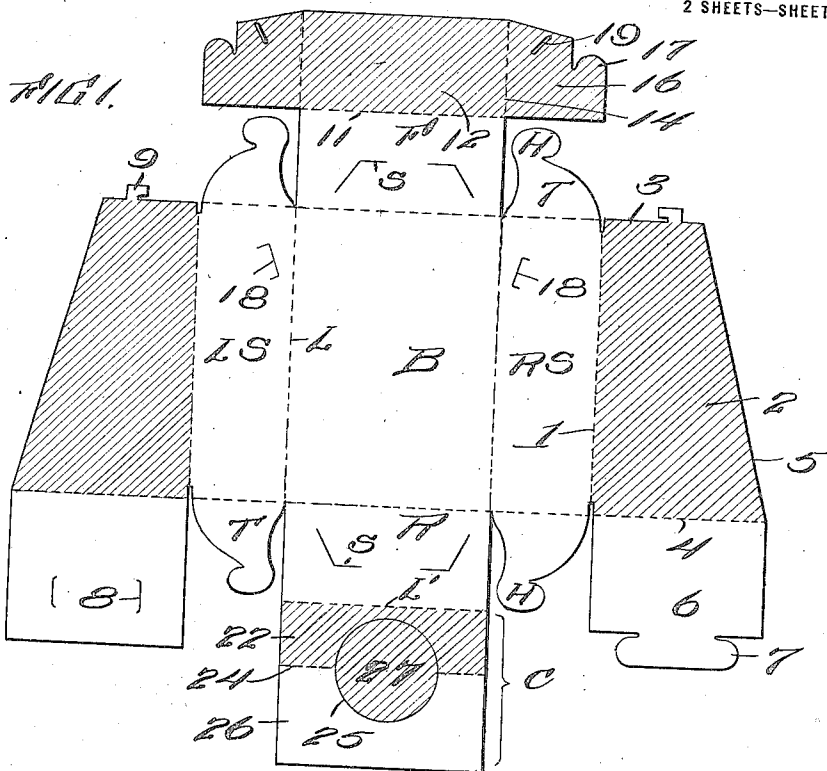
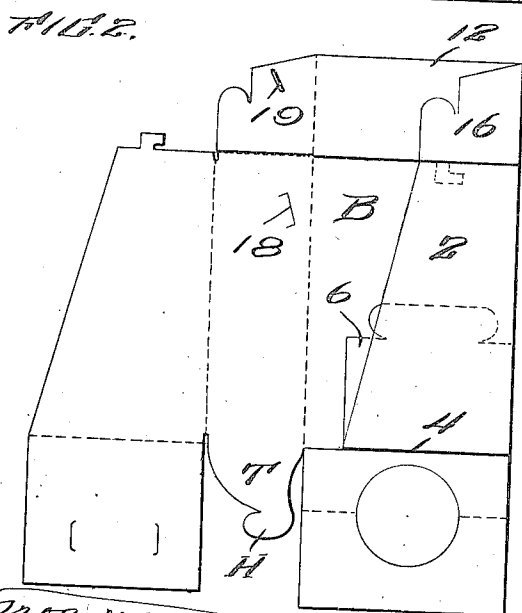


1,166,263.

H. A. SACKETT.
DISPLAY TRAY.
APPLICATION FILED SEPT. 1, 1915.

Patented Dec. 28, 1915.
2 SHEETS—SHEET 1.



Witnesses

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N. L. Clamer

Inventor
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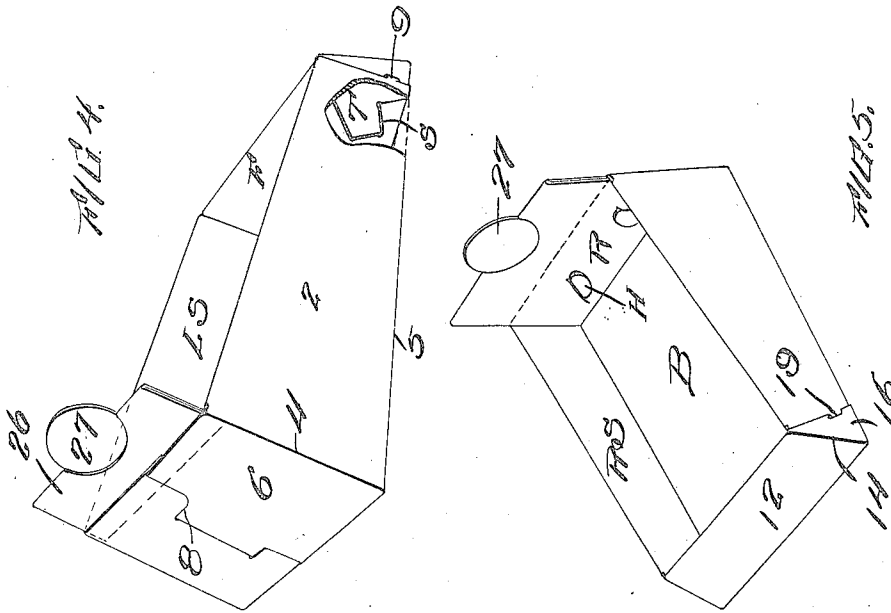
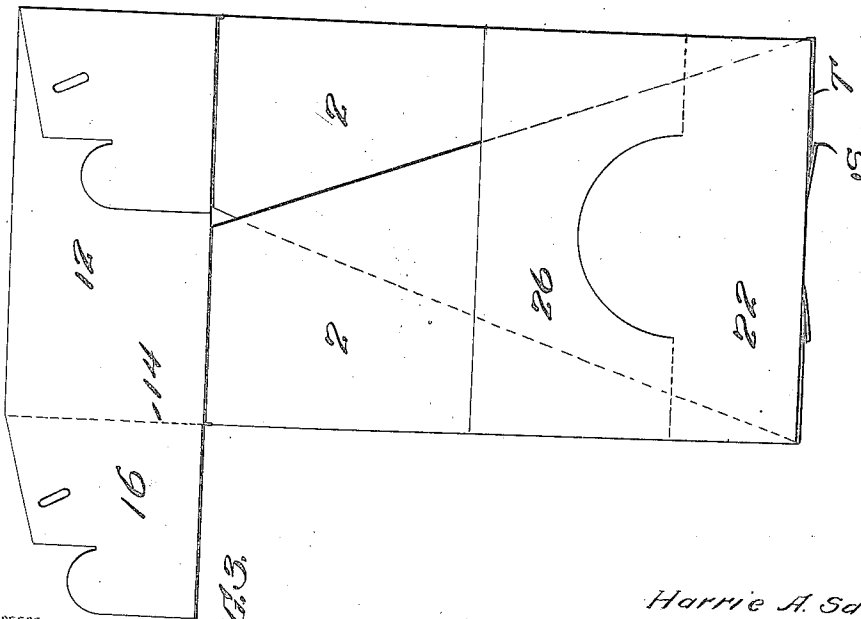
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE.

HARRIE ALLEN SACKETT, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO ARTHUR G. SMITH, TRADING AS SMITH BROTHERS, OF POUGHKEEPSIE, NEW YORK.

DISPLAY-TRAY.

1,166,263.

Specification of Letters Patent.

Patented Dec. 28, 1915.

Application filed September 1, 1915. Serial No. 48,542.

To all whom it may concern:

Be it known that I, HARRIE ALLEN SACKETT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Display-Trays; and I do hereby declare the following to be a full, clear, and exact description of the invention; such as will enable other skilled in the art to which it appertains to make and use the same.

This invention relates to store furniture, and more especially to display trays; and the object of the same is to produce a carton made from a single blank of cardboard or the like and scored and slitted so that it may be folded into box-like formation for transportation of goods from the wholesaler to the retailer, and by the latter may be opened and folded into a display tray for containing the same or other goods, the tray having its proper panels provided with advertising matter such as the title of the goods and the price per package.

The invention consists in the details of construction by means of which this general idea is carried out—all as hereinafter more fully described and claimed, and as shown in the drawings wherein:—

Figure 1 is a plan view of the blank from which this combined carton and tray is made. Fig. 2 is a plan view of the same partly folded into the form of a carton. Fig. 3 is a plan view of the carton finished excepting that the top and front flap are not yet laid down. Fig. 4 is a perspective view from the rear showing this device folded into the form of a tray; and Fig. 5 is a similar view showing the tray from the front.

Broadly speaking, my object is to produce a device so made that it may be folded into a carton to contain a number of packages of goods, such for instance as forty packages of cough drops or the like; and yet so made that when it reaches the retailer, he can open the carton and by skilful refolding can convert it into a tray to be placed upon his counter and used for displaying the contents until they are sold. The material from which this device is cut is ordinary strawboard, cardboard, and the like. If made of proper size it will readily contain forty

packages or boxes of cough drops, candy, or the like, but its dimensions will of course be dependent upon the dimensions of the packages of goods. As these foldable-blank devices are so well known, perhaps the easiest way of referring to the accompanying drawings will be by reference letters which will be the initials of the respective words describing the parts or panels of the carton, and reference numerals referring to the additions embracing my invention, all as best seen in Fig. 1.

The box body comprises a bottom B which may be a rectangular panel 7" by 10" as defined by a surrounding score line L, front and rear panels F and R having slits S, and right and left side panels RS and LS having tongues T at their extremities to engage the slits S, the tongues preferably having hooks H for maintaining such engagement as usual in boxes of this kind. The carton is completed by closing the open top of the box body, and this may well be accomplished by the use of a top or cover designated by the letter C, the same being herein made in panels for use as described below and connected by a score line L' with the outer or upper edge of the rear panel R. This top overlies other panels which constitute my improvement, and the carton as thus closed will doubtless be wrapped and tied, and in it the commodities to be sold will be shipped by the wholesaler to the retailer. It is my intention that the latter shall remove the wrapper and by following directions contained in the carton, open out and so fold and connect the panels which overlie the box body that the device is converted into a tray in which the contents remain for display upon his counter or in the showcase. At this time it is desirable that the rear end of the box be raised a little so that its contents may be seen by customers in front of the counter, and it is also desirable to display certain advertising matter such as the name of the goods and the price, which has heretofore often been done by inclosing a label or card that is taken out by the retailer and stuck into or attached to the open box. My invention is designed to meet these demands by the addition of flaps to the various upright panels of the box which, when properly folded and fas-

tened, cause it to present a neat appearance on the counter, with its rear elevated slightly and with a display flap or panel rising rigidly from its rear end; and yet all this I accomplish by the use of a single foldable blank which need be printed on only one side.

My preferred manner of carrying out this invention is as follows: Attached to the outer edge of each side panel along a score line 1 is a flap 2 whose front end 3 is of about the same width as the side and whose rear end is considerably wider but not as wide as the bottom B, with the result that its outer edge 5 stands oblique to the fold line 1 for a purpose yet to appear. Connected to said rear end by a score line 4 is a wing 6 which is by preference substantially rectangular, and the right wing may have a hook or hooks 7 adapted to engage a slit or slits 8 in the left wing. Otherwise the wings are identical and a description of the left wing will be unnecessary. The front end of each flap has a hook 9 for a purpose to appear below.

Along the outer or upper edge of the front panel F a score line 11 connects this panel with a front flap 12 whose dimensions are about the same as those of the front F, and to each end of this flap by a score line 14 is connected an ear 16 which has a hook 17 adapted to engage a slit 18 in the adjacent side panel, and which ear also has a slit 19 to receive the hook 9 on the adjacent flap. These ears duplicate each other and a description of one will therefore suffice.

I make use of a part of the cover or top C to constitute what would be the equivalent of a flap added at the rear of the box, and in order to sustain the same rigidly in upright position I make use of the remainder of the cover or top as a brace therefor. The cover is made in panels whereof the innermost numbered 22 is for display purposes and is connected by the score line L' with the outer or upper edge of the rear box-panel R as stated above; while the remaining panel 26 is a brace connected by a score line 24 with the rear or outer edge of the display panel 22, and said score line may be interrupted to give the upper edge of the display panel an irregular and fanciful configuration while yet permitting the brace to be folded down to the rear. Herein I have shown said line as being a semi-circular slit 25 cut into the brace panel 26, this semi-circle bounding the upper half of a disk 27 whose lower half extends into the display panel 22. This panel and its disk, all the flaps, and both ears are lithographed, printed, or otherwise ornamented on the upper face only of the blank as seen in Fig. 1, and in the finished tray they are the only faces which are exposed. As no part of the blank overlies any other part it can all be cut from

a single piece of stock and at a single operation of the die, and all the score lines and incisions can be made at this operation. It is of obvious advantage to have all the printing on one face of the blank. The devices in this flat, unfolded condition are shipped to the wholesaler in bulk and by him are folded into box-form, each box is then filled with a commodity to be vended, closed and wrapped, and shipped by him to the retailer.

To transform the blank into the shape of a box, the following steps are necessary—reference being had especially to Figs. 2 and 3. The right side RS and front F are turned upward and the hook H of the tongue T on the former engaged with the proper slit S on the latter; and then this operation is repeated with the rear panel R and the tongue and slit at that corner. The same steps are followed to raise the left side LS and hook it in place. No novelty is claimed for these steps. The box may now be filled with the packages of goods.

To close the box and transform it into a carton, the following steps are necessary: The wing 6 at the rear end of the right hand flap 2, which now projects horizontally from the upper edge of the right side RS, is bent forward over the line 4 and laid onto the ornamented face of this flap; and then the flap and folded wing are bent over the line 1 onto the contents of the box, the hook 9 being tucked down inside the front panel F. The ears 16 at the ends of the front flap 12, which now projects horizontally from the edge of the front panel F, are bent over on the lines 14 and laid onto the ornamented face of this flap, and the parts now stand as seen in Fig. 2. Next the left wing and the left flap and its hook are given the same treatment as described for the right wing which will bring them over onto the contents of the box, and then the front flap and its ears are folded over onto the forward portions of both folded side flaps so that the parts stand as seen in Fig. 3. The last step will obviously consist in folding the top or cover C over onto the parts as they stand in Fig. 3, and if the brace 26 is long enough it may overlap the front flap. However, the wrapping paper (not shown) will hold this flap and the top, whether they overlap each other or not. The carton in this condition reaches the retailer, and serves as a closed box to contain the packages.

To transform the carton into the shape of a display tray, the following steps are necessary—reference being had especially to Figs. 4 and 5: The dealer removes the wrapper, turns the cover back so that the parts stand as seen in Fig. 3, turns back the front flap with its ears and each side flap with its wings, and thus exposes the contents to view. Each ear 16 is now bent down and then carried back under the front end 3 of 130

the adjacent side flap, its hook 17 is engaged with the slit 18, and for greater security its slit 19 is engaged with the hook 9. I would say at this point that either of these fastening devices might be omitted, but by preference I use both as shown. When this course is followed at the other side, both ends of the front flap are locked and its body projects obliquely downward from the upper edge of the front panel F. The wings 6 are now bent to the rear on the lines 4 so that they extend across the rear end of the box and overlap each other, and the hooks 7 on one are engaged with the slits 8 in the other. The height of these wings is the same as the width of the side flaps at their rear ends, and as this is greater than the depth of the box, the rear of the latter is raised and its entire body stands inclined forward as best seen in Fig. 5. The brace 26 is now bent down on the broken line 24 and inserted between the overlapping wings and the rear panel R, and in this position it laps the fold line L' and holds the display panel 23 upright. By preference it extends down to about the dotted line in Fig. 4, but obviously it could be carried further downward if desired and would therefore give the cover greater length as suggested above, though in that case the brace 26 would have to be turned down before the wings 6 are turned in behind it and connected. The result is that, without removing the packages from the box, the device has been converted into a display tray which is supported in an inclined position by the oblique edges 15 of the flaps 2 and the lower edges of the connected wings 6, while the outer edges of the front flap and its ears rest also on the counter and all parts exposed to view are printed with ornamentation and advertising as is desirable.

I lay no claim to the box features, and do not wish to be limited to the specific form of hooks and slits as other fastening devices might be substituted.

What I claim is:

1. A box body comprising the bottom, and the upright end and side panels of uniform width throughout, united at their lower edges to said bottom and connected at their ends to each other; combined with flaps hinged to the upper edges of two opposite panels, wings hinged to the corresponding ends of the flaps, and means for holding these wings upright and against the panel intervening between their hinges, said wings being of greater width than such panel for holding its lower edge above a support.

2. A box body comprising the bottom, and the upright end and side panels of uniform width throughout, united at their lower edges to said bottom and connected at their ends to each other; combined with flaps hinged to the upper edges of the side panels,

wings hinged to the corresponding ends of the flaps and of greater width than the end panel intervening between their hinges, and means for connecting these wings across such panel, for the purpose set forth.

3. A box body comprising the bottom, and the upright end and side panels of uniform width throughout, united at their lower edges to said bottom and connected at their ends to each other; combined with flaps connected to the upper edges of the side panels and of equal width therewith at one end and greater width at the other end, and devices connecting the wider ends and holding the flaps upright, for the purpose set forth.

4. A box body comprising the bottom, and the upright end and side panels of uniform width throughout, united at their lower edges to said bottom and connected at their ends to each other; combined with flaps hinged along their inner edges to the upper edges of the side panels and having their outer edges oblique, their front ends being no wider than the sides and their rear ends wider than the sides but no wider than said bottom, and devices for detachably connecting said last-named ends for holding the flaps upright, for the purpose set forth.

5. A box body comprising the bottom, the end and side panels united to the edges thereof, and means for connecting said panels to each other where they meet; combined with flaps hinged to the upper edges of the side panels and increasing in width toward one end where they are wider than the intervening end panel, wings hinged to said wider ends and of equal width therewith and of a length to overlap each other across the end panel, and means for detachably connecting said wings.

6. A box body comprising the bottom, and the connected end and side panels; combined with flaps hinged along their inner edges to the upper edges of the side panels and of equal width therewith at one end and greater width at the other end, their outer edges being straight and oblique to their inner edges, wings hinged to said last-named ends and of equal width therewith, and means for holding said wings upright across the intervening end panel with their lower edges and the oblique edges of the flaps adapted to rest on a flat support.

7. A box body comprising the bottom, the end and side panels united to the edges thereof, and means for connecting said panels to each other where they meet; combined with a cover made in panels whereof the first is hinged to one end panel and the second is hinged to the first and constitutes a brace therefor, flaps hinged to the side panels and of less width than said bottom, and devices carried by said flaps for engaging said brace.

8. A box body comprising the bottom, the

- end and side panels united to the edges thereof, and means for connecting said panels to each other where they meet; combined with a cover made in panels whereof the first is hinged to one end panel and the second is hinged to the first and constitutes a brace therefor, flaps hinged to the side panels, wings hinged to corresponding ends of the flaps and adapted to overlie said brace and overlap each other, and means for connecting the wings where they overlap.
9. A box body comprising the bottom, the end and side panels united to the edges thereof, and means for connecting said panels to each other where they meet; combined with a cover made in panels whereof the first is hinged to one end panel and the second is hinged to the first and constitutes a brace therefor, flaps hinged along their inner edges to the upper edges of the side panels and increasing in width toward one end which is wider than such panels, wings hinged to and of equal width with said wider ends, and means for holding the wings in upright position overlying said brace.
10. A box comprising a bottom, side and end panels of uniform width rising therefrom and connected where they meet, and a cover made in two panels whereof the first is hinged to the upper edge of one end panel and the second is hinged to the upper edge of the first, than which it is of greater length and for which it is adapted to serve as a brace; combined with flaps hinged along their inner edges to the upper edges of the side panels and of equal width therewith at one end, their outer edges being straight and oblique to their inner edges and their other ends being of greater width than said panels but of less width than said bottom, wings hinged to and of equal width with the wider ends of said flaps and adapted to overlap across that end of the box carrying the cover with their lower edges and the oblique edges of the flaps standing in a plane, and fastening devices detachably connecting the overlapping wings and causing them to overlie said brace, for the purpose set forth.
11. A foldable box comprising the bottom, the end and side panels hinged to the edges thereof, means for detachably connecting said panels to each other where they meet, and a cover consisting of a display panel hinged to the upper edge of one end panel and a brace panel connected to the upper edge of the display panel by a hinge line interrupted at its mid-length, the display panel having an incision in its body connecting the adjacent ends of said interrupted line; combined with flaps hinged along the upper edges of the side panels than which they are of greater width at that end of the box carrying the cover, devices connecting the wider ends of said flaps across this end of the box and between which devices and such end the free end of the brace panel is adapted to be inserted when the display panel stands upright, and means for connecting the opposite ends of the flaps with the other end of the box when they stand in upright position.
12. A box body comprising the bottom, ends, and sides, the latter having slits, and means for holding one end of the bottom above a flat support; combined with a flap hinged to the upper edge of the opposite end, ears hinged to the end of said flap, and hooks on the ears adapted to engage said slits when the flap is turned down outside of the end to which it is hinged.
13. A box comprising the bottom, the upright end and side panels connected where they meet each other, and a cover hinged to the upper edge of the rear end panel and itself having a display panel; combined with a front flap hinged to the upper edge of the front end panel and corresponding in size therewith and adapted to be turned thereover to display one face at the front end of the box, ears at its extremities, and means for detachably connecting them with the side panels when such flap stands in display position.
14. A box comprising the bottom, the upright end and side panels connected where they meet each other, and a cover hinged to the upper edge of the rear end panel and itself having a display panel; combined with a front flap hinged to the upper edge of the front panel and adapted to be turned thereover to display one face at the front end of the box, ears at its extremities having slits, means for connecting the ears with the side panels when said front flap stands in display position, side flaps hinged to the upper edges of the side panels and adapted to be turned thereover to display their faces at the sides of the box, hooks at their front ends for engaging said slits, and devices for connecting their rear ends when they stand upright.
15. A box comprising the bottom, the upright end and side panels connected where they meet each other, and a cover hinged to the upper edge of the rear end panel and itself having a display panel; combined with a front flap hinged to the upper edge of the front panel and adapted to be turned thereover to display one face at the front end of the box, ears at its extremities having slits, side flaps hinged to the upper edges of the side panels and adapted to be turned thereover to display their faces at the sides of the box, hooks at their front ends for engaging said slits, said ends being of equal width with the side panels and the rear ends of the flaps of greater width whereby the rear end of the box is raised above a flat support when said flaps stand upright, wings hinged to the rear ends of the flaps,

and means for holding them upright across the rear end of the box, all as and for the purpose set forth.

16. The combination with a box comprising a bottom, sides, and ends; of flaps carried by the upper edges of said sides and capable of folding horizontally over the box and lapping each other or vertically against the sides, a cover carried by the upper edge of the rear end and capable of folding over the flaps to close the box or standing upright at the rear end of the open box, and devices for connecting the rear extremities of said flaps behind the cover when these members stand upright, for the purpose set forth.

17. The combination with a box comprising a bottom, sides, and ends; of flaps carried by the upper edges of said sides and capable of folding horizontally over the box or vertically against the sides, a member carried by the upper edge of the rear end and capable of folding over the side flaps to close the box or of being opened out into a display panel, an upright brace depending from said member, and devices for connecting the rear extremities of the side flaps across said brace when these members stand upright, for the purpose set forth.

18. The combination with a box comprising a bottom, sides and ends; of flaps carried by the upper edges of said sides and capable of being folded horizontally over the box or vertically against the sides, the rear ends of said flaps being wider than their front ends, devices for holding such flaps in vertical position, a front flap connected to the outer edge of the box front, and ears at the ends of this flap having hooks, the box sides having slits for receiving said hooks.

19. The combination with a box comprising a bottom, sides, and ends; of flaps carried by the upper edges of said sides and capable of being folded horizontally over the box or vertically against the sides, the rear ends of said flaps being wider than their front ends, wings connected by score lines with and projecting from said rear ends and of sufficient length to overlap each other when the flaps stand vertical, and hooks on one of said wings, the other wing being provided with slits with which said hooks are adapted to engage.

20. The combination with a box comprising a bottom, sides, and ends; of flaps carried by the upper edges of said sides and capable of being folded horizontally over the box or vertically against the sides, the rear ends of said flaps standing at right angles to their line of connection with the sides and their outer edges being struck on oblique lines converging from their rear ends toward their front ends, wings connected by score lines with the rear ends of the flaps and of equal width with said rear ends and greater width than the sides of the box, the length of the wings being sufficient to permit them to overlap each other behind the rear end of the box, and means for connecting the overlapping ends when the wings and flaps stand upright and the bottom of the box is raised above the support upon which the lower edges of the flaps and wings rest.

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

HARRIE ALLEN SACKETT.

Witnesses:

C. R. PALMER,
E. B. JILLARD.