

No. 670,341.

Patented Mar. 19, 1901.

C. H. DRIVER.
BARREL CLOSURE.

(Application filed Sept. 1, 1900.)

(No Model.)

Fig. 1.

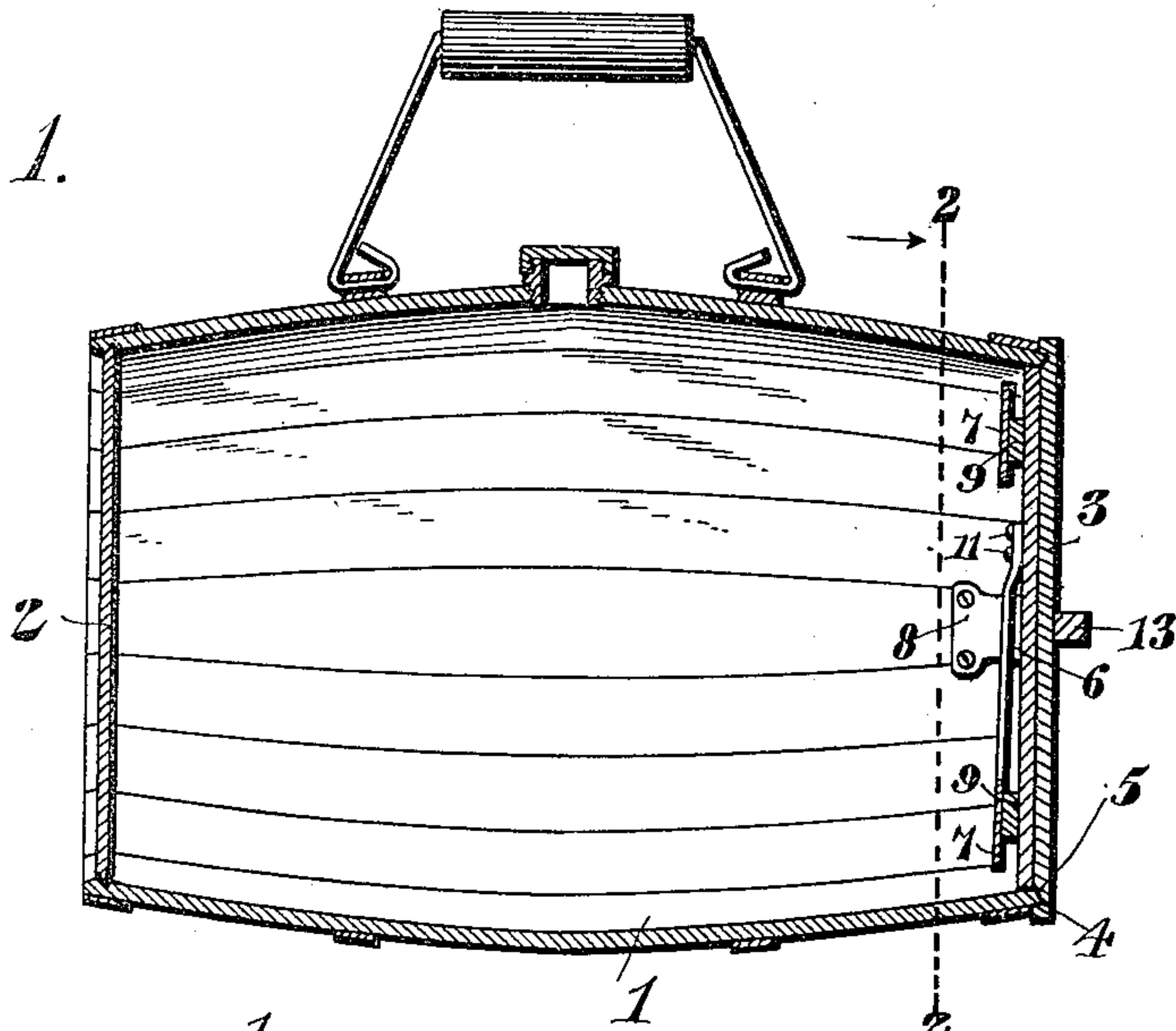


Fig. 2.

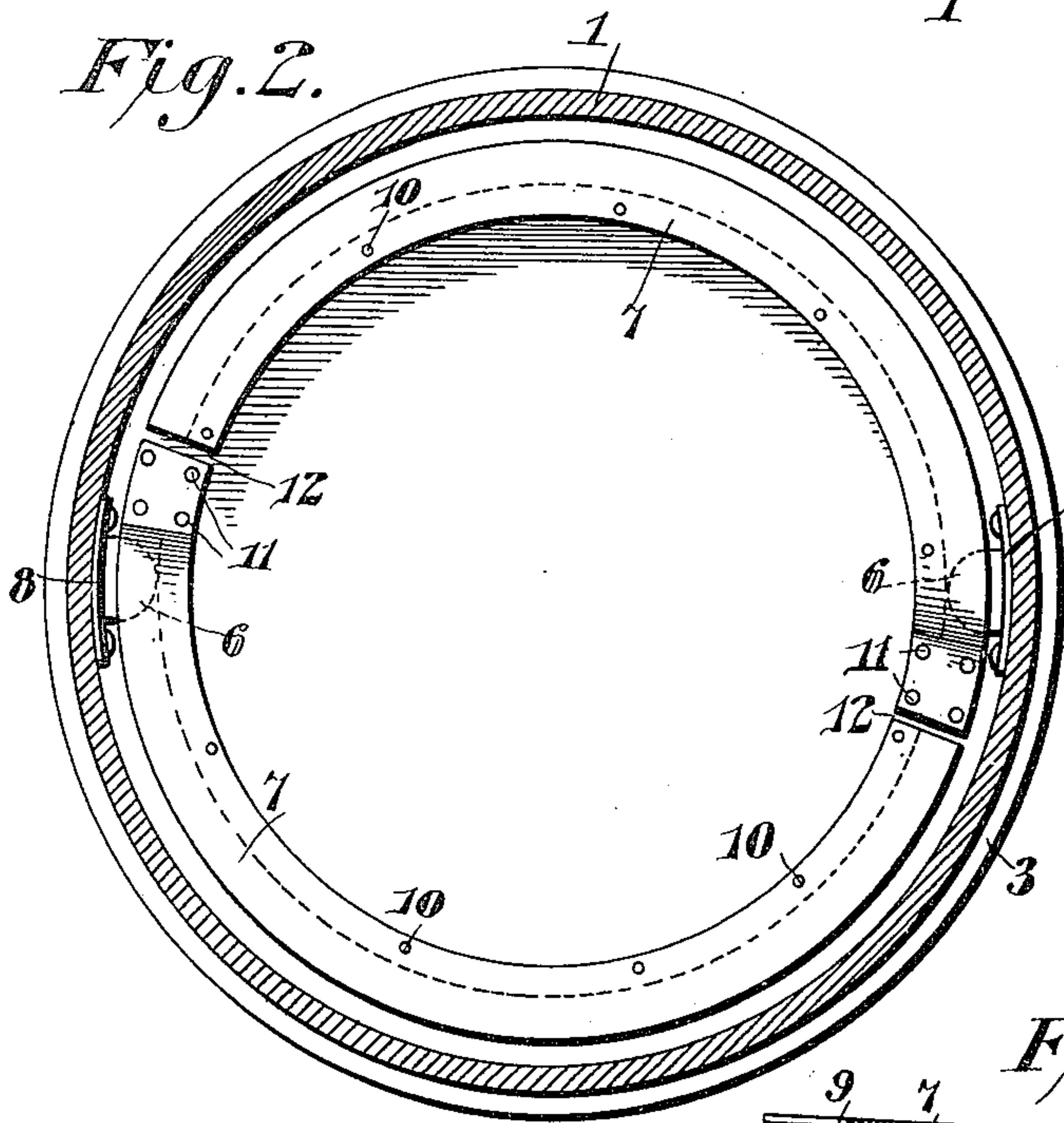


Fig. 3.

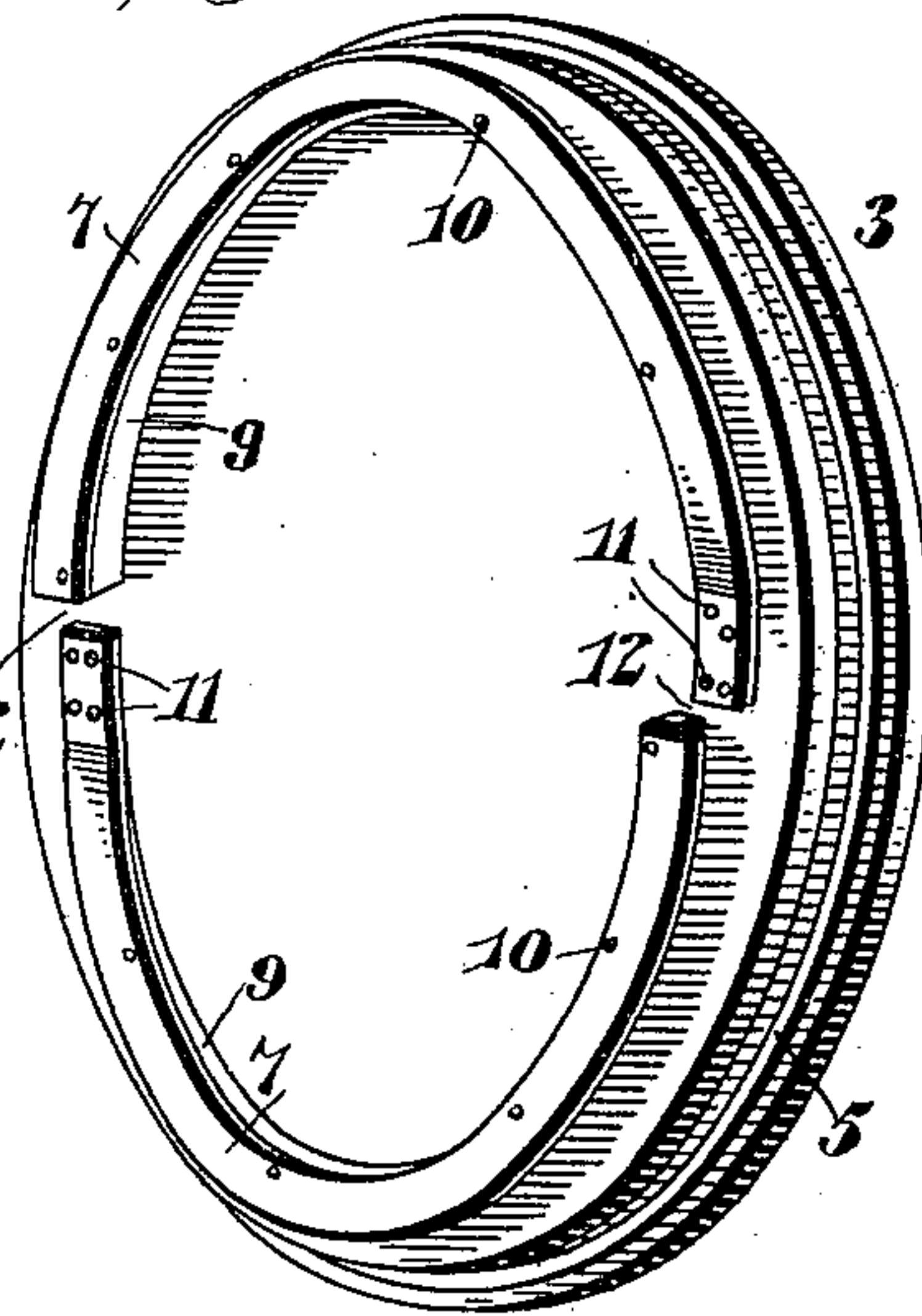


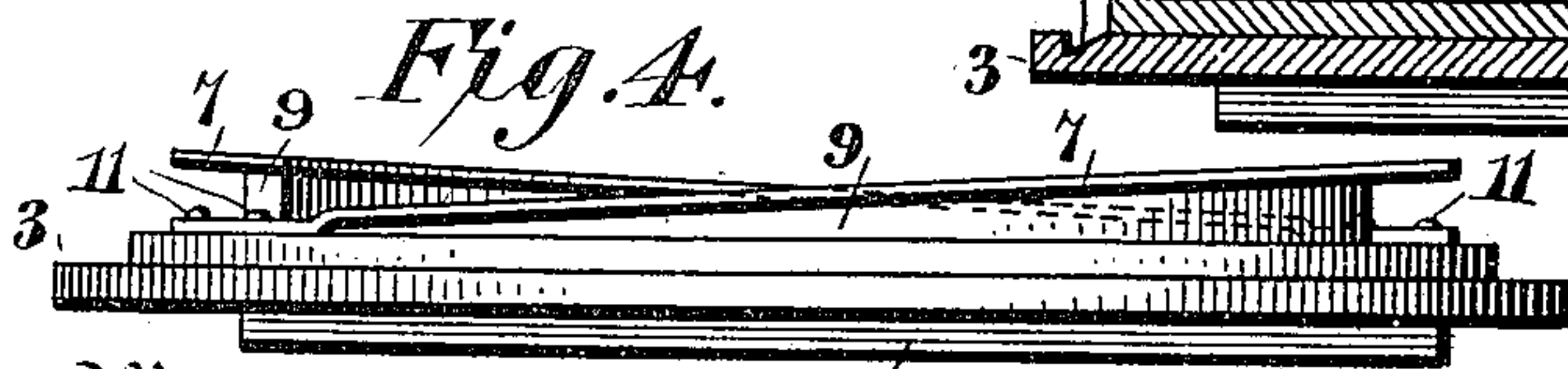
Fig. 6.



Fig. 5.



Fig. 4.



Witnesses
Jas. E. McLaughlin
S. P. McLaughlin

Inventor
Charles H. Driver
by E. G. Siggers
Attorney

UNITED STATES PATENT OFFICE.

CHARLES H. DRIVER, OF VALDOSTA, GEORGIA, ASSIGNOR OF ONE-HALF TO
J. M. BRIGGS, OF SAME PLACE.

BARREL-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 670,341, dated March 19, 1901.

Application filed September 1, 1900. Serial No. 28,772. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. DRIVER, a citizen of the United States, residing at Valdosta, in the county of Lowndes and State of Georgia, have invented a new and useful Barrel-Closure, of which the following is a specification.

This invention relates to barrel-closures, and has special reference to an improved barrel-head fastening providing positive and reliable means for tightly securing a barrel head or cover in position to effectively exclude air, besides obviating leakage of the contents of the barrel.

To this end the invention primarily contemplates an improved barrel-closure or barrel-head fastening possessing special utility in connection with that type of barrels commonly known as "turpentine-casks," which are necessarily made very strong, besides requiring a closure which will effectively seal the volatile contents of the barrel.

A further object of the invention is to provide a fastening for the barrel head or cover in which the coöperating elements thereof are located wholly within the barrel when the head or cover is in place, thus obviating any locking projections or elements exterior to the barrel or the removable head therefor.

With these and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the drawings, Figure 1 is a sectional view of a turpentine barrel or cask embodying the improved barrel-closure or head-fastening contemplated by the present invention. Fig. 2 is a sectional view on the line 2 2 of Fig. 1, plainly illustrating the interlocking engagement between the locking-strips carried by the head and the catch-ears within the body of the barrel. Fig. 3 is a detail in perspective of the removable barrel head or cover, provided upon one side thereof with the offset segmental inclined locking-strips. Fig. 4 is an edge elevation of the head or cover. Fig. 5 is a transverse sectional view thereof.

Fig. 6 is a detail in perspective of one of the catch-ears and the holding-plate thereof.

Like numerals of reference designate corresponding parts in the several figures of the drawings.

In carrying out the invention the barrel-closure or head-fastening may of course be associated with any form of barrel or similar vessel; but inasmuch as the same possesses special utility in connection with that type of barrels known as "turpentine-casks" for illustrative purposes there is shown in Fig. 1 of the drawings a turpentine-cask 1 of the usual barrel formation and provided with the fixed and removable heads 2 and 3, respectively, the said removable head 3 constituting a detachable closure or cover for the open end of the barrel or vessel. The said removable head or cover 3 for the barrel or vessel closely registers within the open end of said barrel or vessel and is provided with a peripheral sealing-flange 4, designed to overlap the edge of the barrel, at the open end thereof, and provided upon its inner face with an annular groove 5, receiving said edge of the barrel or vessel and providing at that point a perfectly tight joint, which serves to effectively exclude air, besides preventing leakage of the liquid contents of the barrel. To provide for tightly fastening the removable head 3 within the open end of the barrel or vessel and wedging the same securely upon the edge of the barrel or vessel at such end, the present invention contemplates the employment of fastening means which are located wholly inside of the barrel or vessel when the removable head 3 thereof is fitted in place. The said interior fastening means for the removable head 3 comprises a pair of catch-ears 6, carried by the barrel-body, and a pair of wedge locking strips or elements 7, arranged upon the inner face of and carried by the said removable head 3.

The catch-ears 6 are located within the open end of the barrel or vessel 1 and at diametrically opposite points upon the inner side thereof. The said catch-ears may consist of any suitable form of projection which projects inwardly from the inner wall of the

barrel or vessel; but in the preferable construction the said catch-ears are formed integrally with and bent from one end of the holding-plates 8, which are fastened by bolts
 5 or other suitable fasteners to the inner sides of the barrel or vessel, as plainly shown in Figs. 1 and 2 of the drawings. The said inwardly-projecting diametrically opposite catch-ears 6 are arranged in approximately
 10 the same circular plane, but are preferably slightly inclined with reference to that plane in order to effectively cooperate with the locking-strips 7, carried upon one face or side of the removable head 3.

15 The pair of locking-strips 7, which are carried upon one face or side of the removable head 3, are located wholly within the plane of said head and are disposed in concentric relation, so that the same will properly engage
 20 the inwardly-projecting catch-ears 6, which are disposed in approximately the same transverse or circular plane. The said strips 7 are substantially semicircular, and inasmuch as each of the same is inclined with reference to
 25 the plane of the inner face of the removable head the said strips 7 may be properly referred to as "oppositely-located segmental inclined wedge locking-strips." The said strips are reversely inclined with reference to each
 30 other in order that the same turning movement of the removable head will provide for wedging the separate strips in engagement with their respective catch-ears 6, and each of the strips 7 is held in proper spaced relation from the inner face of the removable
 35 head and at an inclination with reference to such face through the medium of a segmental tapering space-block 9, interposed between the strip and the inner face of the head, said strip and its space-block 9 being
 40 rigidly united to the head through the medium of nails, screws, or equivalent fasteners 10. What might be properly termed the "base" end of each segmental locking-strip 7
 45 directly adjoins and is independently fastened, as at 11, to the inner face of the movable head 3, while the other or offset end of the said strip terminates contiguous to and is spaced from the base end of the other locking-strip 7, thus providing clearance-spaces
 50 12 between the contiguous ends of the separate strips in order to permit of the insertion of the removable head into the open end of the barrel or vessel and the ready engagement and disengagement of the locking-strips
 55 with the catch-ears 6, it being noted that the clearance-spaces 12 when brought into alignment with the catch-ears 6 permit the head 3 to be moved into a locking plane with reference to said ears, as well as removed from the barrel or vessel. The space-blocks 9 for the separate locking-strips are of less width than the latter, so that the same project a material distance beyond the outer sides of the
 60 space-blocks 9 to form engaging flanges, which pass beneath the inwardly-projecting

catch-ears 6, and thus provide for a firm interlocking connection between the barrel and its removable head or cover 3.

To facilitate the locking and unlocking of
 70 the barrel head or cover 3, the same is preferably provided upon the outer side thereof with a hand-grip 13, which may consist simply of a transverse bar rigidly fastened to the head to provide a convenient hold for the
 75 hand.

In placing the cover in position it is simply necessary to first aline the clearance-notches 12 with the catch-ears 6 and push the head into registering engagement with the
 80 open end of the barrel, as shown in Fig. 1 of the drawings. At the same time the locking-strips 7 will be brought into operative relation to their respective catch-ears 6, so that by a turning of the head in one direction the
 85 said locking-strips 7 will tightly wedge beneath the ears 6, and thereby cause the head to wedge firmly over the end of the barrel. A reverse movement of the head accomplishes the unlocking operation and permits of the
 90 removal thereof.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described barrel-closure or barrel-head fastening will be readily ap-
 95 parent to those familiar with the art without further description, and it will be understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this
 100 invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. The combination with a barrel or similar vessel, and a plurality of plates secured directly to the inner wall thereof and having angular projecting portions which extend inward away from said wall, of a removable
 110 head or cover, and inclined segmental locking-strips secured to the inner surface of the head and adapted to cooperate with the angularly-projecting portions of the plates within the barrel, substantially as set forth. 115

2. In a closure of the class described, the combination of a pair of separate catch-ears consisting of bent plates secured directly to the inner wall of the vessel at diametrically opposite points, said plates having their en-
 120 gaging portions projecting inwardly, and a removable head or cover provided at its inner side, and wholly within the plane thereof, with a pair of inclined wedge locking elements cooperating with the inwardly-projecting portions of the bent plates. 125

3. In a closure of the class described, the combination with a pair of separate catch-ears located entirely within and secured directly to the inner wall of a barrel or similar vessel at diametrically opposite points, of
 130 a removable head or cover, a pair of opposite

segmental reversely-inclined locking-strips
offset from the inner face of the head or cover,
and located wholly within the plane of the
latter, and segmental tapering wedge-blocks
5 interposed between the strips and the inner
face of the head or cover, and of less width
than said strips, substantially as set forth.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

CHARLES H. DRIVER.

Witnesses:

W. B. MERRITT,
M. T. THOMAS.