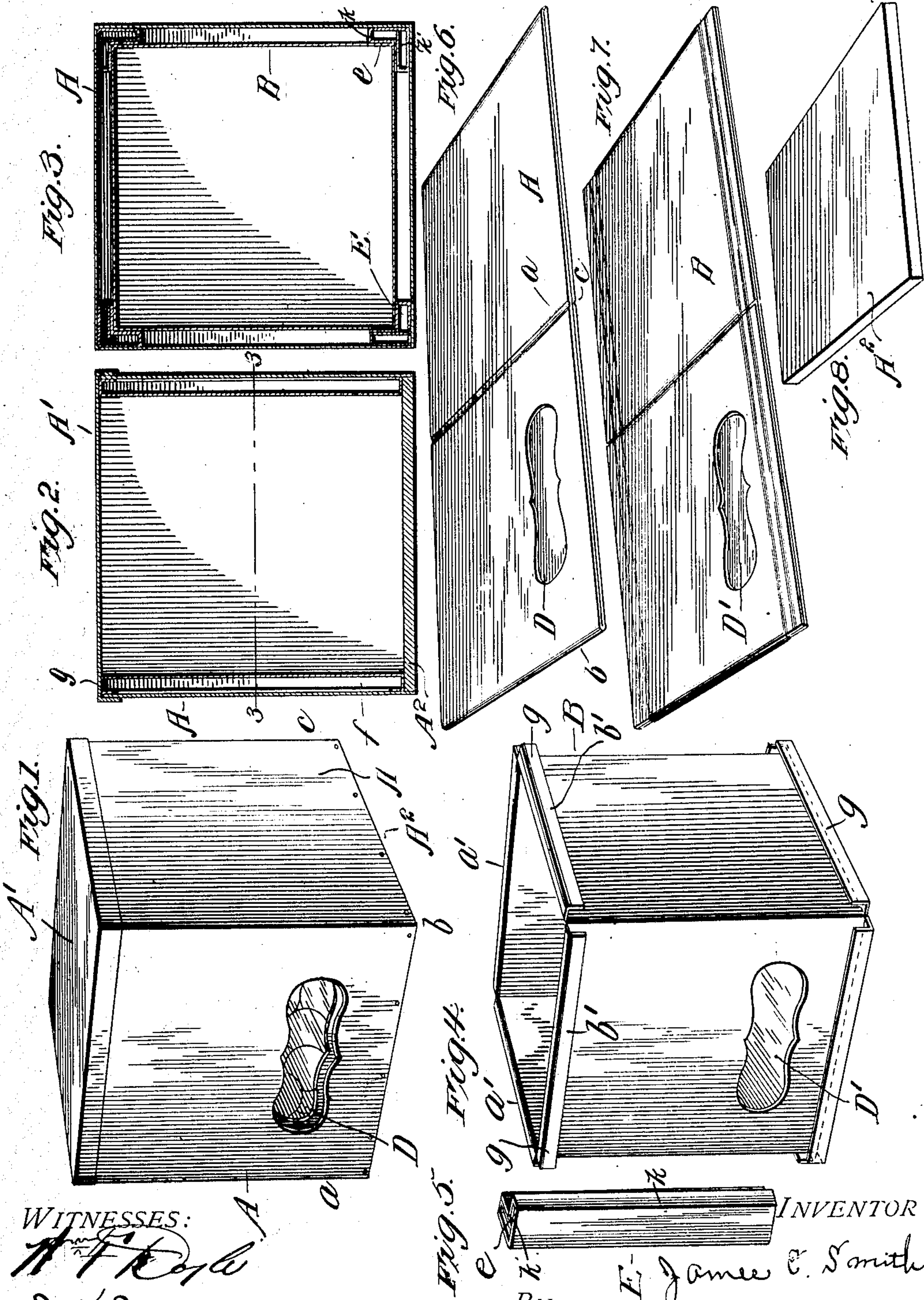


No. 871,452.

PATENTED NOV. 19, 1907.

J. E. SMITH.
BOX.

APPLICATION FILED DEC. 15, 1906.



WITNESSES:

H. F. K. Moore
J. K. Moore

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UNITED STATES PATENT OFFICE.

JAMES E. SMITH, OF BALTIMORE, MARYLAND.

BOX.

No. 871,452.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed December 15, 1906. Serial No. 347,935.

To all whom it may concern:

Be it known that I, JAMES E. SMITH, a citizen of the United States, residing at Baltimore, State of Maryland, have invented certain new and useful Improvements in Boxes; 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.

My invention relates to packing boxes and consists of certain improvements in the same which are illustrated in the accompanying drawings and described in the following specification and more particularly pointed out in the claims at the end thereof.

The object of my invention is to produce a box in the nature of a knock down box, to be made of some light substance, such as pasteboard or other sheet material for the purpose of packing, shipping and displaying cakes, crackers, biscuits and like articles, said box to have a rigid bottom.

In order to prevent the sides of the box from becoming permeated with grease from contact with the goods, thereby injuring the box for commercial purposes, I provide the box with an inner casing and arrange the same so that there shall be an air space between the said inner casing and the sides of the box, by which arrangement the goods are prevented from coming in contact with the sides of the box. I also construct the casing and box so that they may be collapsed for shipping to users.

In order that my invention may be clearly understood, I have illustrated the same in the accompanying drawings in which,

Figure 1 is a perspective view of the box complete and ready for use. Fig. 2 is a vertical section of the same. Fig. 3 is a horizontal section. Fig. 4 is a perspective view of the inner casing. Fig. 5 is a perspective view of the corner spacer & brace. Fig. 6 is a perspective view of the box folded. Fig. 7 is a similar view of the inner casing folded. Fig. 8 is a perspective view of the bottom.

Similar letters of reference refer to similar parts throughout.

A represents the sides of the box which are preferably made of pasteboard or other sheet material and are flexibly united together at the corners.

A' is the top of the box and is of ordinary

construction and is hinged to one side of the box in any desired manner, but preferably by a strip of fabric or any flexible material.

A² is the bottom of the box and is preferably made of wood. The bottom is of such dimensions as to fit snugly within the sides of the box, when the latter is set up as shown in Figs. 1 and 2 and is secured in place by tacks or other desired means.

It is obvious that the four sides of the box may be made from a single piece of sheet material bent three times at right angles as at *a*, *b* and *c*, the ends of said material finally being united. It is also obvious that the sides of the box may be folded or collapsed, as shown in Fig. 7.

B represents the inner casing also made of pasteboard or other sheet material, and constructed substantially in the same manner as the sides of the box just described, but of less area when the edges are folded. In constructing the inner casing, however, the sides are originally made somewhat deeper than the depth of the box and the top and bottom edges of the sides of said casing are then bent over at right angles as shown clearly in Fig. 4, enough material being taken up in the bent portions to make the depth of the inner casing the same as the depth of the box. The bent portions *g* form horizontal flaps *a' a'* and vertical flaps *b' b'*. The flaps *a' a'* cover the space between the casing and the box and prevent dirt from entering said space, while the vertical flaps *b' b'* coming in contact with the inner faces of the sides of the box assist in keeping the casing a fixed distance apart from the sides of said box.

Openings D, D' are provided in one side of the box and in the like side of the inner casing respectively. These openings are opposite each other and are for the purpose of displaying the goods; in the inner casing, through a transparent substance such as glass, which may be inserted between the inner casing and the side of the box and over the opening D' in the inner casing.

In order to strengthen the box and further support the inner casing and prevent its displacement, I employ a corner spacer E, shown in Fig. 5. This spacer is also preferably made from a single piece of pasteboard or other sheet material which is bent to form a hollow angle bar, the pasteboard material

forming two right angular portions parallel with each other, the outer edges of the two being connected by bent portions k spacing the parallel portions apart. In order that the angles of these two parts may be maintained at a like distance from each other, I extend one of the edges into contact with an outer side portion as at k' at right angles thereto.

10 In shipping these boxes to the trade, it is my practice to fold the inner casing and the sides of the box as shown in Figs. 6 and 7 and to pack them in this shape, together with the corner spacers, bottoms and covers, thus using a minimum amount of space.

In setting up the boxes, as in Fig. 1, the sides are first unfolded, and the bottom A^2 inserted and fastened. The sides of the inner casing are then unfolded and bent at predetermined points (where they have been previously scored) at the top and bottom edges as shown in Fig. 4 and placed within the box, when it is obvious that space will be left between the outer surfaces of the sides of the inner casing and the inner faces of the sides of the box.

The corner spacers E are then placed at the corners of the inner casing and within the box for the purpose of strengthening the construction and holding the inner casing a fixed distance from the sides of the box.

A transparent substance, such as glass, may then be inserted between the inner casing and one side of the box and over the openings D, D' in the box and inner casing, through which glass the contents of the inner casing may be seen and by which said contents are prevented from escaping through said openings.

40 The upper edges of the inner casing are then bent as shown, thereby covering the space between the inner casing and the box and at the same time assisting in keeping the inner casing in place.

45 What I claim and desire to secure by Letters Patent is:—

1. A box having its sides composed of sheet material and provided with a bottom, and an inner casing having its sides parallel with the sides of the box and spacing devices located between the box and casing separating the casing from the box, the upper edges of one of said parts being provided with flaps bent toward the other of said parts whereby the space between them is closed, substantially as described.

2. A box having its sides composed of sheet material and provided with a bottom, and an inner casing having its sides parallel with the sides of the box and spacing devices located between the box and casing, separating the casing from the box, one of said parts being provided at its upper edges with flaps extending over the space between the casing and the box, substantially as described.

3. A box having its sides composed of sheet material and provided with a bottom, and an inner casing having its sides parallel with the sides of the box, spacing devices located in the corners of the box, between the box and casing, separating the box and casing, the upper edges of one of said parts having flaps provided with horizontal portions extending over the space between the box and casing, and vertically disposed portions engaging the sides of the other of said parts to assist in spacing the casing uniformly in relation to the sides of said box, substantially as described.

4. A box having its sides composed of sheet material and provided with a bottom, and an inner casing having its sides parallel with the sides of the box, spacing devices located in the corners of the box between the box and the casing, providing a space between the box and casing, the upper and lower edges of one of said parts having flaps provided with horizontal portions extending over and under the space between the box and casing and vertically disposed portions engaging the sides of the other of said parts to assist in spacing the casing uniformly in relation to the sides of said box, substantially as described.

5. A box having its sides composed of sheet material, the sides being flexibly united at the corners, a rigid bottom, an inner casing for said box the four sides of the same being united in a manner similar to that of the sides of the box, and detachable corner spacing devices for spacing the casing when placed inside of the box whereby the walls of the said casing are held a distance apart from the sides of the box, substantially as described.

6. A box having its sides composed of sheet material, the sides being flexibly united at the corners, a rigid bottom, an inner casing for said box, the four sides of said casing being united in a manner similar to that of the sides of the box and means detachable from the inner casing and the box for spacing the casing when placed inside of the box whereby the walls of said casing are held a distance apart from the sides of the box, substantially as described.

7. A box having its sides composed of sheet material, the sides being flexibly united at the corners, a rigid bottom, an inner casing for said box, the four sides of the same being united in a manner similar to that of the sides of the box, and corner spacing devices for spacing the casing when placed inside of the box, whereby the casing is held a distance apart from the sides of the box, the sheet material of which the walls of the inner casing are composed being made of greater extent vertically than the adjacent walls of the box, the upper ends of said sheet material being folded outwardly as described, to

close the space between the inner casing and the walls of the box, substantially as described.

8. A box having its sides composed of 5 sheet material, the sides being flexibly united at the corners, a rigid bottom, an inner casing for said box the four sides being united in a manner similar to that of the sides of the box and means for spacing the casing when 10 placed inside of the box whereby the walls of the said casing are held a distance apart from the sides of the box, one wall of the box and the opposed wall of casing being provided with an aperture therein as described 15 and a piece of transparent material covering said aperture, and inserted between the casing and the walls of the box, substantially as described.

9. A corner spacing device for boxes provided with an inner casing, the same being 20 composed of pasteboard or its equivalent, forming two right angular portions and means for holding said angular portions a distance apart throughout their length, substantially as described. 25

10. A corner spacing device for holding a casing from the box in which it is placed, consisting of two right angular pieces of 30 pasteboard or its equivalent, the edges of said pieces being connected but held a distance apart by the like material and means for holding the angles a corresponding distance from each other, substantially as described.

11. A corner brace and spacing device 35 formed of sheet material and comprising two exterior portions disposed at an angle to each other, provided at the ends with angularly disposed spacing portions and having interior portions extending from said spacing 40 portions parallel to the exterior portions, said interior portions being united, and having one of said interior portions extended beyond the other and into contact with the exterior portion at right angles to said ex- 45 tension, substantially as described.

12. A corner brace and spacing device composed of sheet material folded to form a hollow angle bar, the free edges of said material overlapping each other and secured to- 50 gether to form one of the interior walls of the bar, substantially as described.

13. A corner brace and spacing device composed of sheet material folded to form a hollow angle bar, the free edges of said material overlapping each other and being secured 55 together to form one of the interior walls of the bar, one of said edges being longer than the other and extending into contact with an outer side portion at right angles thereto, 60 substantially as described.

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

JAMES E. SMITH.

Witnesses:

H. C. TALL,
F. H. HUBBARD.