

C. E. SHREVE.

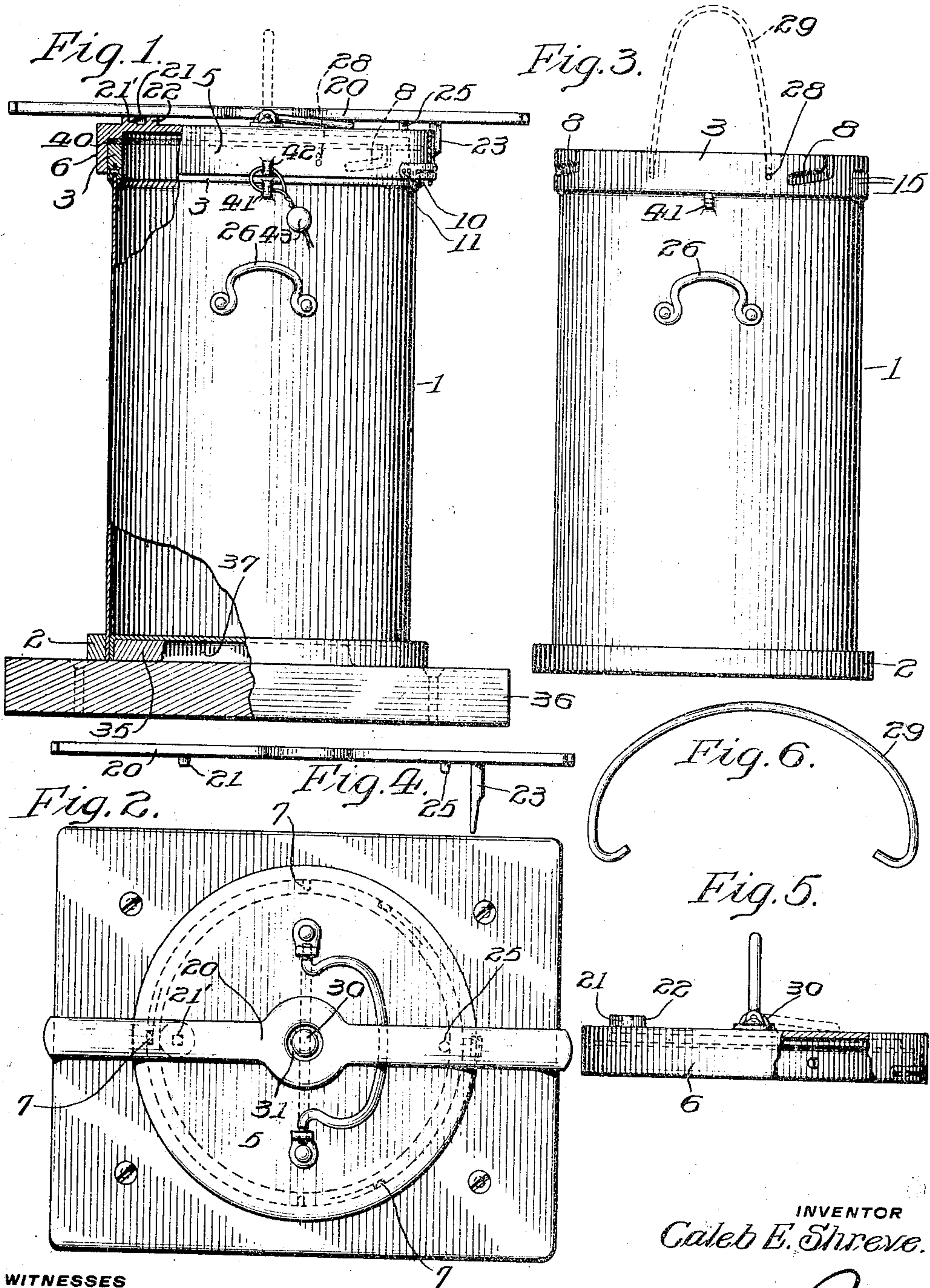
MILK CAN.

APPLICATION FILED DEC. 29, 1909.

963,082.

Patented July 5, 1910.

2 SHEETS—SHEET 1.



WITNESSES

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2 SHEETS—SHEET 2.

Fig. 7.

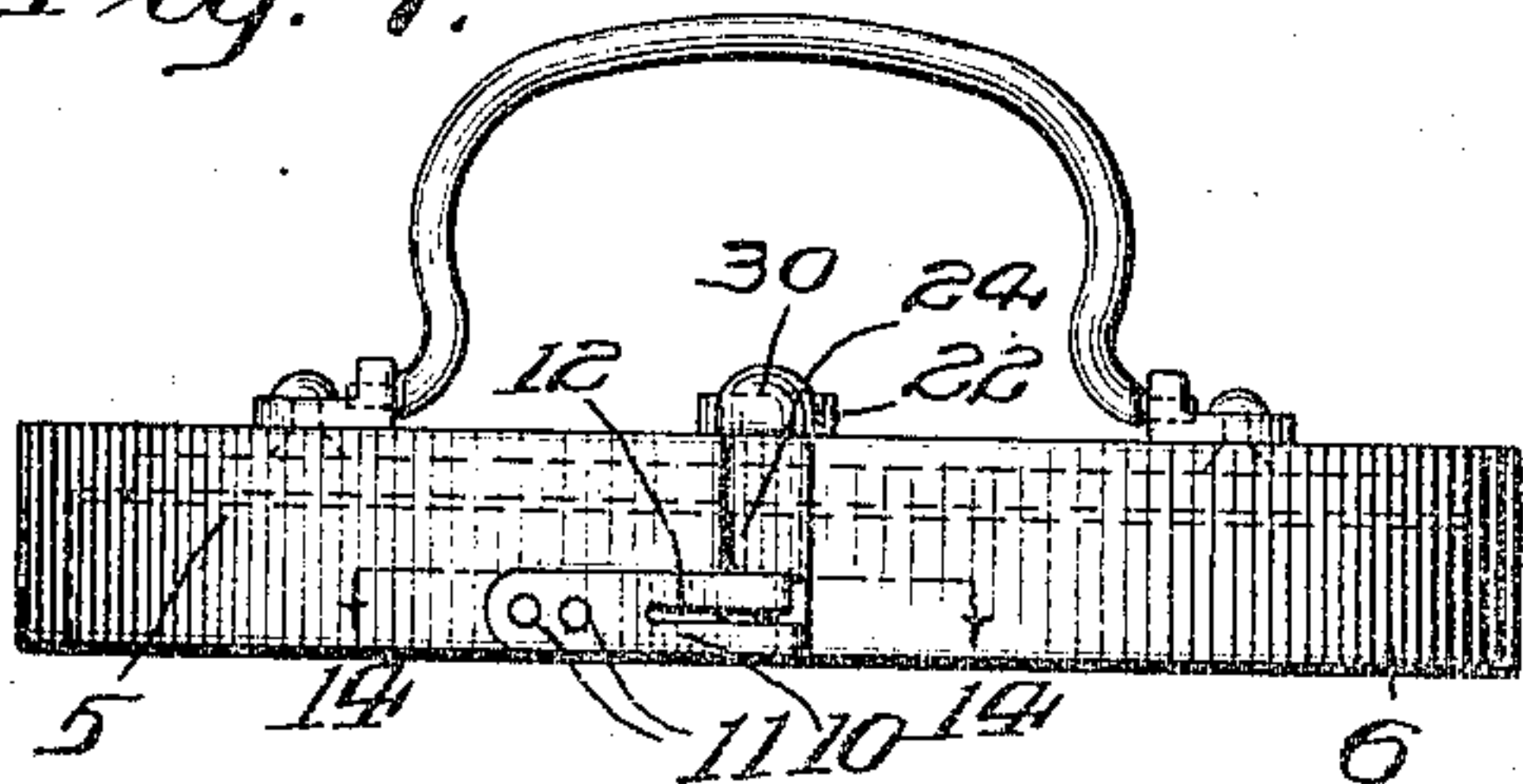


Fig. 8.

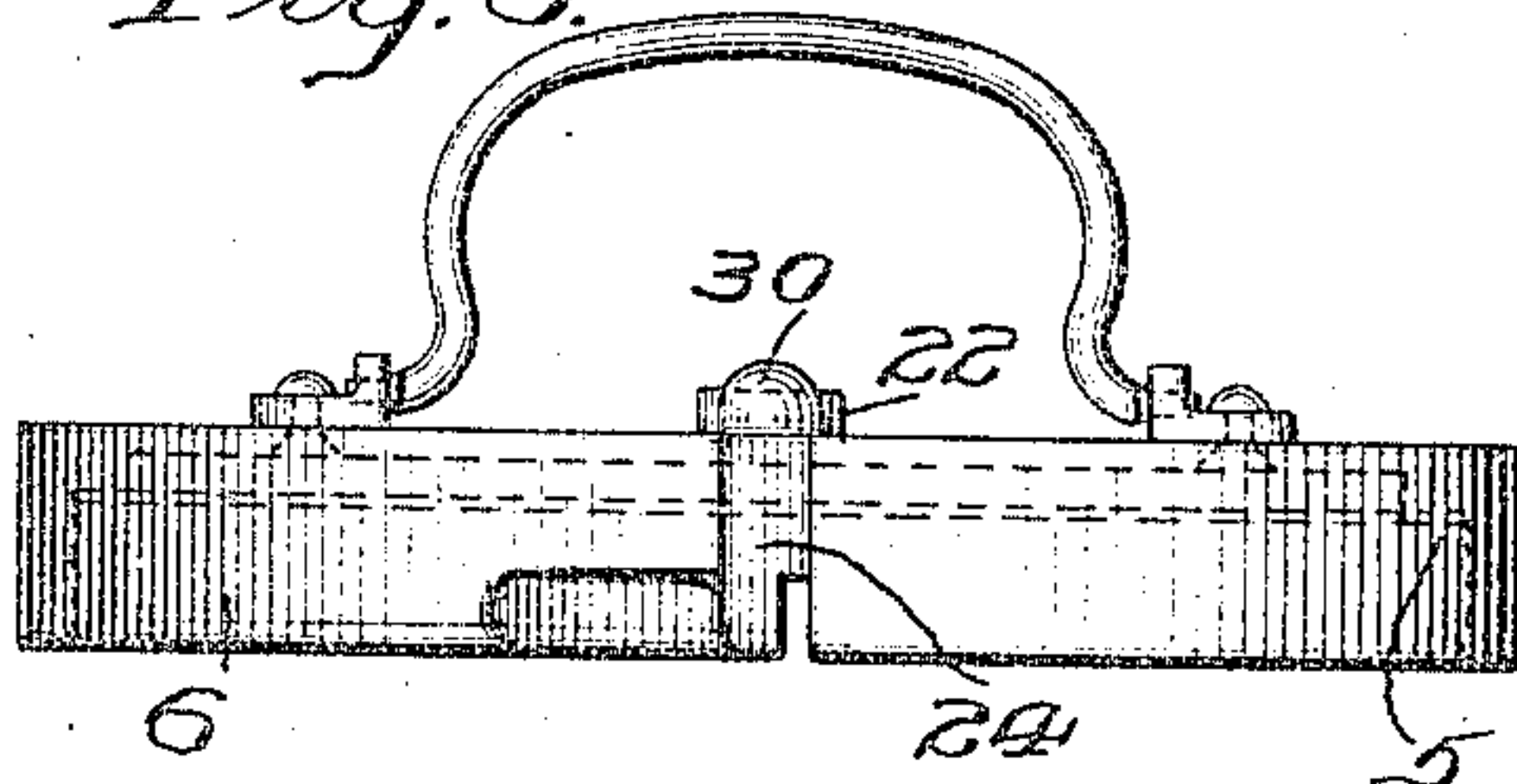


Fig. 9.

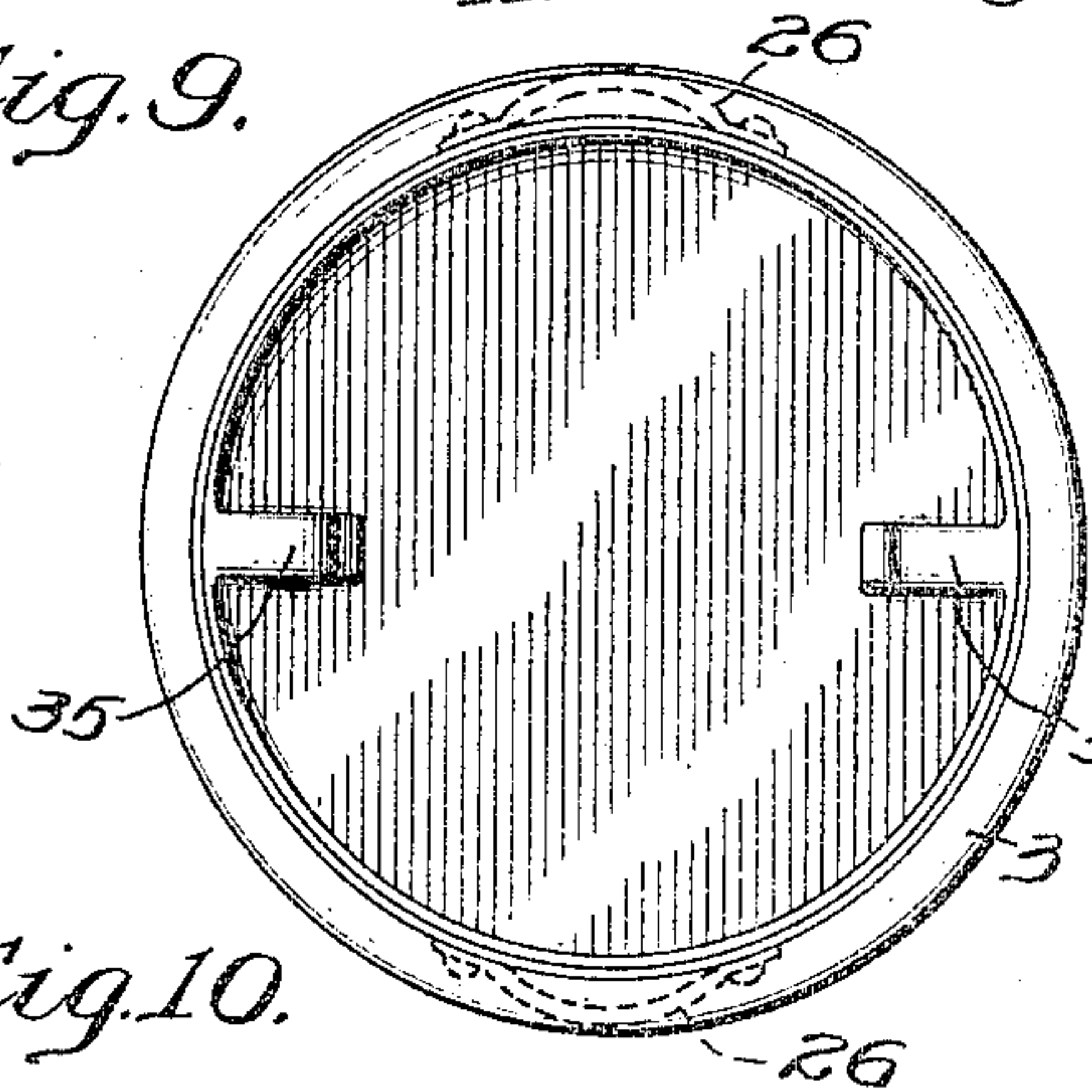


Fig. 12.

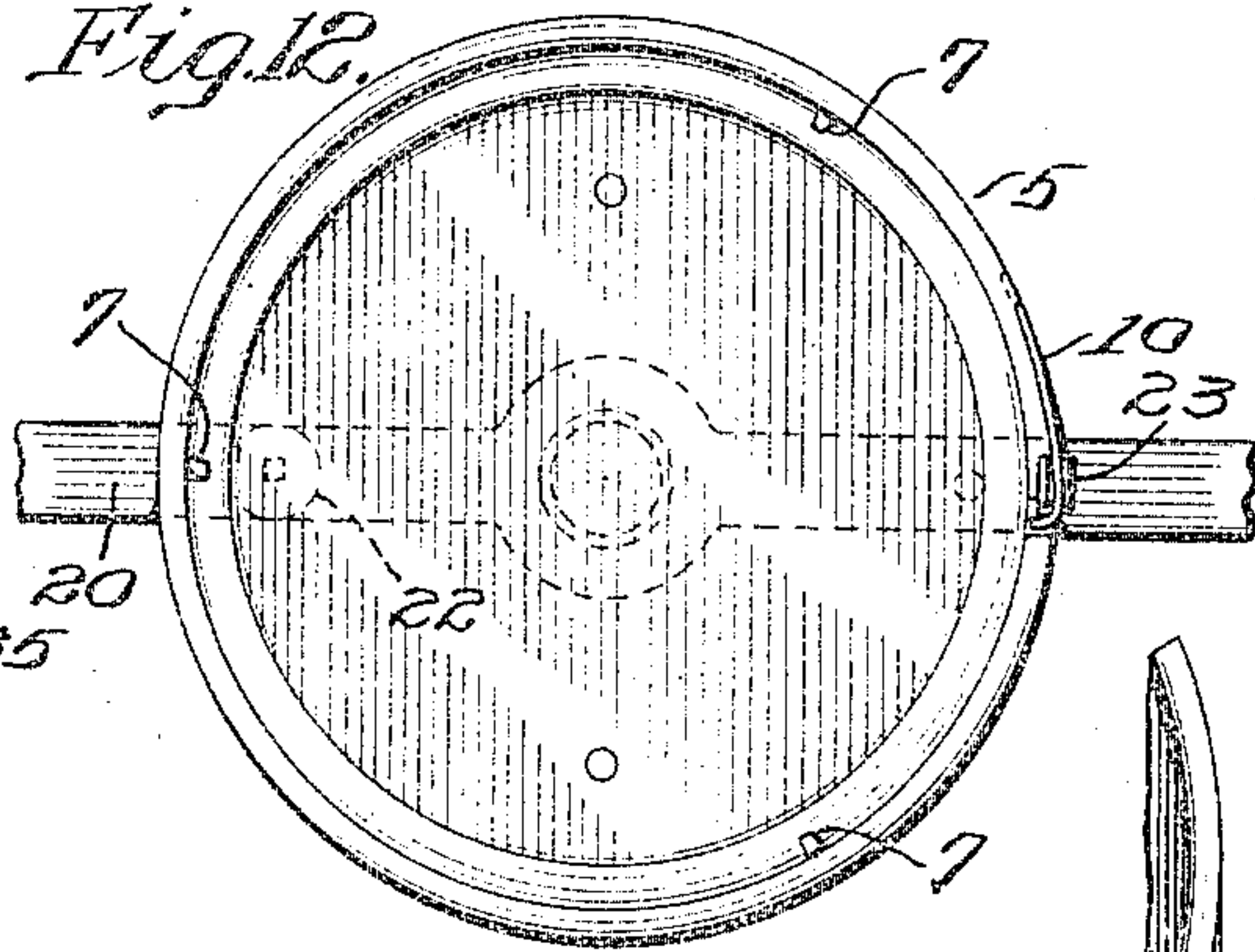


Fig. 10.

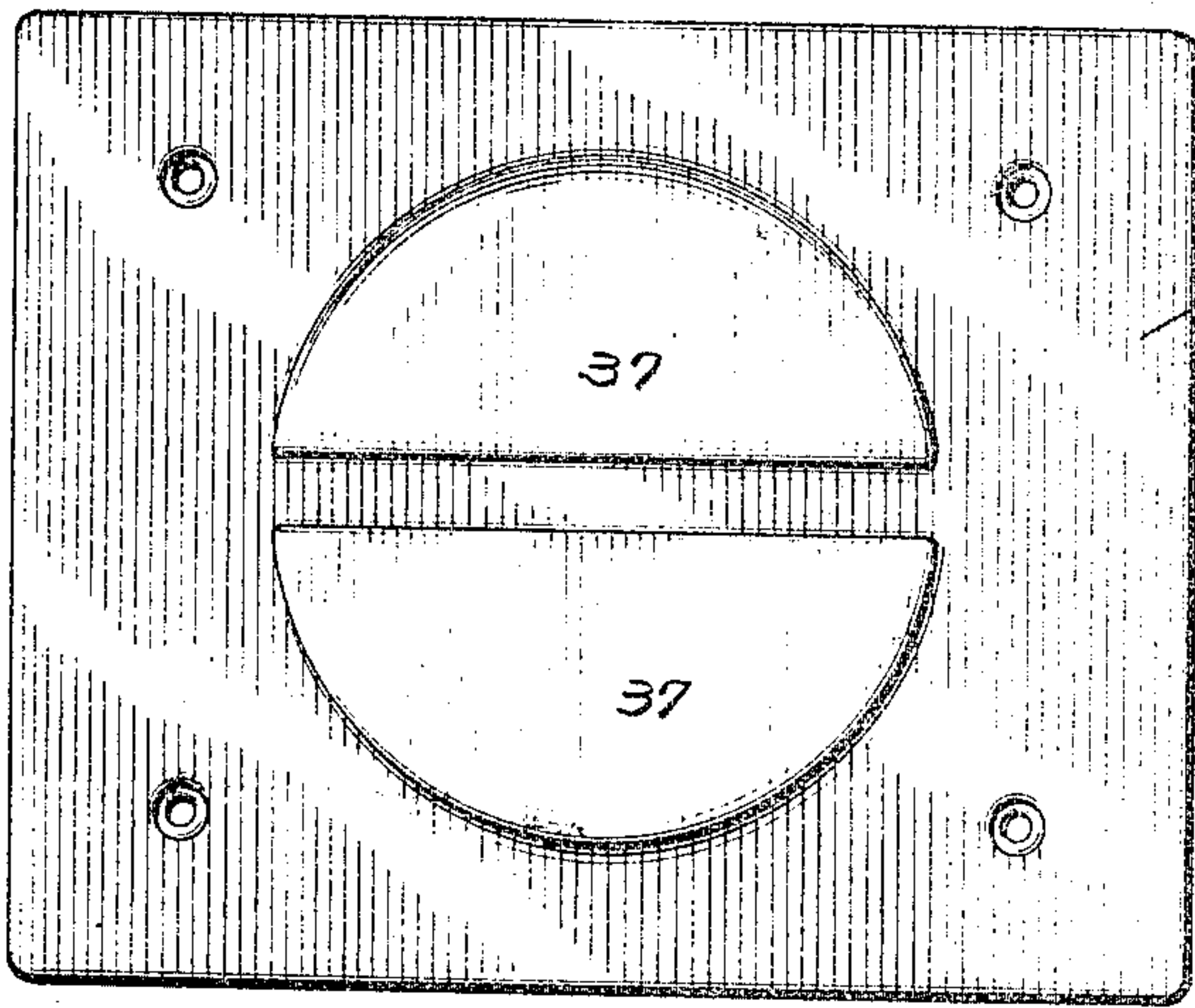


Fig. 13.

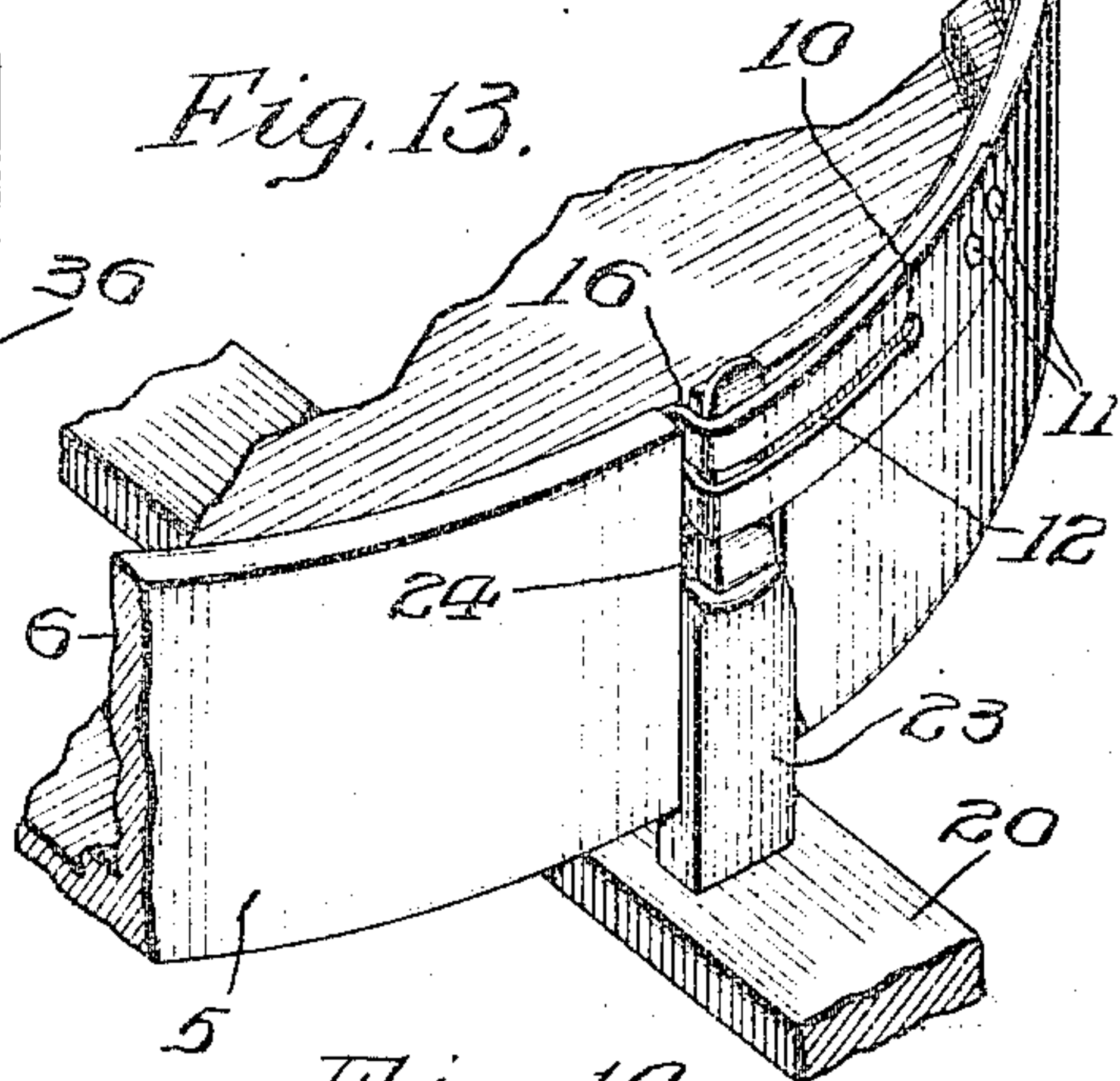


Fig. 11

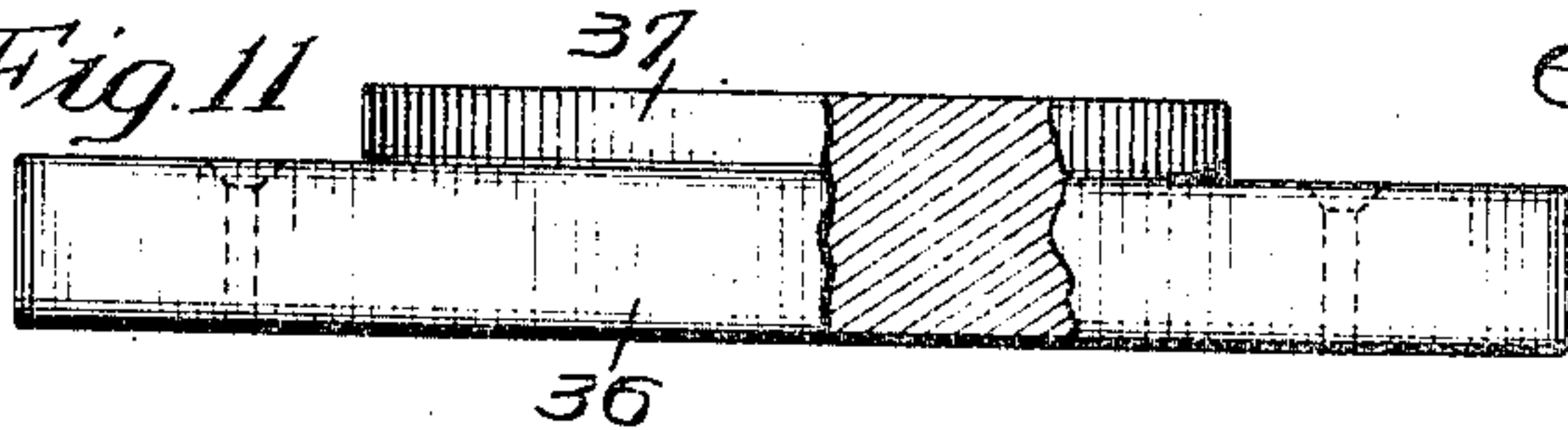


Fig. 14.



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# UNITED STATES PATENT OFFICE.

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MILK-CAN.

963,082.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed December 29, 1909. Serial No. 535,436.

*To all whom it may concern:*

Be it known that I, CALEB E. SHREVE, a citizen of the United States, and a resident of Atlantic City, State of New Jersey, have invented certain new and useful Improvements in Receptacles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

The main objects of this invention are, to provide a simple, strong and durable can or receptacle adapted to be used for the storage of milk or any other liquid or material and provided with a cover or closure which may be conveniently adjusted and which will hermetically seal the same; to provide improved locking means between the body and cover of a receptacle; to provide improved means for holding a receptacle in position, and to provide other improvements as will appear hereinafter.

In the accompanying drawings, Figure 1 is a fragmentary side elevation of a milk can constructed in accordance with this invention; Fig. 2 a top plan view of the same; Fig. 3 a side elevation of the same with cover and base removed; Fig. 4 a side elevation of the lever for unlocking and removing the cover from the body of the can; Fig. 5 a fragmentary side elevation of the cover; Fig. 6 a side elevation of a handle adapted to be used with this can; Fig. 7 an enlarged elevation of the cover; Fig. 8 a corresponding enlarged elevation of the cover with portions removed; Fig. 9 a bottom plan view of the can; Fig. 10 a top plan view of the base; Fig. 11 a fragmentary side elevation of the base partly in vertical section; Fig. 12 a bottom plan view of the cover; Fig. 13 an enlarged fragmentary perspective of a portion of the can inverted; and Fig. 14 an enlarged fragmentary horizontal section on line 14-14 of Fig. 7.

Referring to the drawings, one embodiment of this invention comprises a can or receptacle having a substantially cylindrical hollow body 1, open at its upper end and closed at its lower end. The lower end of this body 1 is provided with a downwardly projecting rim 2, which is slightly larger in diameter than the diameter of the main portion of the body. The upper end of the body 1 is increased slightly in thickness to form a projecting cylindrical rim 3.

For hermetically sealing the upper end of

the can, a cover or closure 5 is provided which has a downwardly projecting rim 6, which telescopes snugly but rotatably over the rim 3 of the upper end of the body of the can, and the rim 6 of the cover is provided with a plurality of radially arranged inwardly projecting pins or studs 7 rigid therewith, and adapted to engage in grooves 8, provided in the outer surface of the rim 3, at the upper end of the body of the can. Each of these grooves 8 consists of a comparatively short vertical portion which opens upwardly in the upper edge of the body of the can, and an inclined portion leading downwardly and circumferentially of the rim in a clockwise direction from the vertical portion. These grooves are adapted to receive the inwardly projecting pins 7 of the cover, and the upper walls of the inclined portions of the grooves form cams which cooperate with the pins 7 to draw the cover into tight engagement with the upper edge of the body of the can when the cover is rotated clockwise.

For locking the cover in place, a spring catch 10 is secured at one end by rivets 11, in a recess provided therefor upon the outer surface of the rim of the cover, and the free end of the catch is bifurcated by a kerf 12, and has its extremities bent inwardly to form projections 13 and 14, which are spaced circumferentially of the can. These projections pass freely through an opening provided therefor in the rim of the cover, and normally project inwardly from the inner surface of the rim to engage in spaced notches 15, which are arranged in the outer surface of the rim of the body of the can. The inner corners of these projections are beveled or rounded as at 16, so that as the cover is placed upon or removed from the body of the can, the catch will yield to permit of this movement. The space between the projections 13 and 14 of the catch, is preferably made substantially equal to one half the space between adjacent notches 15, so that it is only necessary to turn the cover a distance equal to half the space between adjacent notches, to bring one of the projections into engagement in a notch. When the cover is in place upon the can, the spring catch is held under tension, and the projections of the catch snap automatically into position in the notches as the cover is rotated. The notches 15 are of substantially equal sizes, and each notch is bounded by



two walls, which form an acute angle, and one of which is in a plane substantially axial with respect to the can, the inclined wall being arranged in advance of the other wall so that as the cover is rotated into locking position, the catch will slide freely over the notches, but will be prevented from returning by the catch engaging against one of the axial walls of the notches.

For unlocking and removing the cover from the body of the can, a lever 20 is provided which has fixed upon one side, adjacent one end, a stud 21 adapted to engage in a recess 21', provided therefor in a boss 22, fixed upon the cover adjacent its periphery, and diametrically opposite the spring catch 10. The stud 21 and its recess 21' are preferably made square in cross section to prevent the lever from turning, but the device would be operative if the stud and its recess were of any other shape. This lever 20, also has rigid therewith, a downwardly projecting tapering key 23, adapted to engage between the free end of the spring catch and the cover, in a vertical recess 24, provided therefor in the outer surface of the rim of the cover, when the stud 21 is in place in the boss 22. The lever 20 is also provided adjacent its key 23, with a stud 25 rigid therewith and adapted to rest upon the cover, and to limit the downward movement of the lever so that when the lever is in its lowermost position, it will be substantially parallel with the cover. When not in use, the lever 20 may be removed from the cover.

For the convenient manipulation of the can, handles 26 may be provided upon the sides of the body of the can, and a handle 40 may be pivoted upon the cover, being preferably arranged so that it may be turned down flat against the cover below the lever 20, as indicated in dotted lines in the drawings. The upper edge of the body of the can is also preferably provided with oppositely disposed apertures 28, through which a detachable handle 29 may be secured after the cover is removed.

When this can is made in large sizes, it is preferable to provide the cover with a centrally arranged outwardly extending boss 30 rigid therewith, which forms a convenient means for gripping one end of the can in rolling it. When this boss 30 is used, it is preferred to form the lever 20 with a broadened central portion having an aperture 31, to admit the boss; but when the boss is not used, as in smaller sizes of the can, a lever may be made straight without the central aperture 31. In the larger sizes of cans, it is also desirable to have the outside diameter of the rim of the cover of the can equal to the outside diameter of the rim at the bottom of the can, so that the can may be conveniently rolled and so that

when rolled, it will run in a straight direction.

To facilitate the locking and unlocking of the cover, the bottom of the can is preferably provided with two oppositely disposed lugs 35, and a base 36 of wood or other suitable material is provided with oppositely disposed lugs 37, adapted to fit within the rim of the bottom of the can, and to engage upon opposite sides of the lugs 35, to prevent the can from turning, the base 36 being fixed in any convenient position.

A washer 40 of paraffined paper, or other suitable material, is preferably interposed between the cover and the body of the can so that when the cover is turned down snugly into position against the washer, an air tight joint will be effected, and the can will be hermetically sealed.

To prevent tampering with the can, an apertured lug 41 may be arranged upon the body of the can adjacent the cover, and a corresponding apertured lug 42 arranged upon the cover so that when the cover is in position, a wire may be run through the two lugs, and the ends of the wire may be joined by a lead seal 43, or in any other suitable manner.

It is obvious that although this invention was intended primarily to provide a can for holding milk, the invention might be utilized in any can or receptacle for holding any liquid or material desired. It is also obvious that many changes might be made in applying this invention to adapt it to various purposes without departing from the spirit of this invention or the scope of the appended claims.

Having thus fully described this invention, I claim and desire to protect by Letters Patent of the United States:

1. In a receptacle, the combination with a hollow body portion having an open end, and provided with an external groove having a circumferentially extending inclined wall, of a cover having a rim telescoping over said open end, means carried by said cover and adapted to engage against said inclined wall, whereby, when said cover is moved, said wall will act to draw said cover into engagement with said body, and yielding means secured to said cover and engaging said body to lock said cover in position.

2. In a receptacle, the combination with a hollow body portion having a cylindrical open end, provided exteriorly with a circumferentially extending inclined wall, of a cover having a cylindrical rim telescoping over said cylindrical end and provided with means adapted to engage against said inclined wall, to draw said cover into engagement with said body when said cover is rotated, and yielding means secured to said



cover and engaging said body to lock said cover in position.

3. In a receptacle, the combination with a hollow body portion, of a cover therefor, and a yielding catch between said body and said cover, said catch being carried by one of said members and having spaced projections adapted to engage in spaced notches provided in the other member.

4. In a receptacle, the combination with a hollow body portion, of a cover therefor, and a yielding catch between said body and said cover, said catch being carried by one of said members and having spaced projections adapted to engage in spaced notches provided in the other member, the space between said projection being a fraction of the space between said notches.

5. In a receptacle, the combination with a hollow body portion having an open end, of a cover having a rim telescoping over said end, and a yielding catch carried by said cover and adapted to engage in spaced notches provided therefor in the outer surface of said body, to hold said cover in position.

6. In a receptacle, the combination with a hollow body having an open end and provided upon its outer surface, adjacent said end, with a groove forming an inclined wall, and with spaced notches, of a cover having a rim telescoping over said open end and provided with means adapted to engage against said inclined wall to draw said cover into engagement with said body, and a yielding catch carried by said cover and adapted to engage in said spaced notches, to hold said cover in position.

7. In a receptacle, the combination with a hollow body having an open end and provided upon its outer surface, adjacent said end, with a groove forming an inclined wall, and with spaced notches, of a cover having a rim telescoping over said open end and provided with means adapted to engage against said inclined wall to draw said cover into engagement with said body, and a yielding catch carried by said cover and adapted to engage in said spaced notches, to hold said cover in position, said cover being provided with an opening adapted to receive a key between said catch and said cover, to unfasten said catch.

8. The combination with a receptacle comprising a body portion having an open end, of a cover for said open end, and means between said cover and said body whereby said cover will be drawn toward said body by the rotation of said cover in one direction, and means carried by said cover and actuated by said rotation to lock said cover automatically against rotation in the opposite direction.

9. The combination with a receptacle comprising a body portion having an open end,

of a cover for said open end, and means between said cover and said body whereby said cover will be drawn toward said body by the rotation of said cover, and means supporting said body and holding said body against rotation.

10. A receptacle comprising a hollow body having an open end, of a cover telescoping over said end, and a spring catch arranged exteriorly of said body and between said body and said cover for holding said cover in position.

11. A receptacle comprising a cylindrical hollow body having an open end, a cover having a cylindrical rim telescoping over said end, means carried by said cover and engaging in an inclined recess provided therefor in the exterior surface of said body, whereby said cover will be drawn into engagement with said body upon the rotation of said cover and a catch carried by said cover and engaging said body for holding said cover in position.

12. A receptacle comprising a hollow body portion, a movable cover, locking means between said body portion and said cover, and means removably engaging said cover for unlocking and rotating the same.

13. A receptacle comprising a hollow body portion, a movable cover, locking means between said body portion and said cover, and means removably engaging said cover for unlocking and rotating the same, said last mentioned means comprising a lever having a stud and a key, both rigid therewith.

14. The combination with a receptacle comprising a body portion having an open end, of a cover for said open end, and means between said cover and said body, whereby said cover will be drawn toward said body by the rotation of said cover, a washer between said cover and said body and a spring catch carried by said cover and adapted to engage said body for holding said cover in position.

15. The combination with a receptacle comprising a body portion having an open end, of a cover for said open end, means between said cover and said body whereby said cover will be drawn toward said body and into locking engagement therewith by the rotation of said cover, and means fixed upon said cover and upon said body respectively and brought into operative position by the locking of said cover, for the attachment of sealing means exteriorly between said cover and said body.

16. The combination with a receptacle comprising a body portion having an open end, of a cover for said open end, a spring catch between said cover and said body for locking said cover in position, and a lever having a key and a stud, both rigid therewith, for unlocking said cover, said cover being provided with a recess adapted to re-



ceive said stud, whereby said lever is held in operative position.

17. The combination with a receptacle comprising a body portion and a movable cover, of a catch between said body and said cover, means detachably engaging said cover for releasing said catch, and a handle pivoted to said cover and rotatable into and out of position between said last mentioned means and said cover.

18. The combination with a receptacle comprising a body portion, and a cover therefor, a catch between said body and said cover, means detachably connected to said cover for releasing said catch, said means being provided with an aperture, and a stud rigid with said cover and engaging in said aperture.

19. The combination with a receptacle comprising a body portion having an open end, of a cylindrical cover for said open end, a lever detachably engaging said cover for rotating the same, said lever being provided with an opening arranged opposite the center of said cover, and a stud rigid with said cover and projecting in said opening whereby said receptacle may be conveniently held for rotation.

20. The combination with a cylindrical receptacle comprising a body portion having an open end, and a cylindrical cover telescoping over said open end, of a centrally arranged stud projecting outwardly from said cover and rigid therewith, the outside diameter of said body portion and outside diameter of said cover being substantially equal.

21. The combination with a receptacle having spaced projections extending in the same direction therefrom, of a handle connected to said receptacle and adapted to

rest when not in operation inside of a plane tangent to said projections.

22. The combination with a cylindrical receptacle having an annular flange projecting outward from each end thereof and a pair of oppositely disposed handles rigidly connected to the outer surface of said receptacle between said flanges and entirely included inside of a plane tangent to said flanges.

23. In a receptacle, the combination with a hollow body portion, of a cover therefor, and a yielding catch between said body and said cover, said catch being carried by one of said members and having independently and separately movable projections adapted to engage in spaced notches provided therefor in the other member.

24. A receptacle comprising a hollow body portion having a cylindrical open end, a cover having a rim telescoping over said open end and a yielding catch carried by said cover and adapted to engage in spaced notches provided therefor in the outer surface of said body to hold said cover in position, said cover being provided with a recess adapted to receive a key to release said catch.

25. A receptacle comprising a hollow body portion having one end open, and a cover having an annular rim telescoping over said open end, said body portion having an annular rim opposite said first mentioned rim and of substantially equal outside diameter.

In witness whereof I have hereunto set my hand this 23rd day of December, A. D. 1909.

CALEB E. SHREVE.

Witnesses:

ADDISON IRWIN GARDNER,  
ALEXANDER PARK.