

June 3, 1924.

H. J. KELLER

1,496,419

ANTITHEFT RECEPTACLE FOR MILK BOTTLES AND THE LIKE

Filed Oct. 24, 1921

2 Sheets-Sheet 1

Fig. 1.

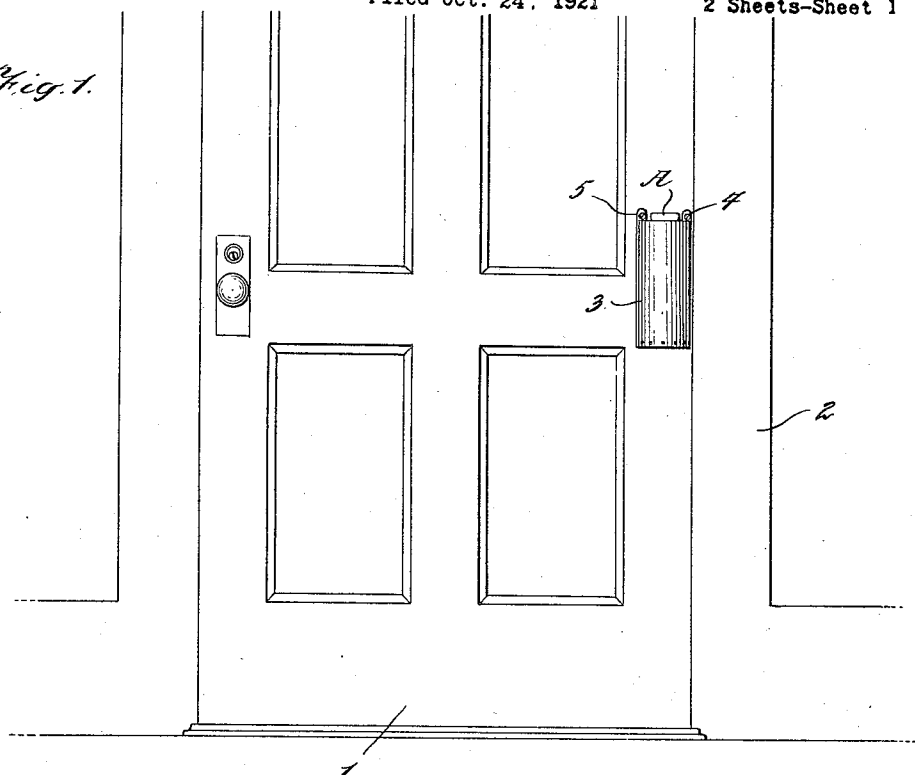
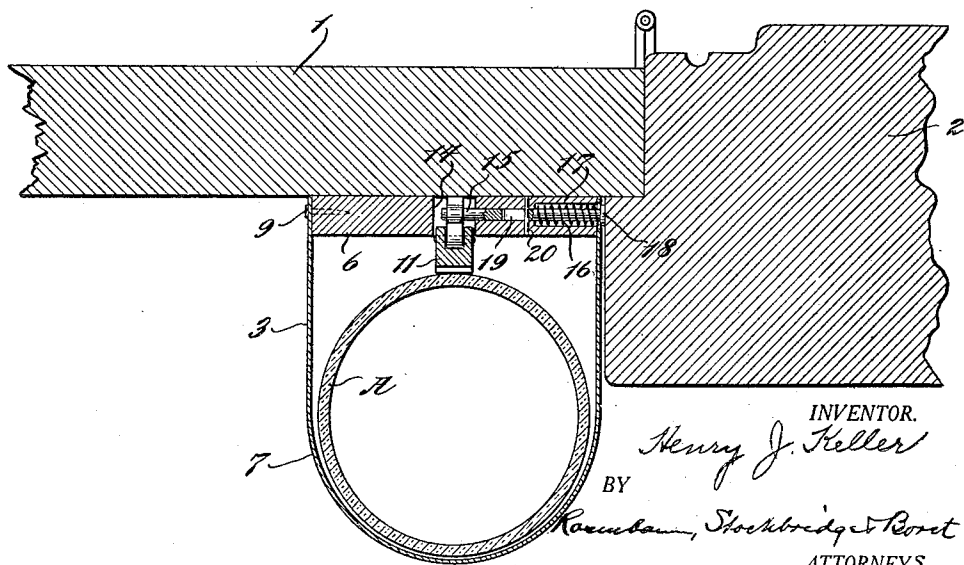


Fig. 2.



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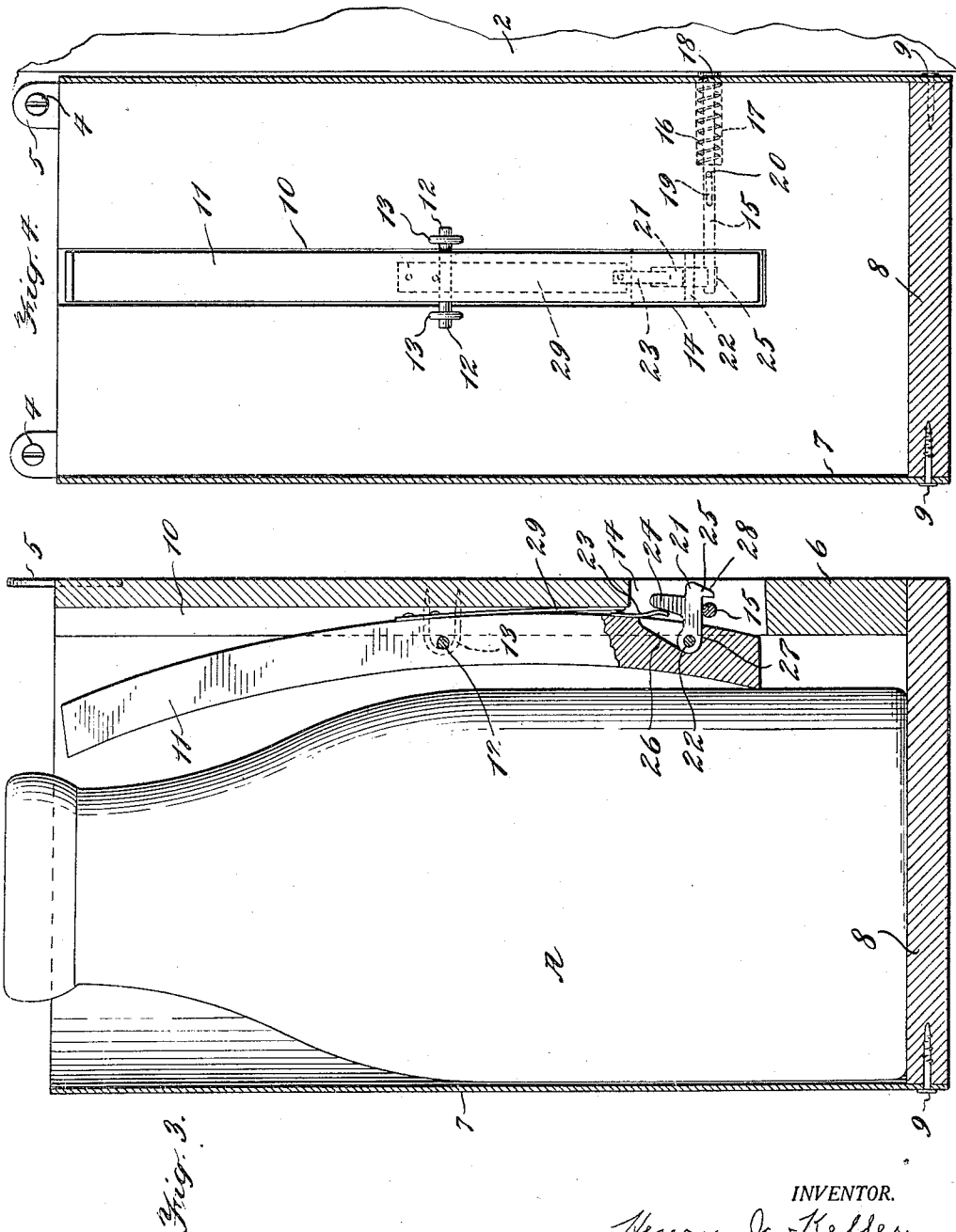


Fig. 3.

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ANTITHEFT RECEPTACLE FOR MILK BOTTLES AND THE LIKE.

Application filed October 24, 1921. Serial No. 509,847.

To all whom it may concern:

Be it known that I, HENRY J. KELLER, a citizen of the United States, residing at Union Hill, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Antitheft Receptacles for Milk Bottles and the like, of which the following is a full, clear, and exact description.

My invention relates to receptacles for milk bottles and the like of the type which are intended to prevent theft of the bottles left by the milkman at the doors of the customers. Various devices have heretofore been devised to prevent the theft of milk from the customer's doorstep or domicile but have not come into extensive use principally because they were too unsightly, too expensive, or they failed to thwart the thief.

An object of this invention is to provide an improved receptacle for milk bottles and the like, which will effectively prevent the theft of the bottles therefrom, and which is exceedingly inexpensive and simple in construction and attractive in appearance. A further object is to provide a receptacle for this purpose which will automatically become effective to prevent the removal of the bottle therefrom by the mere act of inserting the bottle therein, and in which the bottle is automatically released by the opening of a door or the like of the customer's domicile. Other objects and advantages will be apparent from the following descriptions of an embodiment of the invention and the novel features of the invention will be particularly pointed out in claims.

In the accompanying drawing,

Fig. 1 is an elevation of a door with my improved receptacle attached thereto.

Fig. 2 is a horizontal section through a portion of the door and casing of my improved receptacle.

Fig. 3 is a sectional side elevation with a bottle in locked position therein, and

Fig. 4 is a sectional front elevation of the same.

In the illustrated embodiment of the invention, the receptacle is applied to a door 1 of an apartment, the door being hinged to the door casing 2 to swing inwardly. The receptacle comprises a casing 3 which is secured to the door in any suitable manner such as by screws or bolts 4 passing through apertured ears 5 that extend from the rear

wall 6 of the casing. A metal sheet 7 passes between the opposite side edges of the wall member 6 and around the exposed periphery of the bottom wall member 8 to complete the enclosure of the casing, with the exception of the upper end which is preferably left open and through which open end a bottle may be inserted or removed. The sheet 7 may be secured to the wall members 6 and 8 in any suitable manner such as by screws or tacks 9, which may have corrugations thereon to prevent their removal when once driven into place. The wall member 6 is provided in its forward face with a vertically extending groove 10 in which a slightly bowed locking member 11 is pivoted at a point intermediate of its ends. This pivoting of the locking member is conveniently accomplished by providing the member with a rod 12 extending transversely from the opposite sides thereof and which is held against the forward face of the wall member 6 by bearing staples 13 which pass over the ends of the rod and into the wall member. The locking member is therefore oscillatable in a plane so as to carry either end out into the casing if the other end is pushed toward the rear wall member. Thus if a milk bottle A or similar article is inserted into the casing through the open upper end thereof the engagement of the wide bottom portion of the bottle with the lower end of the locking member will cause movement of the latter toward the rear wall member and carry the upper end on a direction to restrict the open upper end of the casing. If now the bottle is removed through the upper open end the bottle will engage the upper end of the locking member and move it toward the rear wall member. If, however, the movement of the locking member in the latter direction is prevented the bottle will be effectively locked within the casing.

The lower end of the groove 10 is therefore provided with an enlargement 14 which, in the embodiment illustrated, comprises an aperture passing through the wall member 6, across which aperture a locking rod or element 15 may be shifted. The rod 15 is mounted to reciprocate in the rear wall member so as to project one end across said aperture to varying extents. A spring 16, disposed in a recess 17 of the wall member 6, surrounds the rod 15 and reacts between a

head 18 of the rod and a wall of the recess so as to constantly tend to retract the rod 15 from the aperture 14. The rod is provided with an elongated aperture 19 through which passes a pin 20 carried by the wall member 6 to limit the movement of the rod under the influence of its spring. A latch 21 is pivoted at 22 to the lower end of the locking member for movement in a vertical plane, the latch being constantly stressed in a downward direction by a spring 23, carried by the locking member and pressing against an upstanding ear 24 of the latch. The latch is provided with a locking nose 25 which is adapted to engage with that end of the rod 15 which projects across the aperture 14 when the rod is at its extreme inward position and when the lower end of the locking member has been moved rearwardly to a position in which the upper end restricts the open end of the casing. It will thus be seen that when a bottle is inserted into the casing the locking member will be shifted to restrict the opening of the casing, and the latch by its engagement with the end of the rod 15 will prevent movement of the locking member in a reverse direction. The removal of the bottle is therefore prevented until the latch is released from the locking rod 15. The latch is preferably disposed partially within a recess 26 of the locking member so that it will engage with a shoulder 27 thereof and be limited in its downward movement. The nose of the latch is also provided with a bevelled cam edge 28 for camming engagement with the rod 15 so that as the latch is carried rearwardly with the lower end of the locking member it will be cammed upwardly by the engagement of the cam edge and the rod and cause an automatic interlock between the latch and rod. A spring 29 carried by the locking member bears upon the wall member 6 and tends to constantly rotate the locking member in a direction to release the bottle and permit of its removal from the casing.

The casing is secured to the door adjacent the hinged edge thereof so that the side of the casing from which the rod 15 projects will abut a wall of the door frame when the door is in its closed position. The rod 15 will be held in its extreme inward or locking position whenever the door is in closed position owing to the fact that the head 18 of the rod will be engaged and forced toward the casing by the door frame as the door is moved to its closed position. If at any time while the locking rod 15 is in this position a bottle is inserted into the casing the locking member will be shifted to carry the latch into locking engagement with the rod 15 and to prevent removal of the bottle. When the door is opened the casing will be carried away from the door frame and the rod 15 will be released so that its spring 16 may

shift it outwardly and move the inner end thereof laterally out of engagement with the latch. The bottle may then be removed from the casing since there is nothing remaining to prevent a releasing movement of the locking member. The spring 29 normally holds the locking member in a position in which the upper end of the casing is not restricted so that a bottle may be readily inserted.

In use the casing is secured to the door of the apartment in the position shown in Fig. 1 and when the milkman leaves the bottle for the customer he inserts it into the casing through the open upper end thereof. As the bottle passes into the casing it engages and automatically shifts the locking member into locking position, carrying the latch into locking engagement with the locking rod or element 15. It will therefore be impossible for thieves to remove the bottle from the casing without actually wrecking the casing, which act would necessarily cause sounds sufficiently loud to act as an alarm and increase the likelihood of detection of the thieves while in the act of thievery. When the customer opens the door the outward movement of the locking rod 15 automatically releases the latch of the locking member so that the bottle may be removed from the casing without any particular act by the customer except that of removal of the bottle, and when the door is closed the casing is automatically set to receive another bottle.

With a receptacle constructed in accordance with this invention it will be seen that it is unnecessary for the customer to be bothered with keys, or, with combination locks, and the thefts of the bottles is effectively prevented. The device is simple and inexpensive so that it may be easily purchased and secured to a door by any one desiring a device of this kind.

While I have described and claimed the receptacle as adapted particularly for milk bottles, it is to be understood that the invention applies equally well to anti-theft receptacles for other articles or packages. The locking member may have an offset locking arm at the upper end for locking packages of other shapes within the casing.

It will be obvious that various changes in the details and arrangement of parts of the illustrated embodiment may be made by those skilled in the art within the principle and scope of the invention.

I claim:

1. An anti-theft receptacle for milk bottles and the like comprising a casing having an opening therein through which a bottle may be inserted into the casing, a locking member within the casing operable by a bottle during its movement into the casing, to a position in which it prevents removal of the bottle, a spring normally tending to move the member to a position to release the bottle,

and means including a latch for preventing movement of the member to a position to release the bottle and permit of its removal.

2. An anti-theft receptacle for milk bottles and the like to be placed at customer's doors, a casing having an opening therein through which a bottle may be inserted into the casing, a locking member within the casing operable by contact with a bottle, during its movement into the casing, to a position in which it prevents removal of the bottle, a latch carried by the member, an element carried by the casing and operable to a position in the path of the latch by the closing of the door whereby when the member is moved to bottle locking position the latch will engage with the element and be locked in that position, a spring normally tending to shift the element out of the path of the latch and therefore out of locking engagement therewith to release the latch and member when the door is opened, and a spring tending to shift the member to a position to release the bottle and permit of its removal from the casing.

3. An anti-theft receptacle for milk bottles and the like, a casing having an opening in one wall through which a bottle may be inserted into the casing, a locking member pivoted intermediate of its ends to a wall of the casing and operable by a bottle, while the bottle is being inserted into the casing, into a position in which it prevents removal of the bottle, a latch carried by the member, and a bolt movable into and out of the path of the latch, whereby when the bolt is in the path of the latch, the movement of the member to bottle locking position will automatically cause the engagement of the latch with the bolt to prevent a release of the bottle, and whereby the movement of the bolt from the path of the latch will release the member and permit of its movement to its bottle releasing position.

4. An anti-theft receptacle for milk bottles and the like, a casing having an opening in one wall through which a bottle may be inserted into the casing, a locking member pivoted intermediate of its ends to a wall of the casing and operable by a bottle, while the bottle is being inserted into the casing, into a position in which it prevents removal of the bottle, a latch carried by the member, a bolt movable into and out of the path of the latch, whereby when the bolt is in the path of the latch, the movement of the member to bottle locking position will automatically cause the engagement of the latch with the bolt to prevent a release of the bottle, and whereby the movement of the bolt from the path of the latch will release the member and

permit of its movement to its bottle releasing position, a spring tending to shift the bolt from the path of the latch, and means to limit movement of the bolt by the spring.

5. An anti-theft receptacle for milk bottles and the like, a casing having an opening in one wall through which a bottle may be inserted into the casing, a locking member pivoted intermediate of its ends to a wall of the casing and operable by a bottle, while the bottle is being inserted into the casing, into a position in which it prevents removal of the bottle, a latch carried by the member, an element movable into and out of the path of the latch, whereby when the element is within the path of the latch, the movement of the member to bottle locking position will automatically cause locking engagement of the latch and element to hold the member in bottle locking position, and whereby when the element moves out of the path of the latch the member will be released to permit of its movement to bottle releasing position, a spring tending to shift the element out of the path of the latch, and means for limiting the movement of the element by its spring.

6. An anti-theft receptacle for milk bottles and the like, the combination with two relatively moving parts, a casing adapted to be secured to one of the parts and having an opening in a wall through which a bottle may be inserted into the casing, a locking member pivoted intermediate of its ends to a wall of the casing and operable by a bottle, while the bottle is being inserted into the casing, into a position in which it prevents removal of the bottle, a latch carried by the member, an element movable into and out of the path of the latch whereby when the element is within the path of the latch the movement of the member to bottle locking position will automatically cause locking engagement of the latch and element to hold the member in bottle locking position, and whereby when the element moves out of the path of the latch the member will be released to permit of its movement to bottle releasing position, a spring tending to shift the element out of the path of the latch and into the relative path of movement of the other of the parts whereby relative movement of the parts in one direction will cause a movement of the element against the action of its spring into the path of the latch and relative movement in the opposite direction will release the element to the action of its spring.

In witness whereof, I hereunto subscribe my signature.

HENRY J. KELLER.