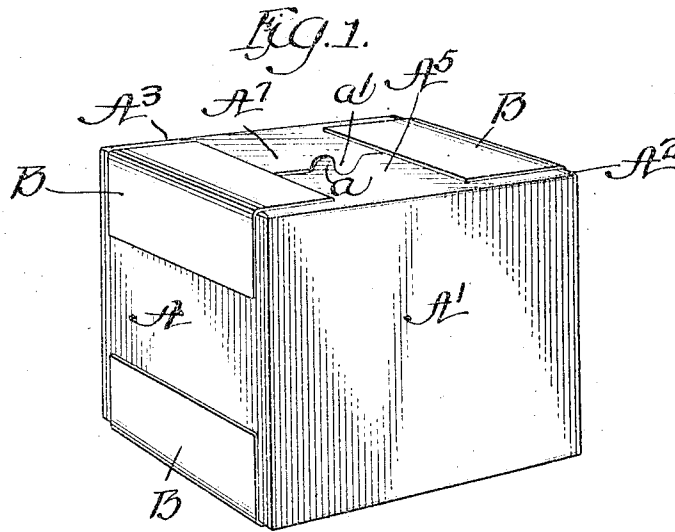
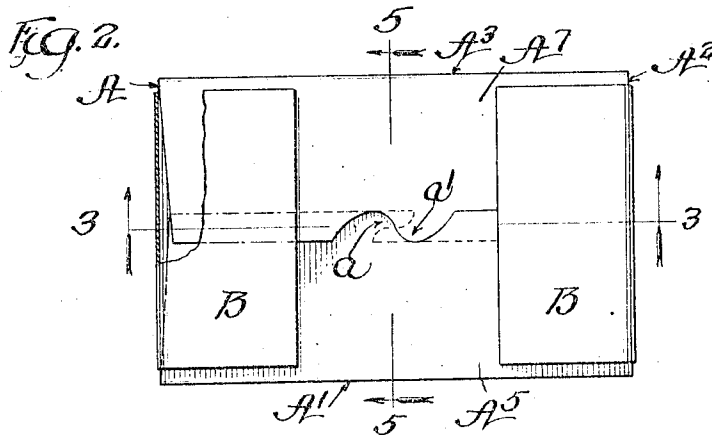
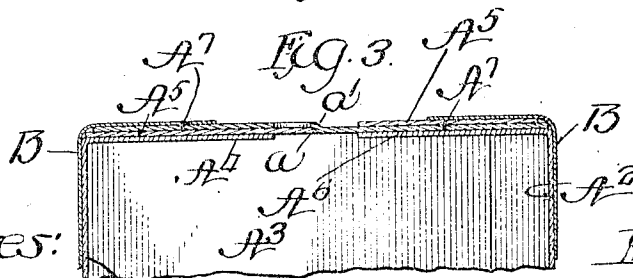


F. B. DAVIDSON.
CONTAINER.
APPLICATION FILED JULY 8, 1908.

910,180.

Patented Jan. 19, 1909.

3 SHEETS—SHEET 1.



Witnesses:

J. H. Alfede
G. R. Wilkins

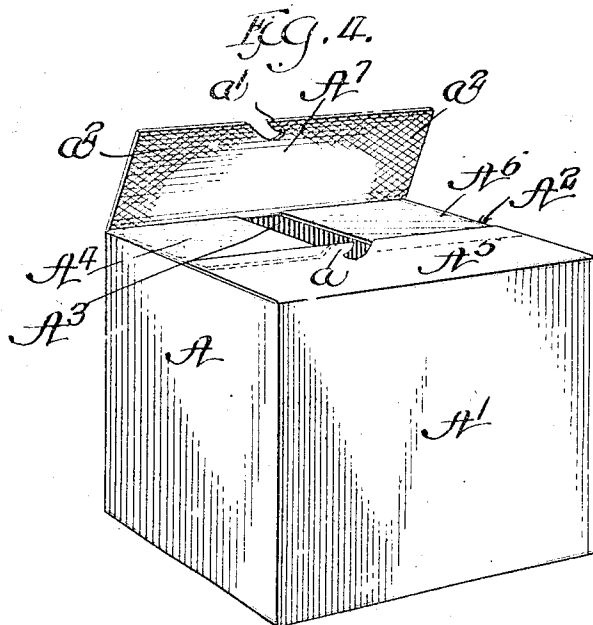
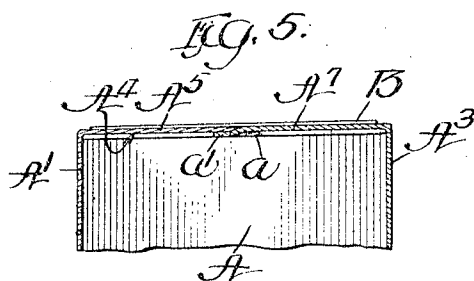
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3 SHEETS—SHEET 2.



Witnesses:
J. S. Hufsch
J. R. Wilkins

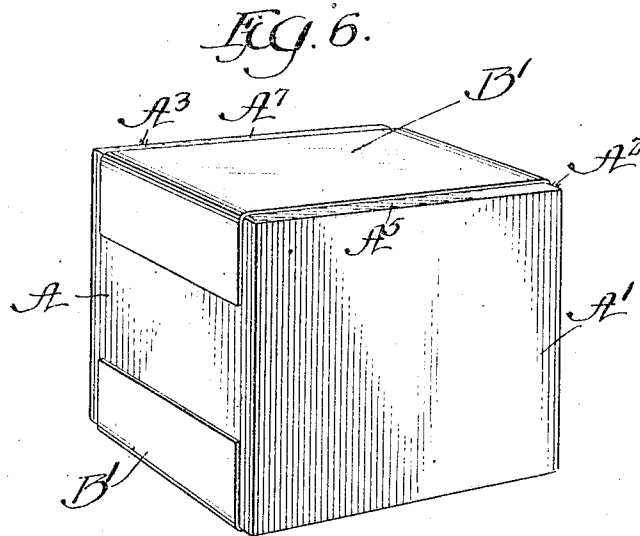
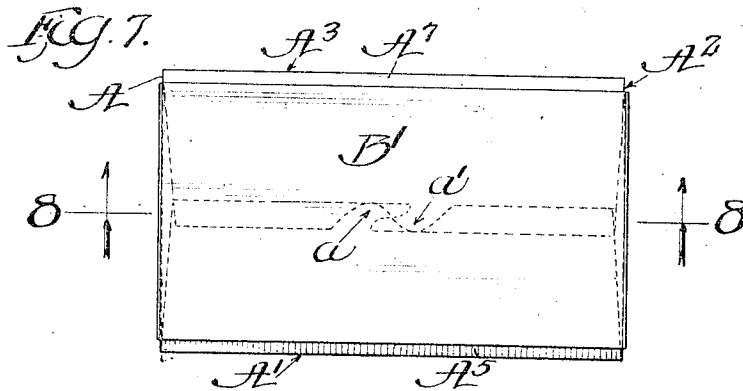
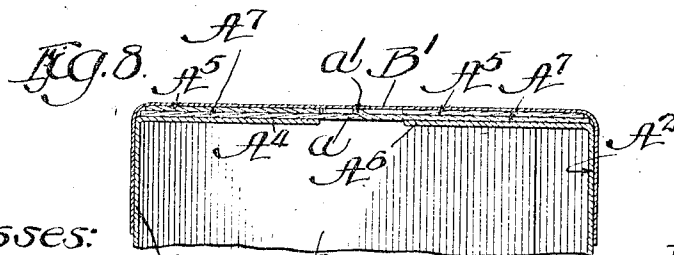
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3 SHEETS—SHEET 3.



Witnesses:

J. A. Alfede.
G. R. Wilkins

Inventor.

Frank B. Davidson.

by Poole & Brown Attys

UNITED STATES PATENT OFFICE.

FRANK B. DAVIDSON, OF MARSEILLES, ILLINOIS, ASSIGNOR TO HOWE AND DAVIDSON COMPANY, OF EAST ORANGE, NEW JERSEY, A CORPORATION OF NEW JERSEY.

CONTAINER.

No. 910,180.

Specification of Letters Patent.

Patented Jan. 19, 1909.

Application filed July 8, 1908. Serial No. 442,505.

To all whom it may concern:

Be it known that I, FRANK B. DAVIDSON, a citizen of the United States, of the city of Marseilles, in the county of Lasalle and State of Illinois, have invented certain new and useful Improvements in Containers; 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 reference marked thereon, which form a part of this specification.

This invention relates to a novel paper box or container made from stiff or heavy paper board, straw-board or the like material, and designed more especially to be used in place of a wooden packing box for containing a number of packages of filled cartons and the like.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 illustrates in perspective a view of the completed box. Fig. 2 is a plan view showing the top of the box with the flaps forming the top wall closed and secured. Fig. 3 is a detail sectional view of the overlapping flaps taken upon line 3—3 of Fig. 2. Fig. 4 illustrates in perspective a set up body of the box with one of the flaps in partially open position. Fig. 5 is a detail sectional view of the overlapping flaps taken upon line 5—5 of Fig. 2. Fig. 6 is a perspective view illustrating a modified form of the completed box. Fig. 7 is a plan view of the box illustrated in Fig. 6. Fig. 8 is a longitudinal sectional view taken upon line 8—8 of Fig. 7.

The body of a box or container embodying my invention is of tubular form and is preferably made from an elongated single piece or blank which is bent into tubular form and the ends of which are secured to each other by suitable fastening means. The tubular body of the box is shown as consisting of four connected side walls A, A¹, A², A³. Said walls are provided at their end margins with flaps A⁴, A⁵, A⁶, A⁷ which are folded together to constitute an end wall. Said flaps are of the same widths as the side walls on which they are formed. The two opposite flaps A⁴, A⁵ on the side walls A A¹ constitute the inner flaps of the end wall. When the flaps are

folded inwardly to form the end wall of the box, said flaps A⁴ A⁵ are folded inside the flaps A⁶ A⁷ and in the same plane with each other. The other pair or outer flaps A⁶ A⁷ are made in length somewhat greater than one-half the width of the end walls A A², so that said flaps A⁶ A⁷ overlap each other at their margins when folded inwardly, as clearly indicated in Fig. 2 and by the dotted lines in Fig. 4. Each flap A⁶ A⁷ is provided at the central part of its end margin with a notch forming a laterally extending locking tongue, the tongue on the flap A⁶ being indicated by *a*, and that on the flap A⁷ by *a*¹. Said tongues *a a*¹ overhang the notches by which the same are formed, and their inner marginal faces extend transversely of the flaps or are substantially parallel with the end margins of said flaps, so that when the said tongues on the two flaps are interlocked with each other, their inner edges engage each other in such manner as to positively hold or lock the flaps from movement in a direction away from each other, as clearly indicated by the dotted lines in Fig. 2. When said flaps A⁶, A⁷, provided with notches and locking tongues made as described, are folded inwardly and interlocked with each other, the overlapping parts of the flaps at the opposite side of the notches will be reversely arranged. In other words, the marginal part of each flap at one side of the central notch therein will extend beneath, and the marginal part of the same flap at the other side of the said notch will extend over, the corresponding marginal part of the other flap.

When the container provided with flaps made as described is set up and closed by the folding inwardly of the flaps, the flaps are secured in their folded position by means of separate closing strips B, B of thin or flexible paper which are secured by adhesive material over the corners of the container at the junctions of the opposite walls A, A², and the top wall which is formed by said flaps. The pieces of paper or closing strips so applied are secured to the end portions of both of the exterior, overlapping flaps A⁶ and A⁷ and serve to hold or confine the flaps in closed position and also to make tight joints between the flaps except at the central parts of the flaps A⁶, A⁷, where the overlapping parts of the said margins are

held in close contact with each other by the interlocking engagement of the tongues a and a^1 .

As clearly seen in Fig. 2, the side margins 5 of the flaps A^5 and A^7 are cut away, conveniently on oblique lines, so as to make the said flaps slightly narrower than the body of the container. This construction has the advantage of preventing tearing or rupture 10 of the closing strips B, B by lateral movement of the side edges of the said flaps relative to the walls A and A^2 , such as might occur through pressure being brought on diagonally opposite corners of the body of 15 the container, in a manner to distort the same from its rectangular shape. If the side edges of the said flaps were flush with the side walls A and A^2 , any lateral movement of the ends of the flaps, produced by distortion of the box, would carry one of the 20 said side edges outside of the plane of the adjacent box wall, and thereby produce a shearing action which would tear or rupture the closing strip, but when the side margins 25 are cut away, as illustrated, the flexibility of the covering strips will permit a slight lateral movement of the flaps without injury to or tearing of the same, inasmuch as no shearing action can, in that case, result.

30 The cutting away of the side margins of the said flaps A^5 , A^7 also has the advantage of eliminating the right angled edges at the corners of the containers over which the closing strips are applied and thereby lessening 35 the liability of the said strips being torn or ruptured by abrasion in handling. As clearly shown in Fig. 2, the end margins of the said flaps A^5 and A^7 are offset inwardly from the planes of the end walls of the box, forming at the said corners blunted 40 edges over which the closing strips extend in rounded form.

In addition to the use of the closing strips, for securing the flaps together, adhesive material may be applied to the flaps A^5 , A^7 , as 45 indicated by the reference letters a^2 , a^2 in Fig. 4, in which case a stronger end will be formed on the box than when the closing strips alone are used.

50 Instead of using the separate closing strips applied one to each end of the top of the box a single piece of paper B^1 , as shown in Figs. 6, 7 and 8, which is long enough to extend across the top of the box and downwardly 55 on the adjacent side walls, may be employed. A single closing strip thus made and applied will serve to completely seal the end wall of the container and has the additional advantage in that it can be applied in one operation 60 instead of two as in the case of the two closing strips. The end portion of the strip B^1 will correspond to the strips B, B. Such a strip B^1 may be made narrower or wider than shown in the drawings, and the strips 65 B, B can be made longer or shorter than

those illustrated and still accomplish the purpose for which they are employed.

By reason of the stiff and unyielding character of the sheet material of which the container is made, the flaps A^5 , A^7 tend to 70 spring apart when folded inwardly, and when the flaps are secured only by adhesive material applied thereto, it becomes for that reason necessary to retain the flaps in contact with each other by pressure applied 75 thereto for a period of time long enough to insure the setting or hardening of the adhesive material. Maintaining the flaps under pressure during the packing of commodities is not only a troublesome operation but one 80 which consumes considerable time. When thin and flexible paper closing strips are employed, however, the same will immediately adhere to the parts of the container, when 85 pressed into intimate contact with the same, so that by the use of such strips the operation of closing the container may be quickly performed by unskilled persons, with consequent saving of time and expense, whether the flaps be themselves secured together by 90 adhesive material or not.

I claim as my invention:—

1. A box of sheet material having connected side walls and an end wall, said end wall consisting of two opposite inner flaps 95 which are folded inwardly into the same plane and two opposite outer flaps which are folded inwardly against the inner flaps, which overlap at their meeting margins, and each of which has at its margin a notch 100 forming a laterally extending tongue, the tongues on the two outer flaps extending in opposite directions and interlocked with each other, and the marginal part of each outer flap, at one side of the notch therein, 105 extending beneath, and at the other side of said notch extending over the marginal part of the outer flap, and closing strips of thin and flexible material applied by adhesive material to the outer flaps and to the side 110 walls of the box adjacent to the side margins of said outer flaps.

2. A box of sheet material having connected walls and an end wall, said end wall consisting of two opposite inner flaps which 115 are folded inwardly into the same plane and two opposite outer flaps which are folded inwardly against the inner flaps which overlap each other at their meeting margins, and each of which has in its margin 120 a notch forming a laterally extending tongue, the tongues on the two outer flaps extending in opposite directions and interlocked with each other, and the marginal part of each outer flap at one side of the 125 notch therein extending beneath, and at the other side of said notch extending over the marginal part of the other outer flap, and said outer flaps being secured to the inner flaps and to each other in their overlapping 130

portions, by adhesive material, and closing strips of thin and flexible material applied by adhesive material to the outer flaps and to the side walls of the box adjacent to the side margins of said outer flaps.

5 In testimony, that I claim the foregoing as my invention I affix my signature in pres-

ence of two witnesses, this 1st day of July A. D. 1908.

FRANK B. DAVIDSON.

Witnesses:

F. W. KENCALL,
A. DEANE.