

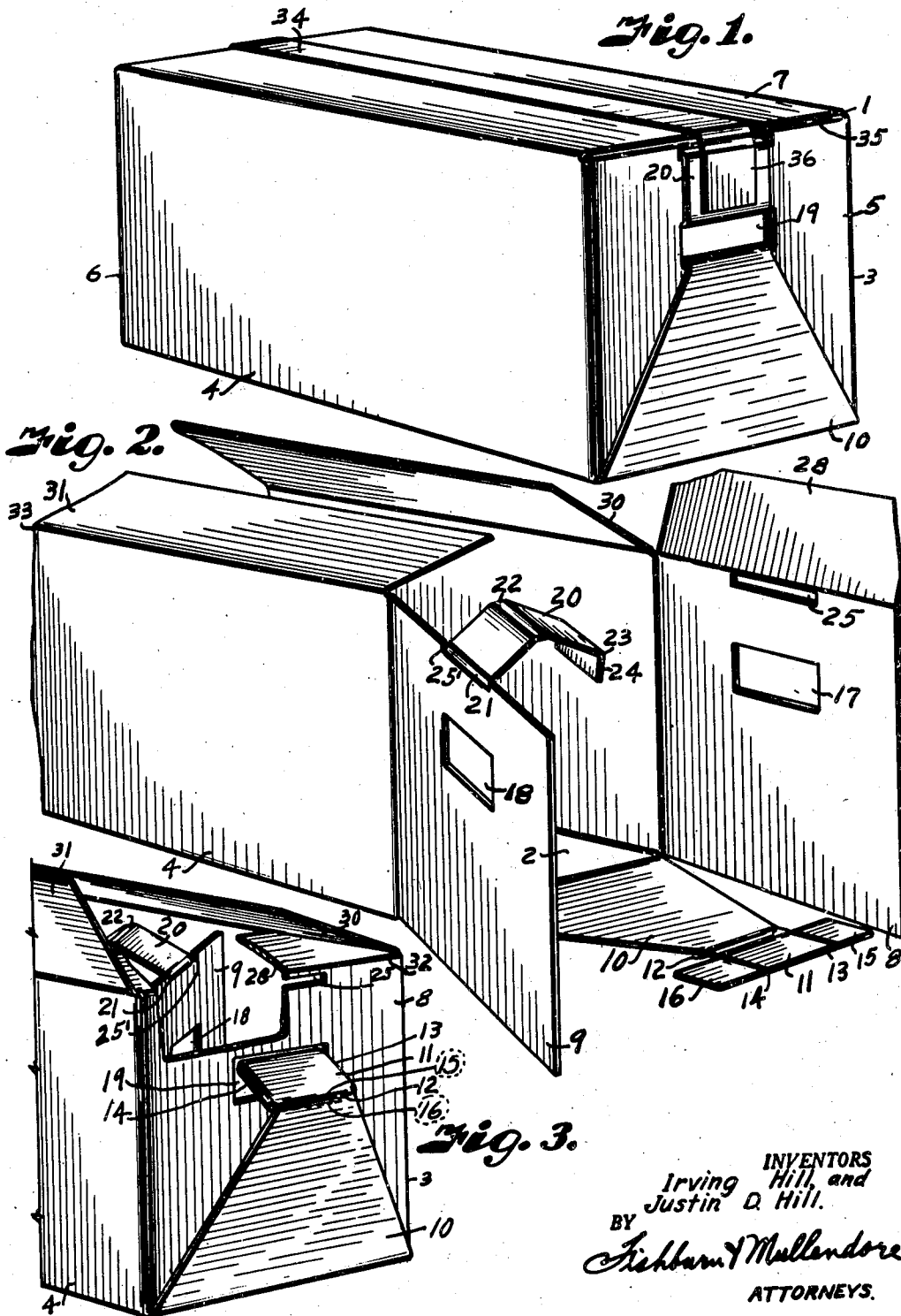
Jan. 25, 1949.

I. HILL ET AL
CONTAINER

2,459,939

Filed July 8, 1946

2 Sheets-Sheet 1



INVENTORS
Irving Hill, and
Justin D. Hill.
BY
Fitchburn & Mullendore.
ATTORNEYS.

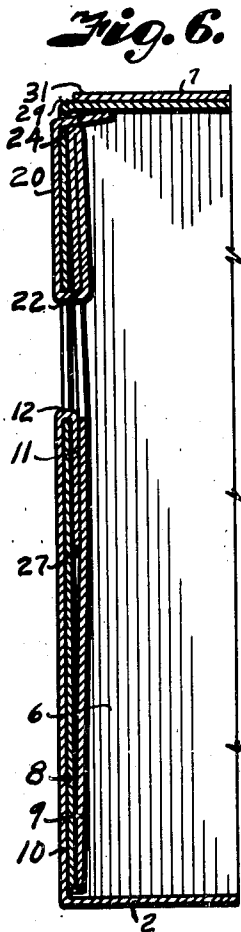
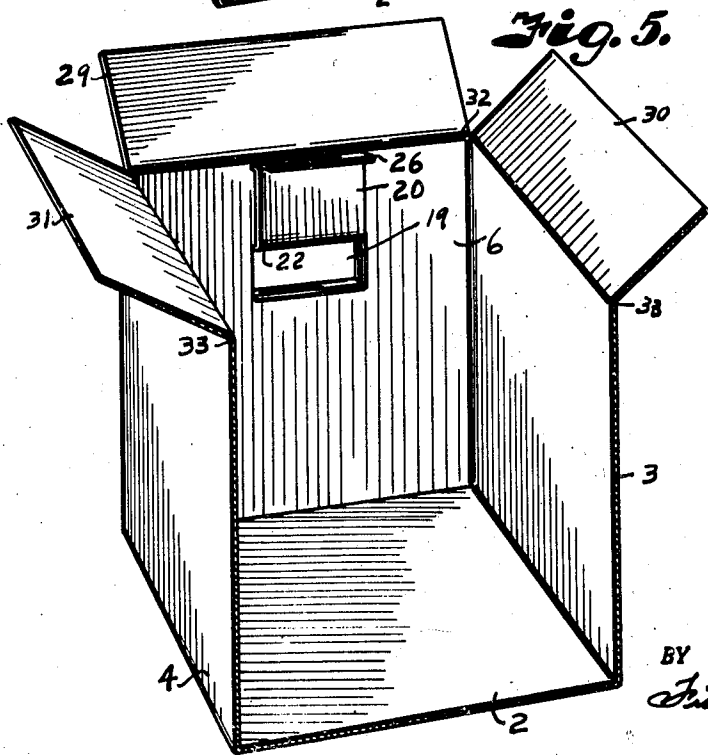
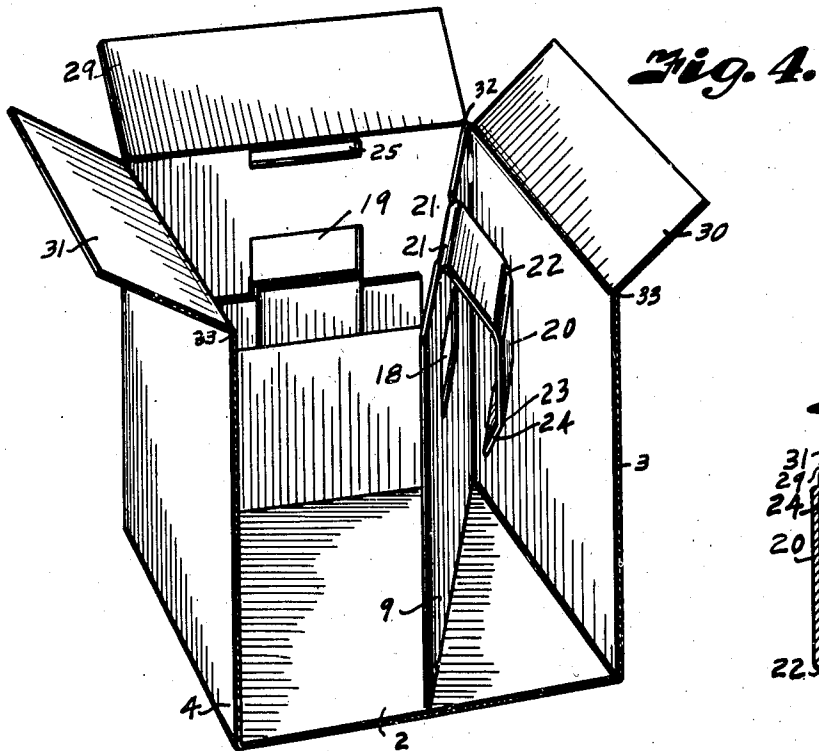
Jan. 25, 1949.

I. HILL ET AL
CONTAINER

2,459,939

Filed July 8, 1946

2 Sheets-Sheet 2



INVENTORS
Irving Hill, and
Justin D. Hill.
BY
Fidburn & Mullendore,
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,459,939

CONTAINER

Irving Hill and Justin D. Hill, Lawrence, Kans.,
assignors to The Lawrence Paper Company,
Lawrence, Kans., a corporation of Kansas

Application July 8, 1946, Serial No. 681,998

2 Claims. (Cl. 229—36)

1

This invention relates to containers, and more particularly to containers of knockdown type adapted for shipping eggs, fruit, vegetables or the like.

The principal objects of the present invention are to provide a container and cover therefor which may be cut from sheet material without waste and which may be set up without tape, staples, stitching or the like for holding the same together; to provide a container which may be knocked down for transporting in substantially flat condition so that a greater number of the empty cases may be transported by truck or the like and which will require smaller space for storage; to provide a container with a cover integral with the body of the container; to provide fastening means on the end flaps of the container which may be quickly released to knock down the container for shipping or storage; to provide means on the end flaps of the sides of the container for locking the end flaps together; and to provide a device of this character simple, economical to manufacture and efficient in operation.

In accomplishing these and other objects of the present invention, we have provided improved details of structure, the preferred form of which is illustrated in the accompanying drawings, wherein:

Fig. 1 is a perspective view of a container embodying the features of our invention showing the cover sealed thereon.

Fig. 2 is a perspective elevation of one end of the container showing the end flaps in disassembled relation.

Fig. 3 is a perspective elevation of one end of the container showing the locking flap being inserted through the hand hold in the end of the container and parts being broken away to illustrate the locking of the end flap.

Fig. 4 is a cross section of the container particularly illustrating the locking means on the bottom end flap in locking position with the outer side flap.

Fig. 5 is a cross section of the container particularly illustrating the means for locking the end and side flaps on the container.

Fig. 6 is a vertical cross section of one end of the container showing the side and end flaps in locking position.

Referring more in detail to the drawings:

1 designates a container embodying the features of our invention comprising a bottom 2, sides 3 and 4, ends 5 and 6 and a cover 7. The sides, bottom, ends and cover of the container are preferably formed from a continuous sheet of fiber

2

material, although we do not wish to be limited to such material as other materials may be adapted for our purpose.

When adapted for containing eggs, our container is preferably formed of rectangular shape and the ends 5 and 6 are formed by flaps 8 and 9 which are formed as a continuation of the sides 3 and 4 and adapted to be folded inwardly over each other, forming a double thickness for the end of the container. A flap 10 preferably of substantially triangular shape is formed as a continuation and extending from the bottom 2 of the container and is adapted to be folded over the end flaps 8 and 9 as illustrated in Figs. 1 and 3. The triangular-shaped flap 10 has a substantially T-shaped head 11 connected therewith by a fold line 12. The head 11 is provided with transverse fold lines 13 and 14 so that tabs or flaps 15 and 16 formed by the T-shaped head may be folded over each other as illustrated in Fig. 3 and adapted to be extended through openings 17 and 18 in the end flaps 8 and 9 respectively. When the flaps 8 and 9 are folded together the openings 17 and 18 will align with each other to form a hand hold 19 in the respective ends of the container. After the folded head is projected through the opening 17 in the outer end flap 8, the tabs 15 and 16 are unfolded to form a key and lock the outer end flap 8 to the triangular-shaped bottom flap 10 as best illustrated in Fig. 4.

The inner end flap 9 is provided at substantially the center of the upper edge thereof with a locking tab 20 which is formed by an extension on the end flap 9. The tab is provided at the edge of the end flap 9 with a fold line 21 and spaced from the respective ends of the tab are fold lines 22 and 23, the fold line 22 being double to accommodate for the thickness of the end flaps. When the end flap 9 is in the end forming relation with the flap 8 the tab 20 is preferably turned inwardly and extended through the hand hold opening 19 and then upwardly along the outer side of the end flap 8 and the end 24 of the tab is extended through a horizontal opening 25 above the hand hold and near the upper edge of the end flap 8 to lock the end flaps together and hold the side wall end flaps and bottom end flaps in closed relation. The top edge of the end flap 9 is slit on each side of the tab 20 to a depth equal to the fold line 21 so that the tab will be flush with the edge of the flap when in locking position as indicated at 25'.

It will here be noted that the tab 20 when inserted through the hand hold furnishes a smooth surface for the hand hold instead of the rough

edges of the container as is the usual practice. When the tab is in locking relation it will extend slightly through the slot 25 as best illustrated at 26 (Fig. 5). Such end structure will form a very rigid container and particularly when shipping eggs the triple layer end will furnish a cushioning effect for the containers when they are in end-to-end relation. This is due to the locking head 7 on the triangular-shaped flap of the bottom of the container being inserted between the end flaps 8 and 9 as best illustrated at 27 (Fig. 6).

Flaps 28 and 29 are provided on the upper edges of the end flaps 8 and 9 and the sides 2 and 3 are provided with flaps 30 and 31 to form the cover 7 for the container. The end flaps 28 and 29 are provided with fold lines 32 and the side flaps 30 and 31 are provided with fold lines 33 so that the top will lie flat for the cover. The end flaps 28 and 29 extend inwardly a suitable distance and the side flaps 30 and 31 extend to substantially the center of the container. A strip of sealing tape 34 may be placed over the mating edges of the cover flaps 30 and 31 to hold the same in place and the ends thereof extended over the corner edge 35 of the box and engage extension tab 20 as indicated at 36 (Fig. 1) to seal the cover and hold the extension tab in locking position, although this sealing of the tab is not necessary.

It will be obvious from the foregoing that we have provided an improved container particularly adapted for shipping eggs and when the eggs are unpacked the cases may be folded and knocked down to a flat condition and returned to the original packer for reuse or storage prior to reuse.

It will further be obvious that we have provided a container which may be cut from a substantially rectangular sheet of material without waste of such material as the side and end flaps as well as the cover flaps are all of substantially mating length so that no offset will be required from the stock sheet.

It will further be obvious that with our arrangement of locking of the end and bottom flaps, a smooth interior will be provided in the egg case except for the locking tab near the top of the end of the case as indicated at 26. However, there is sufficient resiliency in the end of the container so that the cartons of eggs may be easily inserted in the container.

What we claim and desire to secure by Letters Patent is:

1. A container including bottom and side walls, flaps on the ends of the bottom and side walls overlapping each other for forming end walls for

said container, said side wall flaps having registered hand hold openings and the outer of said side wall flaps having slots above the hand hold openings, locking means on said flaps of the bottom extending through said hand hold openings on the outer of the side wall flaps and engaging between said side wall flaps, said side walls and the outer side wall flaps having closure flaps for forming a cover for said container, and integral tongues having fold lines on the upper edges of the inner of said side wall flaps above the hand hold openings adapted to extend through the hand holds and engaging in the slots for locking the end flaps together.

2. A container comprising, a body having bottom, side and end walls, said end walls being formed by flaps extending from the ends of the side walls and folded together forming a double thickness for the end walls and having hand holds therein, substantially triangular-shaped flaps extending from the bottom of the container adapted to fold upwardly over the end flaps of the side walls, a head on said triangular-shaped flaps having fold lines extending outwardly from the side edges of the triangular-shaped flaps providing flaps adapted to fold over the head and be inserted through said hand holds on the outer end flaps of the side walls and adapted to lie between said end flaps, said side walls and outer end flaps having flaps provided with fold lines adapted to form a cover for said container, said outer end flaps of the side walls being provided with horizontal slots adjacent said fold lines, and integral tabs on the inner end flaps adapted to engage in said hand holds and said slots for locking said end flaps together.

IRVING HILL.
JUSTIN D. HILL.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
590,058	Filmer	Sept. 14, 1897
2,147,676	Shoemaker	Feb. 21, 1939
2,149,955	Burns	Mar. 7, 1939
2,340,394	Limbort et al.	Feb. 1, 1944
2,351,528	Lupton	June 13, 1944
2,357,155	Williams et al.	Aug. 29, 1944
2,366,304	Williams et al.	Jan. 2, 1945