Aug. 20, 1935. M. KOPPELMAN ET AL 2,012,132

SHIPPING CONTAINER

Filed Feb. 6, 1931 2 Sheets-Sheet 1

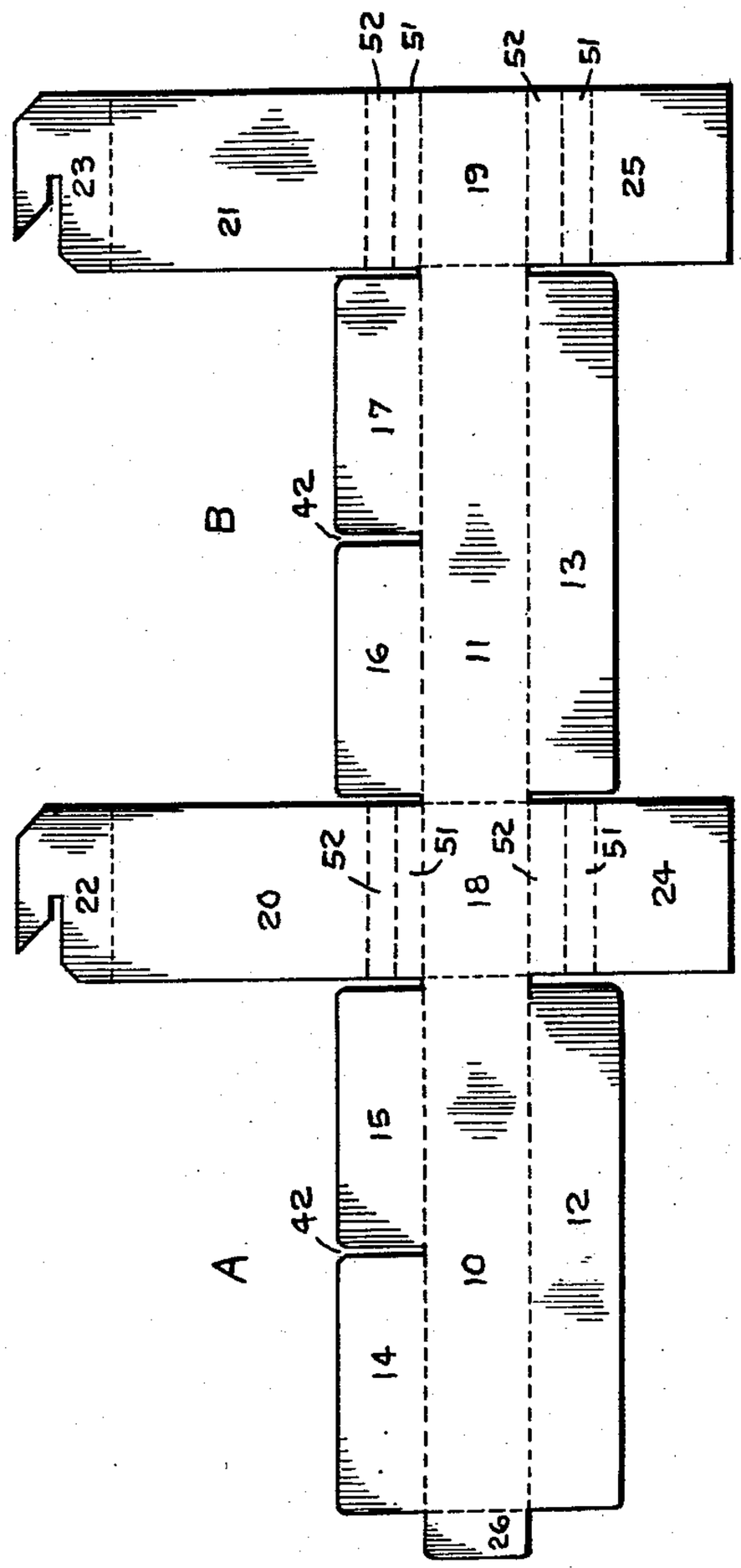

FIG-1

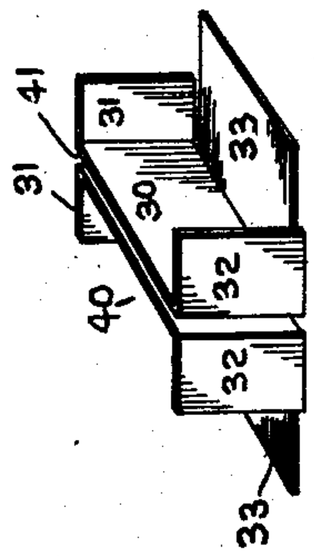

FIG-3

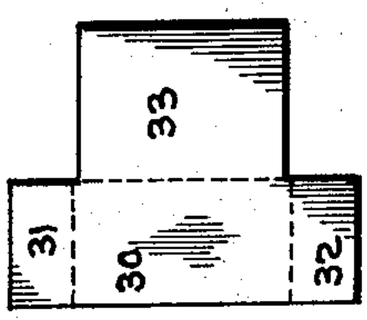

FIG-2

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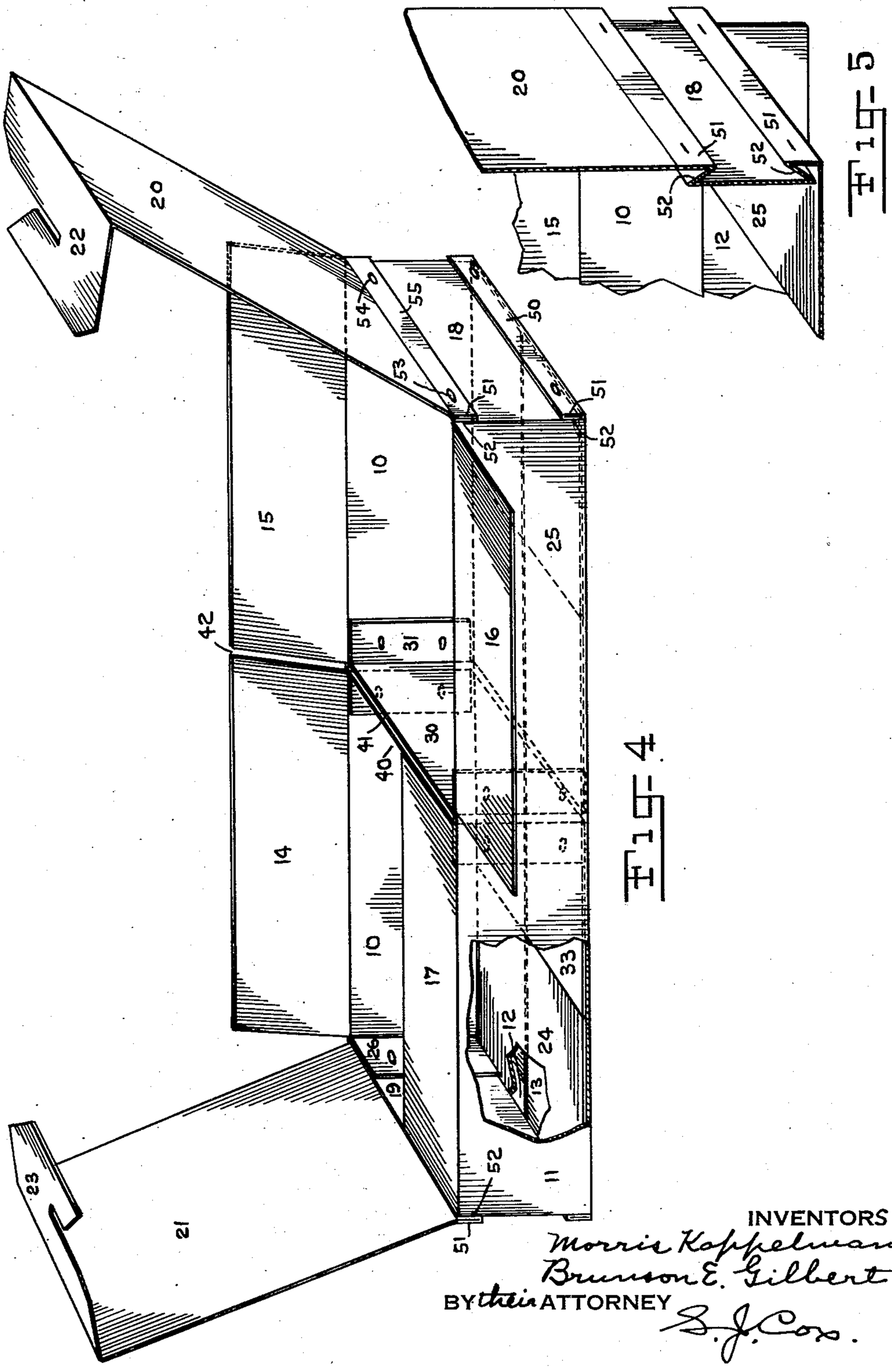

FIG 5

FIG 4

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2,012,132

SHIPPING CONTAINER

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Application February 6, 1931, Serial No. 513,916

7 Claims. (Cl. 229—15)

The present improvements relate to shipping cases or containers for eggs or other fragile articles and are primarily intended for shipping such articles in quantities of any size, as desired.

A primary object, among others, is to provide a container formed of paper board, card board, corrugated board or ledger board which may be readily assembled for use, possessing strength and durability thereby protecting the articles against breakage in shipment.

A further object is to provide a container of this character which is economical in materials and manufacture, lighter in weight, but sacrifices none of the characteristics of strength of the wooden containers which it replaces.

Another object is to provide a novel container having improved cover means as well as improved partition means, cooperating to enclose the articles in an efficient manner and yet be readily releasable for inspection of the contents.

The provision of the foregoing elements also lends strength and rigidity to the container. A further object of the improvements is the provision of reinforcing means along the ends of the container which also serve as handles or grips for lifting or transporting same.

Other objects include the forming of a container from blanks with little or no waste material. Various other objects and advantages will be apparent to those skilled in the art upon reference to the accompanying drawings, in which—

Fig. 1 illustrates a blank which may be folded for forming the container;

Fig. 2 illustrates a blank for forming part of the partition;

Fig. 3 is a perspective view of the partition means;

Fig. 4 is an enlarged perspective of the assembled container;

Fig. 5 is a fragmentary end view of the container, illustrating the manner of forming the reinforcing handles.

Referring to the drawings, the blank illustrated in Fig. 1 may be stamped out of any suitable card board, corrugated or ledger board as desired. This blank comprises the side wall members **10** and **11** having bottom members **12** and **13** integral therewith and top members **14**, **15**, **16** and **17**. The end wall members **18** and **19** have also integral therewith the cover members **20** and **21**, which respectively have end flaps **22** and **23**. Members **24** and **25** project in an opposite direction from the end wall members **18** and **19**, as clearly seen in Fig. 1. A securing flap **26** is provided for holding the blank in assembled relation. It will be noted, that this blank is suitably scored or otherwise provided with fold lines so as to facilitate assembly and formation of the container.

In order that there may be little or no waste material in the sheet from which the blank is stamped, two additional blanks such as illustrated in Fig. 2, are stamped out of the remainder of the sheet at A and B, as seen in Fig. 1. These blanks comprise a wall portion **30**, end or securing flaps **31**, **32** and bottom member **33**. The assembly of these two blanks in cooperative position is clearly illustrated in Fig. 3.

The blanks assembled in the form of a container are illustrated in Fig. 4 where the securing flap **26** is stapled or otherwise secured to the end wall member **19**. The flaps **24** and **25** are folded inwardly to form a part of the floor of the container, while flaps **12** and **13** are then folded inwardly to form the ultimate bottom thereof. It is notable that these larger bottom flaps substantially meet along the center of the container.

The partition means **40** assembled as illustrated in Fig. 3, may now be secured across the container in the position illustrated in Fig. 4. This is accomplished by securing the end flaps **31** and **32** to the side wall members **10** and **11**, as illustrated. It is notable that the two blanks provided for this partition means are secured in slightly spaced relation so as to provide a pocket or sheath **41** transversely of the container and in alignment with the slots **42** which separate the members **14** to **17**. With the partition means thus disposed, it is seen that the flaps **33** thereof form a portion of the floor of the container and extend away from one another and meet the members **24**, **25**. Suitable securing means, such as staples, glue or other media, may be employed to secure bottom members **12** and **13** to the floor members **24**, **25**, **33**. It is thus apparent that the container is provided with a very sturdy double ply bottom.

Aside from other features hereinafter set forth it is apparent that the partition means **40** divides the container into two sections and provides rein-

forcement for the walls as well as the container as a whole.

Attention is directed to the fact that the members 20, 21, 24 and 25 in the blank in Fig. 1 are provided with slightly more material than is required by them to meet their functions in the final form. This extra material designated as 51 and 52, is employed for reinforcing the end walls of the box as well as for providing a flange or lifting handle. Upon inspection of Fig. 5, it will be seen that the strip 51 is folded back against the end face of the container and strip 52 is then reversely folded against strip 51, thereby providing a double ply lip or flange. This material is then securely stapled to the end wall of the box at 53 and 54, where it provides reinforcement. It is notable that the staples 53 and 54 are suitably spaced so that a gap will be provided, therebetween, so that the folded-over material may be expanded for the purpose of forming a handle 55 underneath which the fingers of an individual may be inserted for readily lifting or transporting the container.

These handles 55 are provided as illustrated, across the top of the end walls of the container, and a similar structure similarly formed is provided along the lower edge of the end walls thereby affording reinforcements designated 56. It is within the contemplation of the improvements to omit these lower portions 56 thereby saving material to the extent that the flaps 24 and 25 will be stamped without the strips 51 and 52, and accordingly will be hinged inwardly directly from the bottom edge of the end wall members. In this event, the handles 55 only will be provided.

In making the handles 55 in the manner illustrated in Fig. 5, these members are integral with their respective end wall and top cover members which provide a strong and sturdy construction and one which is easily assembled. Obviously, the handles 55 may be supplied from separate material and the cover members 20 and 21 hinged directly to the end wall members. However, as heretofore set forth in making the cover members 20 and 21 oversize so as to provide for this doubled over flange at the end, added reinforcement and protection at the ends and corners is derived.

In using the container, the members 14 to 17 may be folded over the sections of the container where they will meet substantially along the longitudinal center. When thus folded over, the slots 42 will expose the pocket or channel 41 provided by the partition means. The top cover members 20 and 21, which hinge inwardly from the ends of the container, may now be folded downwardly and the flaps 22 and 23 tucked into the pocket 41 formed by the partition, wherein they are held by the close fit and engagement in the walls of the pocket. The end flaps 22 and 23 may be stamped in the manner illustrated so as to be interlocked, if desired, prior to their insertion in the pocket 41. Furthermore, a removable spring clip or paper fastener may be slipped over the ends of the flaps as they are about to be tucked in. Should the chosen material not lend itself to such means, a piece of gummed tape may be placed across the covers after the said end flaps have been tucked into the channel of the partition.

In providing the box or container with the transverse partition forming pocket, as well as cover members which are hinged from the ends, the contents of the sections of the container may be readily inspected. Due to the stress set up in a card board container of this character, it has been found that covers hinged from the ends permit a sturdier and more rugged construction in the receptacle as a whole.

In providing a rectangular shipping case of this character, no limit need necessarily be placed upon the capacity thereof. For example, the blank may be stamped so that the side and end wall members are many times the width of the illustrated embodiment, whereby upon assembly as shown in Fig. 4, the container will be considerably deeper so as to accommodate thirty-six, one hundred and forty-four or even a larger amount of fragile articles, such as eggs, and the like. The present improvements lend themselves admirably to this larger size of shipping case, and may be readily lifted by means of integral handles 55 which insure a firm grip on the case since said handles form an integral part thereof and will not therefore work themselves free of the body of the container.

It will be noted that the illustrated embodiment provides a double ply top and bottom so that the articles will be well protected, regardless of which surface of the container happens to be uppermost.

Various modifications within the scope of the present improvements will be apparent to those skilled in the art and may be made without departing from the purview of the invention.

We claim:

1. A box comprising bottom members, side members, end cover members integral therewith, and centrally disposed partition means defining a pocket for receiving depending portions of said cover members, said portions being carried by the edge of said cover and in opposed relation to said side members.

2. A box comprising bottom members, side members, end cover members integral therewith, and a centrally disposed partition comprising spaced members adapted to receive portions of said cover members, said portions being carried by the edge of said cover and in opposed relation to said side members.

3. A rectangular box folded from a blank comprising side wall members having integral top and bottom members, end wall members having integral cover members, transverse partition means secured to said side members dividing said box into two sections, said partition means comprising spaced wall members defining a channel for receiving portions of said cover members.

4. In an elongated shipping container, cover members hinged at each end thereof, members forming a pocket transversely of the container, and flaps on said cover members adapted to be tucked into and held in said pocket.

5. A shipping container comprising upright side and end wall members, bottom wall members attached to said side and end members and disposed horizontally for providing a bottom for the space enclosed by said side and end wall members, means defining an upstanding pocket between the side wall members of the container, cover members hinged to different upstanding wall members, and foldable to provide the top of the container, said cover members having flaps along the edges remote from their hinges, the cover members extending from their hinges to the position of said pocket means whereby said flaps may be removably nested within said means.

6. A container comprising side, end and bottom walls, means defining an upright pocket extending between said side walls and substantially

parallel to said end walls, cover members hinged to said end walls, said cover members being provided at the edges remote from said end walls with flaps having interlocking means, which, when the covers are in closed position, are interlocked and located within said pocket.

7. A container comprising side, end and bottom walls, means defining an upright pocket extending between said side walls and substantially parallel to said end walls, cover members hinged to and carried by said end walls, said cover members being provided at the edges remote from said end walls with flaps having interlocking means, which, when the covers are in closed position, are interlocked and located within said pocket.

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