

UNITED STATES PATENT OFFICE.

FRANK B. DAVIDSON, OF NEW YORK, N. Y., ASSIGNOR TO HOWE AND DAVIDSON COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW JERSEY.

SEPARATOR FOR CANDY-PAILS.

SPECIFICATION forming part of Letters Patent No. 725,226, dated April 14, 1903.

Application filed February 14, 1902. Serial No. 94,101. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. DAVIDSON, of New York, in the county of New York and State of New York, have invented certain
5 new and useful Improvements in Separators for Candy-Pails; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of
10 reference marked thereon, which form a part of this specification.

This invention relates to improvements in separators for merchandise-receptacles—such as candy-pails, barrels, &c.—of that class hav-
15 ing radial partitions which form cells or compartments in the receptacles to prevent crushing of the contents through the weight thereof and also to separate or divide the contents of the package into a number of separate
20 parcels.

Such separators as usually constructed consist of a series of connected flat pieces joined to each other along one edge of each piece, so that the pieces may be folded together into a
25 flat form, but may be spread out to constitute the radial partitions. These separators are placed within the pail or receptacle so that their outer edges fit against the wall of the pail or receptacle, and two of such separators
30 are used, arranged one above the other, with a circular piece of strawboard or the like placed between them. In the case of separators used for pails by reason of the tapered form of the pail the separator for the upper
35 part of the pail is larger than that for the lower part, and in constructing such separators heretofore the larger and smaller separators have been separately constructed by securing together at their edges a suitable
40 number of sections to form the radial partitions.

My invention contemplates the making of two separators in the form of a single article which may be severed along perforated or
45 weakened lines formed for the purpose, so as to make two separators. In the case of separators for pails one will be larger than the other and adapted for use in a pail, one as the lower and the other as the upper separator.
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My invention is illustrated in the accompanying drawings as applied to separators for pails or other tapered receptacles.

In the said drawings, Figure 1 is a view in perspective of the two separators used in a
55 candy-pail, the horizontal circular separating-partition used in connection therewith being shown in dotted lines. Fig. 2 is a perspective view of the complete article constituting two separators as made in readiness
60 for shipment to the user. Fig. 3 is a side elevation of the same on a greatly-enlarged scale. Fig. 4 is a perspective view of one of the sheets or pieces of material used in making the joined separators shown in Fig. 2.
65 Fig. 5 is a perspective view of another one of said pieces. Fig. 6 is a detail view, much enlarged, of the joint between the pieces, constituting a single separator with the partitions spread apart as when placed in a pail.
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As shown in said drawings, A A' A² designate three like sheets or blanks used in making the article shown in Fig. 2, and A³ indicates another blank also used in the construction thereof. The blanks A A' A² are alike,
75 the same being of rectangular form and having at each end a bent or folded marginal part or flap, (indicated by *a a' a²*.) The section A³ is also rectangular and of the same width as the sections A A' A², but is without
80 the end flaps *a a' a²*, being of the same length as said sections A A' A² when the end flaps thereof are folded in. The several sections A A' A² when their end flaps are folded in, as well as the section A³, are equal in width to
85 the height of the finished separators and in length equal to the combined radial lengths of the radial partitions of the longer and shorter separators used for the upper and lower parts of the pail. Each of the blanks A, A', A²,
90 and A³ is, moreover, provided with perforations or is otherwise scored or weakened along a line extending across the blank between its side margins. The blanks illustrated being intended for making a separator for use in
95 pails or like tapered receptacles, the said weakened lines are oblique, extending between the points *a a'*. Such weakened lines divide the blanks into two sections, which in the instance shown are of unequal lengths,
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one being of proper length for one of the wings or partitions of the upper separators and the other of proper length for one of the wings or partitions for the lower separator.

5 In other words, the end of the weakened line at the point a is midway of the side edge of the blank, so that if the blank were severed along the said weakened line the narrower edge of one of the severed sections would be
10 equal in length to the longer edge of the other section, the result of this arrangement being that the smaller section of the blank is of suitable size and shape to constitute one of the wings or partitions of the lower separator and
15 the larger section of proper size and shape to constitute one of the wings of the upper separator.

The blanks $A A' A^2 A^3$, made as described, are secured together by the pasting or gluing,
20 stapling, or otherwise securing of the inturned flaps $a a' a^2$ to or against the end portions of the other blanks when the parts are placed in superimposed relation, as shown in Figs. 2 and 3. In other words, the blanks $A A' A^2$
25 are arranged with their flaps extending in the same direction, and the flaps on the blank A are secured to the ends of the blank A' , and the flaps on the ends of the blank A' are secured to the ends of the blank A^2 , while the
30 flaps on the blank A^2 are secured to the ends of the blank A^3 , which is without any flaps, the finished article resulting from securing the flaps together in the manner described, as shown in Fig. 2, and constitutes a rectan-
35 gular article of considerable thickness, which is made up of a plurality of layers formed of the connected single blanks with the weakened lines in the several layers opposite each other and which is in readiness for shipment
40 to the user. When the separators are to be placed in the pail or receptacle, the end portions of the joined and pasted blanks are separated from each other by breaking apart the two end portions of the article at or along
45 the weakened lines in the layers comprising the same, so as to form two complete separators, after which the leaves or wings of each separator may be spread apart or brought into radial position, as shown in Fig. 1. The
50 upper separator will be placed in the bottom of the pail or receptacle, the compartments formed by the lower separator will be filled, the horizontal partition will be placed on the lower separator, the upper or larger separator will then be put in place, and the compartments formed by the latter will be then filled. The appearance of the joint between the several wings or leaves of each separator when the same are spread apart or opened,
60 in the case of a four-leaved separator, is shown in Fig. 6.

While I have shown in the accompanying drawings separators each consisting of four leaves or radial partitions, yet it will of
65 course be understood that an article forming two joined separators made as described

may consist of any desired number of layers and that the severed parts thereof will form two separators having a corresponding number of leaves or partitions. 70

The features of construction above described may be used as well in separators for non-tapered receptacles, and in such case the weakened lines in the blanks will be made parallel with the ends of the blank and mid-
75 way between the same. Manifestly the two joined separators when disconnected may be used in one or in different receptacles, the general advantages gained by making them in the form described existing equally, 80 whether the two separators which are made as one article be used together in one receptacle or separately.

The articles made as described have the important advantage of being of rectangular 85 form and of equal thickness at their ends, so that they may be readily packed for shipment and shipped in a small compass. Moreover, such articles are economical to manufacture because requiring the handling of only
90 one-half the number of parts that it would be necessary to handle if the separators were made separately. The construction described also enables the pasting or joining of the parts to be very easily accomplished, because
95 pressure may be applied at once to both ends of the assembled blanks, it being obvious that when pressure is applied to a number of said articles when they are piled or stacked up for pressing the pressure will be equal on both
100 ends of the stack or pile, difficulty met with in handling the blanks or placing them in the press, which results from unequal thickness of the two ends of the separators when made singly, being entirely avoided. The separa-
105 tors themselves also have the advantage of the fact that the outer edges of the radial partitions, which edges are formed by the breaking apart of the strawboard layers along the perforated or weakened lines, adjust them-
110 selves more readily to the inner surface of the receptacle than do the sharp cut edges of the partitions in separators as heretofore made, the breaking of the boards along the weakened lines leaving the broken edges to
115 some extent rough and yielding, so that they are to some degree compressible edgewise, and therefore capable of readily conforming to slight irregularities in the surface of the receptacle while at the same time tending to
120 bind therein, so as to better hold the separators in place while the compartments formed thereby are being filled.

In the case of separators used for pails or tapered receptacles the separators made as
125 described have the special advantage of facilitating the handling of the separators in placing them in the pails, it being obvious that in taking the articles from a pile the operator will in each case have in hand the two
130 separators required for the top and bottom of the pail, which can be instantly broken apart

and inserted in the pail, so that he is saved the trouble of selecting two separators of different sizes for each pail.

I claim as my invention—

5 1. The article herein described consisting of a plurality of rectangular pieces arranged in superposed relation and joined at their opposite ends, each of said pieces being provided with a transverse weakened line, the
10 weakened lines in the several pieces being located opposite each other, so that when the article is divided by breaking at the weakened lines, two separators will be formed.

15 2. The article herein described consisting of a plurality of rectangular pieces all except one of which are provided with inturned flaps

at their ends and which are arranged in superposed relation; the said pieces being joined by the attachment of the several inturned flaps to the ends of the adjacent pieces, each
20 of said pieces being provided between its ends with a transverse weakened line and the weakened lines in the several pieces being opposite each other.

In testimony that I claim the foregoing as
25 my invention I affix my signature, in presence of two witnesses, this 29th day of January, A. D. 1902.

FRANK B. DAVIDSON.

Witnesses:

C. CLARENCE POOLE,
WILLIAM L. HALL.