No. 777,609. PATENTED DEC. 13, 1904.

R. E. DEANE.

RECEPTACLE COVER.

APPLICATION FILED OCT. 25, 1902.

NO MODEL.

Fig. 1

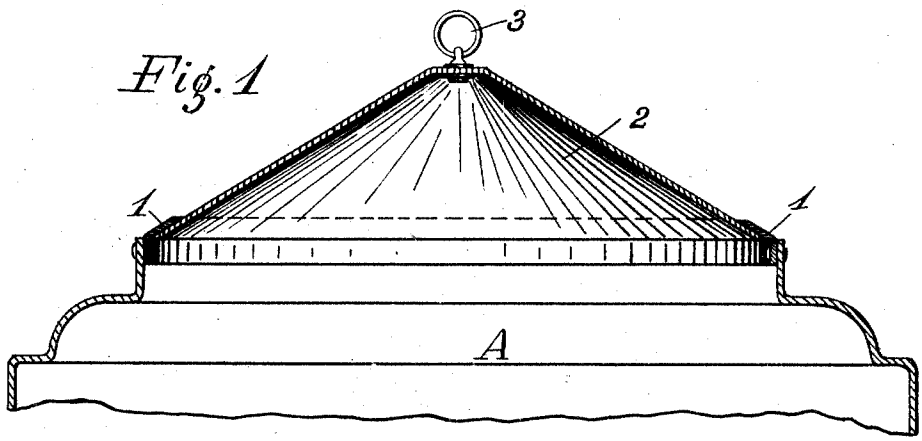



Fig. 4

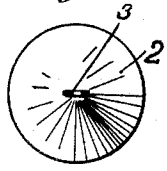



Fig. 5

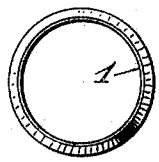



Fig. 6

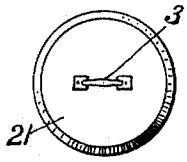



Fig. 7

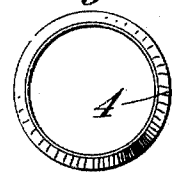



Fig. 8

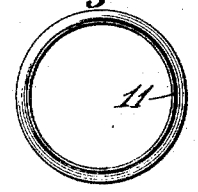



Fig. 9

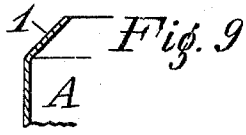



Fig. 2

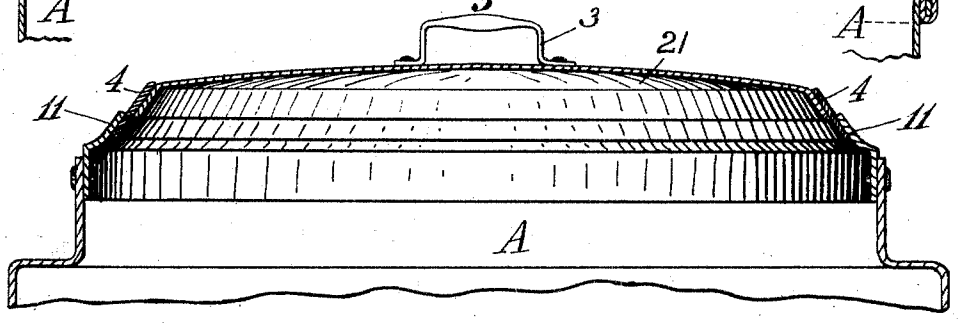



Fig. 10

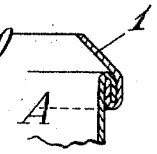
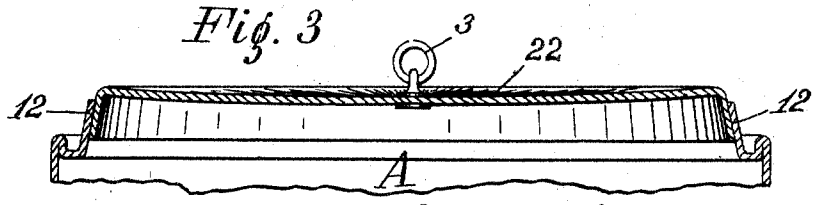



Fig. 3




Witnesses
Julian S. Rogers
Walter C. Taylor

Royal E. Deane Inventor
By his Attorney C. V. Edwards.

No. 777,609. Patented December 13, 1904.

# UNITED STATES PATENT OFFICE.

ROYAL E. DEANE, OF NEW YORK, N. Y.

## RECEPTACLE-COVER.

SPECIFICATION forming part of Letters Patent No. 777,609, dated December 13, 1904.

Application filed October 25, 1902. Serial No. 128,691. (No model.)

*To all whom it may concern:*

Be it known that I, ROYAL E. DEANE, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Receptacle-Covers, of which the following is a full, clear, and exact specification.

This invention relates to receptacles for containing fluids under pressure, and has for its object to provide a cover for such receptacles which can be quickly put in place and removed and which is simple in construction and composed of few parts.

It comprises, broadly, a cover adapted to pass through the orifice and fitting under a flange on the receptacle and to be held by the interior pressure.

By this invention the use of mechanical fastenings and gaskets or packing is done away with.

Heretofore receptacles of this class—such as sterilizers, water-heaters, &c.—have been constructed with sliding or hinged doors with mechanical means for fastening the same in place, necessitating the use of many parts and of packing materials to make tight joints. With such constructions the operation is slow and it becomes difficult to keep them clean. In my construction the parts are reduced to a minimum and access to the interior of the receptacle can be readily had.

Reference being had to the accompanying drawings, Figures 1, 2, and 3 are cross-section views of portions of receptacles provided with different forms of my invention. Fig. 4 is a plan view, on a reduced scale, of the conical cover shown in Fig. 1. Fig. 5 is a plan view of the flange shown in Fig. 1. Figs. 6, 7, and 8 are detail plan views, on a reduced scale, of parts shown in Fig. 2. Figs. 9 and 10 show ways of forming the flange.

Referring to Fig. 1, A is the receptacle, having an open mouth. Attached to the top of the receptacle A is a conical flange or annulus 1. 2 indicates a detachable conical cover larger in diameter than the opening, having a handle 3 and composed of resilient material fitting closely against the flange 1. In this form the cover is made of resilient material, so that after being pushed through the aperture it will resume its normal conical form. It is held in place by the handle until the interior pressure becomes sufficient to retain it.

In Fig. 2 the cover is made in two parts. The central portion 21 is made of rigid material and is smaller in diameter than the opening in the receptacle. In order to retain the central portion in place against the interior pressure, an auxiliary ring 4, of resilient material, preferably copper, is used. This resilient ring is larger in outside diameter than the opening and smaller in inside diameter than the central portion. These two parts are operated together in the same manner as a one-piece cover.

In Fig. 3 I show a form similar to that shown in Fig. 1, the flange 12 and cover 22 being only slightly conical, so that they can engage frictionally by a slight outward pull on the handle 3. The cover 22 is depressed, as shown, so as to give rigidity and prevent buckling.

It is obvious that the form shown in Fig. 3 could be applied to the construction shown in Fig. 2 by simply changing the slant, so that the auxiliary ring, central portion, and flange would frictionally engage with each other and be retained in place.

I have shown various ways of forming the flange. In Figs. 1 and 2 it is riveted on, in Figs. 3 and 9 it is integral with the receptacle, while in Fig. 10 the top of the receptacle is turned over and the bottom of the flange correspondingly turned over, so that they can interlock.

I do not desire to limit myself to any particular construction of receptacle or of cover or of flange, as my invention is susceptible of modifications and may be applied to various kinds of receptacles—for instance, the flange may be resilient.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A receptacle having an opening, a cover larger in all diameters than said opening, and resilient means located at the junction of the

cover and receptacle which can be distorted to permit the cover to pass through the opening, said resilient means resuming its normal shape after the cover has passed through whereby the cover closes the opening from the inside of the receptacle, substantially as described.

2. A receptacle having an opening, a cover larger in all diameters than said opening, and having a separable, resilient outer portion, whereby the cover can be distorted to pass through the opening so as to be retained against interior pressure, substantially as described.

3. A vessel comprising two parts, a receptacle having an orifice, a flange having a conical bearing-surface surrounding said orifice, and a separable, conical cover of material adapted to withstand pressure, said cover being larger in diameter than said opening, one of said parts being resilient in part to permit the cover to be inserted through the opening, substantially as described.

4. In a receptacle, having an opening, a cover larger in all diameters than said opening, and having a resilient coned portion which can be distorted in order to enable the cover to pass through the opening, substantially as described.

5. A receptacle having a circular orifice, a cover larger in diameter than said orifice, said cover comprising a central portion smaller than the orifice and a conical resilient ring larger in outside diameter than the orifice and smaller in inside diameter than the central portion, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ROYAL E. DEANE.

Witnesses:

JULIAN S. WOOSTER,

CHARLES H. BRIGGS.