J. E. B. WITH.

FLUID SEAL.

APPLICATION FILED JUNE 30, 1915.

1,187,219.

Patented June 13, 1916.

Fig. 1.

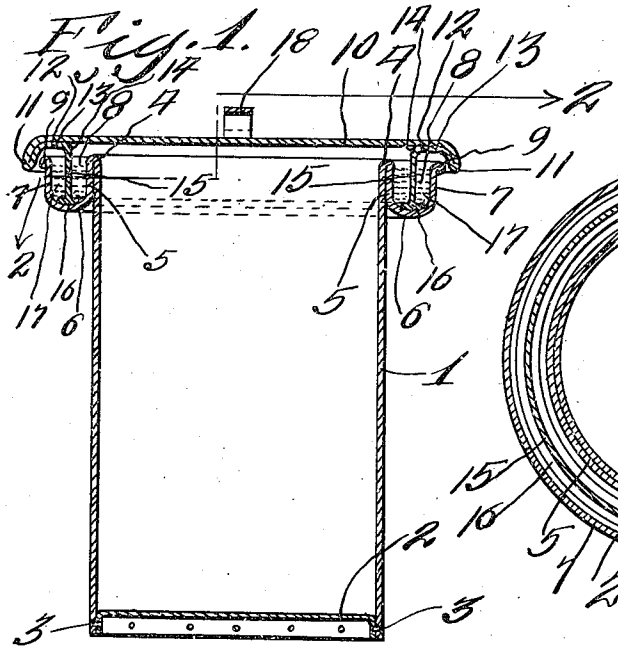


Fig. 2.

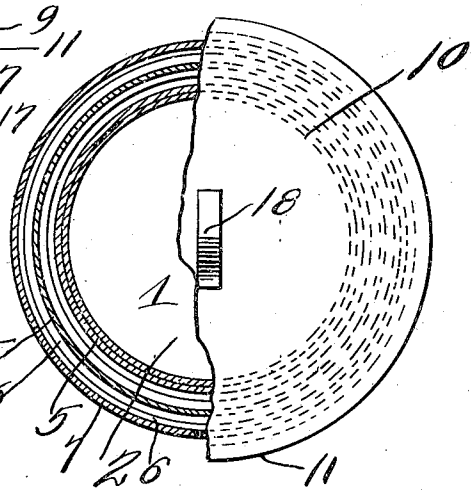


Fig. 3.

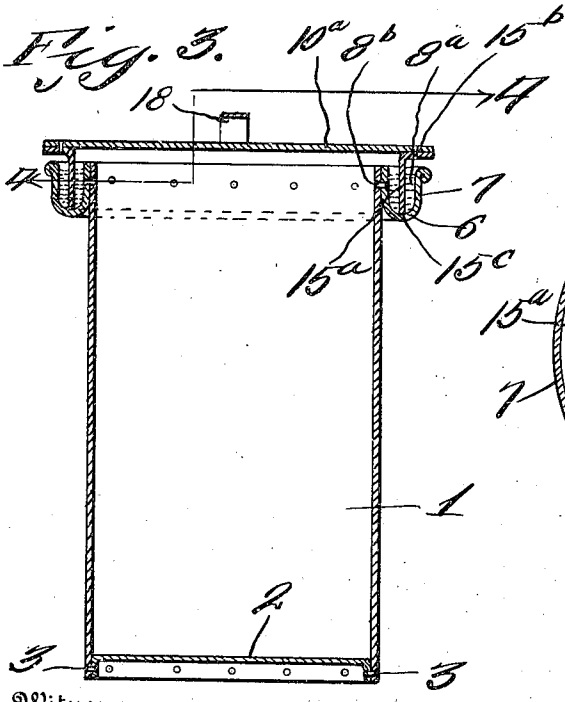
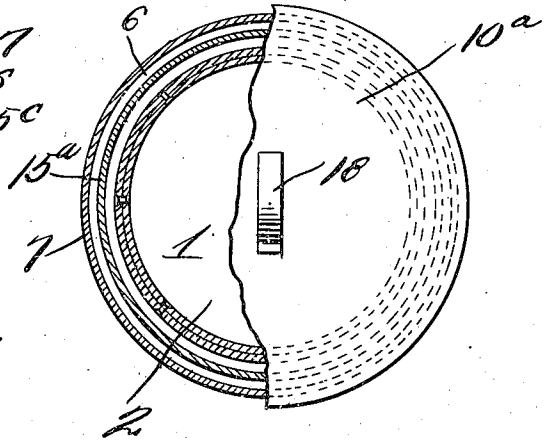


Fig. 4.



Witnesses

Phil. F. Turnell

Francis G. Darnell

Inventor

J. E. B. With

By D. Swift & Co.

Their Attorneys

UNITED STATES PATENT OFFICE.

JULIUS E. B. WITH, OF PORT TOWNSEND, WASHINGTON.

FLUID SEAL.

1,187,219. Specification of Letters Patent. Patented June 13, 1916.

Application filed June 30, 1915. Serial No. 37,245.

To all whom it may concern:

Be it known that I, JULIUS E. B. WITH, a citizen of the United States, residing at Port Townsend, in the county of Jefferson and State of Washington, have invented a new and useful Fluid Seal; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved fluid seal for garbage can closures, for excluding insects and the like, and preventing the odor from escaping.

One of the objects of the invention is to provide a fluid seal of this nature comprising an annular channel on the upper peripheral edge of the receptacle, or formed from an extension flange of the upper portion of a receptacle, to receive an annular tongue or flange of the closure for the receptacle, the annular channel being designed to receive water, oil, or any other fluid, whereby a liquid seal may be maintained between the closure and the receptacle.

A further object of the invention is to provide the annular flange or tongue at its lower portion with a T-shaped part (which is annular) partially curved in cross section, to fit the curvature of the bottom of the annular channel, and owing to the liquid or fluid in the channel, the closure is not only sealed, but the T-shaped part curved in cross section tends to adhere to the curved bottom of the channel, thereby rendering the cover somewhat difficult to be removed.

In practical fields the details of construction may necessitate alterations, falling within the scope of what is claimed.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings: Figure 1 is a vertical sectional view through a garbage can, showing the sealing connection between the closure and the can. Fig. 2 is a plan view, showing the closure broken away, and parts in section, illustrating the annular channel, and the annular flange, and which view is taken upon line 2—2 of Fig. 1. Fig. 3 is a vertical sectional view through a garbage can and closure therefor, illustrating another form of sealing connection. Fig. 4 is a view taken upon line 4—4 of Fig. 3, showing the closure in elevation partly broken away, and illustrating the annular channel and the annular flange in section.

Referring more especially to the drawings, 1 designates a garbage can, which may be any suitable shape or configuration, and is provided with a bottom 2 riveted or otherwise secured at 3 to the lower edge of the cylindrical wall of the can. The upper part of the wall of the can is bent upon itself at 4, extending downwardly at 5 and being semi-circular curved in cross section as shown at 6, and then curved upwardly at 7, thereby forming an annular channel 8. The upper edge portion of the outer wall 7 of the channel is formed with a bead 9. The closure 10 is constructed of sheet metal, which is bent upon itself annularly as shown at 11 and against the under surface of the closure for a short distance shown at 12, and this bent portion 13 is bent again as at 14 to form the downwardly extending flange 15, which enters the U-shaped channel 8. The lower part of the flange 15 is T-shaped as at 16, which is curved in cross section as shown, and which is adapted to adhere to the curved part 6 of the U-shaped channel 8, owing to the moisture from the sealing fluid 17, which prevents the escape of the odor from the garbage can, and excludes the insects and the like. The closure 10 is provided with a suitable handle 18.

In Fig. 4, instead of forming the channel member 8^a integral with the can, it is riveted to the can as shown at 8^b. Also the flange 15^a (which is annular in plan view, and angular in cross section) is riveted at 15^b to the closure 10^a, instead of being made integral with the closure. The T-shaped portion 16 is omitted, and the lower edge 15^c of the flange 15^a adheres to the curved bottom of the channel, owing to the moisture from the sealing fluid. The closure 10^a in Figs. 3 and 4 is also provided with a handle 18.

It is to be noted that the T-shaped part 16 is not quite as wide as the width of the channel, so that the T-shaped part will easily enter the channel, and will not displace the liquid. It will also be noticed that the outer portion of the closure overlies and extends downwardly over the outer wall 7 of the channel.

The invention having been set forth, what is claimed as new and useful is:—

A liquid sealer for a garbage can closure comprising in combination with the can, an

annular channel member U-shaped in cross section carried by the can adjacent its upper edge, a closure having an annular flange offset inwardly from the outer edge of the closure and extending downwardly and into the U-shaped channel, said annular flange having a T-shaped part at its lower portion curved in cross section to correspondingly fit the lower curvature of the bottom of the U-shaped channel member and having a liquid seal which causes the T-shaped part curved in cross section to adhere to the curvature of the bottom of the channel member, the outer edge portion of the closure extending downwardly and overlying the outer wall of the channel member.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JULIUS E. B. WITH.

Witnesses:
JOHN S. FULTON,
PETER NORTEY.