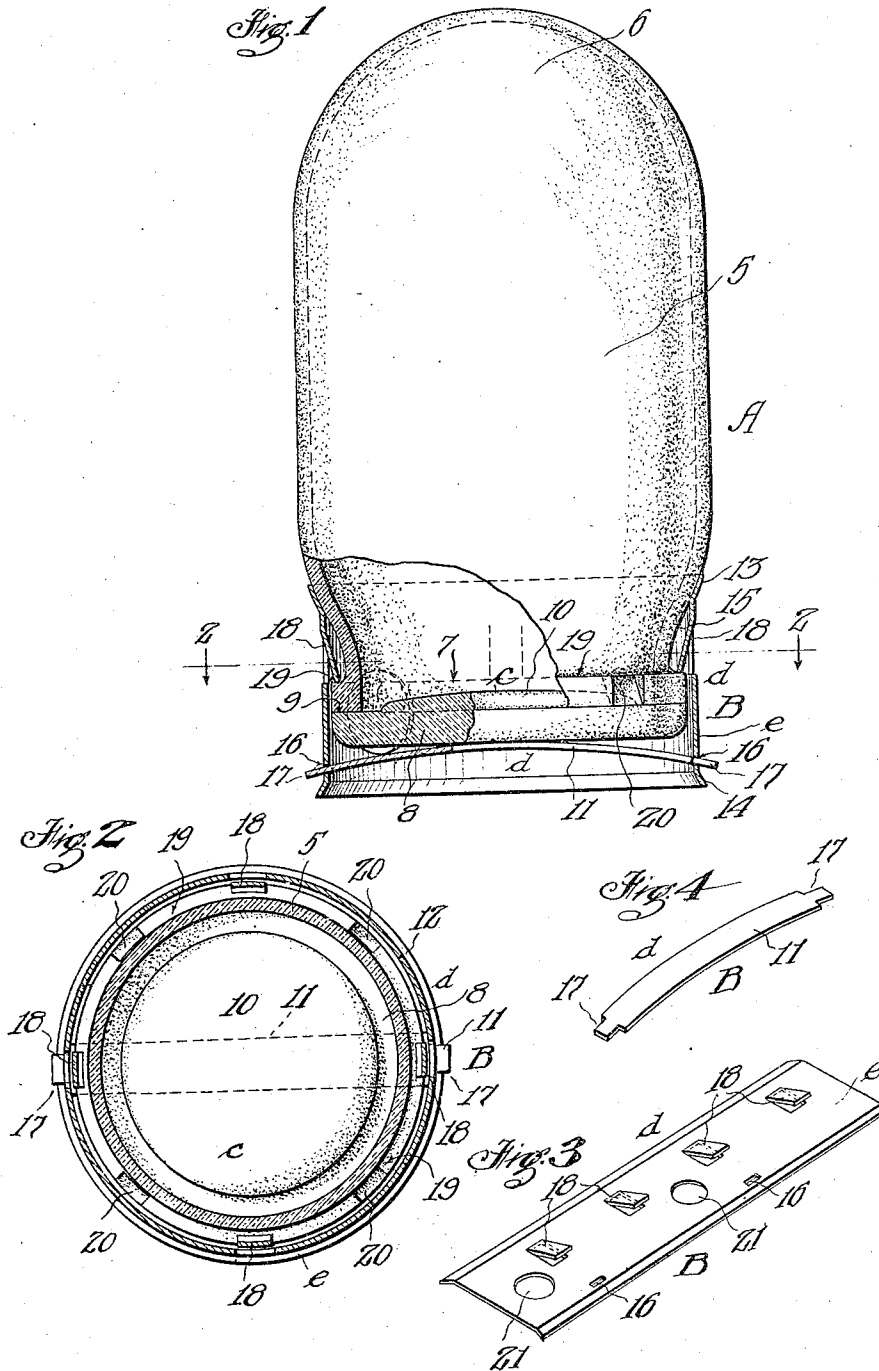


G. E. DECKER.
 RECEPTACLE AND CLOSURE.
 APPLICATION FILED MAR. 31, 1908.

944,234.

Patented Dec. 21, 1909.



Witnesses
 H. M. A. Field
 W. G. Cogswell

Inventor,
 George Edgar Decker;
 by Raymond S. Blakeslee,
 his Attorney.

UNITED STATES PATENT OFFICE.

GEORGE E. DECKER, OF POMONA, CALIFORNIA.

RECEPTACLE AND CLOSURE.

944,234.

Specification of Letters Patent.

Patented Dec. 21, 1909.

Application filed March 31, 1908. Serial No. 424,460.

To all whom it may concern:

Be it known that I, GEORGE E. DECKER, a citizen of the United States, residing at Pomona, in the county of Los Angeles and State of California, have invented new and useful Improvements in Receptacles and Closures, of which the following is a specification.

This invention relates to receptacles and closures, and has for its object to provide improvements of this general classification which will be superior in point of efficiency, simplicity and inexpensiveness, convenience and economy in use, neatness and attractiveness in appearance, and general durability and serviceability.

The invention relates particularly to that class of devices intended for the temporary storage of aliments, condiments, chemicals, and the wide range of commodities, preparations and mixtures, dealt with in grocers', chemists', and druggists' trades; and a particular and extensive use of the invention may be found in its adoption by the housewife as a jar and closure for preserved fruits, vegetables and other products for household consumption.

The invention consists in the provision, construction, combination, association and relative arrangement of parts, members and features, all as hereinafter described, shown in the drawing, and finally pointed out in claim.

In the drawing:—Figure 1 is a side elevation, partially broken away and partially in section, of a receptacle and closure embodying the invention; Fig. 2 is a transverse sectional view of the same, taken upon the line 2—2, Fig. 1; Fig. 3 is an isometric view of a blank from which a member of the closure is formed; and, Fig. 4 is an isometric view of a further member of the closure.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring with particularity to the drawing, A designates a receptacle and B designates a closure therefor, embodying the invention. The closure B comprises a stopper *c*, and a locking member *d* for the stopper. The locking member *d* comprises an annular member *e* which serves as a holder for the receptacle A when not in use as a member of the closure B. The annular member *e* thus has two functions, being qualified for service, alternatively, in maintaining the recep-

tacle sealed and in supporting the receptacle when the latter is unsealed or open.

A particular embodiment of the invention, with respect to construction, combination, association, relative arrangement and form of parts, members and features, is as follows:—The specific disclosure made in the drawing is of a type of receptacle and closure peculiarly adapted and designed for service as a fruit or preserve jar, complete in all its parts and features, so that contents of the receptacle may be effectively sealed, and the closure may be readily removed from the receptacle to permit access to the contents of the latter. The receptacle A consists of a hollow glass body 5, molded or blown in conformity with any desired pattern, but preferably having a rounded or semi-spherical bottom portion 6 which, when the receptacle is filled and sealed, constitutes the upper portion of the entirety, the mouth or orifice 7 of the receptacle being at such time turned downwardly, in accordance with the method of sealing hereafter described. The mouth or orifice 7 is preferably circular in form; and the stopper *c* of the closure B consists of a circular cap 8 which is applied to the rim or circular wall 9 of the mouth or orifice 7 of the body 5, there being a ground joint between the rim 7 and the contacting portion of the cap 8. The latter element is provided with a central convex portion or enlargement 10 which projects into the mouth or orifice 7 of the body 5 when the cap 8 is in sealing position; said convex portion or enlargement being of circular form and of a diameter less than the internal diameter of the mouth or orifice 7, whereby an annular space is provided between the perimeter of the enlargement 10 and the inner perimeter of the rim 9. To maintain the cap 8 in sealing position tightly against the rim 9, I provide the locking member *d*, which consists of tension means in the form of a bowed leaf spring 11, the central portion of which bears against the cap 8, exteriorly of the same. The spring 11 is maintained in operative position by the annular member *e*, which latter may be blanked out of a sheet of suitable metal having a spring quality, the ends of the blank being brought together and suitably joined, as at 12. Such a blank is shown in Fig. 3, in extended condition.

The annular member *e* is provided with outwardly flaring edge portions, 13 and 14 respectively, of which the edge portion 13 is designed for engagement with the walls 5 of the receptacle body 5, and the edge portion 14 is designed to serve as a base when the said annular member serves both as a part of the closure B and as a holder for the receptacle, as shown in Fig. 1. As above stated, the annular member *e* serves also as a holder for the receptacle A when not in use as a member of the closure B, and in such service, either the flaring edge portion 13 or the similar portion 14 is applied to the rounded bottom portion 6 of the body 5 of the receptacle, and the other flaring edge portion serves as a base for the entirety, the receptacle being supported so that the mouth or orifice 7 assumes the uppermost position. The walls of the body 5 are preferably formed with a tapering curvature, as at 15, adjacent to the orifice of the receptacle, which curvature the flaring edge portion 13 of the annular member *e* closely fits. Said flaring edge portions also serve to strengthen the structure of the annular member *e*.

At diametrically opposite points, the annular member *e* is provided with slots or perforations 16 which receive the reduced end portions 17 of the leaf spring 11, maintaining the bowed condition of said spring within the annular member *e*. The annular member *e* is also provided with a plurality of locking fingers, 18, which project inwardly of the former, in operative positions, being integral with the annular member *e*, and arranged to be engaged with an annular shoulder or seat 19 formed in or upon the walls of the receptacle body 5 adjacent to the rim 9 of the orifice of said receptacle body, and directed toward the bottom portion 6. Between the extreme outer portion of the rim 9 of the orifice 7 and the shoulder or seat 19, and directed in inclination inwardly of the walls of the body 5, and cutting said shoulder or seat 19, are a plurality of channels or grooves 20 which are relatively spaced, in an annular series, in conformity with the relative spacing of the locking fingers 18; to the end that all of said fingers may be simultaneously introduced to said channels or grooves, in passing the annular member *e* over the rim of the orifice of the receptacle body, until the free end portions of the fingers 18 are free from said channels or grooves. The annular member *e* may then be rotated to seat the free ends of the fingers 18 upon the seat or shoulder 19, at portions thereof intermediate of the channels or grooves 20. To aid in the manipulation of the annular member *e*, the latter is provided at opposed portions with circular openings 21 to which the fingers of the user may be fitted so as to obtain

a firm grip. In removing the annular member *e* from operative position as part of the closure, said annular member is again rotated until the fingers 18 enter the grooves 20, whereby they are freed from locking engagement with the shoulder or seat 19.

The operation, method of use and advantages of the improved receptacle and closure constituting the invention will be readily understood from the foregoing, taken in connection with the accompanying drawing and the following statement.

The receptacle body 5, with its closed bottom portion 6 directed downwardly, and suitably supported, as by the use of the annular member *e* as a holder, is filled with the desired contents. The cap 8 is then fitted over the orifice of the receptacle, the central enlargement 10 projecting into the mass of the contents, a slight portion of which latter, if liquid, such as fruit syrup, will be forced to exude between the contacting portions of the cap 8 and the rim 9 of the orifice of the receptacle body, constituting a plastic seal. The annular member *e* of the closure B is then passed over the sealed end portion of the receptacle, namely that to which the cap has been applied, and the locking member *d*, carried by the annular member, presses firmly against the cap, being held in such position by the locking fingers 18 which are brought into engagement with the shoulder or seat 19 after traversing the grooves 20. The cap is now held under strong pressure against the orifice, or rim of the orifice, of the receptacle body, and the entirety may be inverted and placed upon a suitable support, the annular member *e* serving as a holder in the same manner as when fitted upon the permanently closed bottom portion 6. The ground glass joint between the stopper and the receptacle, especially when supplemented in action by a coating of liquid, such as that contained in the receptacle, maintains a perfect tight seal over the orifice of the receptacle body, in conjunction with the body of the cap 8. Should any liquid contents of the receptacle be forced through said joint, it will tend to harden or semi-solidify upon exposure to the air, and completely seal the joint between the cap and the receptacle. All that is necessary to open the receptacle is to invert it from the position shown in Fig. 1, give the annular member *e* the proper degree of rotation so that the fingers 18 may traverse the grooves 20, and then withdraw the annular member *e* with the locking member *d*, which will permit the cap to be removed from the receptacle.

In the use of the invention, the necessity of employing rubber or other sealing gaskets is obviated, and a great many conveniences and improvements in appearance fol-

low its employment. When the receptacle is filled, the uppermost portion is not obscured by any closure parts, the rounded glass formation, in the use of glass receptacles, permitting unobstructed inspection of the contents. The curved or rounded glass upper portion of the filled receptacle also tends to magnify the contents, enhancing beauty of appearance. When a number of the receptacles with their contents are placed in a group, the closure features are hidden from view, and only a series of rounded domes are visible. Furthermore, the rounded upper portion of the receptacle is very easily kept clean, being free from angular parts or crevices. The closure features are also largely protected from accumulation of dirt, by the superposed receptacle.

In conclusion, I do not desire to be understood as limiting myself to the specific provision, construction, combination, association and relative arrangement of parts, members and features shown and described; but reserve the right to vary the same, in adapting the improvements to varying conditions of use, without departing from the

spirit of the invention or the terms of the following claim.

Having thus described my invention I claim and desire to secure by Letters Patent:—

A receptacle provided with a closure fitting the orifice of the same, and comprising a stopper, an annular member detachably connected with the receptacle and provided with slots, and a locking member consisting of a spring extending across and within the annular member and bearing against the stopper; said spring being of elongated form and having reduced end portions fitting said slots in the annular member; and said spring being maintained by said annular member in bowed engagement with the stopper.

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

GEORGE E. DECKER.

Witnesses:

F. A. MANSFIELD,
RAYMOND I. BLAKESLEE.