

No. 882,145.

PATENTED MAR. 17, 1908.

F. M. EIBER.  
SHUT-OFF BOX.

APPLICATION FILED JAN. 26, 1907.

FIG. 1

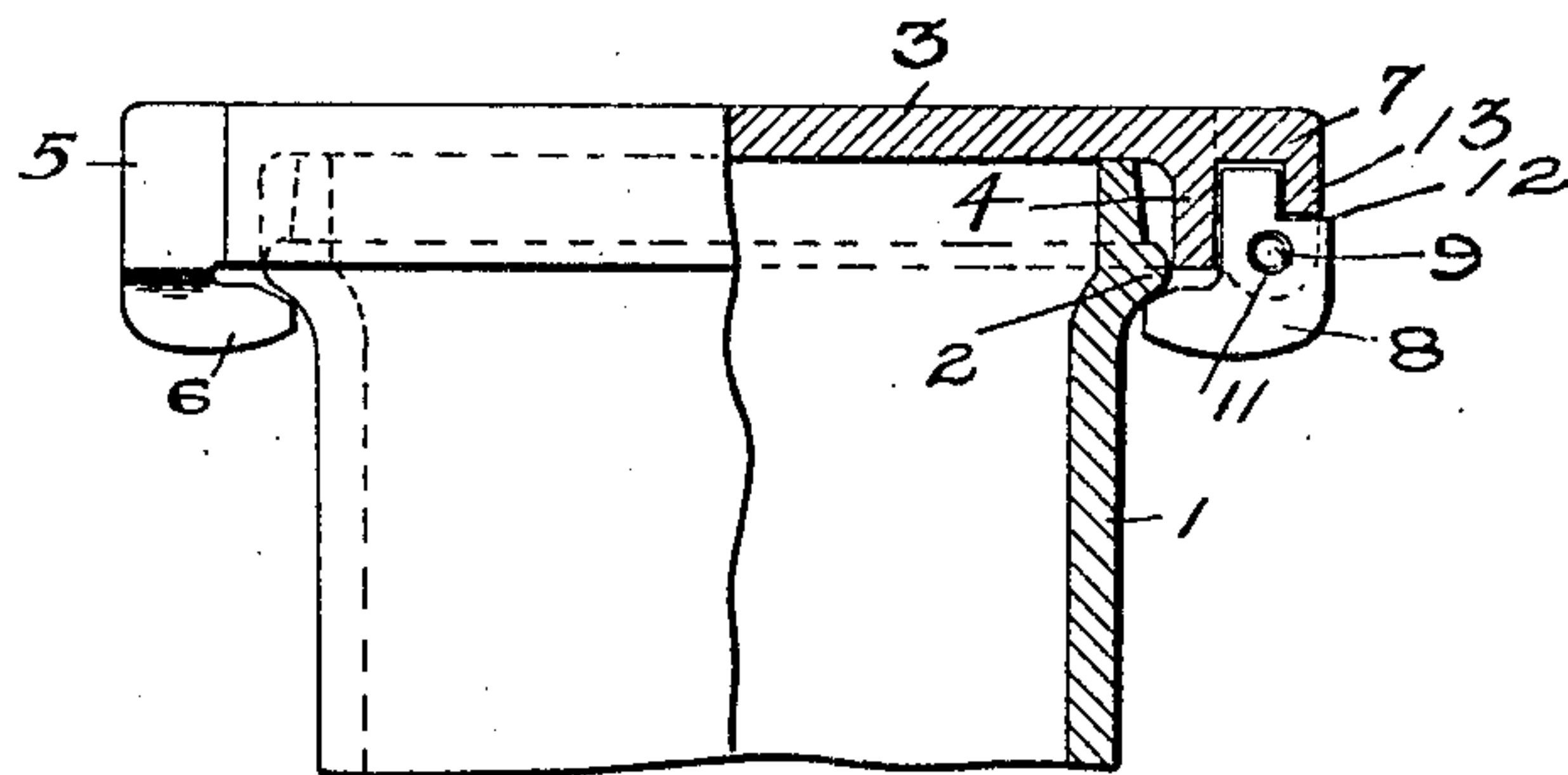


FIG. 2

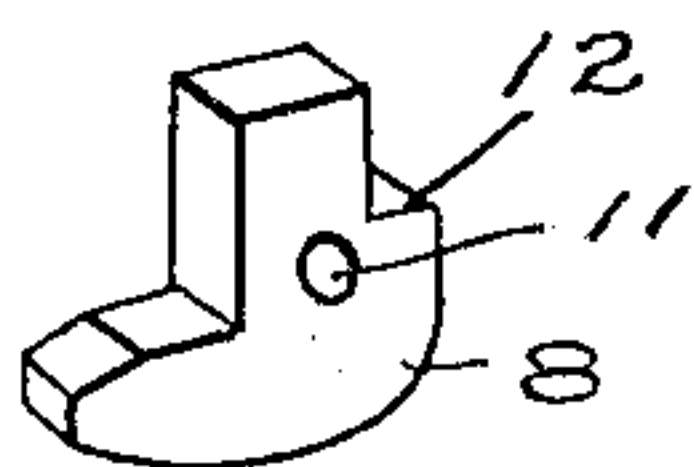


FIG. 3

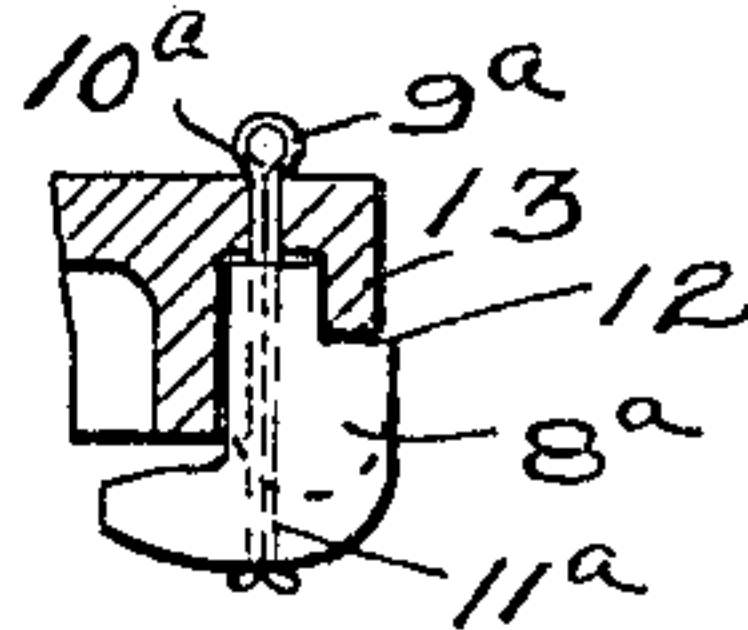


FIG. 5

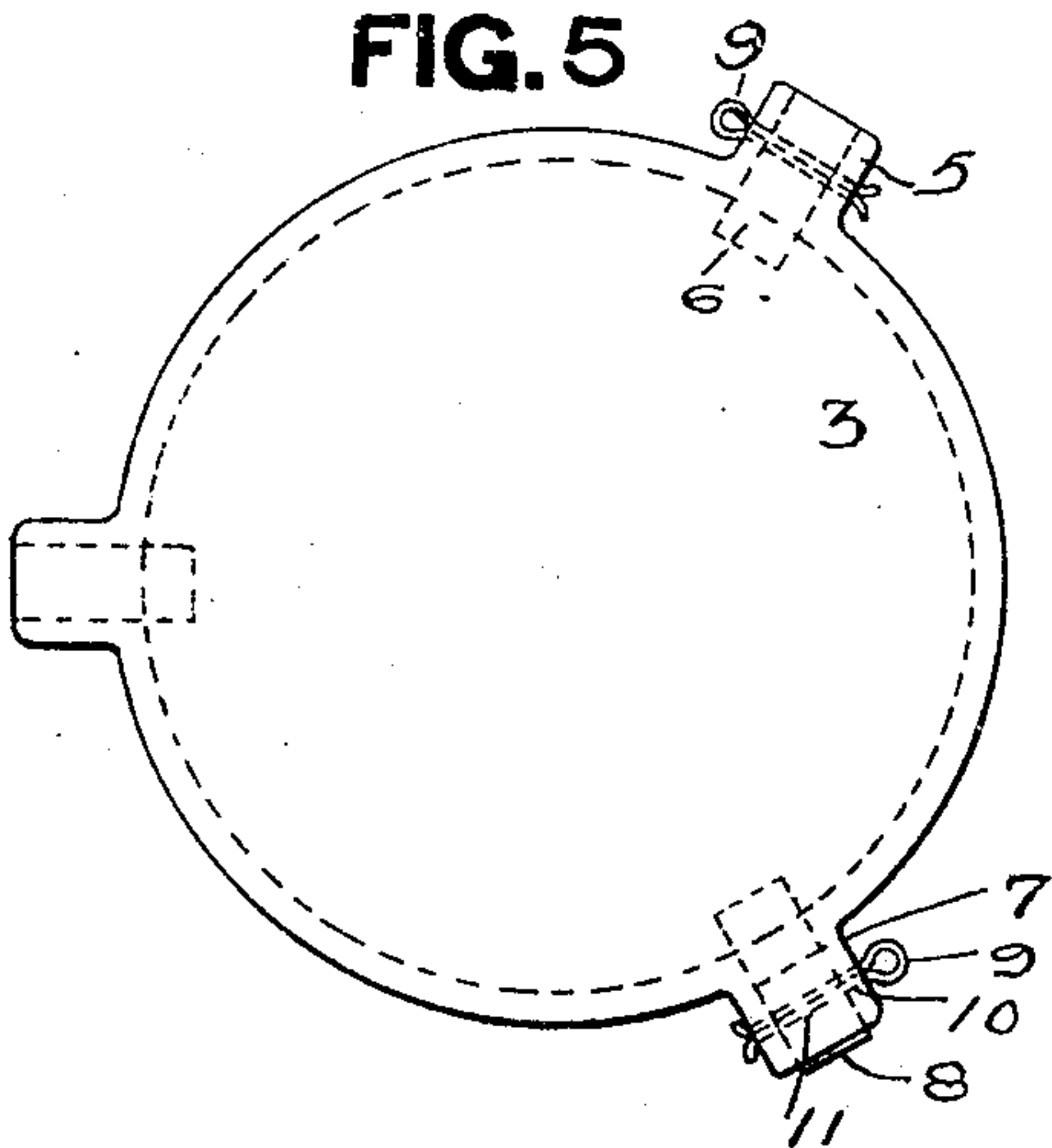
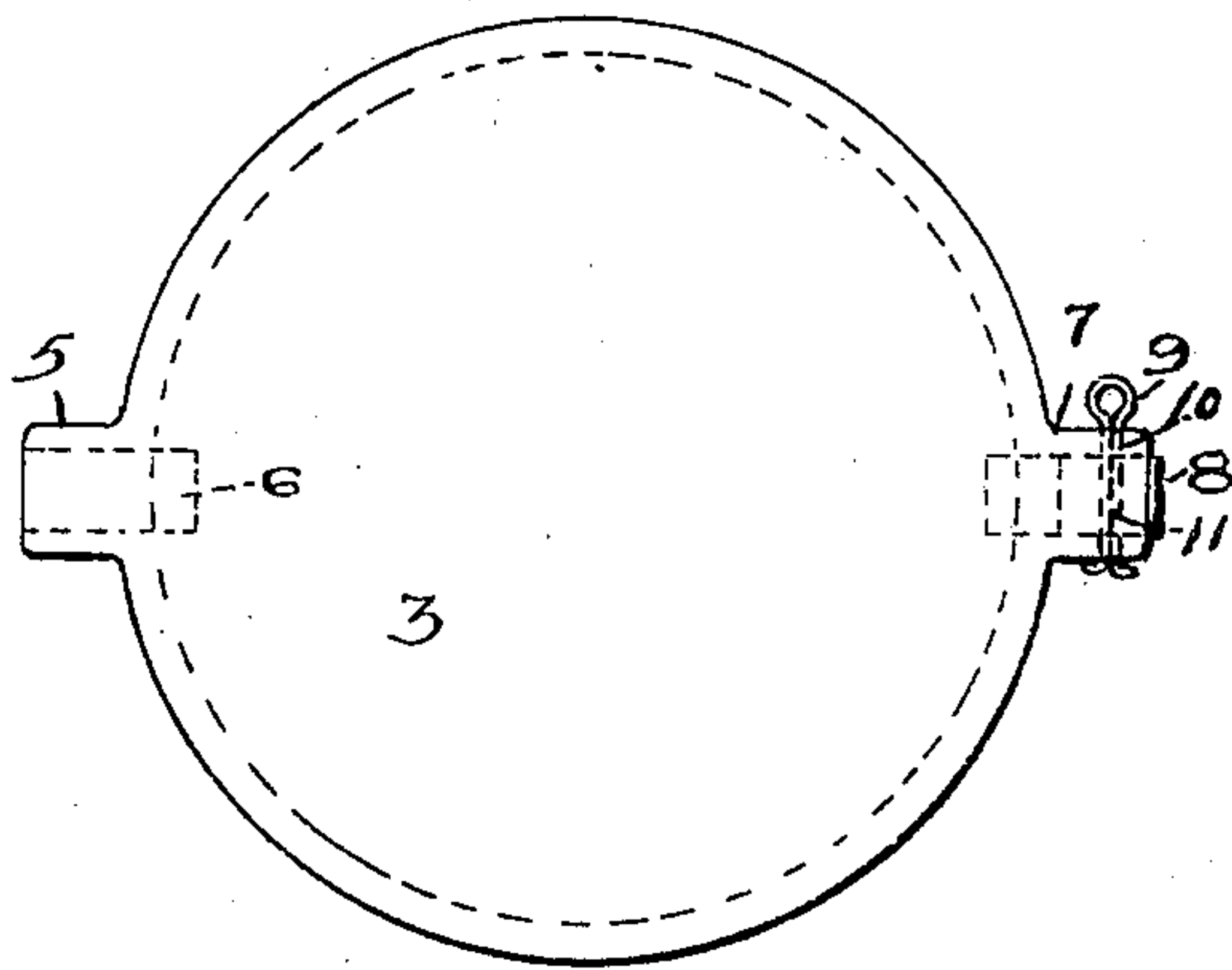


FIG. 4



WITNESSES.

*W. C. Keller.*  
*Max Smith.*

INVENTOR.

*Frank M. Eiber,*  
*by Edward A. Lawrence,*  
*his attorney.*

# UNITED STATES PATENT OFFICE.

FRANK M. EIBER, OF MILLVALE, PENNSYLVANIA.

## SHUT-OFF BOX.

No. 882,145.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed January 26, 1907. Serial No. 354,182.

*To all whom it may concern:*

Be it known that I, FRANK M. EIBER, a citizen of the United States, and residing in the borough of Millvale, in the county of Allegheny and State of Pennsylvania, have invented or discovered new and useful Improvements in Shut-Off Boxes, of which the following is a specification.

My invention consists in certain new and useful improvements in lids for stop cock boxes used in connection with water or gas distribution, and similar purposes.

The form of lid now in general use is secured in place by means of a brass screw bolt passing through the cover and engaging an internal lug or projection cast integral with the box. As the lids are usually located on the side walk, they are subjected to hard usage and very frequently tampered with, and consequently a very large percentage are broken loose and lost or destroyed. This breakage is especially frequent in cold weather when the cast metal from which the lid and box are made is very brittle and an attempt to remove the lid to get at the stop cock frequently results in fracturing either lid, bolt or projection on the box. In case the bolt breaks off in the projection, the embedded end must be drilled out by hand but in case the projection is broken, there remains no way of attaching the lid in place and, if the lid be replaced, it is soon knocked off and lost, leaving the box open to be filled with dirt and refuse which must be dug out at great expense of time and patience when access is again desired to the cock. If the projection be broken off, to be able to cover the cock from the accumulation of dirt, the entire box must be dug up and discarded and a new one installed, at considerable expense.

I have provided a novel design of lid which may be quickly attached to the box without the use of tools or resort to threaded engagement, and may as readily be removed without difficulty or danger of breakage. It may be equally well applied to old or newly installed boxes and a box too badly fractured to permit the attachment of other designs of lids may be fitted with my lid as readily and with as much security as a new box. The preferable form of attachment used by me consists in a plurality of fingers or gripping members carried by the lid and engaging the box in such a manner that a fixed attachment is secured. By arranging one or more of said fingers so that they may be removed

from engagement with the box, the lid may be readily installed or removed, the adjustable fingers being securable at will in their holding position. The number of fingers may be varied at will, at least two being usually required and also sufficient where a perfect engaging surface, such as a circumferential lip, is found on the box, but where such lip is broken away for a portion or portions of its extent or is otherwise incomplete, I find that three or more fingers, suitably spaced apart, provide a more positive and reliable engagement. Where three fingers are provided, I may form two of them either integral or rigid with the lid, making one adjustable so that the lid may readily be placed in position or removed, but, if desired, all of the fingers may be made adjustable although the latter construction is less economical in manufacture and installation.

The improvement is inexpensive in construction and less liable to breakage than the form now in use and enables boxes, which are now thrown aside as worthless, to remain in efficient service.

In the accompanying drawings, Figure 1 is an elevation of a portion of a box with my lid fitted in place, the box and cover being partially broken away in section for the sake of clearness. Fig. 2 is a somewhat enlarged detail, in perspective, of the preferable form of removable finger, Fig. 3 is a detail in vertical section showing a portion of the lid with a modified form of removable finger attached, Fig. 4 is a plan of the invention shown in Fig. 1 and Fig. 5 a similar view of a modified form of attachment.

The following is a detailed description of the drawings.

1 represents the upper portion of a stop cock box or similar device of conventional form, having in this case a circumferential lip or shoulder 2.

3 is an annular lid having a peripheral lip or flange 4 adapted to fit down over the end of box 1.

5 represents a radial projection integral or rigid with lid 3 and provided with finger or gripping member 6, integral or rigid therewith, adapted to engage a portion of box 1 such as the underside of lip 2.

7 is a hollow projection, integral or rigid with lid 3, in which may be seated the adjustable or removable finger or gripping member 8 secured therein by any convenient means, such, for instance, as the brass



cotter pin 9 passing through holes 10—10 in the side walls of projection 7 and hole 11 in finger 8. Any other convenient means for attaching the finger to the lid 3 may be resorted to, for instance, that shown in Fig. 3 where the cotter pin 9<sup>a</sup> passes vertically through hole 10<sup>a</sup> in lid 3 and hole 11<sup>a</sup> in finger 8<sup>a</sup>. When said finger 8, or 8<sup>a</sup>, is in place, attached to lid 3 and engaging box 1, the lid is securely held in place and cannot be removed except by withdrawing the cotter pin, which, when desired, may be readily effected without the use of special tools. To prevent the finger 8 moving from proper engagement with box 1, I may provide such finger with a shoulder 12 which bears against wall 13 of the projection 7. If the box 1 is not seriously fractured or the lip 2 be complete, but two fingers, placed diametrically opposite one another, may be provided, but where said lip is fractured and partially broken away, it is advisable to provide three or more fingers, spaced apart substantially as shown in Fig. 5. In this case I have shown two fingers made integral with the lid while the third finger is made adjustable to permit of ready attachment or removal. It is evident that any desired number of fingers may be provided as the occasion requires. If desired, all of the fingers may be made separate from the lid and attached thereto by any convenient means but I find it more economical to make as many of the fingers integral with the lid as possible in view of the requirements of ready attachment and removal.

The lid may be made cheaply of cast metal, thus reducing the first cost substantially and the fingers may be cast integrally

therewith without trouble. I have shown convenient means for attaching the adjustable fingers to the lid but I do not confine myself to any particular method of attachment as the same may be varied as desired.

I therefore desire to claim broadly:—

1. In shut off boxes, an exterior flange on said box, a lid for the exposed extremity of said box, a hollow projection rigid with said lid and a gripping finger removably secured in said projection and adapted to engage said flange, substantially as and for the purpose set forth.

2. In shut off boxes, an exterior flange on said box, a lid for the exposed extremity of said box, a hollow projection rigid with said lid, a downwardly depending gripping finger of substantially L shape seated in said projection and engaging said flange and a securing member holding said finger in said projection, substantially as and for the purpose set forth.

3. In shut off boxes, an exterior flange on said box, a lid for the exposed extremity of said box, a hollow projection rigid with said lid, a downwardly depending gripping finger of substantially L shape seated in said projection and adapted to engage said flange and a member passing through the wall of said projection and said finger whereby said finger is held in place, substantially as and for the purpose set forth.

Signed at Pittsburg, Penna., this 22d day of January, 1907.

FRANK M. EIBER.

Witnesses:

J. H. HARRISON,  
EDWARD A. LAWRENCE.