

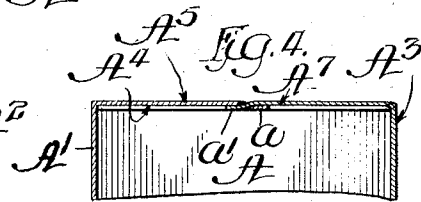
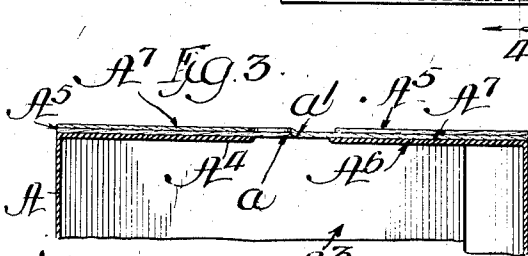
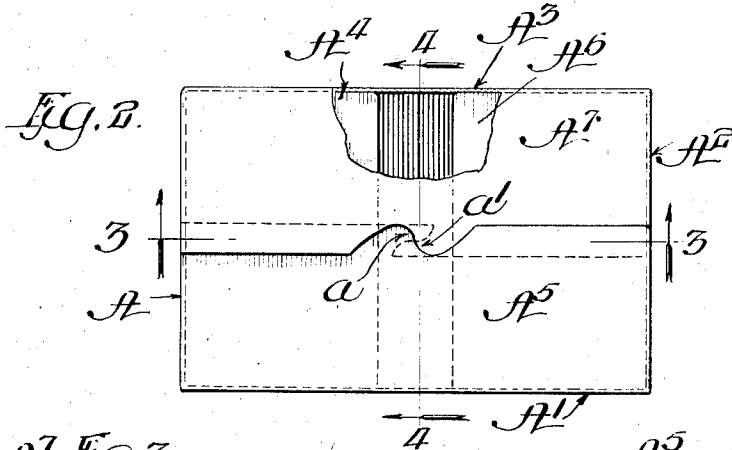
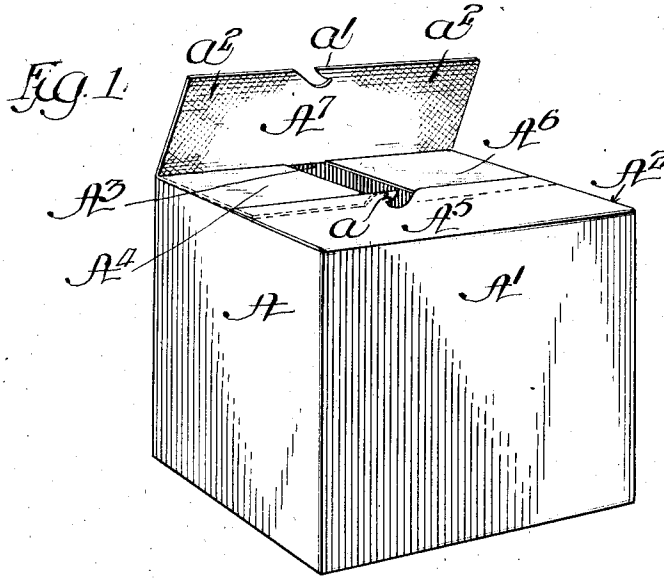
F. B. DAVIDSON.
CONTAINER.

APPLICATION FILED JAN. 13, 1908.

902,213.

Patented Oct. 27, 1908.

2 SHEETS—SHEET 1.



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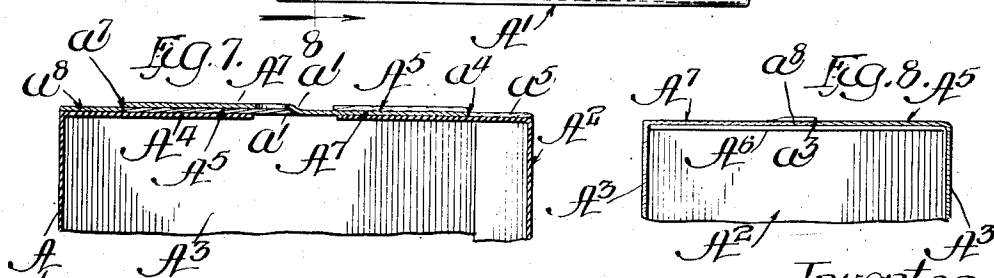
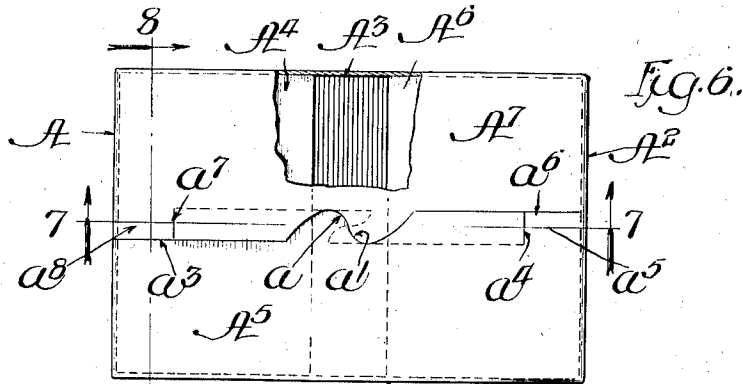
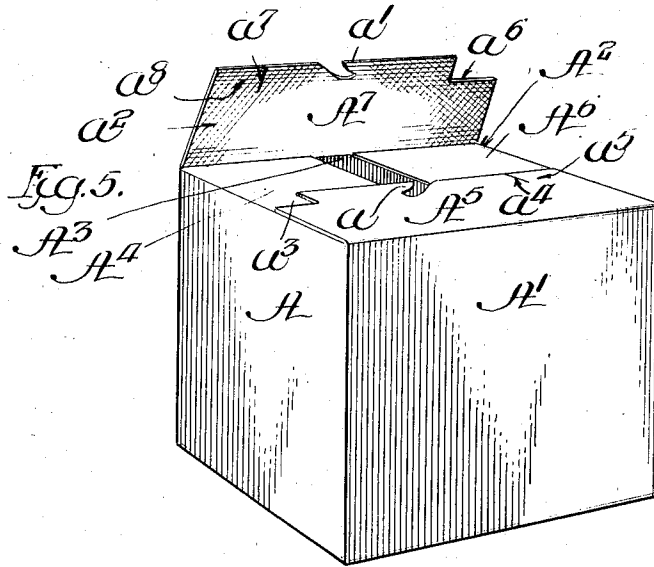
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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

CONTAINER.

No. 902,213.

Specification of Letters Patent.

Patented Oct. 27, 1908.

Application filed January 13, 1908. Serial No. 410,483.

To all whom it may concern:

Be it known that I, FRANK B. DAVIDSON, a citizen of the United States, and a resident 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 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 or 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 the set-up box with one of the upper end flaps partially open. Fig. 2 is a plan view showing the top of the box with the flaps forming its top wall closed and secured. Fig. 3 is a detail sectional view of the overlapping flaps, taken on line 3—3 of Fig. 2. Fig. 4 is a like sectional view taken on line 4—4 of Fig. 2. Fig. 5 is a perspective view of a box generally like that shown in the preceding figures but differing therefrom in the details of construction of the flaps. Fig. 6 is a plan view of the box shown in Fig. 5 with the flaps closed and secured in a closed position. Fig. 7 is a sectional view taken upon line 7—7 of Fig. 6. Fig. 8 is a sectional view taken upon line 8—8 of Fig. 6.

The body of a box 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 paste, glue or other fastening means. The tubular body of the box is shown as consisting of four connected side walls 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 widths of the side walls on which they are formed. The two opposite flaps A⁴ A⁵ on the side walls A² 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 A⁶ are folded inside the flaps A⁵ A⁷, and in the same plane with each other. The other pair, or outer, flaps A⁵ A⁷ are made in length somewhat greater than one-half the width of the end walls A², so that said flaps A⁵ A⁷ overlap each other at their end margins when folded inwardly, clearly indicated in Fig. 2 and by the dotted lines in Fig. 1.

Each flap A⁵ 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 A⁵ 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 A⁵ 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 sides of the notches therein 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 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 positions by adhesive material applied between them, by closing strips applied by adhesive material to the outer surfaces of the parts, or by securing means. The interlocking tongues *a* *a*¹ on the flaps A⁵ A⁷ are intended principally to hold said flaps in their closed or folded positions and in contact with the infolded flaps A⁴ A⁶ beneath them, until the flaps have been secured together by adhesive material. If adhesive material be employed to secure the flaps together, the external flaps A⁵ A⁷ will be attached to the inwardly folded intermediate flaps A⁴ A⁶ and the meeting margins of the two flaps A⁵ A⁷, will be likewise secured to each other. The adhesive material, such as

paste or glue, will, in such case, usually be applied to the inner faces of the flaps A⁵ A⁷ as indicated, for instance, by a² a² in Fig. 1, and such adhesive material will be employed as the principal means for holding the flaps in their folded positions, and for strongly and permanently closing the end of the container.

In a container made of relatively thick and stiff or unyielding sheet material, it is desirable, in order to form a firm and solid end wall, that the inner faces of the external flaps A⁵ A⁷ should rest in contact with the inner flaps A⁴ A⁶ and the marginal parts of the external flaps should rest flat against each other, and this result is attained, in the construction illustrated, by the use of a single locking tongue located centrally of the end margin of the flap, as illustrated and described. That is to say, when each flap A⁵ A⁷ is provided with a notch forming a single tongue located centrally thereon, and the two tongues project in opposite directions, the overlapping parts of the said flaps A⁵ A⁷ at the opposite sides of said tongues, as hereinbefore stated, overlap each other in a reverse relation, so that the underlying parts of the outer flap rest flat against the inner flaps, while the overlying parts of the other flaps will rest flat against the said underlying parts thereof, and the interlocking relation of the tongues will have substantially no effect to prevent the overlapping flaps resting against each other and the said flaps resting in close contact with the inner flaps. As shown in Figs. 1 and 2 of the drawings, the marginal part of the flap A⁵ at the right hand side of the interlocked tongues overlaps the flap A⁷, while the marginal part of the flap A⁷ at the left-hand side of said interlocked tongues overlaps the flap A⁵. The marginal part of said flap A⁵ at the right-hand side of the center thereof, therefore, rests flat upon the flap A⁷ from the point of interlock to the right-hand side of the box, while the part of the flap A⁷ at the left-hand side of the point of interlock for substantially its entire length rests flat upon the flap A⁵ beneath it. Moreover, by the construction and arrangement described, the left-hand part or half of the flap A⁵ rests flat upon the flap A⁴ and similarly, the right-hand part or half of the flap A⁷, rests flat upon the underlying flap A⁶. In the case of the right-hand part or half of the flap A⁷ the same rests flat against the underlying flap A⁶, excepting the marginal portion thereof which overlaps the flap A⁵, and, likewise, the left-hand half of the flap A⁵ rests flat upon the flap A⁴ excepting the marginal part thereof which overlaps the marginal part of the flap A⁵.

From the construction described it will be manifest that in a container made of thick or heavy straw-board or the like, the infolded end flaps will come in close contact with each other and, when secured together by ad-

hesive material, will form a tight and a very strong end wall. The adhesive material when used, may be applied throughout the entire surface of the four flaps which are in contact with each other, or, if preferred, it may be applied to the marginal parts only of said surfaces. Usually it will not be necessary to apply the adhesive material to the tongues and in the immediate vicinity thereof, because the parts will be held in close contact with each other by the interlocking of the said tongues in such manner as to form a substantially tight joint between the meeting edges of said flaps A⁵ A⁷ in the neighborhood of said tongues.

In the form of container illustrated in Figs. 5 to 8, inclusive, the parts are constructed in the same manner as hereinbefore described with the exception that the flap A⁵ is provided on its end margin, at one end thereof, with a rectangular notch a³, the edges of which are parallel, respectively, with the end and side edges of the flap, and the other end thereof with a slit a⁴ extending inwardly from said end margin and forming a tongue a⁵. The flap A⁷ is similarly provided with a notch a⁶ and a slit a⁷ forming a tongue a⁸. The tongues a⁵ and a⁸ are of the same width as the notches a³ and a⁶, and are adapted to fit within or fill said notches when the flaps are folded together. When the said flaps are thus provided with notches a³ a⁶ and tongues a⁵ a⁸, it will be manifest that the edges of said tongues will come in edge to edge, or abutting, relation to the margins of the notches when the flaps are folded together, thereby permitting the end portions of the flaps A⁵ A⁷ to come in exactly the same plane with each other and to rest flat against the flap A⁴ or A⁶ beneath them. In other words, in the construction shown in Figs. 5 to 8, a somewhat stronger connection may be provided between the overlapping flaps, because the side margins of both flaps A⁵ A⁷ may be secured along the entire length of the said side margins to the flaps A⁴ A⁶ beneath them.

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 which 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 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 notch therein, extending beneath, and at the other side of said notch, extending over, the marginal part of the other outer flap.
2. A box of sheet material having con-

5 nected side walls and an end wall, said end wall consisting of two opposite inner flaps which are folded inwardly into the same plane and two opposite outer flaps which are
10 folded inwardly against the inner flaps, which overlap each other at their meeting margins, and each of which has in its margin a notch forming a laterally extending tongue, the
15 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, extending beneath, and at the other side of said notch, extending over, the marginal part of the other outer flap, said outer flaps being

also provided at each end of their meeting margins, one with a notch and the other with a slit forming a tongue fitting within said notch, and said outer flaps being secured to the inner flaps, and to each other in their overlapping portions, by adhesive material.

In testimony, that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 10th day of January A. D. 1908.

FRANK B. DAVIDSON.

Witnesses:

WILLIAM L. HALL,
GEORGE R. WILKINS.