

May 9, 1933.

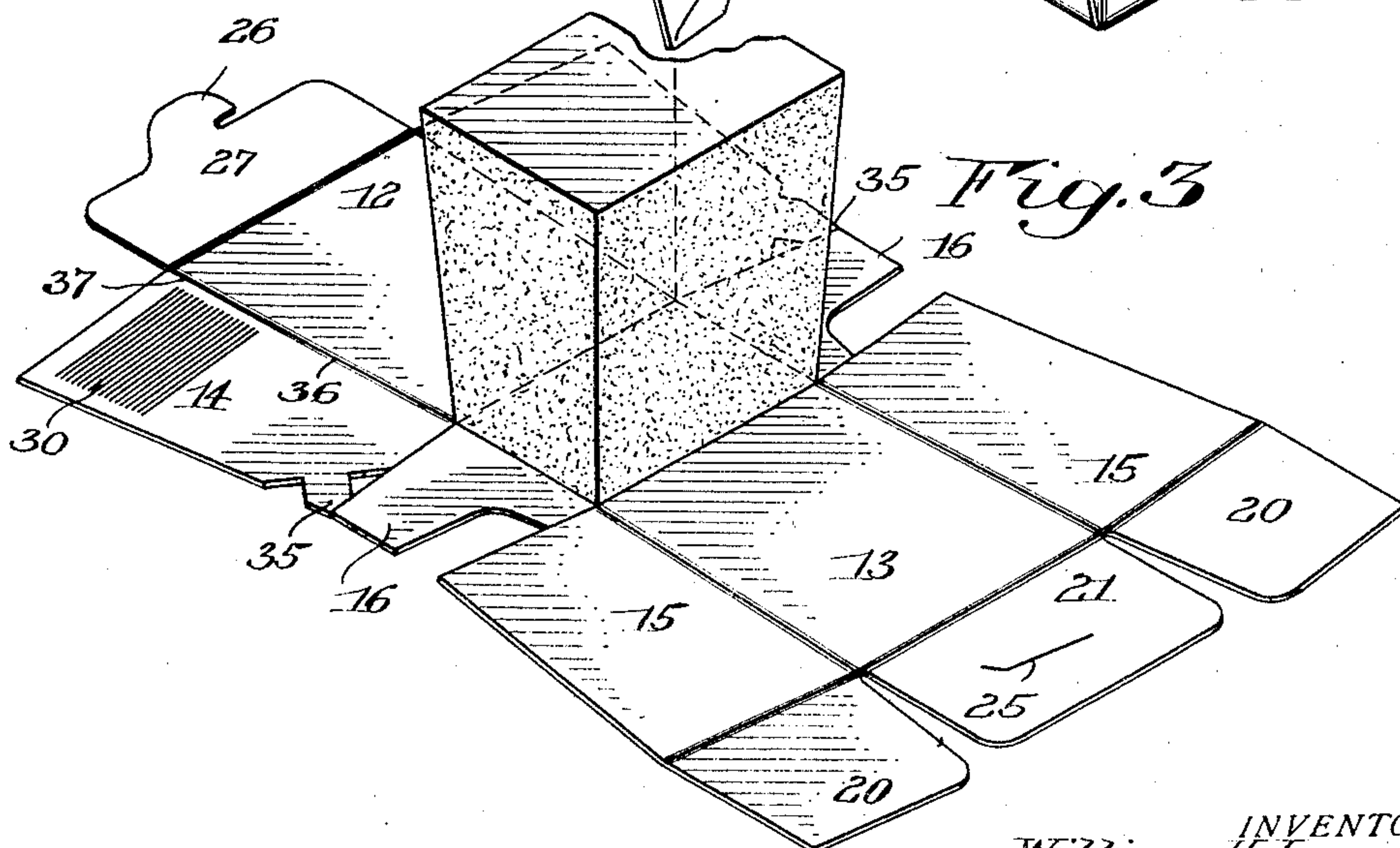
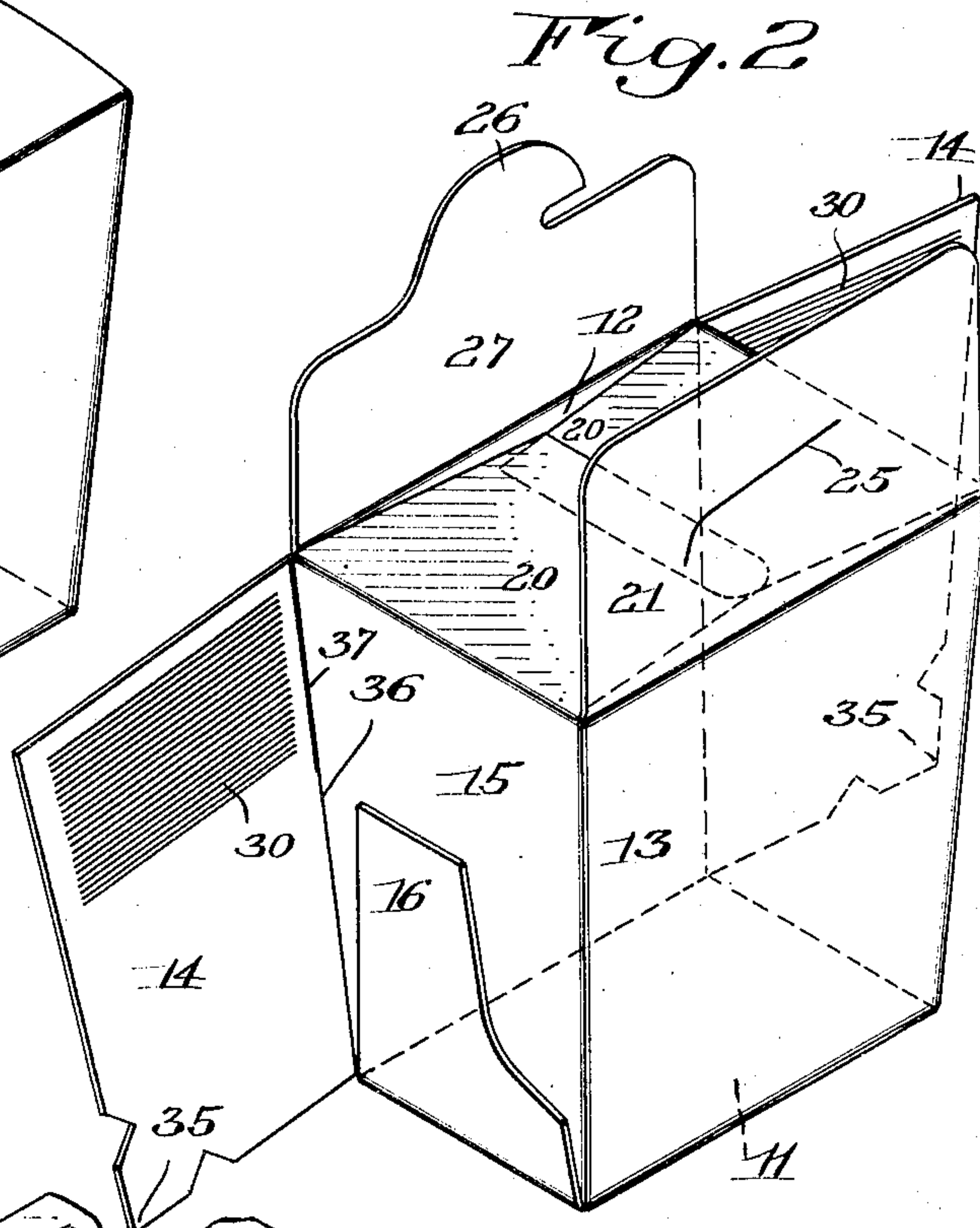
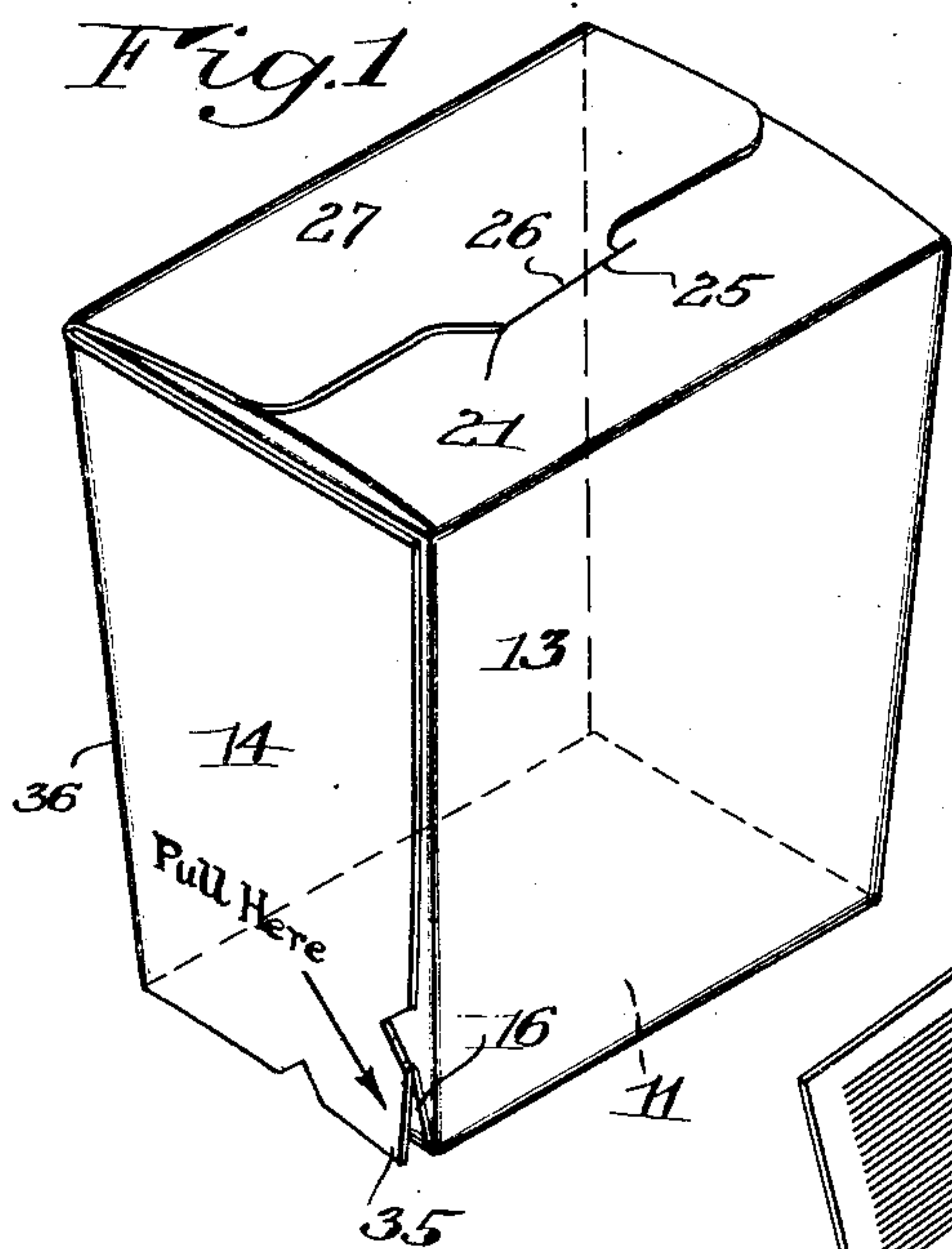
W. H. INMAN ET AL

1,908,251

CONTAINER

Filed Dec. 7, 1931

2 Sheets-Sheet 1



INVENTORS
William H. Inman
Harrison C. Bloomer
BY *Edward H. Crompton*
their ATTORNEY

May 9, 1933.

W. H. INMAN ET AL

1,908,251

CONTAINER

Filed Dec. 7, 1931

2 Sheets-Sheet 2

Fig. 4

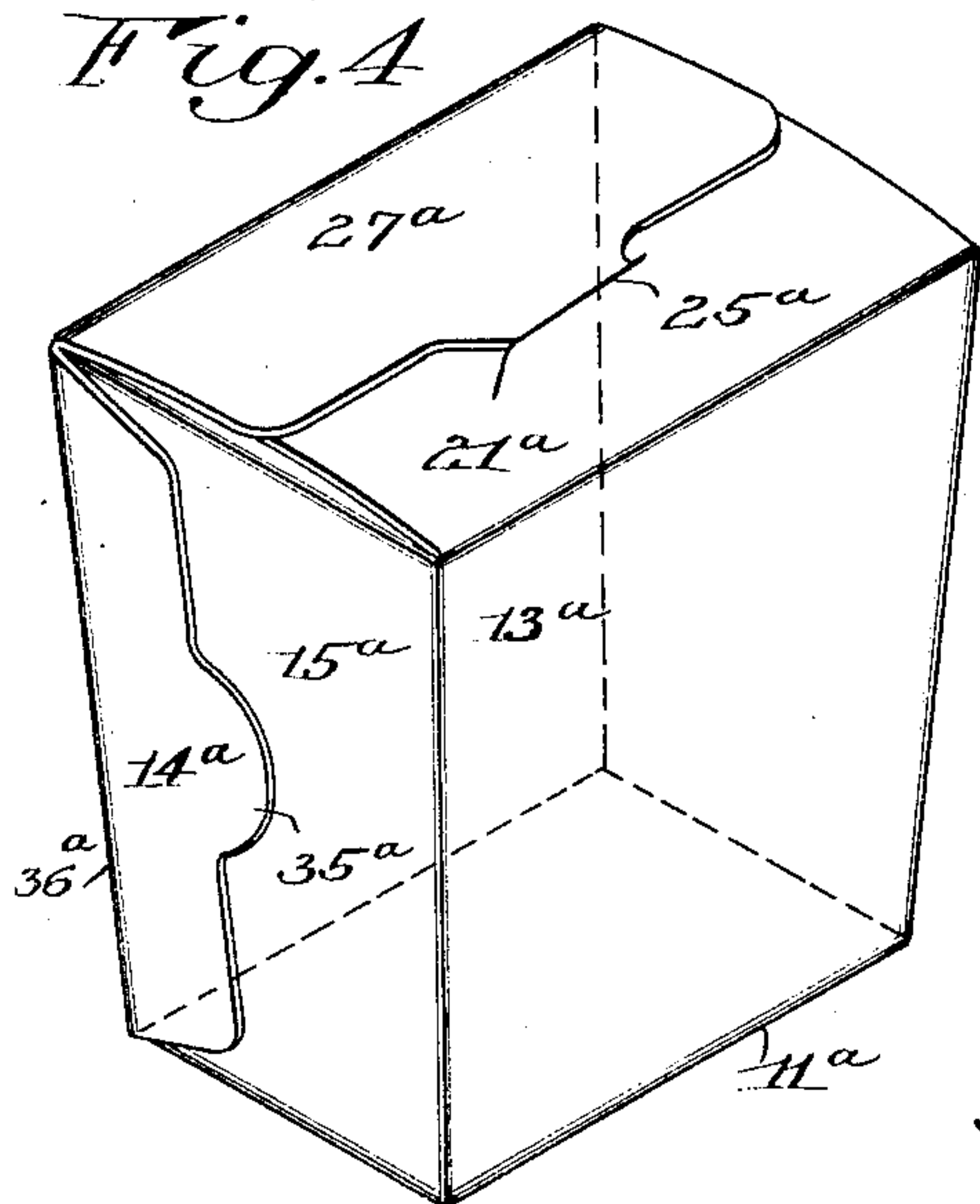


Fig. 5

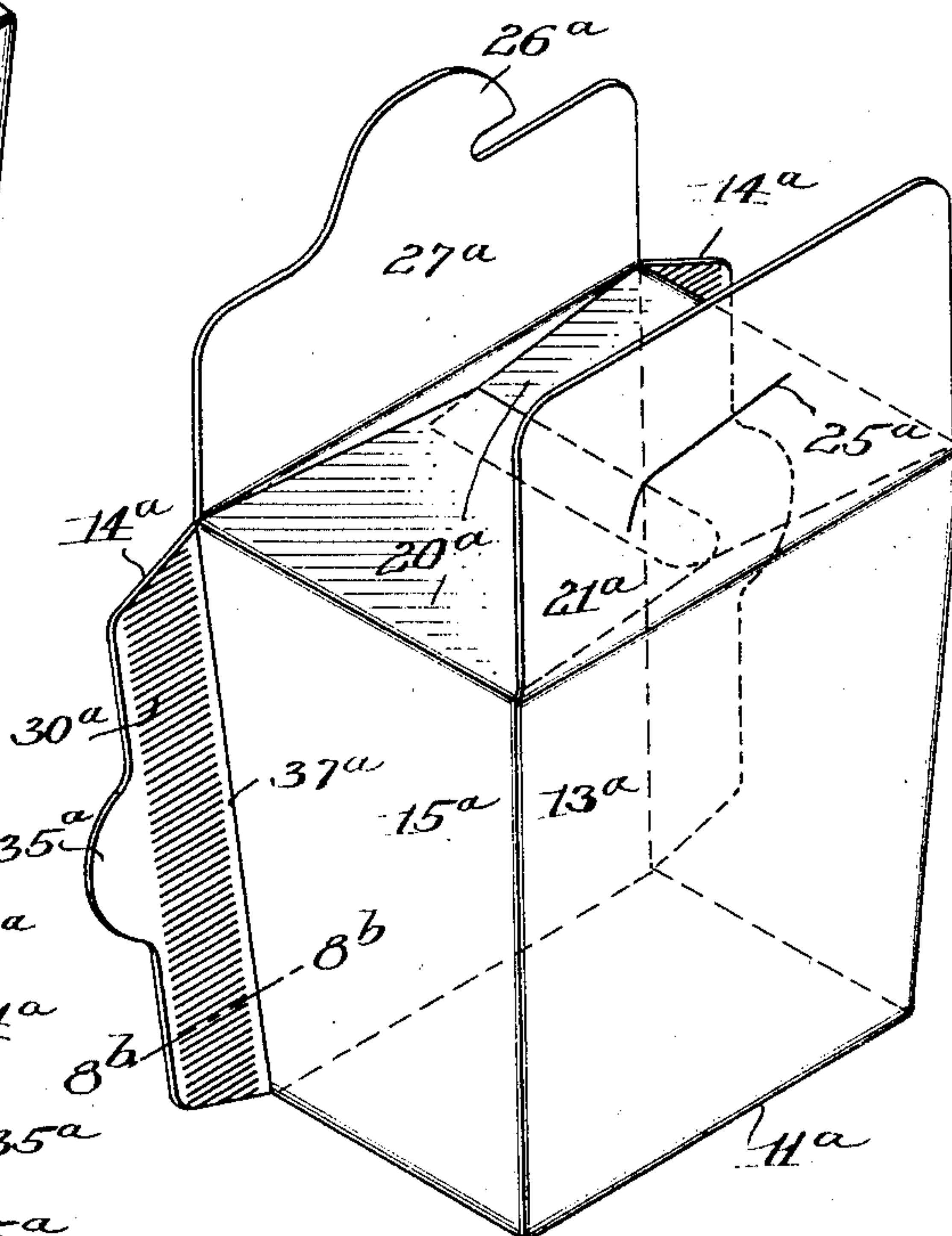


Fig. 7

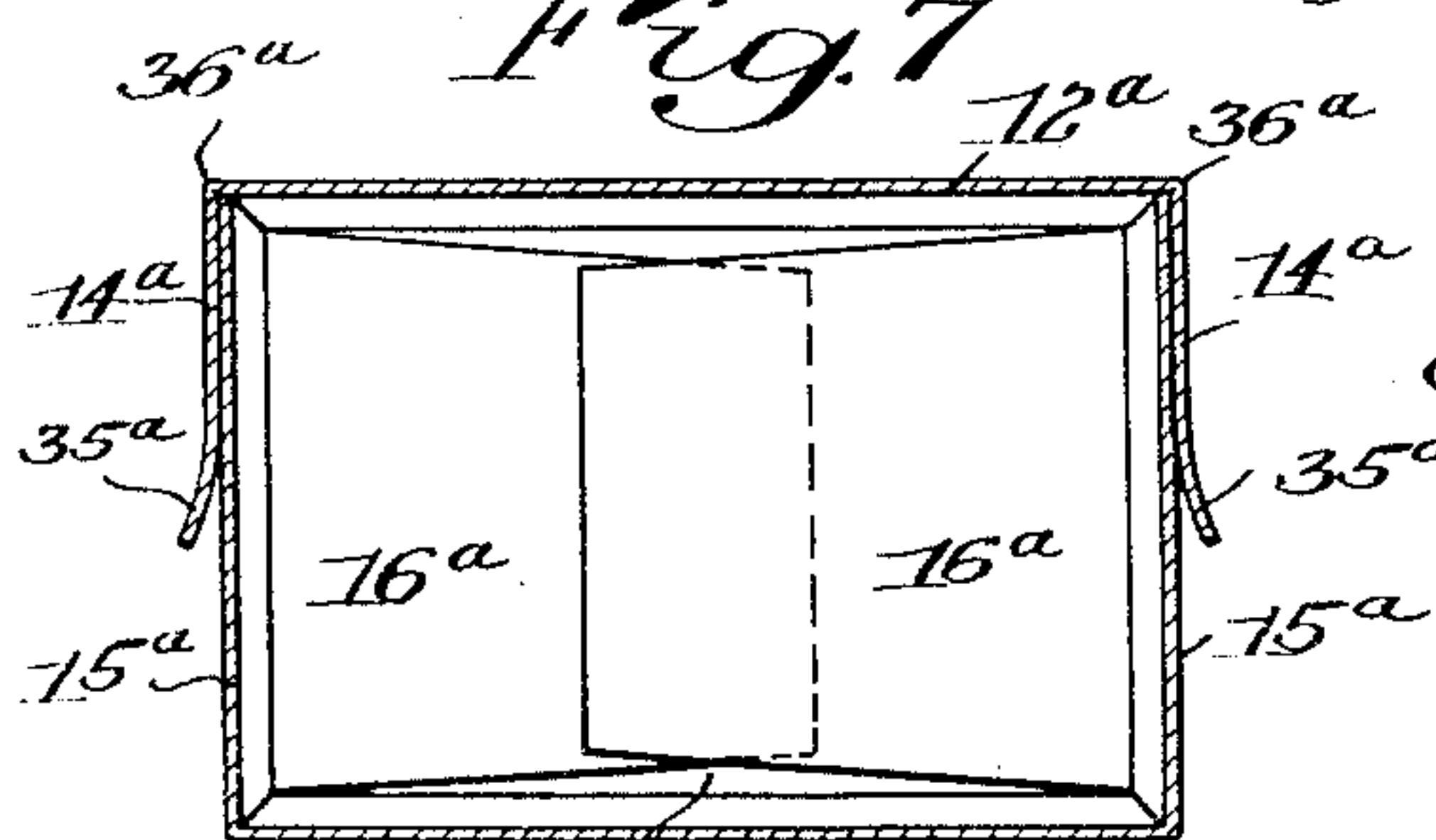


Fig. 8

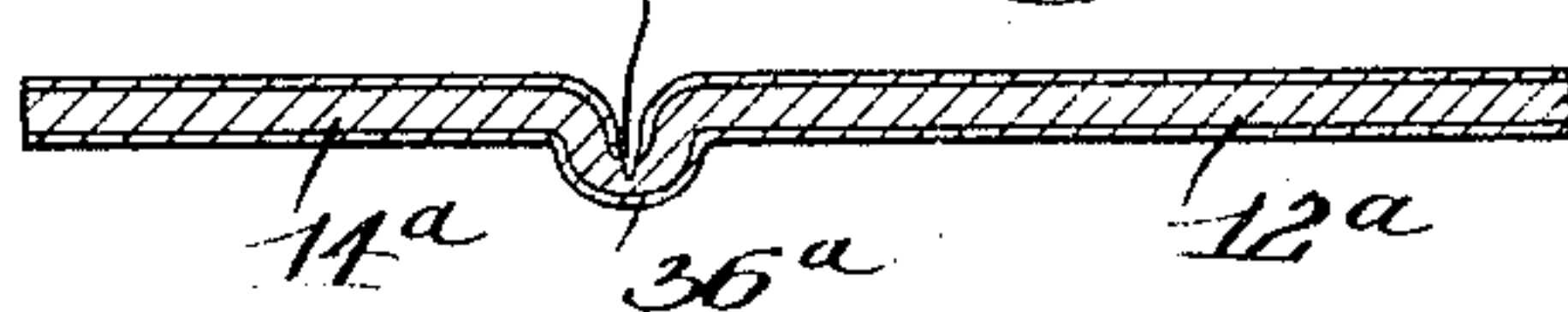
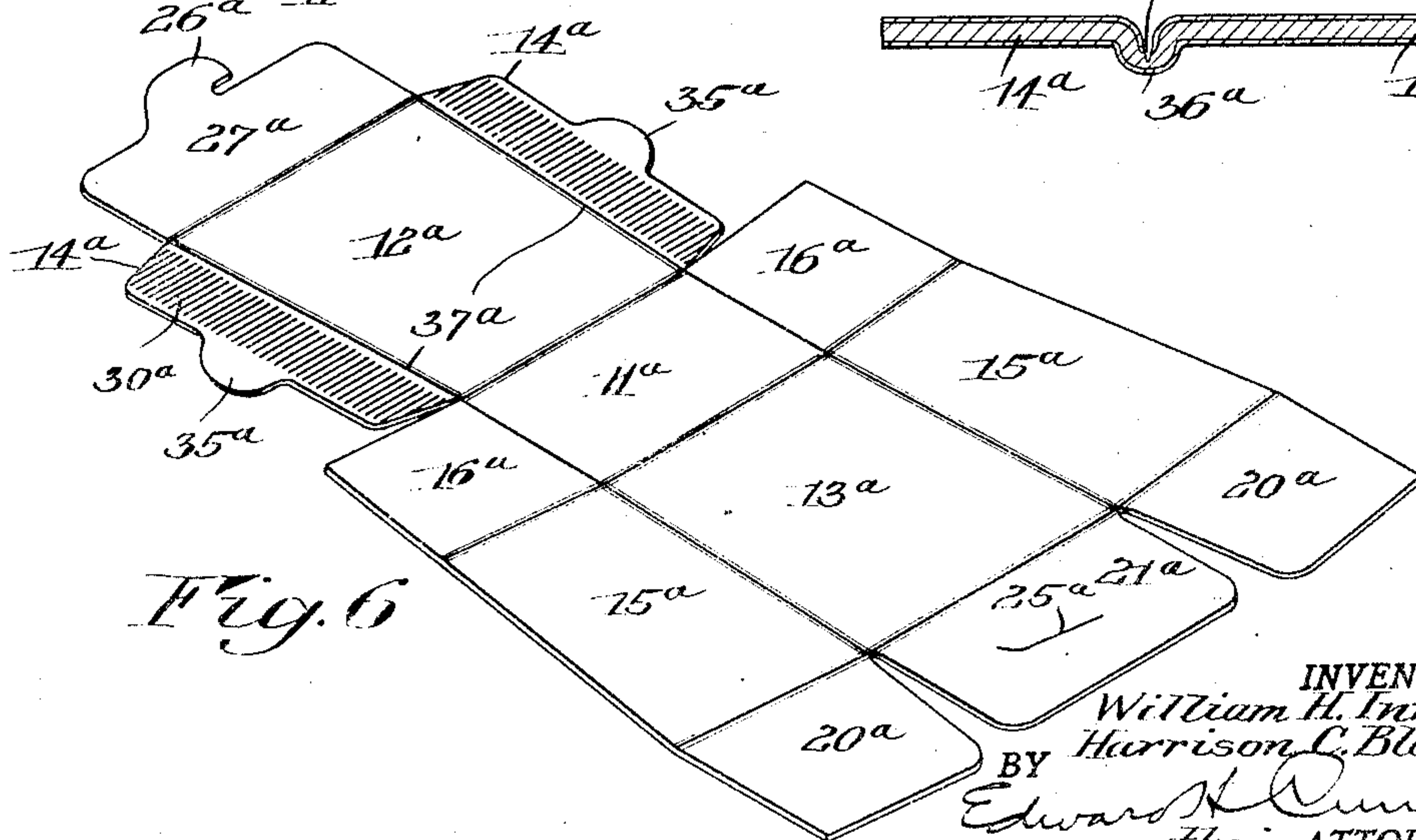


Fig. 6



INVENTORS
William H. Inman
Harrison C. Bloomer
BY Edward H. Davenport
their ATTORNEY

UNITED STATES PATENT OFFICE

WILLIAM H. INMAN AND HARRISON C. BLOOMER, OF NEWARK, NEW YORK, ASSIGNORS
TO BLOOMER BROS. COMPANY, OF NEWARK, NEW YORK, A CORPORATION OF NEW
YORK

CONTAINER

Application filed December 7, 1931. Serial No. 579,558.

This invention relates to paper containers and particularly to those adapted for use in connection with plastic or semi-plastic materials, such for example as ice cream.

5 One object of the invention is the provision of a new and improved collapsible container of the class described which is simple in construction, inexpensive to manufacture, and effective in use.

10 Another object is the provision of a container of this kind which, when erected, provides a substantial container for plastic or semi-plastic materials, yet which may be easily and quickly opened and flattened into
15 a plane to permit such materials to be removed intact.

A further object is to provide a novel means for securely retaining the box walls in assembled relation, such means being of
20 such a character as to enable the walls to be easily and quickly separated to permit the container to be flattened into a plane substantially without tearing or injuring the walls or other parts of the box.

25 To these and other ends the invention resides in certain improvements and combinations of parts, all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of
30 the specification.

In the drawings:

Fig. 1 is a perspective view of a container constructed in accordance with one embodiment of the invention;

35 Fig. 2 is a perspective view of a container illustrated in Fig. 1 in partly assembled position, showing the relation of the various parts thereof;

40 Fig. 3 is a perspective view of a blank from which the container illustrated in Fig. 1 is formed;

Fig. 4 is a perspective view similar to Fig. 1 showing a modification;

45 Fig. 5 is a perspective view of the container illustrated in Fig. 4 in partly assembled position, showing the relation of the various parts thereof;

50 Fig. 6 is a perspective view of a blank from which the container illustrated in Fig. 4 is formed;

Fig. 7 is a horizontal sectional view taken transversely of the container illustrated in Fig. 4, showing the relation of the members which comprise the bottom of the box; and

Fig. 8 is a horizontal sectional view taken
55 substantially on line 8b—8b of Fig. 5, showing the method of slitting the hinge joint.

The same reference numerals throughout the several views indicate the same parts.

The present invention is embodied in the
60 present instance, by way of illustration, in a container formed from a single blank of sheet material, such for example as relatively stiff paper, cardboard, strawboard, or the like, suitably scored to provide members 11,
65 12, and 13, of which the member 11 forms the bottom of the container and the members 12 and 13 form two sides thereof when erected as in Figs. 1 and 2. Extending laterally from the sides 12 and 13 are portions
70 or flaps 14 and 15, respectively, which are adapted to be overlapped, in the manner well known in the art, to provide the remaining sides of the container. The bottom 11 is also provided with flaps 16, folded
75 upwardly at right angles thereto and held in position between the flaps 14 and 15, as clearly illustrated in Fig. 2.

The flaps 15 are provided with longitudinally extending flaps 20 which may be ar-
80 ranged in overlapping relation to close the top of the container when the latter is in erected position, as illustrated in Fig. 2. The side 13 has integral therewith an upwardly extending flap 21 adapted to be
85 folded downwardly upon the flaps 20 to hold the latter in closed position, and provided with a slit 25 arranged to receive a locking tongue 26 on a complementary flap 27 in-
90 tegral with and extending upwardly from the side 12. When the flaps 21 and 27 are overlapped, as shown in Fig. 1, the tongue 26 is adapted to extend through the slit 25 of the flap 21 to lock the flaps 20, 21, and 27 in position to close the top of the con-
95 tainer, in the manner well known in the art.

In the usual form of container of the class above described, the portions or flaps 14, 15, and 16 are adhesively secured to-
100

gether so that these members cannot be readily separated without tearing. With this arrangement the ice cream or other substance in the container is usually removed in small quantities through the top opening by means of a spoon or other similar utensil. It is often desirable, however, to remove the ice cream in intact form so that it may be cut into slices. To so remove the material from such containers the latter must be torn or cut, which operation is not only difficult due to the material from which the container is formed, but also tends to disfigure the contents and is otherwise objectionable.

To overcome these undesirable features, the present invention provides a container which, when erected, forms a substantial and effective receptacle, but which may be easily and quickly flattened into a plane, as shown in Fig. 3, to permit the ice cream or other substance to be removed intact. To this end, each of the flaps 14 is provided with attaching or securing means, preferably in the form of a single glue spot 30 applied to the inner surface of the flap adjacent the top thereof. When the flaps 14 and 15 are in overlapping relation, these glue spots securely retain the flaps in position to form sides of the container, the flaps 16 being retained in position between the flaps 14 and 15. These glue spots 30 provide the only means for securing the various sides of the container in assembled relation, and when these adhesive connections are broken, the container may be flattened into a plane. By placing the glue spots adjacent the upper edges of the flaps 14, the latter are provided with free lower corners or sections 35 which are arranged to be grasped and pulled to break the adhesive connections between the flaps 14 and 15, in the manner to be presently described.

To remove the ice cream or other material from the container, the flaps 20, 21, and 27 are first opened or separated in the usual manner. The lower corner 35 of each of the flaps 14 is then gripped between the thumb and forefinger and pulled outwardly relative to the flap 15, being pivoted on the score line 36 which forms a hinge connection between the flap 14 and the side 12. When the flaps 14 are thus pulled, the adhesive connections are parted and the flaps 14 and 15 are detached. While the glue spots 30 have sufficient strength to hold the portions 14 and 15 in assembled relation, the adhering surfaces may be easily and quickly stripped apart substantially without tearing, in the manner described, to permit the various parts of the container to be unfolded along the original fold lines. By means of this arrangement the container may be easily and quickly opened and flattened into a plane when desired, yet, when in

erected form, constitutes a substantial container of the class described.

While the above described embodiment shows a single, small glue spot adjacent the top of each of the flaps 14 and a free corner adjacent the bottom thereof, it is contemplated that the size, number, and location of this glue spot, as well as the arrangement of the free edge or corner, may be varied without departing from the spirit of the invention. It is desirable, however, that these glue spots be such as will permit the flaps 14 and 15 to be readily separated substantially without tearing the material thereof, and that the glue or other adhesive material be applied over a part only of the area of the side walls so as to provide a free edge or corner which may be easily gripped to open the container and to flatten it into a plane.

The present invention also provides a novel means for terminating or severing any slivers or films of the flaps 14 and 15 which tend to adhere to the adhesive material when the flaps are detached, as above described. This means preferably comprises a slit, indicated by the numeral 37, which, in the present embodiment, is disposed along the score line 36, as clearly illustrated in Figs. 2 and 3. This slit, as illustrated in Fig. 8, is made of a depth sufficient to cut the surface ply which is the part of the adhering surfaces from which such slivers or films may be torn. By means of this arrangement, such adhering plies are readily terminated or severed at the slit so that they will not extend therebeyond. As the thickness of these slivers is very thin compared to the thickness of the flaps, and as they do not materially disfigure the latter when they are detached, the flaps are stripped apart substantially without tearing. Such slits need not extend beyond the glue spot 30.

Figures 4 to 7 show a modified form of container which is also made from a single blank of sheet material suitably scored to provide members 11a, 12a, and 13a, of which the member 11a forms the bottom and the members 12a and 13a form two opposite sides thereof when erected as in Figs. 4 and 5. Extending laterally from the sides 12a and 13a are flaps or portions 14a and 15a which are adapted to overlap to form the remaining or adjoining sides of the container. The flaps 15a preferably extend the full width of the container and form the inner surfaces and part of the outer surfaces of the adjoining sides, as clearly illustrated in Fig. 7. The flaps 14a, on the other hand, are preferably narrower than the flaps 15a and extend over a part only of the outer surfaces thereof and cooperate therewith to form the outer surfaces of the adjoining sides, as clearly illustrated in Figs. 4 and 7. The flaps 15a are provided with longi-

itudinally extending flaps 16a which extend inwardly therefrom when the container is in erected position, and which are arranged in overlapping relation on the bottom 11a, as shown in Fig. 7, to provide the necessary seal at the bottom of the container.

When the container is filled, the flaps 20a which are integral with and extend upwardly from the flaps 15a, are arranged in overlapping relation, as shown in Fig. 5, to close the top of the container. The side 13a has integral therewith an upwardly extending flap 21a adapted to be folded downwardly upon the flaps 20a to hold the latter in closed position, and provided with a slit 25a arranged to receive a locking tongue 26a on a complementary flap 27a integral with and extending upwardly from the side 12a. When the flaps 21a and 27a are overlapped, as shown in Fig. 4, the tongue 26a is adapted to extend through the slit 25a of the flap 21a to lock the flaps 20a, 21a, and 27 in position to close the top of the container, in the manner well known in the art.

As stated above, the flaps 14a extend over a part only of the outer surfaces of the flaps 15a. The inner surfaces of the flaps 14a are provided with glue areas 30a for attaching the flaps 14a and 15a in overlapping relation to form adjoining sides of the container. These glued areas 30a preferably extend the full length of the flaps 14a so as to securely attach the latter to the flaps 15a. The flaps 14a are preferably provided with free tabs 35a which are arranged to be grasped and pulled to part the flaps 14a and 15a, in the manner described in connection with the flaps 14 and 15, to permit the container to be unfolded along the original fold lines, the flaps 14a pivoting on the score lines 36a.

As the layers of glue 30a extend the full length of the flaps 14a, the hinge connections 36a are slit substantially the full length thereof, as indicated by the numeral 37a, so as to completely sever any films or slivers which may tend to adhere when the flaps 14a and 15a are detached. These slits are identical with those shown in connection with the hinged connections 36 above described, and differ therefrom only in that they extend the full length of the hinged connections.

While the present invention shows certain arrangements of glue spots and free edges or corners, it is contemplated that this arrangement may be varied without departing from the spirit of the invention or the scope of the appended claims. It is desirable, however, that the layers of glue be such as will permit the flaps to be readily separated substantially without tearing the material thereof, and that the glue or other adhesive material be applied over a part only of the area of the adjoining side so as

to provide a free corner or section which may be easily grasped to unfold the container along the original fold lines to permit it to be flattened into a plane.

While the invention has been disclosed in connection with ice cream containers, this is by way of illustration only, as it is contemplated that the construction herein disclosed may be used with other forms of containers. The present invention is, therefore, not to be limited to the precise construction disclosed, but is intended to cover all variations and modifications thereof falling within the spirit of the invention or the scope of the appended claims.

We claim:

1. A tapered container formed from a folded cardboard blank having one or more walls comprising overlapping portions the adjacent surfaces of which are adhesively attached together over a part only of the overlapping area of said wall or walls so as to provide a free section arranged to be grasped and pulled to detach said portions to permit said container to be flattened into a plane.

2. A single sheet of cardboard folded to form a tapered container having a bottom and opposite sides, said sides having portions folded inwardly and adhesively secured in overlapping relation, one or more of said portions having a free section arranged to be conveniently grasped and pulled to detach said portions to permit said container to be flattened into a plane.

3. A folded cardboard container having a bottom and opposite sides, said sides having portions folded inwardly in overlapping relation, and means for securing said portions together at one point and leaving them unsecured at another point to provide a free section independent of said securing means and arranged to be gripped and pulled to permit said portions to be detached.

4. A folded cardboard container having a bottom and opposite sides, each of said sides having a flap adapted to be arranged in overlapping relation with a similar flap on the opposite side to form an adjoining side of said container, one of said flaps constituting the outer surface and the other flap constituting the inner surface of said adjoining side, means disposed over a part only of the area of said adjoining side to attach the adjacent surfaces of the flaps together, and a free unattached edge on the outer one of said flaps arranged to be conveniently gripped and pulled to separate said surfaces and permit the walls of said container to be unfolded on the original fold lines.

5. A folded cardboard container having a bottom and opposite sides, said sides comprising portions the adjacent surfaces of which are adhesively attached together to form adjoining sides of said container, one

- or more of said portions having a free section arranged to be grasped and pulled to detach said portions to permit said container to be flattened into a plane, certain of said sides being provided with slits adjacent the attached surfaces so as to sever at said slits any parts of said adjacent surfaces which may tend to adhere when said portions are detached.
6. A single sheet of cardboard folded to form a container having opposite sides, inwardly folded portions hingedly connected to said sides and having the adjacent surfaces thereof adhesively attached together with a free section arranged to be grasped and pulled to detach said portions to permit said container to be flattened into a plane, said container being slit adjacent the hinged connections so as to provide means to terminate at said slit any sliver tending to adhere to said attached surfaces when the portions are detached.
7. A single sheet of cardboard folded to form a container having opposite sides, said sides having portions hingedly connected thereto and arranged to be adhesively attached together in overlapping relation over a part only of the area of said portions to form adjoining sides of the container, one or more of said portions having a free section arranged to be grasped and pulled to detach said portions to permit said container to be flattened into a plane, certain of the hinged connections being slit for a portion of the length thereof so as to prevent any slivers which may be formed between the attached surfaces when said portions are detached from extending beyond said hinged connections.
8. A tapered container formed from a folded cardboard blank having a bottom and opposite sides, each of said sides having a flap adapted to be arranged in overlapping relation with a flap on the opposite side to form an adjoining side of the container, one of said flaps constituting the inner surface and a portion of the outer surface while the other flap constitutes the remaining portion of the outer surface of said adjoining side, means disposed over a part only of the area of the adjacent surfaces of said flap so as to provide a free tab arranged to be grasped and pulled to detach said flap to permit said container to be unfolded on the original fold lines.
9. A tapered container formed from a folded cardboard blank having opposite sides, one of said sides having portions folded inwardly thereof and extending substantially to the other wall, said other wall having portions arranged to overlap a part only of said first mentioned portions and to be adhesively attached thereto, and a free tab on one of said portions adapted to be grasped and pulled to detach said portions to permit said container to be unfolded.
10. A tapered container formed from a folded cardboard blank having opposite sides, one of said sides having a portion folded inwardly thereof and extending substantially to the other wall, said other wall having a portion arranged to overlap a part only of said first mentioned portion and to be adhesively secured thereto, and a free tab on said second mentioned portion adapted to be grasped and pulled to detach said portions to permit said container to be unfolded.
11. A tapered pail capable of being nested with other similar pails when in normal empty condition, and capable of being readily disassembled without cutting to free the contents of the pail for bodily removal, said pail comprising sheet material folded to provide a bottom and tapered sides, at least one of said sides including inner and outer overlapping portions each connected to an adjacent side, said overlapping portions being adhesively secured to each other throughout only a part of their overlapping area, the outer portion being unsecured at a free edge so that said free edge may be conveniently grasped to tear the outer portion from the inner portion in disassembling the pail.
- WILLIAM H. INMAN.
HARRISON C. BLOOMER.

100

105

110

115

120

125

130