one of said parts comprising a holder for the

article, the other comprising a member movable toward and away from the holder for retaining the article therein, one of the parts being provided with spaced teeth, a toothed member supported by the other part for free pivotal movement and adapted to cooperate with and engage the said spaced teeth, means for locking said pivotal member against movement when the latter is in engagement with the teeth, and means whereby the presence of the article in the holder will actuate the said locking means.

3. In a device for the purpose described, the combination of cooperating parts, one of the parts comprising a holder for the article and the other comprising a member movable toward and away from the holder for retaining the article therein, one of the parts being provided with spaced teeth, a toothed member supported by the other part for free pivotal movement and adapted to cooperate with and engage the said spaced teeth, means for locking said pivotal member against movement when the latter is in engagement with the teeth, and means whereby the presence of the article in the holder will actuate the said locking means, the last said means also operating to automatically release the said locking means by the removal of the package from the holder.

4. In a device for the purpose described, the combination of a holder for the article, means cooperating with the holder and movable toward the article for retaining the latter in the holder, locking mechanism for said retaining means, a member mounted for movement with respect to the said retaining means, said member being adapted to be engaged and moved by the article, means operatively related to said member whereby the presence of an article in the holder will move the member to actuate the said locking means, and yielding means for positioning the article in the holder with respect to the said movable member.

5. In a device for the purpose described, the combination of a holder for the article, a retainer movable toward and away from the article, a member supported by and for movement with respect to the retainer and adapted to be moved with respect to the retainer by the engagement of the article therewith, means whereby the movement of said member by the article will automatically lock the retainer against movement and the article within the holder, and means for permitting the removal of the article from the holder without adjusting the retainer, whereby the said member will be permitted to move with respect to the retainer to automatically release the retainer.

6. In a device for the purpose described, the combination of a holder for the article, a follower movable toward and away from the article, a member pivotally supported by

and for movement with respect to the follower and adapted to be moved with respect to the follower by the engagement of the article therewith, means whereby the movement of said member by the article will lock the article in the holder and the follower against movement away from the article, and means whereby the article may be removed from the holder without unlocking the follower, the removal of the article serving to automatically unlock the said follower.

7. In a device for the purpose described, the combination of a holder for the article, a follower movable toward and away from the article, a member pivotally supported by and for movement with respect to the follower and adapted to be moved with respect to the follower by the engagement of the article therewith, means whereby the movement of said member by the article will lock the article in the holder and the follower against movement away from the article, yielding means for positioning the article in the holder with respect to the said member, and means whereby the article may be removed from the holder without unlocking the follower, the removal of the article serving to automatically unlock the said follower.

8. In a device for the purpose described, the combination of a holder for the article, an element movable toward and away from the holder for retaining the article therein, one of the elements being provided with spaced teeth, a toothed member supported by the other element for movement with respect thereto and adapted to cooperate with and engage the said spaced teeth, means for locking said toothed member against movement when the latter is in engagement with the said spaced teeth, means engaged by the article for actuating the said locking means, and means for permitting the removal of the article from the holder without adjusting the said locking means whereby the said element may be automatically released.

9. In a device for the purpose set forth, the combination of a holder for the article, a member movable toward and away from the holder for retaining the article therein, one of the parts being provided with spaced teeth, a member supported by the other part for free pivotal movement with respect thereto and adapted to cooperate with and engage the said spaced teeth, means tending

normally to hold the pivoted member out of engagement with the said teeth to permit adjustment of the said movable member, the last said means being adapted to be moved by the article to move the said pivoted member into engagement with the said spaced teeth to lock the article within the holder and also the said movable member, and means for permitting the removal of the article from the holder without adjusting the said movable member whereby the said movable member will be automatically released.

10. In a device for the purpose set forth, the combination of a holder for the article, a follower cooperating with the holder and movable toward and away from the article, a member supported by the follower for movement therewith and also for movement with respect to the follower, said member being adapted to be moved with respect to the follower by the article, means whereby the last said movement of the member will lock the article within the holder and also the follower against the movement, and means for permitting the removal of the article from the holder without adjusting the said member whereby the follower will be automatically released.

11. In a device for the purpose described, the combination of cooperating parts, one of said parts comprising a holder for the article, the other part being movable with respect to the first part for retaining the article, inter-engaging means on the parts for locking the parts with respect to each other to hold the article against removal, one of the said locking means being shiftable with respect to its supporting part, means supported by one of the parts and movable with respect thereto and adapted to be moved by the article, means operatively connecting the last said means with the respective locking means for shifting the latter when an article is in the holder, and means whereby the article may be removed from the holder without unlocking the first two said parts, the removal of the article serving to automatically unlock the parts.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 16th day of December A. D. 1908.

SAMUEL C. LOOMIS.

Witnesses:

J. H. JOCHUM, Jr.,  
S. D. LOOMIS.