

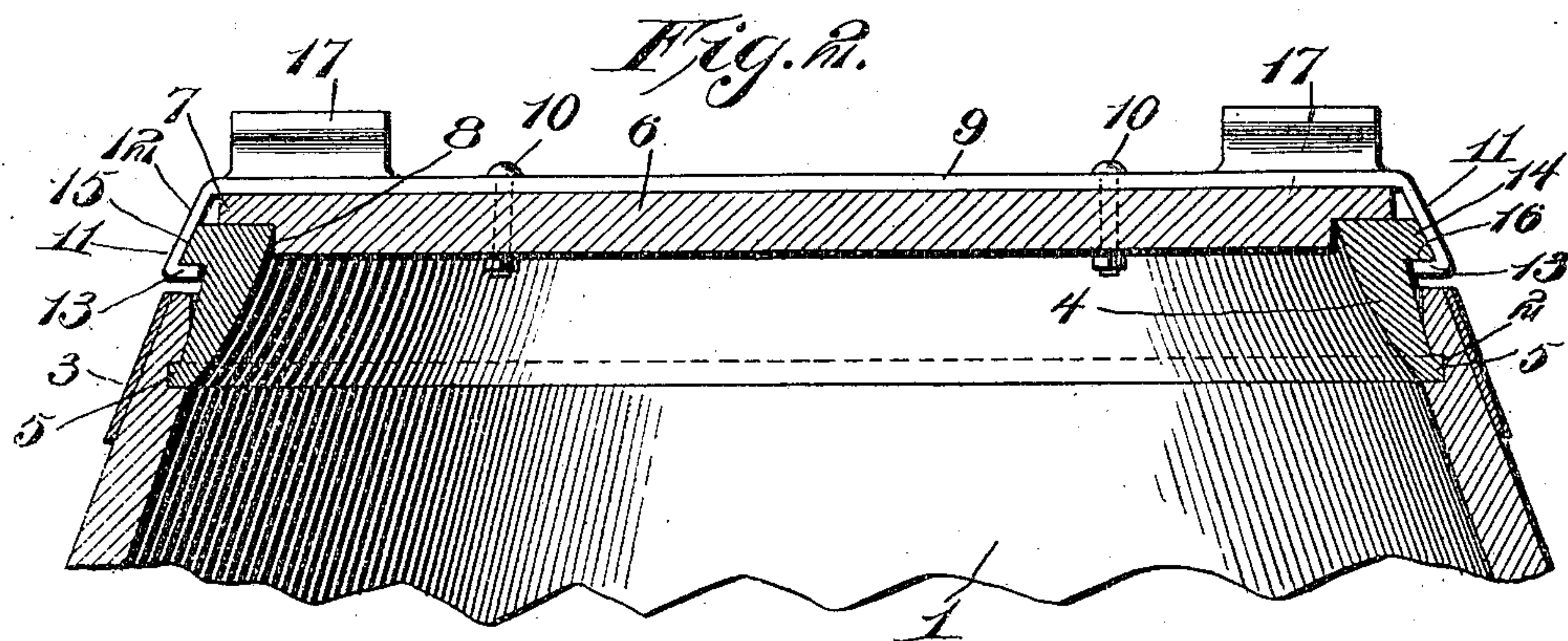
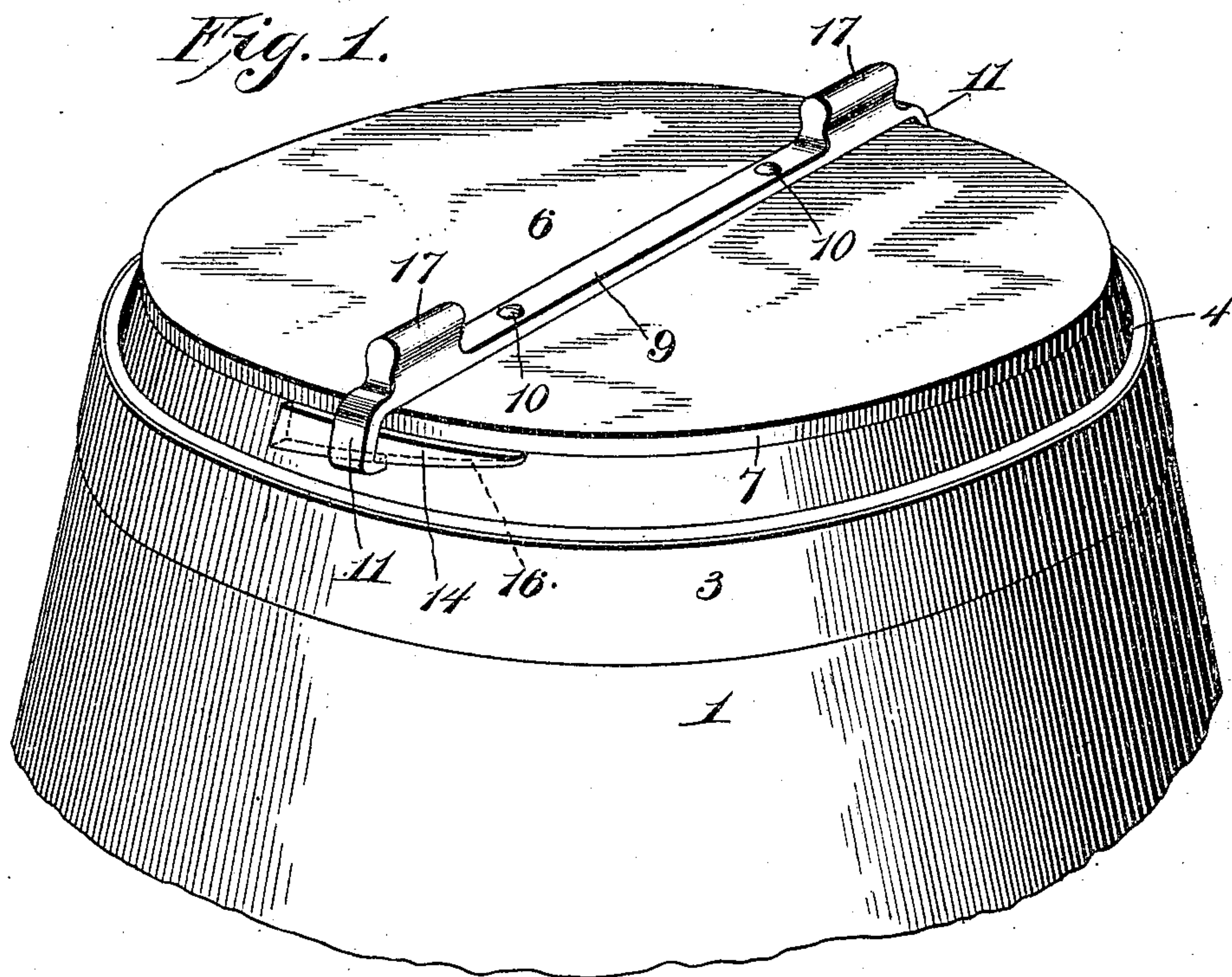
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PATENTED DEC. 19, 1905.

S. J. SIKES.

DETACHABLE CLOSURE FOR BARRELS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SIMEON J. SIKES, a citizen of the United States, residing at Ehren, in the county of Pasco and State of Florida, have invented new and useful Improvements in Detachable Closures for Barrels, of which the following is a specification.

My invention relates to barrel heads and fastenings, and has for its object the provision of a detachable head especially adapted for use as a closure for crude-turpentine barrels to take the place of one of the primary heads thereof, but which is also applicable to barrels intended to hold other liquids and various kinds of merchandise to enable desired quantities of the contents thereof to be conveniently removed at will, the head being so constructed as to utilize the chime of the barrel as an element of the fastening for holding it in place and so as to present no interference to the free rolling of the barrel from place to place.

Another object of the invention is to provide a fastening which is free from unduly projecting elements, which are liable to be broken or injured when the barrel is rolled.

With these and other objects in view the invention consists of the features of construction, combination, and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a barrel equipped with my improved detachable head and fastening, and Fig. 2 is a vertical section through the same.

The numeral 1 in the drawings represents a barrel of any ordinary construction, the same being provided at each end with the usual chime or groove 2 to receive the edge of a head or closure and an encircling band or hook 3, which holds the ends of the staves of the barrel-body against outward displacement and prevents the head or closure from becoming loosened and allowing escape of the contents of the barrel or injury to the barrel or its head when the barrel is handled.

Heretofore it has been customary in various arts or trades to remove one of the heads of a barrel and substitute therefor a readily-detachable head which may be conveniently removed when it is desired to take from the barrel a portion of its contents. These detachable heads have been of various constructions and have embodied various types of locking means, but, so far as I am aware, have

never employed a mechanical fastening adapted to engage the chime of the barrel and to thus utilize the latter as an element of the fastening, and, furthermore, the fastenings employed for locking the detachable head in place have been cumbersome in construction and so arranged as to materially interfere with or prevent rolling of the barrel, many of them, in fact, having portions which project to such an extent as to prevent the barrel from being rolled without breaking or injuring the essential parts of the fastening. My invention obviates these objections and provides a fastening which utilizes the chime of the barrel as a retaining element and in which the parts are so arranged that the free rolling of the barrel is not interfered with and all liability of injury to the fastening when the barrel is rolled or otherwise handled is entirely prevented.

In carrying my invention into practice I provide a holding-frame in the form of a ring or annulus 4, preferably of metal and provided at its lower edge with an outwardly-projecting flange or bead 5, which is adapted to be inserted into the chime or groove 2 to retain the said ring or annulus in place within the end of the barrel. In applying this holding-frame the primary head of the barrel is first removed, which is accomplished by slipping off the hoop 3, so as to allow the ends of the staves of the body of the barrel to spread sufficiently to permit the head to be detached, and then the frame 4 is inserted in position and the hoop 3 again applied to encompass the ends of the staves and bring the flange 5 into locking engagement with the chime 2 in a manner readily understood. The frame 4 is of such height or depth as to project, when so fitted in the barrel, above the end of the barrel and has its inner surface gradually flaring outwardly and downwardly, so as to conform to the flare of the ends of the staves, and thus permit of the contents of the barrel being discharged without interference when the barrel is tilted or dumped. The upper surface of the frame or ring 4 forms a seat to support a detachable head 6, which closes the end of the barrel, the head being preferably provided with a rim-flange 7 to rest upon said seat and to form a shoulder 8, which engages the inner wall of the frame or rim and prevents sidewise shifting of the head as well as effecting a comparatively tight closure.

Carried by the head 6 is a locking-bar 9 of sufficient length to extend diametrically across

and project at opposite ends beyond the same, and this bar 9 is rigidly fastened to the head by bolts 10 passing through the bar and head. The ends of the bar terminate in locking devices, which appear in the present instance in the form of hooks 11, each hook 11 comprising a shank 12, bent at such an angle as to lie flush with the hoop 3, and an upwardly-projecting bill or terminal 13, which is adapted to lie above or in the plane of the ends of the staves of the barrel-body, as clearly shown in Fig. 2. These hooks 11 coact with lugs or bosses 14, formed on the outer surface of the frame 2 to hold the head 6 in place, said lugs or bosses being disposed diametrically opposite one another and provided with outer inclined sides 15 and lower or underlying cam-surfaces 16, said sides 15 being engaged by the shanks 12 of the hooks and the cam-surfaces 16 by the bills or inwardly-extending terminal projections of the hooks, the relative arrangement of these parts being such that when the head 6 is applied in position and locked, as shown in the drawings, the hooks and bosses will lie wholly in the plane of the outer surface of the barrel, so as not to interfere with the free rolling of the barrel and so as to prevent the same from being broken or injured when the barrel is rolled. It will be seen that when the bar 9 is swung in one direction the hooks will engage the cam-surfaces 16 and be drawn downward thereby to clamp the head 6 in place, while a reverse movement of the bar will disengage the hooks and permit the head to be released. In order to permit the bar 9 to be easily operated, handles or finger-pieces 17 are formed or provided thereon and located upon opposite sides of the pivot 10, so as to allow the bar to be conveniently manipulated.

When it is desired to remove the contents of the barrel or any portion thereof, it will be seen that it is simply necessary to swing the locking-bar to disengage the hooks from the lugs, when the head 6 may be lifted off or detached, after which the end of the barrel will be left open for ready removal of its contents. When it is desired to close the barrel again, the head 6 is placed in position and the bar 9 swung in the reverse direction to bring the hooks into engagement with the cam lugs or bosses, whereupon the head will again be clamped in position to form an effective closure. A gasket or packing of any approved construction may be used to make the closure liquid-tight when the contents of the vessel are of a liquid character.

From the foregoing description, taken in connection with the accompanying drawings, the construction and mode of operation of the invention will be readily understood, and it will be seen that a barrel cover or closure is provided which is simple of construction, readily applied and removed, which is adapted to utilize the chime of the barrel as a part of

the fastening means, thus obviating the necessity of employing complicated fastenings, and which is susceptible of general use in its application to barrels designed to contain liquids or various kinds of merchandise to enable desired quantities of the same to be removed at will.

Changes in the form, proportions, and minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed as new is—

1. The combination with a barrel or like container having a flaring end and a chime-groove formed therein, of a ring adapted to fit within the flaring end and formed with a flange to engage the groove, the inner wall of said ring being flared to form a continuation of the flare of the wall of the barrel, a detachable closure for the ring, and means for securing said closure thereto, substantially as described.

2. A barrel-closure comprising a ring provided at its inner end with a flange to fit within and seal the chime-groove of the barrel, said ring being of greater depth than the distance between the groove and end of the barrel to project beyond the barrel, the projecting portion being provided with an outer seat-face and locking members, the latter being arranged to lie within the plane of the outer surface of the end of the barrel, a head closing the ring and resting upon said seat-support, and locking members upon the head, said locking members being adapted to engage the locking members on the ring beyond the end of the barrel and substantially in the plane of the outer surface thereof, substantially as described.

3. A closure for barrels comprising a ring adapted to fit partially within and project partially beyond the end of the barrel, said ring being provided at its inner end with a flange to fit within and seal the chime-groove of the barrel and at its outer end with a seat-face, the outer or projecting portion also being formed with peripheral lugs having beveled outer or side faces conforming to the flare of the outer surface of the end of the barrel and inclined or cam under surfaces lying in the plane of the barrel edge, a head closing the ring and resting upon said seat-support, hooked fastening elements upon the head to engage cam-faces of the lugs, the body portions of said fastening elements being obliquely arranged to engage the beveled side faces of the lugs and to lie substantially within and conform to the flare of the outer surface of the barrel end, and grips upon the head, whereby the latter may be turned to move the fastening elements into and out of engagement with the lugs, substantially as described.

4. A closure for barrels comprising a ring adapted to fit partially within and project par-

tially beyond the end of a barrel, said ring
being provided at its inner end with an inte-
gral flange to fit within and seal the chime-
groove of the barrel and at its outer end with
5 peripheral lugs having inclined or cam sur-
faces, a head supported by the ring, and a
cross-bar connected to the head and provided
with turning devices and hooked terminals
said hooked terminals being adapted to en-

gage said lugs to detachably secure the head 10
to the ring, substantially as described.

In testimony whereof I affix my signature in
presence of two witnesses.

SIMEON J. SIKES.

Witnesses:

C. C. HINES,
H. DITTMAN.