June 20, 1933. G. MEYER-JAGENBERG 1,915,026

RECEPTACLE GLUED UP FROM A PAPER BLANK AND MANUFACTURING PROCESS OF THE SAME

Filed March 31, 1930 3 Sheets-Sheet 1

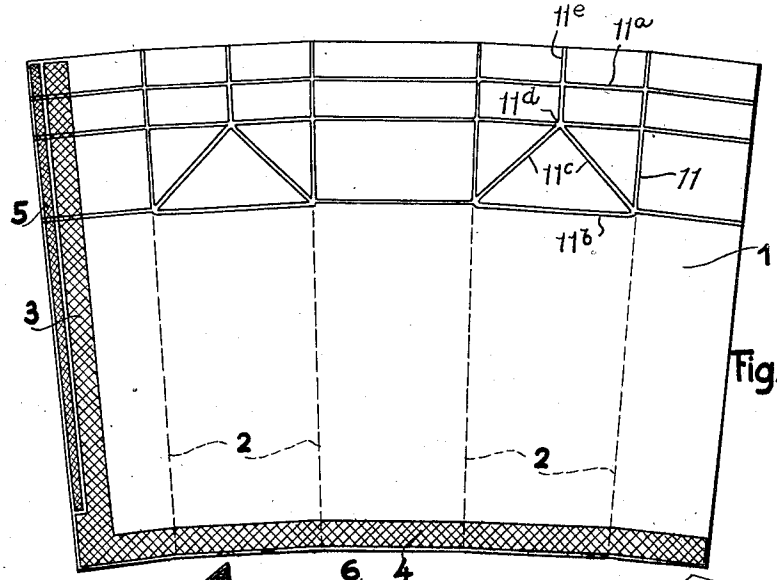

Fig. 1.

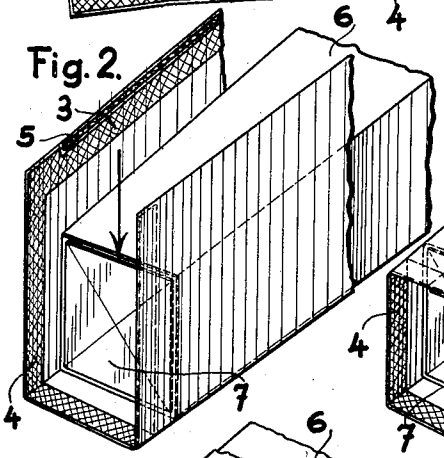

Fig. 2.

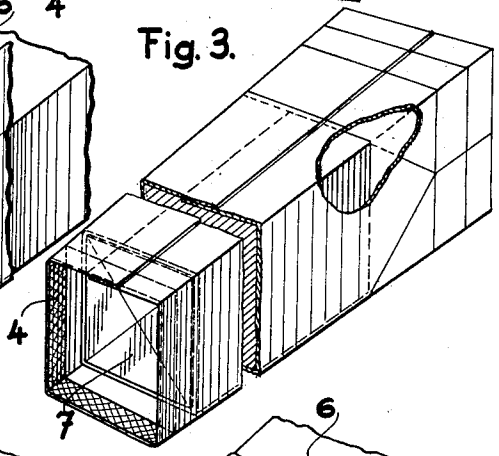

Fig. 3.

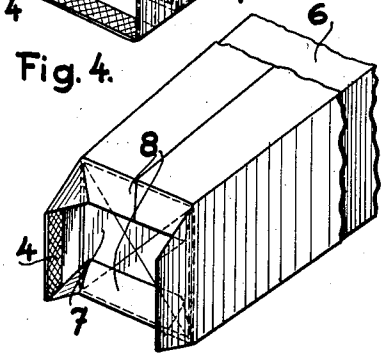

Fig. 4.

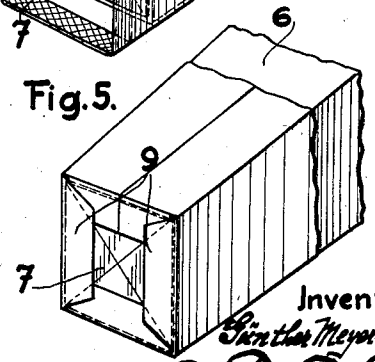

Fig. 5.

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Fig. 6.

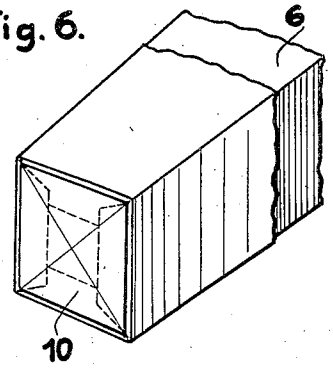

Fig. 7.

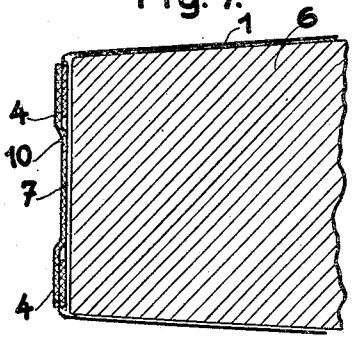

Fig. 8.

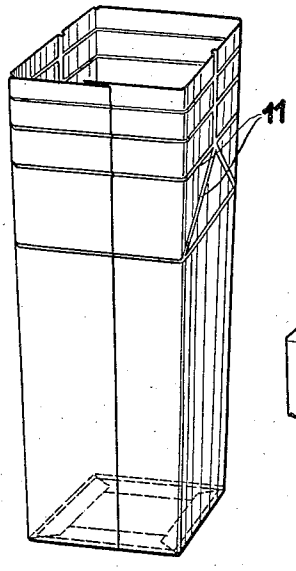

Fig. 10.

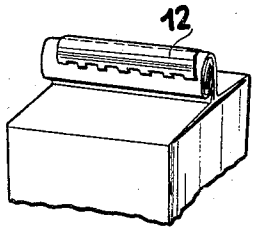

Fig. 9.

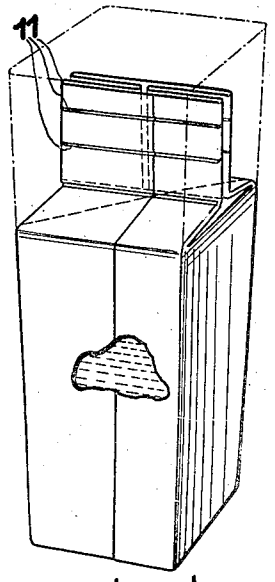

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Fig. 11.

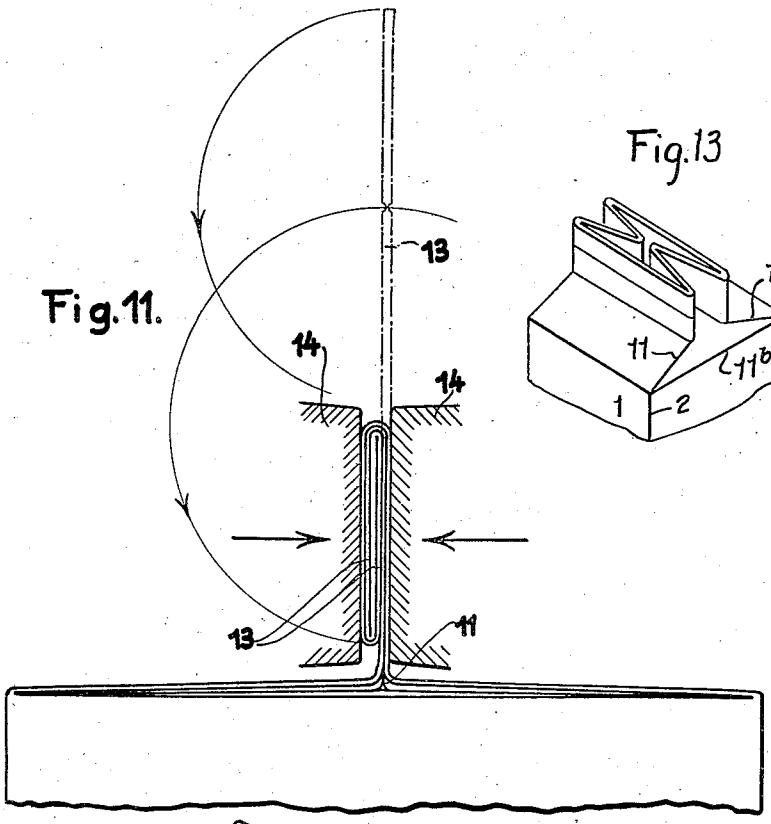
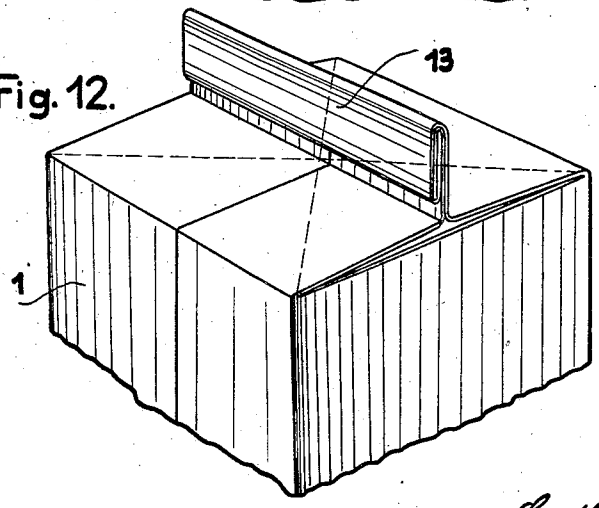


Fig. 13

Fig. 12.



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Patented June 20, 1933 1,915,026

UNITED STATES PATENT OFFICE

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RECEPTACLE GLUED UP FROM A PAPER BLANK AND MANUFACTURING PROCESS OF THE SAME

Application filed March 31, 1930, Serial No. 440,354, and in Germany August 20, 1929.

This invention relates to improvements in paper receptacles or containers and the method of making the same.

The object of the invention is to provide a simple and expedient method for manufacturing paper receptacles, conveniently provided with a closed bottom and integral closure means at the top readily adaptable for sealing the receptacle.

Another object of the invention is to provide a new step in the method of making paper receptacles, in that a block is employed as a form, around which a previously prepared paper blank is bent, the bent blank extending beyond the form to be folded along predetermined lines on the flat face of the block to provide a foldable closure.

A still further object of the invention is to provide a receptacle formed with integral closure means and a novel form of bottom.

The invention also comprehends improvements in the details of construction and arrangement of parts which will be hereinafter described and particularly pointed out in the claims.

In the accompanying drawings:—

Figure 1 is a plan view showing a previously prepared paper blank used in the method of forming a paper receptacle.

Figure 2 is a diagrammatic perspective view showing the blank partially wrapped or bent around a block or form.

Figure 3 is a similar view showing the blank completely bent around the form.

Figure 4 is a similar view illustrating the partial folding of the blank in the step of forming the bottom of the receptacle.

Figure 5 is a similar view showing a further step in forming the bottom of the receptacle.

Figure 6 is a view similar to Figure 5, showing a part of a completed receptacle on the forming block and the bottom finished and a label applied.

Figure 7 is a detail section taken longitudinally through Figure 6.

Figure 8 is a detail perspective view of one form of finished receptacle.

Figure 9 is a similar view but showing the upper end of the receptacle folded to form a closure.

Figure 10 is a detail view illustrating a seal on the closed end of the receptacle.

Figure 11 is an enlarged sectional detail view showing one method of sealing the closure.

Figure 12 is an enlarged detail view of a sealed closure.

Figure 13 is a detail perspective view of a finished receptacle partly closed.

In carrying out the method of making the receptacle, a preformed blank, shown at 1, is used. The blank is provided with creases 2 to form the walls of the receptacle when bent into shape, and around the bottom and one side edge glue is applied, as indicated at 3 and 4. In addition to the glue indicated at 3, a further layer of warm glue 5 is used to insure quick adhesion of the overlapping edges when forming the receptacle. The creases 2 extend throughout the full length of the blank, the upper portions of said creases, as at 11, forming a series of closure creases.

Spaced from the top of the blank and extending entirely across the same are two parallel creases 11*a*, and below and spaced from same is another parallel crease 11*b*. Between certain of the creases 11, there are angular creases 11*c* extending from the meeting points of the creases 11 and the creases 11*b* and terminating at the center 11*d* of the lower parallel crease 11*a*. From the points 11*d* are vertical creases 11*e* extending to the top edge of the blank. The arrangement of the creases just described is for the purpose of conveniently folding the opposite sides of the receptacle, in association with the companion opposed sides having only the parallel creases.

6 indicates a block or form, square in cross section, and having tapering sides and flat at the top and bottom. The blank 1 is considerably longer than the block to provide extended portions when forming a receptacle. A blank such as shown in Figure 1 is partially bent around the block or form, as shown in Figure 2, and while in this condition a bottom section 7 is slipped in place by

any suitable means. Then the ends of the blank are overlapped and when pressure is applied the overlapping edges adhere, as shown in Figure 5. The receptacle is thus longitudinally shaped, with the ends extending beyond the ends of the block or form. By suitable mechanism, the two opposite sides 8 of that portion of the blank extending beyond one end of the block or form are pressed in against the bottom section 7, as shown in Figure 4. The next step is to bend or press in the two opposite ends of the projecting sides 9 of the blank to complete the bottom, as shown in Figure 5. The bottom having been completed, a label 10 can be conveniently pasted over the folded-in portions, as shown in Figures 6 and 7.

That portion of which may be said to be the top or closure of the receptacle above the crease lines 11*b* extends beyond the end of the block or form, as shown in Figure 3, and through appropriate means, this projecting portion is folded inwardly on the end of the block along the crease lines 2—11, 11*c* and 11*e*, as shown in Figure 13, to render the folds more convenient in bending the receptacle when in use. The final creasing means is removed, and the receptacle is ready for use.

When using the receptacle, the closure portion is open, as shown in Figure 8, and the contents are inserted to the level of crease 11*b*. Then the closure portion is folded along the crease lines, as shown in Figure 9, and the folds are bent or rolled back on each other, as shown in Figures 10, 11 and 12. Only two longitudinal creases 11*a* are shown in the blank, and in several of the other views, but if desired additional creases may be provided to form other folds 11*x*, as shown in Figure 9.

The paper from which the receptacles are made may be paraffined before or after folding the blank, this step depending upon the wishes of the manufacturer. Furthermore, the folds at the top of the closure may be sealed by a clip, as shown in Figure 10, or the folds may be compressed between pressing elements 14—14, as shown in Figure 11. These pressing elements may be heated to soften the paraffin sufficiently to cause adhesion of the paraffin between the layers, and thus form a seal.

What I claim is:—

1. A paper receptacle including a body and an end closure forming an upward continuation of the body, said end closure including a pair of opposed, rectangularly and triangularly defined sections, said rectangular and triangular defined sections terminating in a continuous band extension, and a second continuous band extending from the top edge of the first band and adapted to fold down beside the first band upon closing of the receptacle.

2. A stiff paper receptacle including a body and an end closure forming an upward continuation of the body, said end closure including a pair of opposed rectangularly defined sections connecting intermediately triangularly defined sections, said sections terminating in a continuous band extension, the edge of the continuous band extension being in a straight line, the rectangular and triangular sections being foldable to permit collapsing of the continuous band extension, and the latter when collapsed adapted to be folded upon itself to seal the container.

In testimony whereof I affix my signature.

GÜNTHER MEYER-JAGENBERG.