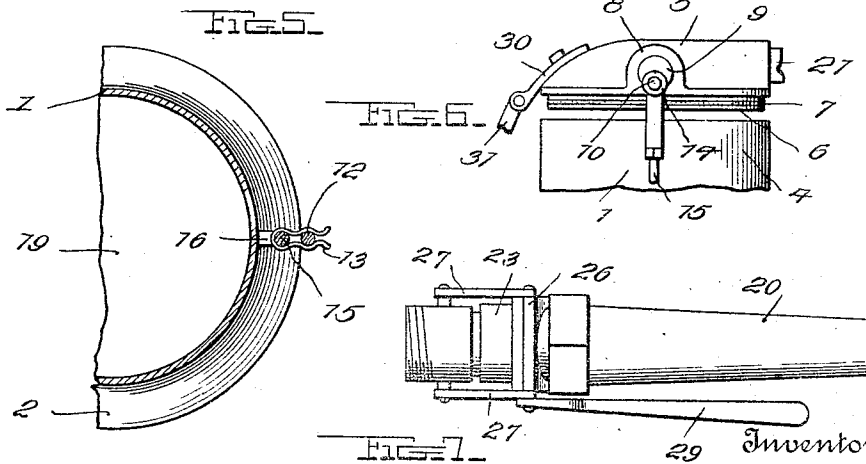
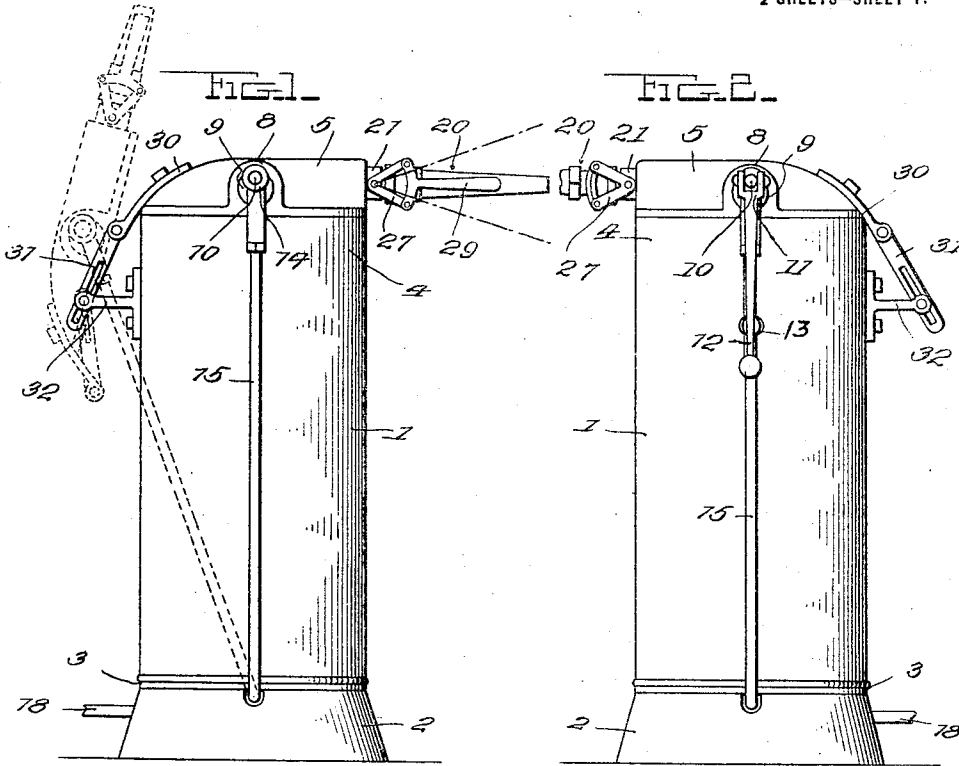


G. R. NAPIER.
LOCK FOR RECEPTACLE CLOSURES.
APPLICATION FILED AUG. 23, 1915.

1,230,316.

Patented June 19, 1917.

2 SHEETS—SHEET 1.



Witnesses
J. P. Finner

George R. Napier

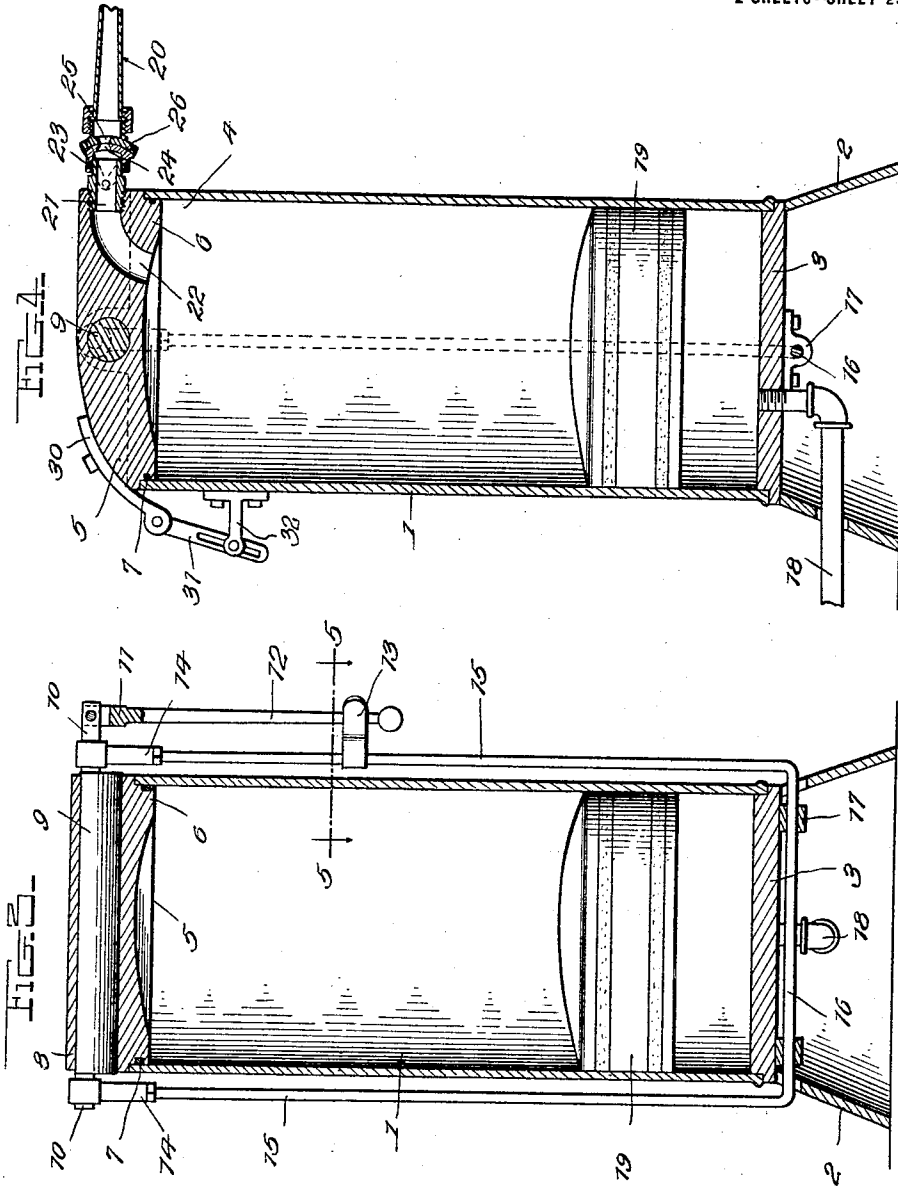
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Inventor

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UNITED STATES PATENT OFFICE.

GEORGE R. NAPIER, OF MACON, GEORGIA.

LOCK FOR RECEPTACLE-CLOSURES.

1,230,316.

Specification of Letters Patent.

Patented June 19, 1917.

Application filed August 23, 1915. Serial No. 46,899.

To all whom it may concern:

Be it known that I, GEORGE R. NAPIER, a citizen of the United States, residing at Macon, in the county of Bibb and State of Georgia, have invented certain new and useful Improvements in Locks for Receptacle-Closures; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide simple and efficient means for locking the closures of numerous kinds of receptacles, the invention being designed primarily for use on sausage stuffing machines.

In describing the invention, I shall refer to the accompanying drawing wherein like reference characters designate corresponding parts throughout the several views and wherein;

Figure 1 is a side elevation of a container equipped with the invention, showing the closure thereof closed in full lines and open in dotted lines;

Fig. 2 is a similar view of the opposite side of the machine;

Fig. 3 is a vertical section;

Fig. 4 is a similar view as seen along a plane disposed at right angles to the plane on which Fig. 3 is taken;

Fig. 5 is a detail horizontal section as seen on the plane indicated by the line 5—5 of Fig. 3;

Fig. 6 is a detail side elevation of the upper end of the machine showing the closure thereof raised in position to be either disposed to active or inactive position; and

Fig. 7 is a top plan view of the discharge nozzle of the machine.

In these drawings which constitute a part of the application, the numeral 1 indicates a cylinder which is preferably disposed in an upright position and supported upon any preferred type of base 2, the lower end of the cylinder being provided with a solid bottom 3, while the upper end 4 thereof is normally open but may be closed at will by a cover 5 preferably formed of cast iron or steel and having an annular depending flange 6 grooved peripherally and receiving packing 7 in the groove, such packing being forced into contact with the inner side of the curved wall of the cylinder 1, at the upper end 4 thereof, when the cover is applied to use.

Preferably though not necessarily formed as an integral part of the cover 5, is a horizontally disposed bearing 8 in which an oscillatory shaft 9 is mounted, the opposite ends of said shaft being provided with crank means or eccentrics 10 the axes of which are alined. One of the eccentrics 10 is preferably of greater length than the other and is received by the forked upper end 11 of an upright hand lever 12, the fork being pivoted to the eccentric received therein by any preferred means, whereby the lever may be swung to opposite sides of the shaft 9, thus allowing the lower end of said lever to be forced into a spring clip 13 to lock said shaft either in the position seen in Fig. 2, in which position the cover is forcibly seated or in that position disclosed in Fig. 6, whereupon the cover may be secured in raised position.

Depending from the two eccentrics 10 and having bearings 14 rotatable thereon, is a pair of upright links 15 which are preferably connected adjustably to the bearings 14 at their upper ends, while their lower ends are integrally or otherwise joined to a horizontal pivot shaft 16 which is disposed beneath the bottom 3 and mounted in appropriate bearings 17 carried thereby. By this disposition of parts, when the cover is raised by proper actuation of the lever 12, the links 15 and said cover may be swung rearwardly to the dotted line position shown in Fig. 1, thereby giving access to the interior of the cylinder 1 through the open upper end thereof. In addition to this advantage of the construction in question, it will be obvious that the cover 5 may be rigidly locked in closed position by the use thereof, and that the container 1 equipped with closing means of the class described could well be applied to use for other purposes than the retention of meat for stuffing sausages, as is the case in the present application.

Slidably mounted in the cylinder 1 and adapted to be forced upwardly therein by pressure entering through the inlet pipe 18, is a suitably constructed meat discharging piston 19 whose specific construction constitutes the gist of a separate application, further description being therefore deemed unnecessary. Normally the piston 19 is disposed in the lower end of the cylinder 1, whereupon the cover 5 may be removed thus allowing the cylinder to be filled with the

sausage meat with which the usual flexible containers therefor are to be stuffed. As pressure is now admitted below the piston 19 the same is forced upwardly thus discharging the contents of the cylinder through a discharge nozzle 20 which is mounted on the cover 5, the amount of movement of said piston and therefore the amount of meat discharged through the nozzle 20, being under the control of the operator of the machine through the instrumentality of a suitable valve (not shown).

It is rather important that the nozzle 20 be mounted directly upon the cover 5, since by this disposition of parts, the nozzle is so disposed as to render it entirely out of the way of persons filling the cylinder, when the cover 5 is thrown open.

Although the nozzle 20 could well be of practically any preferred form, it is preferably embodied as disclosed most clearly in Figs. 4 and 7. The construction disclosed in these figures comprises a nipple 21 which projects outwardly from a boss or the like formed integrally with the cover 5 and having a port 22 opening through the bottom of said cover, the outer end of said nipple being preferably though not necessarily reduced in diameter and being telescopically engaged with a cap member 23 which is slidable thereon and is preferably provided with a packing ring engaging the same, said member having therein a port 24, which, when the nozzle is in operation, registers with an additional port 25 formed through a plate 26 which constitutes the rear end of the nozzle proper, said plate as well as the cap member 23, being curved and disposed in contact, whereby the nozzle may be adjusted arcuately to diminish the amount of meat discharged or to check the supply altogether. Guiding the plate 26 in its arcuate adjustments, are the yoke arms 27 which are secured thereto at the opposite upright edges thereof but pivoted to opposite sides of the nipple, both of these arms being shown of V-shape construction although this contour need not be followed too closely, while one of the arms in question is provided with an actuating handle 29, whereby the entire nozzle proper may be adjusted in the desired manner by proper actuation of said handle.

It is important that the cap member 23 be slidably disposed upon the end of the nipple 21, since by this construction, the material forced against the inner side of said cap member will forcibly project the same into contact with the plate 26, thus establishing absolutely tight contact between these two parts and preventing the escape of material at this point. This operation takes place regardless of the manner in which the nozzle proper is adjusted, and the existing friction between the cap member

23 and the plate 26 is such as to effectively retain said nozzle proper in its numerous adjusted positions.

In my United States Patent No. 765,295 issued July 19, 1904, construction similar to the nozzle construction just described is disclosed, but from experience it has been found that adjustment of the nozzle proper without the use of a handle for such purpose exerts too much strain thereon, the addition of handle 29 being therefore considered a marked improvement over my former invention. Furthermore, the patent in question discloses yoke arms pivotally connected indirectly to a nipple for allowing the nozzle to be adjusted arcuately, but to compensate for wear an adjusting ring is provided for shifting the nozzle toward the rounded end of the nipple. This construction has been improved upon by the automatically projected cap member 23 above described which operates to better advantage, yet is equally as simple and inexpensive.

In addition to the several features of the invention above described, simple and efficient means is preferably employed to properly position the cover 5 for application to the cylinder 1. For this purpose, a hinge knuckle 30 is secured to said cover and pivoted to a longitudinally slotted link 31, the slotted portion of this link being pivoted and slidably connected to a bracket or the like 32 which is secured to the tank. As clearly disclosed in Fig. 6, and in dotted lines in Fig. 1, this construction, although allowing the cover to be swung rearwardly to the necessary extent, will properly dispose said cover for insertion of its flange 6 into the cylinder.

From the foregoing description, taken in connection with the accompanying drawings, it will be evident that although very simple and comparatively inexpensive construction has been provided for carrying out the object of the invention, the machine will possess efficiency, economy and durability.

In the drawings, certain specific details of construction have been shown for accomplishing probably the best results, and in the preceding specification such details have been described, but it will be evident that I need not be limited thereto otherwise than to the extent to which the appended claims restrict me.

I claim:

1. The combination of a receptacle having an open end, a closure for said end having a bearing extending throughout its width, a shaft mounted rotatably in said bearing and having eccentrics at its ends extending beyond said bearing, one of said eccentrics being elongated, an operating handle pivoted to this eccentric and adapted to swing downwardly, a pair of links hav-

ing bearings at one end receiving said eccentrics, the other ends of said links being pivotally connected to the container adjacent the closed end thereof, and a U-shaped spring clip carried by one of said links to receive the aforesaid handle when swung downwardly.

2. The combination of a receptacle having an open end, a closure for said end having a bearing extending throughout its width, a shaft mounted rotatably in said bearing and having eccentrics at its ends extending beyond said bearing, one of said eccentrics being elongated, an operating handle pivoted to this eccentric and adapted to swing downwardly, a pair of links having bearings at one end receiving said eccentrics, a shaft extending across the closed end of the receptacle on the exterior thereof and joined rigidly at its ends with the other ends of said links, one or more bearings for said last named shaft, and a U-shaped spring

clip carried by one of the links to receive the aforesaid handle when swung downwardly. 25

3. The combination of a receptacle having an open end, a closure for said end adapted to move laterally therefrom, a pair of links pivotally connected therewith at one end, eccentric locking means connecting the other ends of said links with the closure, a longitudinally slotted link pivotally connected to one edge of the closure and spaced laterally from the receptacle, a rigid arm extending laterally from said receptacle, and a pin projecting from said arm through the slot of the last named link for slidably connecting the latter with the arm. 30 35

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 40

GEORGE R. NAPIER.

Witnesses:

F. C. HARDY,

J. E. KING.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."