

June 2, 1925.

1,540,301

G. F. ANDERSON  
CLOSURE FOR RECEPTACLES  
Filed Nov. 2, 1921

Fig. 1.

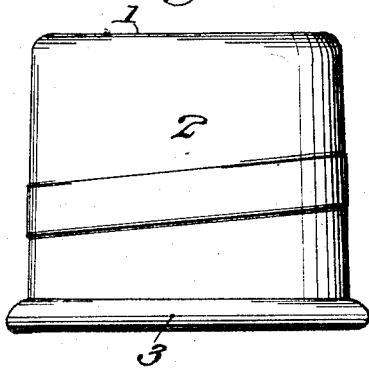


Fig. 2.

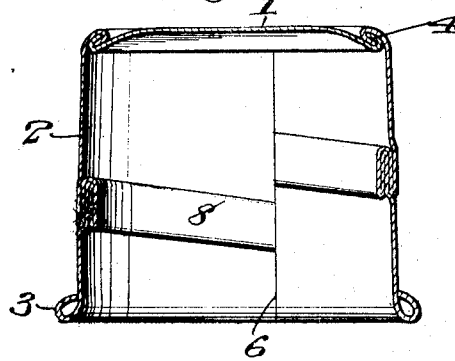


Fig. 3.

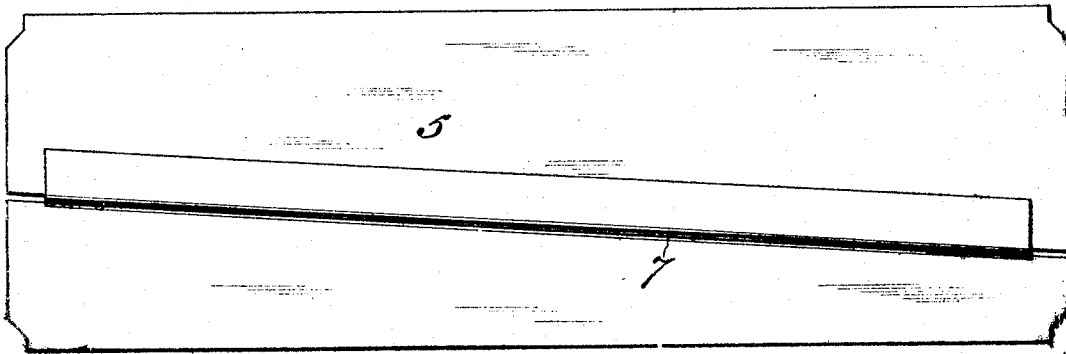


Fig. 4.

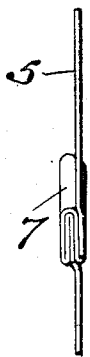


Fig. 5.

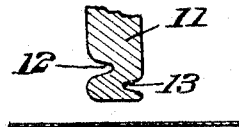


Fig. 6.

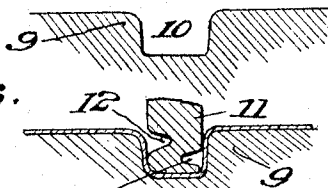


Fig. 7.

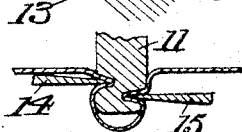
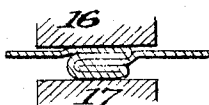


Fig. 8.



Fig. 9.



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## UNITED STATES PATENT OFFICE.

GUSTAV F. ANDERSON, OF BROOKLYN, NEW YORK, ASSIGNOR TO PARAGON CAN & CAP COMPANY, INC., OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

## CLOSURE FOR RECEPTACLES.

Application filed November 2, 1921. Serial No. 512,261.

*To all whom it may concern:*

Be it known that I, GUSTAV F. ANDERSON, a subject of the Crown of Sweden, and resident of the borough of Brooklyn, in the city and State of New York, have invented a new and useful Improvement in Closures for Receptacles, of which the following is a specification.

The object of my invention is to produce a novel internally screw threaded closure for receptacles, which will be strong and rigid and which will be easy and inexpensive to manufacture. My invention is illustrated and described herein in connection with a closure of that type in which the tubular body portion of the closure is formed from a blank of the desired shape and size, combined with a top disk, the adjacent edges of the blank being united by a seam, and the adjacent edges of the top disk and body portion being also united by a seam, the said edges of the blank and top disk being preferably covered or concealed by the said seams.

My invention includes a closure for receptacles having an interior folded spiral rib forming the screw thread, said rib being formed by a series of operations on the blank from which the hollow body portion of the closure is formed.

A practical embodiment of my invention is represented in the accompanying drawings, in which

Fig. 1 represents the closure in side elevation.

Fig. 2 represents a longitudinal central section through the same.

Fig. 3 represents a face view of the blank from which the body portion of the closure is formed, with the folded rib shown extending along one face thereof.

Fig. 4 represents an edge view of the same.

Figs. 5, 6, 7, 8 and 9 represent successive steps in the formation of the rib.

The top disk of the closure is denoted by 1 and the body portion of the closure by 2. The bottom edge of the body portion may be provided with an exterior bead 3, if so desired. The top edge of the tubular body portion 2 and the peripheral edge of the top disk 1 are united by a seam 4 which is preferably of a type which will cover and conceal the raw edges of the top disk and body portion at this joint.

The tubular body portion of the closure

is formed from a blank 5, preferably substantially rectangular, of sheet material as, for instance, sheet metal of the desired shape and size bent into cylindrical form and having its adjacent edges united by a seam 6, which seam is preferably of that type which will cover and conceal the raw edges of the said blank at this joint.

The blank 5 which forms the body portion of the closure is folded between its top and bottom edges by a series of operations, to form a folded rib 7 extending along one face of the blank, which rib preferably extends diagonally from side to side of the blank. This blank is so bent and its adjacent edges seamed together to form the body portion of the closure, as to cause the folded rib 7 to form a spiral thread 8 around the interior of the body portion of the closure.

The several steps in the formation of the folded rib are illustrated in Figs. 5 to 9 inclusive, it being understood that any instrumentalities of well-known and approved construction may be used for carrying out these steps. The die 9 is provided with an open groove 10. The plunger 11 is arranged to coact with the open groove 10 of the die to exert a lateral pressure on the blank 5 to distort the same into the form shown in Fig. 6. This plunger 11 is provided with oppositely arranged open grooves 12 and 13 in different longitudinal planes. Longitudinally movable members 14 and 15 are arranged to coact with these open grooves 12 and 13 to impart opposite folds to the blank, as shown in Fig. 7. After the plunger 11 has been removed, a still further movement of these members 14 and 15 will complete the longitudinal pressure to force the parts into the position shown in Fig. 8. Members 16 and 17 may then be employed to exert lateral pressure to flatten and complete the folded rib 7, as shown in Fig. 9. The blank may then be folded and its adjacent edges seamed together to form the tubular body portion. The top disk may then be united to the body portion in the usual manner.

It is evident that the fold illustrated in connection with the rib 7 is only one of many different types of folds which might be used successfully to form the interior folded spiral thread for the closure.

From the above description it will be seen that by providing the blank which forms the body portion of the closure with a fold-

ed rib which in turn becomes the spiral interior thread of the body portion when the body portion is formed, I am enabled to produce an interiorly screw threaded closure  
5 which is very simple and inexpensive to manufacture and one which will be very strong and durable, the internal rib or thread serving as a rigid support for the closure structure and one which will prevent  
10 the separation or distortion of the closure.

What I claim is:

1. A sheet material receptacle closure having the material of its body portion folded together to form a reinforced interior  
15 spiral thread.

2. A sheet material receptacle closure having its body portion provided with an interior folded rib forming a reinforced spiral thread, the outer surface of the closure op-

posite said rib being substantially uninterrupted. 20

3. A built-up sheet material receptacle closure having its body portion formed from a blank having its walls folded together to form a rib extending along one face there-  
25 of, said folded rib forming a reinforced interior spiral thread for the closure.

4. A built-up sheet material receptacle closure having its body portion formed from a substantially rectangular blank having its  
30 walls folded together to form a rib extending diagonally along one face of the blank, said folded rib forming a reinforced interior spiral thread for the closure.

In testimony that I claim the foregoing  
35 as my invention, I have signed my name this 22nd day of August 1921.

GUSTAV F. ANDERSON.