C. F. JENKINS.

PAPER RECEPTACLE.

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944,613.

Patented Dec. 28, 1909.

Fig. 3.

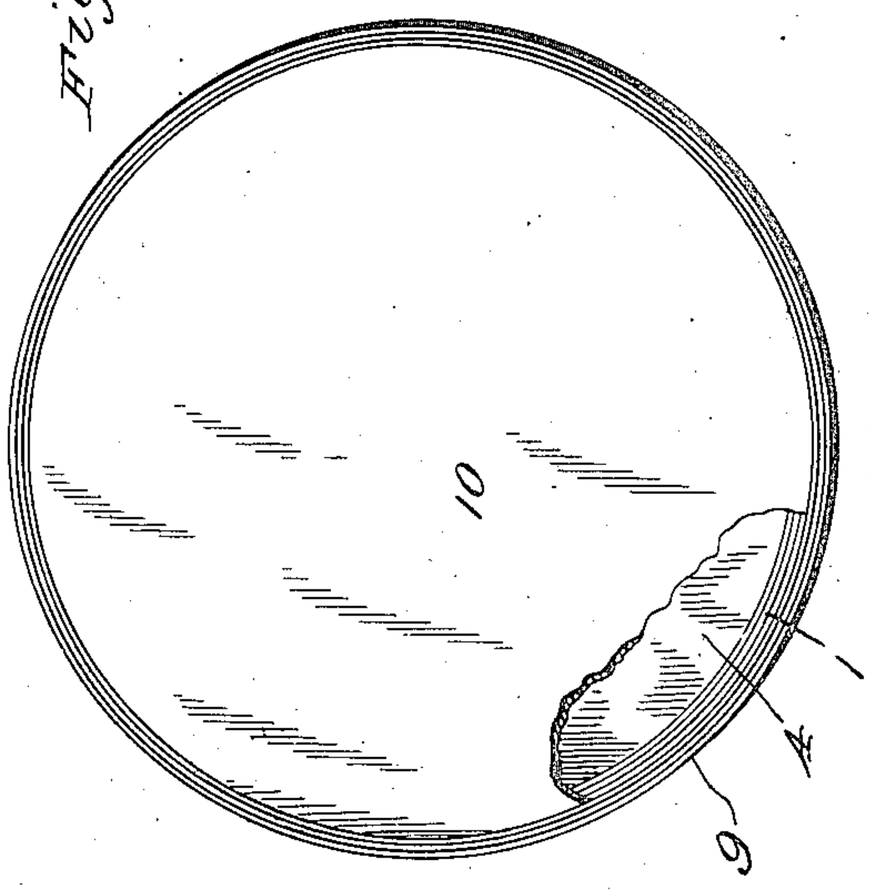


Fig. 2.

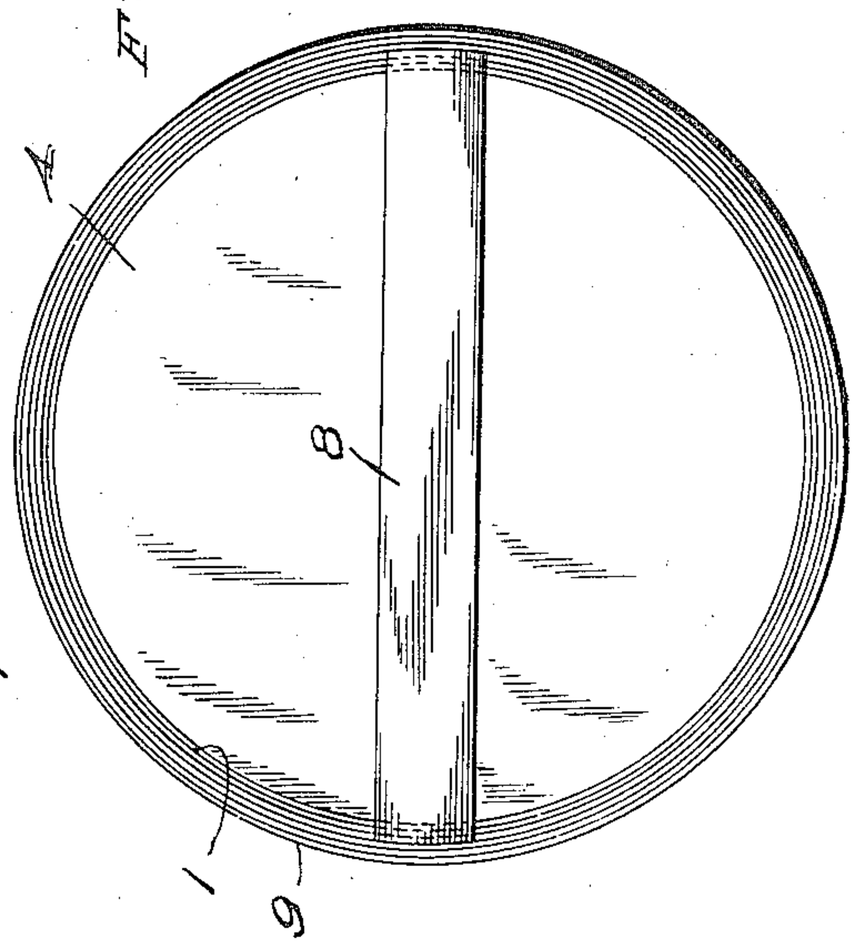
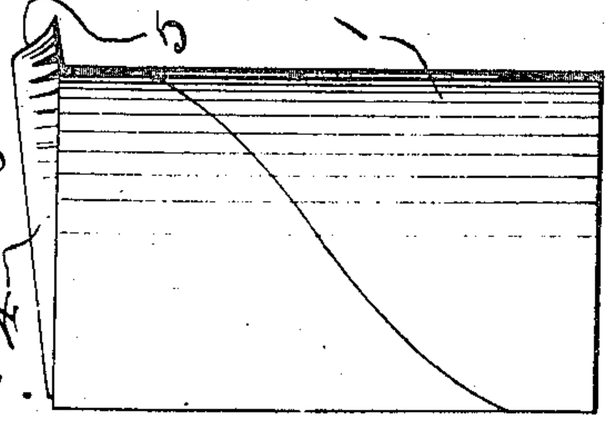


Fig. 1.

Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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PAPER RECEPTACLE.

944,613. Specification of Letters Patent. Patented Dec. 28, 1909.

Application filed April 8, 1909. Serial No. 488,752.

To all whom it may concern:

Be it known that I, CHARLES FRANCIS JENKINS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Paper Receptacles; 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 spirally wound receptacles and has for its object to produce a cheap and practical liquid proof receptacle which may be opened without cutting the top, and when once opened cannot without great difficulty be closed again, with the same closure.

With these and other objects in view, the invention consists in the novel details of construction and combinations of parts more fully hereinafter disclosed and particularly pointed out in the claims.

Referring to the accompanying drawings forming a part of this specification in which like numerals refer to like parts in all the views:—Figure 1 represents a longitudinal sectional view of the completed receptacle. Fig. 2, a top plan view thereof. Fig. 3, a top plan view of a slightly modified form of closure holding means, and Fig. 4, an elevational view illustrating the difficulty that will be experienced in attempting to close the receptacle after it has once been opened.

1 represents a suitable spirally wound body portion preferably consisting of three layers of material as shown.

2 represents the disk of an inverted flanged cup closing the lower end of the body portion and having its flanges 3 flush with the lower end of said body portion, thereby providing a space above the lower end of the body portion under the disk 2 as shown. 4 represents the disk of a similar flanged cup which is flush with and closes the upper end of said body portion while its flanges 5 are inserted inside the receptacle as illustrated. Since the flanged cups closing the ends of the body portion 1 are stamped from paper sheet material the flanges 3 and 5 are necessarily more or less resilient, and are therefore liable to expand or flatten out if left unconfined. Therefore, in order to get the top disk 4 in place, it is in practice essential that the same be inserted by means of suitable dies through the opposite end of the tube or body portion 1 and forced along the length of said tube until the said disk 4 and the flanges 5 occupy the positions shown in Fig. 1. After these parts have been so located, then the bottom disk 2 and flanges 3 are brought into place, and the end of the body portion closed by these parts is then preferably dipped in paraffin, so as to impart to this end of the body portion 1, the inner strip of paraffin 6 and the outer strip 7 as illustrated in Fig. 1, and at the same time permit the paraffin to extend up between the flange 3 of the closure and the wall of the body portion 1 and thereby seal the said flange 3 securely in place.

Of course, in the above operations after the disk 4 has been placed and before the disk 2 is inserted, the contents of the package must be filled into the body 1. This is accomplished preferably by the same machinery that inserts the disk 2. The flange 5 being unattached to the inside of the body 1, it is held in place by friction, and I have found in practice that with these machine made closures, the joint is sufficiently tight to hold milk and other liquids. It is particularly desirable in a milk bottle to be able to separate the cream from the milk, and the closure such as the disk 4 which may be easily slipped out, fulfils this requirement. But in handling these bottles, it is found the friction between the flange 5 and the inner walls of the body is not as great as may be desired, and therefore there is provided the strip 8 which passes over the said disk 4, and has its ends held against the body 1 by the band 7, as illustrated. This band is preferably of paper like the body 1, and may be cut by machinery from suitable lengths of tubing. This bottle being filled with milk for example, the housewife may with a fork or other sharp instrument break the band 8, pry open the closure and expose the cream. As soon as she does this the flange 5 expands as shown in Fig. 4, and renders it exceedingly difficult if not impossible to use the same closure in the same way again. In other words, these closures are a safeguard against the bottle being filled with milk the second time without detection, and to that extent guarantees clean bottles for the milk they are associated with.

In Fig. 3, instead of the band 8, a con-

tinuous disk 10 is placed over the top closure and crimped down around the bottle mouth by means of the ring 9. The paraffin strips 6 and 7 serve to protect the bottom of the body 1, and the disk 2 from any moisture or water that might be on the shelf or other support of the bottle, and therefore prevents them from collapsing by being wet, while at the same time saving the paraffin that would be necessary to coat the entire outside. The interior of the bottle however, is provided with the paraffin layer 11, which protects the walls from the contents.

What I claim is:—

1. A paper vessel provided with an inverted cup shaped flanged closure flush with the top of, and the flange of which is frictionally held under compression inside of said vessel; and means independent of and exterior to said closure for securing the same in place, substantially as described.

2. A paper vessel provided with an inverted cup shaped flanged closure flush with the top of said vessel and having its flange frictionally held under compression inside the same; and an independent fastening means comprising a ring and material passing over said closure for holding the latter in place, substantially as described.

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

CHARLES FRANCIS JENKINS.

Witnesses:

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