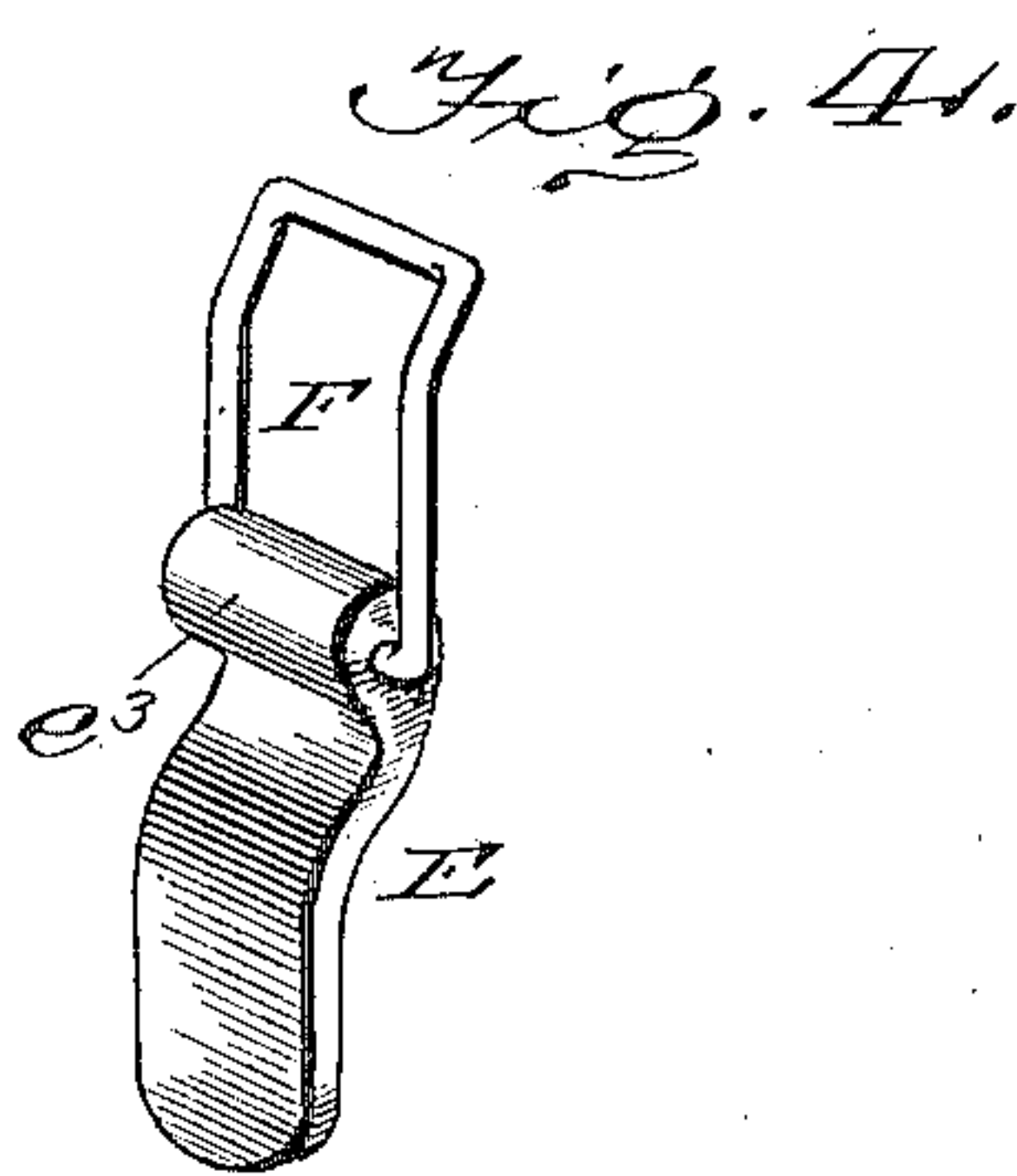
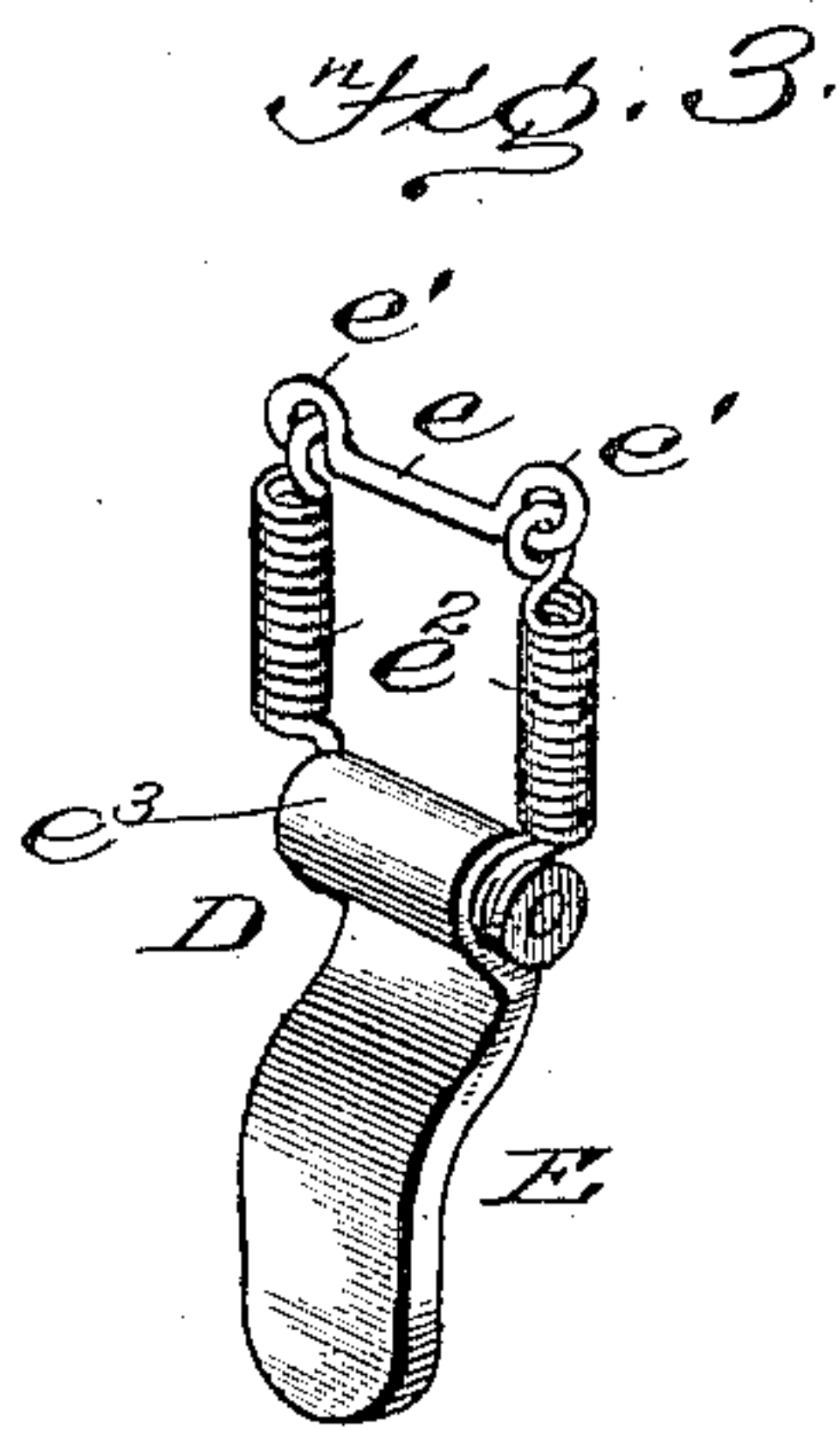
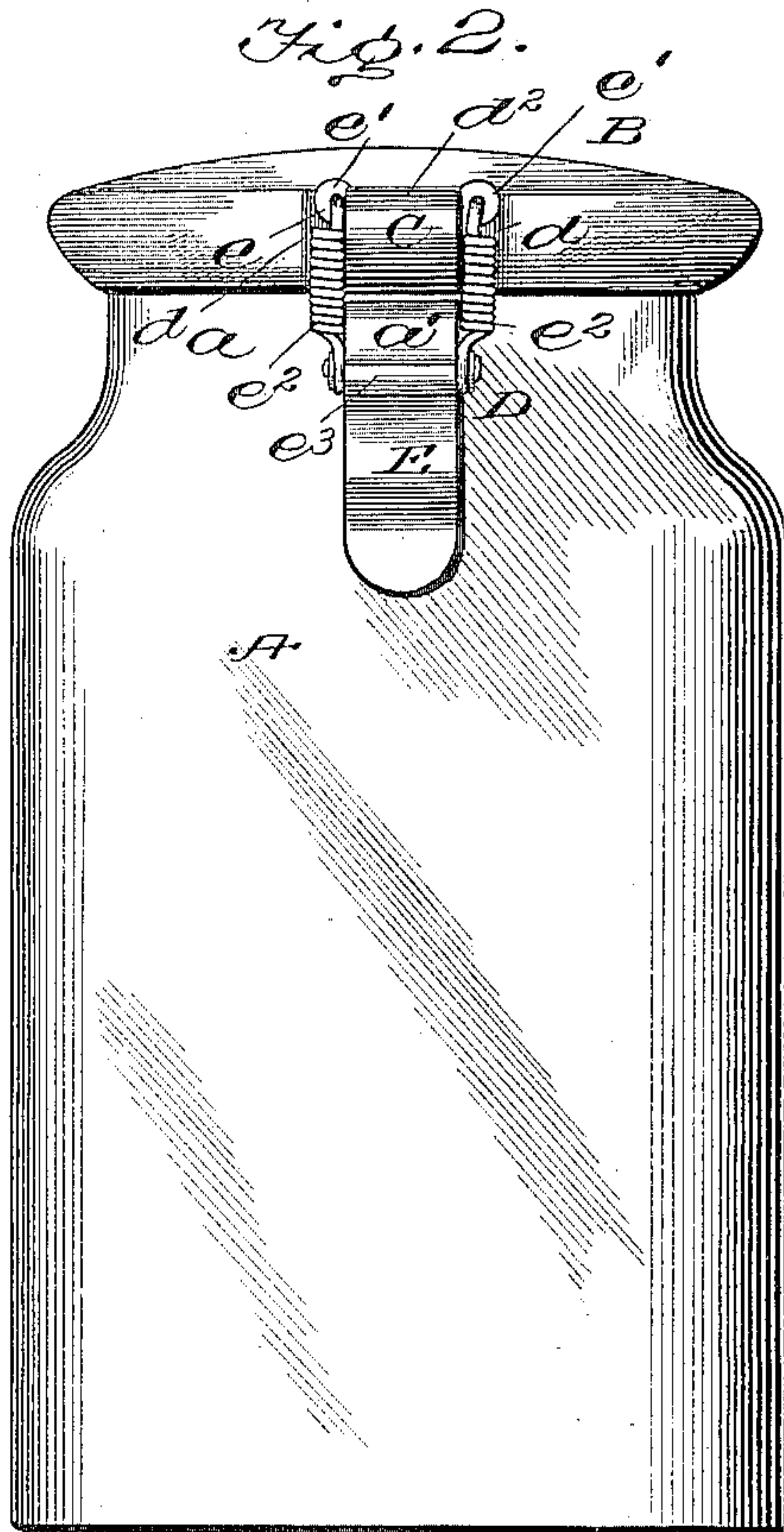
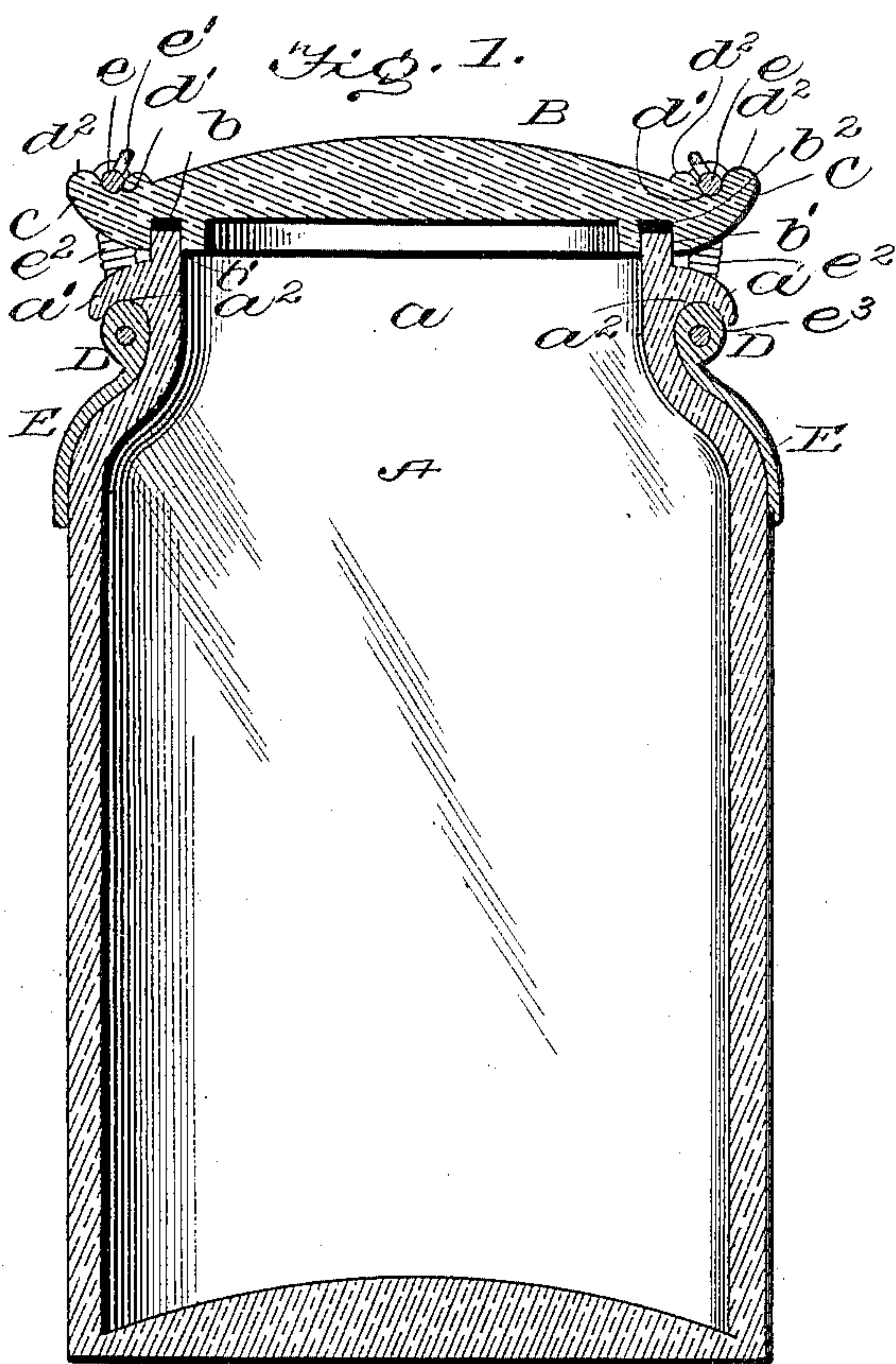


(No Model.)

J. M. STADEL.  
CLOSURE FOR JARS OR THE LIKE.

No. 599,269.

Patented Feb. 15, 1898.



Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN M. STADEL, OF WILMINGTON, DELAWARE, ASSIGNOR OF TWO-THIRDS  
TO JOHN T. AHRENS AND WILLIAM MICHAEL BYRNE, OF SAME PLACE.

## CLOSURE FOR JARS OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 599,269, dated February 15, 1898.

Application filed April 16, 1897. Serial No. 632,377. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN M. STADEL, of  
Wilmington, in the county of New Castle and  
State of Delaware, have invented certain new  
5 and useful Improvements in Closures for Jars  
or the Like; and I do hereby declare the fol-  
lowing to be a full, clear, and exact descrip-  
tion of the invention, such as will enable oth-  
ers skilled in the art to which it appertains to  
10 make and use the same.

This invention contemplates certain new  
and useful improvements in closures for jars  
or like vessels, the objects of the invention  
being, first, to insure an air-tight joint be-  
15 tween the vessel and its cover, and, secondly,  
to provide a simple, inexpensive, and highly-  
efficient fastening device for locking the cover  
in place.

The invention will be hereinafter fully set  
20 forth, and particularly pointed out in the  
claims.

In the accompanying drawings, Figure 1  
is a vertical longitudinal sectional view show-  
ing a jar provided with my improvements.  
25 Fig. 2 is a side view. Fig. 3 is an enlarged  
view of one of the holders. Fig. 4 shows a  
slight modification.

Referring to the drawings, A designates a  
jar or other vessel having an upper reduced  
30 portion *a*, forming a neck, from opposite  
points of which project two lugs *a'*, the under  
sides thereof being concaved, as at *a''*. A  
slight space is left between the top surfaces  
of these lugs and the peripheral edge of the  
35 neck.

B is the cover, of circular form, provided in  
its under side with an annular groove *b*, having  
inner and outer concentric circular walls *b'*.  
Within this groove is placed a ring *b''*, of rub-  
40 ber or any other suitable material, forming  
a firm packing. The groove *b* is designed to  
receive and accommodate the end of the neck  
of the vessel, against the flat edge of which  
the packing-ring is designed to tightly bear.  
45 It has been found in actual practice that by  
locating the packing-ring in an annular groove  
formed with concentric walls an air-tight  
joint is secured and the spreading of the ring  
laterally when the cover is tightened is pre-  
50 vented. This is not so where the ring is held  
simply by encircling an inner ring, since there

is nothing to prevent its spreading outward  
as the cover is tightened.

C C designate two lugs extending from op-  
posite points on the periphery of the cover, 55  
so as to be coincident with and directly over  
the lugs *a'*. Adjacent each of these lugs C  
are two grooves *d*, while in the top of each  
lug is a transverse groove *d'*, preferably  
formed between two raised or bead-like por- 60  
tions *d''*.

D D are the fasteners by which the cover  
is secured to the vessel. Each fastener con-  
sists of a short rod *e*, designed to extend  
transversely across the top of each lug C, fit- 65  
ting in groove *d'*, and to the eyes or looped  
ends *e'* of this rod are connected the upper  
ends of spiral springs *e''*, which at their other  
ends are attached to the cam end *e'''* of a lever  
E. When positioned, the springs are accom- 70  
modated by the grooves *d*. In Fig. 4 I have  
shown a bail F, which may be used in lieu of  
the springs. The arm of the lever is bent or  
curved throughout its length—that is, it is of  
concavo-convex form—so that when forced 75  
downward, with its cam end in contact with  
the under side of one of the lugs *a'*, it will fit  
snug against the upper portion of the vessel  
and conform to the exterior contour thereof.  
The cam end of the lever is placed beneath 80  
the lug of the vessel, the outer end of the le-  
ver-arm being first raised, and then the said  
arm is bent or forced downward, so as to fit  
against the exterior of the vessel. As the  
arm is moved downward the cam end thereof 85  
binds against the under side of the lug in such  
way that the springs will exert considerable  
pressure on the cross-rod. In this way, by  
means of the two fasteners, the cover is quickly  
and securely attached to the jar or vessel. 90

The lugs of the cover and those of the ves-  
sel are preferably made integral with their  
respective supports. The grooves in the lugs  
of the cover serve to retain the cross-rods of  
the fastener in position. The cam ends of the 95  
lever-arms are so formed that when beneath  
the lugs of the vessel and the arms are raised  
they will not bind; but as soon as said arms  
are lowered down against the exterior of the  
vessel the cams will securely bind or lock the 100  
fasteners by their firm contact with the un-  
der sides of the lugs.



The advantages of my invention are apparent to those skilled in the art. Besides having produced an extremely simple and inexpensive form of fastener it will be observed  
 5 that the contact between the cover and the vessel is such as to render the latter air-tight. The tighter the cover is held the greater the contact of the packing-ring against the neck of the vessel, said ring being prevented from  
 10 spreading laterally by reason of the two concentric flanges between which it is located.

A jar or vessel constructed as herein described can be cheaply manufactured and the fastening and removal of the cover can  
 15 be quickly and easily accomplished.

I claim as my invention—

1. A jar or vessel having lugs integral with its neck, a cover having corresponding lugs formed therewith, and a fastener designed to  
 20 engage opposite lugs of the vessel and cover, the same comprising, each, a cross-rod and a cam-lever, engaging said lugs, as set forth.

2. A jar or vessel having lugs integral with its neck, a cover having corresponding lugs  
 25 integral therewith and formed with grooves, and fasteners comprising, each, a cross-rod fitted in the groove of one of said lugs, a cam-lever designed to engage the under side of the  
 30 corresponding lug of the vessel, and connections between said cross-rod and cam-lever, substantially as set forth.

3. A jar or vessel having lugs integral with its neck, a cover having corresponding lugs  
 35 integral therewith and formed with grooves, and fasteners comprising, each, a cross-rod fitted in the groove of one of said lugs, a cam-lever designed to engage the under side of the corresponding lug of the vessel, and

springs connecting said cross-rod to the said cam-lever, substantially as set forth. 40

4. The combination with the vessel having an upper reduced portion forming a neck, lugs projecting from and integral with said neck, and a cover having opposite integral  
 45 lugs corresponding to said former lugs, of the fasteners herein described comprising, each, a cross-rod engaging one of the lugs of said cover, a lever-arm curved throughout its  
 50 length to conform to the contour of said vessel adjacent to its neck, and having a cam at its inner end, and connections between said cam and said cross-rod, substantially as set forth.

5. The herein-described improved jar or vessel having an upper reduced portion form-  
 55 ing a neck, lugs projecting from opposite points of said neck, a cover having in its under side an annular groove, a packing-ring fitting therein, lugs projecting from said cover designed to extend over said lugs of said ves-  
 60 sel, and fasteners engaging the opposite lugs of the vessel and cover, the same comprising, each, a rod extending transversely over one of the lugs of the cover, a cam designed to en-  
 65 gage the under side of the lug of the vessel, springs connecting said cam and cross-rod, and a bent or curved arm extending from said cam, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscrib-  
 70 ing witnesses.

JOHN M. STADEL.

Witnesses:

ROBERT PENINGTON,  
 WM. MICHAEL BYRNE.