No. 732,613. PATENTED JUNE 30, 1903.

J. C. BETTS.

MILK JAR LOCK.

APPLICATION FILED SEPT. 10, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

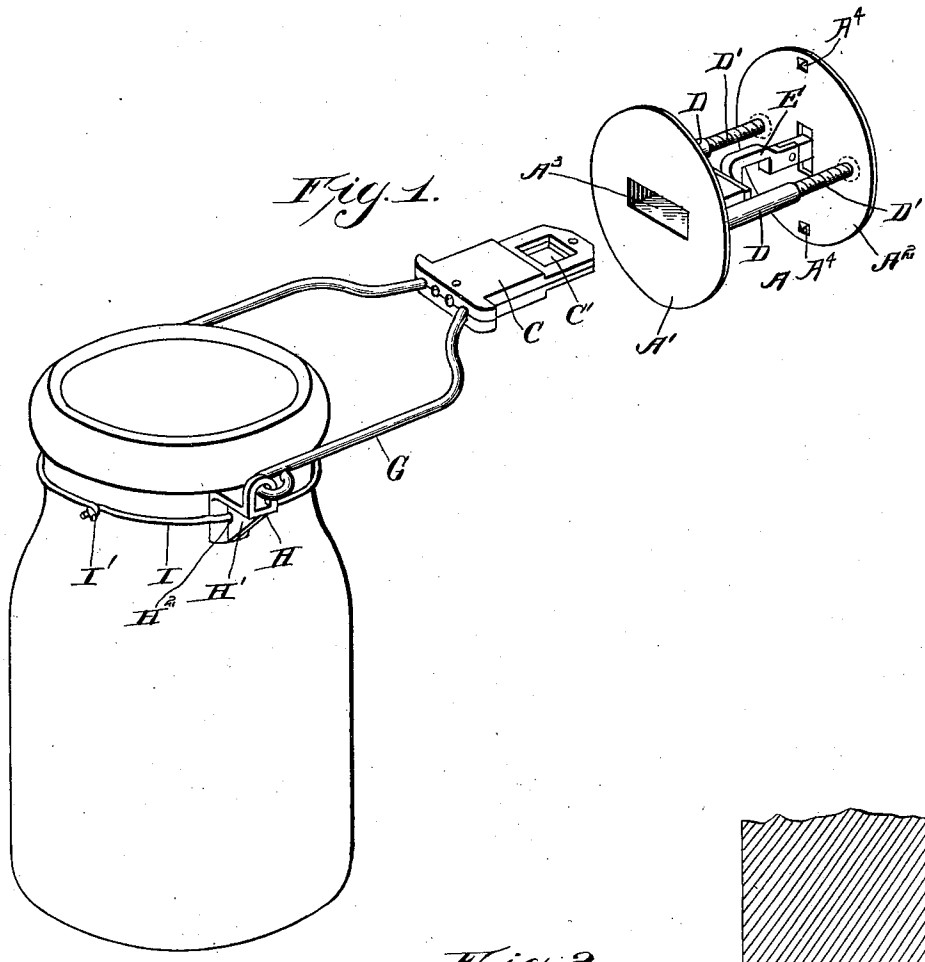
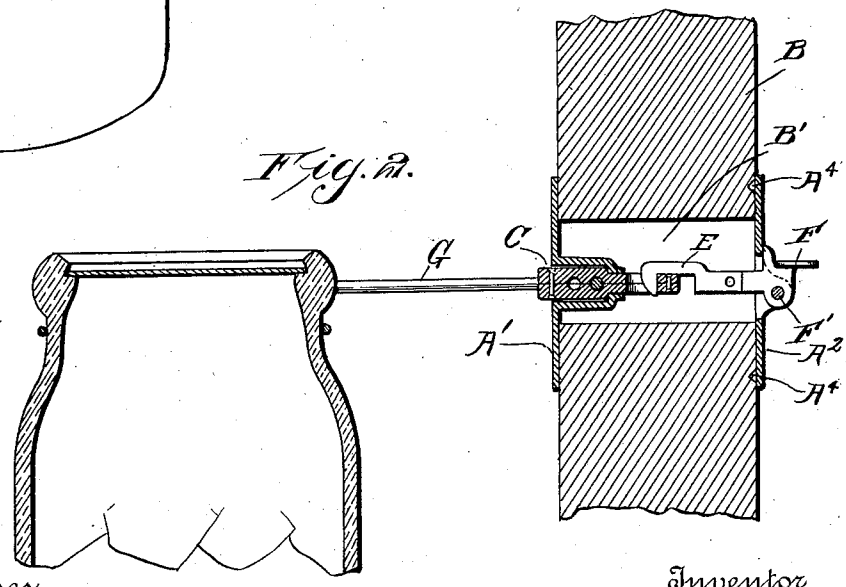


Fig. 2.



Witnesses

Louis D. Heinrichs

L. H. Morrison

Inventor

John C. Betts

By his Attorney

W. Pelham Williamson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 732,613. PATENTED JUNE 30, 1903.

J. C. BETTS.

MILK JAR LOCK.

APPLICATION FILED SEPT. 10, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

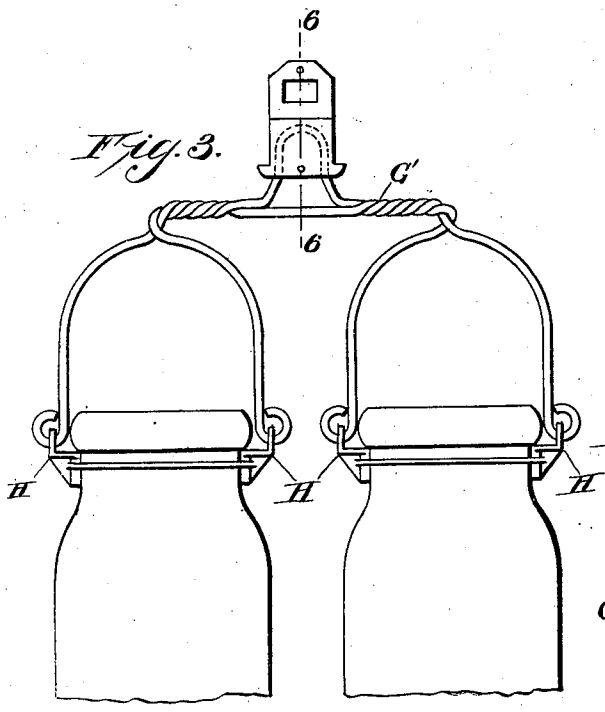


Fig. 5.

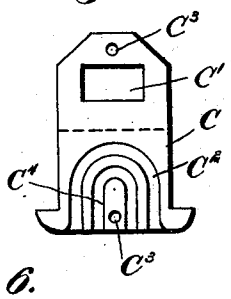


Fig. 6.

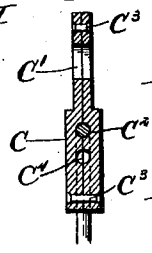


Fig. 7.

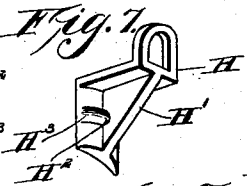


Fig. 8.

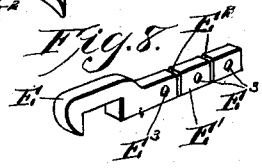
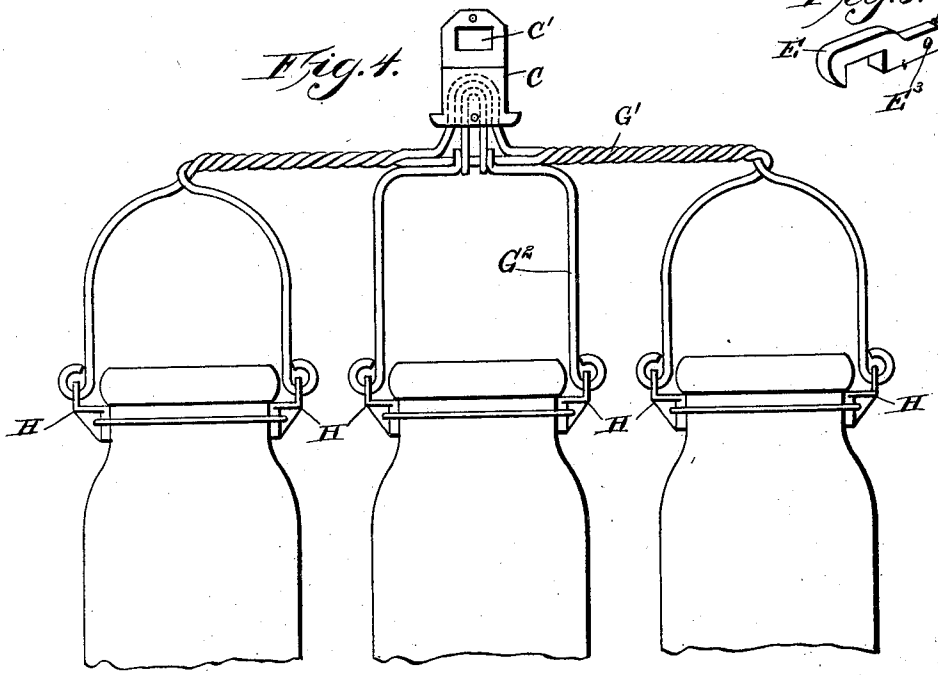


Fig. 4.



Witnesses
Louis D. Heinrichs
L. H. Monson

Inventor
John C. Betts
By his Attorneys
Pruden & Williamson

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 732,613. Patented June 30, 1903.

UNITED STATES PATENT OFFICE.

JOHN C. BETTS, OF PHILADELPHIA, PENNSYLVANIA.

MILK-JAR LOCK.

SPECIFICATION forming part of Letters Patent No. 732,613, dated June 30, 1903.

Application filed September 10, 1902. Serial No. 122,758. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. BETTS, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Milk-Jar Locks, of which the following is a specification.

My invention relates to a new and useful improvement in milk-jar locks, and has for its object to provide a lock which may be inserted through a door, and I also provide a shackle secured to the jar which when inserted in the lock will be automatically locked, so that it cannot be removed from the outside of the door, but may be removed from the inside by simply depressing a thumb-piece.

A further object of my improvement is to make the lock so that it is adjustable and can be attached to doors of different thicknesses and to construct the apparatus so that it will be exceedingly neat in appearance and yet be simple and durable; and a still further object of my invention is to provide means for attaching a number of jars together, and one shackle will suffice for locking all of the jars secured together.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of the lock and also of the jar and its attachment; Fig. 2, a vertical section through a portion of the door, showing the lock attached thereto, and through a portion of a jar and the jar attachment, showing the shackle engaged by the latch; Fig. 3, a side elevation of two jars coupled together; Fig. 4, a side elevation of three jars joined together; Fig. 5, a face view of the inside of one of the halves of the shackle; Fig. 6, a section taken on the line 6 6 of Fig. 3; Fig. 7, a perspective view of one of the eyelets to which the bail is attached to the jar; Fig. 8, a perspective view of the latch.

A represents the lock, which is adapted to be secured in the door B, and an opening B′ is formed through the door, and the lock is inserted in said opening. The lock consists of an outside plate A′ and an inside plate A^2. The outside plate A′ is provided with a socket A^3, adapted to receive the shackle C, carried by the jar. Formed with and extending inward from the rear of the outside plate A′ are interiorly-threaded projections D, adapted to receive screws D′, which pass through the inside plate A^2, and these screws D′ are headed upon the outside of said inside plate. In securing the lock to the door the screws D′ are removed from the projections D and the socket A^3 and projections D are inserted from the outside of the door into the opening B′. The inside plate A^2 carries the latch E, and this latch is then inserted in the opening B′ from the inside of the door. The screws D′ are then passed through the plate A^2 and screwed into the projections D, and as the plates A′ and A^2 are larger in diameter than the opening B′ the screws D will draw these plates in close contact with the outside and inside of the door, and the inside plate A^2 may have small pointed projections A^4 upon its inside surface, which projections will be embedded in the door and prevent any movement of said plate. Thus the lock will be secured to the door from the inside and cannot possibly be removed from the outside thereof. The screws D′ are made of such a length as to accommodate themselves to all of the different thicknesses of doors. I also make the latch E so that the same is adjustable to the different widths of doors by forming the shank E′ of the latch long enough to accommodate a door of the greatest thickness, and this shank is grooved at different places, as indicated at E^2, on all four sides and may be broken off at these grooved places, so as to fit the different widths of doors, holes E^3 being formed through the shank at different points for the rivet which will rivet the latch to the thumb-piece.

F is the thumb-piece, which is pivoted at F′ to the inside plate A^2, and to this thumb-piece is riveted the latch E, so that by press-

ing upon the thumb-piece F the latch is raised, but will fall back to its normal position by gravity. The shackle C, which is attached to the door, is provided with an eye C′, and when the shackle is inserted within the socket A^3 in the lock that portion provided with the eye will extend inward beyond the socket and be engaged automatically by the latch E. Thus the jar will be locked in place until the thumb-piece is depressed upon the inside of the door. The shackle C is attached to the jar by means of a bail G, the ends of this bail engaging eyelets H upon each side of the jar, these eyelets being secured to the jar by a wire I, which passes around the neck of the jar and is secured upon the same by twisting the ends of the wire, as indicated at I′.

For the purpose of preventing the accidental displacement of the eyes H if the wire I should become somewhat loosened I provide the eyes with a strengthening-rib H′, through which an opening H^2 is formed, and through this opening the wire I passes and lies within a groove H^3, formed in that portion of the eye which comes in contact with the bottle. The eyes H are thus strung upon a wire before the wire is secured to the bottle or jar.

For the purpose of securing the shackle to the bail in a secure, simple, and cheap manner I form the shackle of two halves, and the inside face of each of these halves is grooved, as indicated at C^2, and the loop or outer end of the bail is so bent as to fit within the groove C^2, so that when the two halves of the shackle are placed together the outer end of the bail will be confined between the same within the groove C^2, and then the two halves of the shackle are riveted together at the points C^3.

In some houses two or more jars are left each morning, and in order to lock both of these jars in one lock I couple the jars together, and in the case of two jars I form the bails of two separate pieces of wire, the ends of which wires are attached to the eyes H, and the wires after forming the bails are twisted together in a horizontal bar, as illustrated at G′; but the wires are not twisted together at the center, and in the center one of the wires, which is longer than the other, is bent up to form a loop, which is secured in the shackle, as before described, and the other wire extends straight across from one twisted portion to the other. In the case of three jars being secured together I secure the two end jars in the same manner as just described, except that the twisted portion G′, forming the horizontal bar, is considerably longer, so as to separate the end jars a greater distance than when only two jars are coupled together. The third or middle jar is secured to a separate bail G^2, and the outer end of this bail is wrapped around the straight wire, which extends from one twisted portion to the other, and the loop extends upward in between the two halves of the shackle and is held in the supplementary grooves C^4, which are formed on the inner face of each of the halves of the shackle within the grooves C^2, and in this manner three jars are secured together to one shackle.

The advantage of my invention is that I provide a lock which does not protrude from the doorway and which does not present any unsightly appearance and, in fact, can be made an ornament to the door, and after the milk-jars are locked in the lock they cannot be removed until released from the inside, and the bails attached to the jars may be utilized for carrying the jars, and the milkmen can thus carry a larger number of jars at one time than if the jars were not provided with bails.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In a device of the character described, a lock adapted to be secured in an opening formed through the door, a shackle provided with an eyelet secured to the milk-jar, an opening formed in the outside of the lock in which the shackle is adapted to be inserted horizontally, a hook-shaped latch arranged upon the inside of the lock adapted to automatically engage the shackle, and means upon the inside of the door for raising the latch and thereby disengaging the same from the shackle, as specified.

2. In a device of the character described, a lock adapted to be secured in an opening formed through the door, said lock being provided with a plate upon the outside of the door, and a plate upon the inside of the door, means for drawing these two plates together, the outside plate provided with an opening, a shackle provided with an eyelet formed therethrough carried by the milk-jar adapted to be inserted horizontally in the opening in the outside plate, a hook-shaped latch pivoted to the inside plate and extending into the space between the two plates, said latch adapted to engage the shackle, and a thumb-piece secured to the latch upon the outside of the inside plate, substantially as described and for the purpose specified.

3. In a device of the character described, the combination of a door having an opening formed therethrough, a milk-jar, a shackle attached to said milk-jar with a lock, said lock consisting of an inside and outside plate, interiorly-threaded projections extending inward from the outside plate into the opening through the door, headed screws passing through the inside plate and adapted to be threaded into the interiorly-threaded projections upon the outside plate, said plates being larger in diameter than the opening through the door, the outside plate being provided with an opening for the reception of the shackle, a latch pivoted to the inside

plate and extending into the space between the two plates and adapted to engage the shackle, and a thumb-piece secured to the latch upon the outside of the inside plate for the raising of the same, as specified.

4. In a device of the character described, a lock adapted to extend through the door, said lock consisting of a plate upon each side of the door, said plates being larger in diameter than the opening through the door, screws extending through the inside plate and threaded into the outside plate, said screws being of sufficient length to accommodate different thicknesses of doors, the outside plate provided with an opening, a thumb-piece pivoted to the inside plate and extending through the inside plate to the inside thereof, a latch secured to the inner end of said thumb-piece, the shank of said latch being formed with a series of annular grooves so that said shank may be broken off at the grooves to accommodate different thicknesses of doors, as specified.

5. In a device of the character described, the combination of a door, a lock secured in the door, the outside of the lock provided with an opening, a latch contained in the lock adapted to be released from the inside of the door, with a shackle provided with an opening in its outer end adapted to be inserted within the lock, said shackle being secured to the outer end of a bail, a milk-jar, eyelets secured to the neck of the milk-jar upon each side, to which eyelets the ends of the bail are secured, as specified.

6. In a device of the character described, a milk-jar, eyes arranged upon each side of the milk-jar, the eyes being provided with transverse holes, a wire adapted to pass through said holes and surround the neck of the bottle and be secured in place by twisting the ends of the wires together, a bail formed of one piece of wire, the two ends of the bail being pivoted to the eyes upon the jar, a shackle composed of two halves, the inner face of said halves being grooved to correspond with the loop upon the end of the bail, said loop adapted to lie within the groove when the two halves of the shackle are together, as specified.

7. In a device of the character described, two milk-jars, bails pivoted upon opposite sides of each jar, said bails composed of two pieces of wire, said wires after being formed into the bails being twisted together so as to form a horizontal bar, but said twisted portions terminating at a distance each side of the center of the bar, and one of the wires being longer than the other and bent up into a loop, a shackle composed of two halves, the loop being clamped between the two halves of the shackle, as specified.

8. In a device of the character described, two milk-jars provided with eyes upon opposite sides, bails pivoted to said eyes, said bails being composed of two wires, which, after being formed into the bails, are twisted together so as to form a horizontal bar, said twisted portions terminating a distance each side of the center of the bar, one of the wires being longer than the other and bent outward at the center to form a loop, the other wire extending between the two twisted portions in a straight line, a shackle composed of two halves, the loop clamped between the two halves of the shackle, a third jar provided with eyes upon each side, a bail composed of one piece of wire, the ends of which are pivoted to the eyes, the outer end of the bail being formed into a loop and bent around the straight wire extending between the twisted portions, the loop then extending upward and being clamped between the two halves of the shackle, as specified.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses.

JOHN C. BETTS.

Witnesses:
H. B. HALLOCK,
L. W. MORRISON.