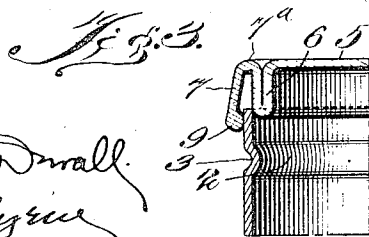
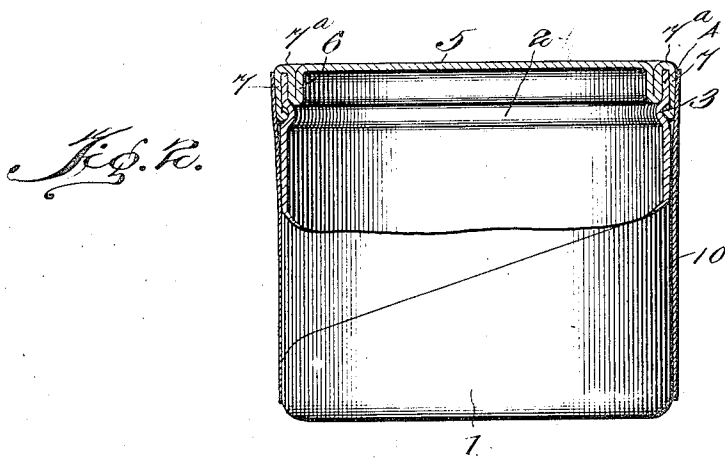
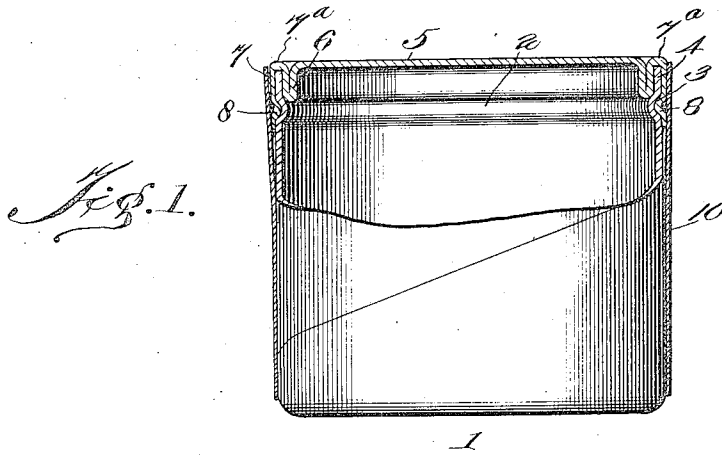


G. W. BEADLE.
 REMOVABLE END CLOSURE FOR CARTONS.
 APPLICATION FILED FEB. 28, 1911.

1,036,545.

Patented Aug. 27, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

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REMOVABLE END CLOSURE FOR CARTONS.

1,036,545.

Specification of Letters Patent. Patented Aug. 27, 1912.

Application filed February 28, 1911. Serial No. 611,450.

To all whom it may concern:

Be it known that I, GEORGE W. BEADLE, a citizen of the United States, residing at Bayonne, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Removable End Closures for Cartons; 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.

My invention relates to improved closures for vessels, and it consists in the constructions, combinations and arrangements herein described and claimed.

An object of my invention is to provide an improved closure of fibrous material adapted to firmly support the walls of a vessel and to be automatically clamped in locking engagement with the exterior of such firmly supported walls.

A further object of my invention is to provide an inexpensive closure of fibrous material adapted to be positively clamped in locked position and to be readily removed and replaced in position.

A further object of my invention is to provide an improved closure which will efficiently protect the pouring lip of a vessel and lie flush with the vessel walls, thereby constituting a sanitary construction which provides smooth and unbroken adhering surface for labels.

In the accompanying drawings, forming a part of this application, and in which similar reference symbols indicate corresponding parts in the several views:—Figure 1 is an elevation, partly in section, illustrating one embodiment of my invention; Fig. 2 is a view similar to Fig. 1, illustrating a slightly modified construction; and Fig. 3 is an enlarged detail section, showing means for applying the closure illustrated in Fig. 2.

Referring especially to Figs. 2 and 3 of the drawings, 1 indicates the cylindrical body of a carton or vessel, of suitable material, which is crimped circumferentially adjacent to its pouring lip 4 to provide an exterior annular groove 3 and a corresponding interior shoulder 2. A closure of suitable fibrous, flexible material, such as paper, is shown comprising a disk 5 crimped, or folded, to provide a stiff, reinforced, annular sleeve 6 of double thickness of the ma-

terial, adapted to closely fit the interior of the carton walls for firmly supporting and bracing the latter against distortion, and to seat against the interior annular shoulder 2 for supporting all axial thrusts on the closure and protecting the edge of the pouring lip 4 from injury thereby. The closure is provided with an integral, annular, elastic, stretchable apron 7 spaced concentrically about said stiff sleeve 6 for clampingly engaging the exterior of such firmly-supported carton walls, and provided with an interior annular bead 8 adapted to spring in locking engagement with the annular groove 3.

Fig. 1 illustrates a slight modification, in which the annular bead 8 is formed at a slight distance from the end of the apron 7, thereby providing a flexible sealing lip below said bead.

From the above description, it will be clear that my invention provides an improved closure of fibrous material adapted to efficiently protect the pouring lip against contamination, and to be readily removed and placed in position; said closure extending substantially flush with the exterior surface of the carton to provide a smooth and unbroken adhering surface for labels.

I claim:—

1. The combination of a vessel having its walls crimped circumferentially to provide an interior shoulder spaced from its pouring lip, and a closure provided with a reinforced sleeve of double thickness of material adapted to closely fit the interior of the vessel walls for firmly supporting the latter and to seat against said interior shoulder, and with an elastic, stretchable apron adapted to clampingly engage the exterior of said vessel about said supporting sleeve.

2. The combination of a vessel having its walls crimped circumferentially to provide an exterior groove and an interior shoulder spaced from its pouring lip, and a closure provided with a reinforced sleeve of double thickness of material adapted to closely fit the interior of the vessel walls for firmly supporting the latter and to seat against said interior shoulder, and with an elastic, stretchable apron adapted to clampingly engage the exterior of said vessel about said supporting sleeve and provided with an annular bead for lockingly engaging such exterior groove.

3. The combination of a carton having its walls crimped circumferentially to provide an exterior groove and an interior shoulder spaced from its pouring lip, and a flexible
5 closure of fibrous material formed with a reinforced sleeve of double thickness of said material adapted to closely fit the interior of the carton walls for firmly supporting the latter and to seat against said interior
10 shoulder, and with an integral, elastic, stretchable apron adapted to clampingly en-

gage the exterior of said carton about said supporting sleeve and terminating in an annular bead adapted to lockingly engage such exterior groove. 15

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

) GEORGE W. BEADLE.

Witnesses:

H. S. RODGERS,

J. T. HOUGHTON.