

July 2, 1957

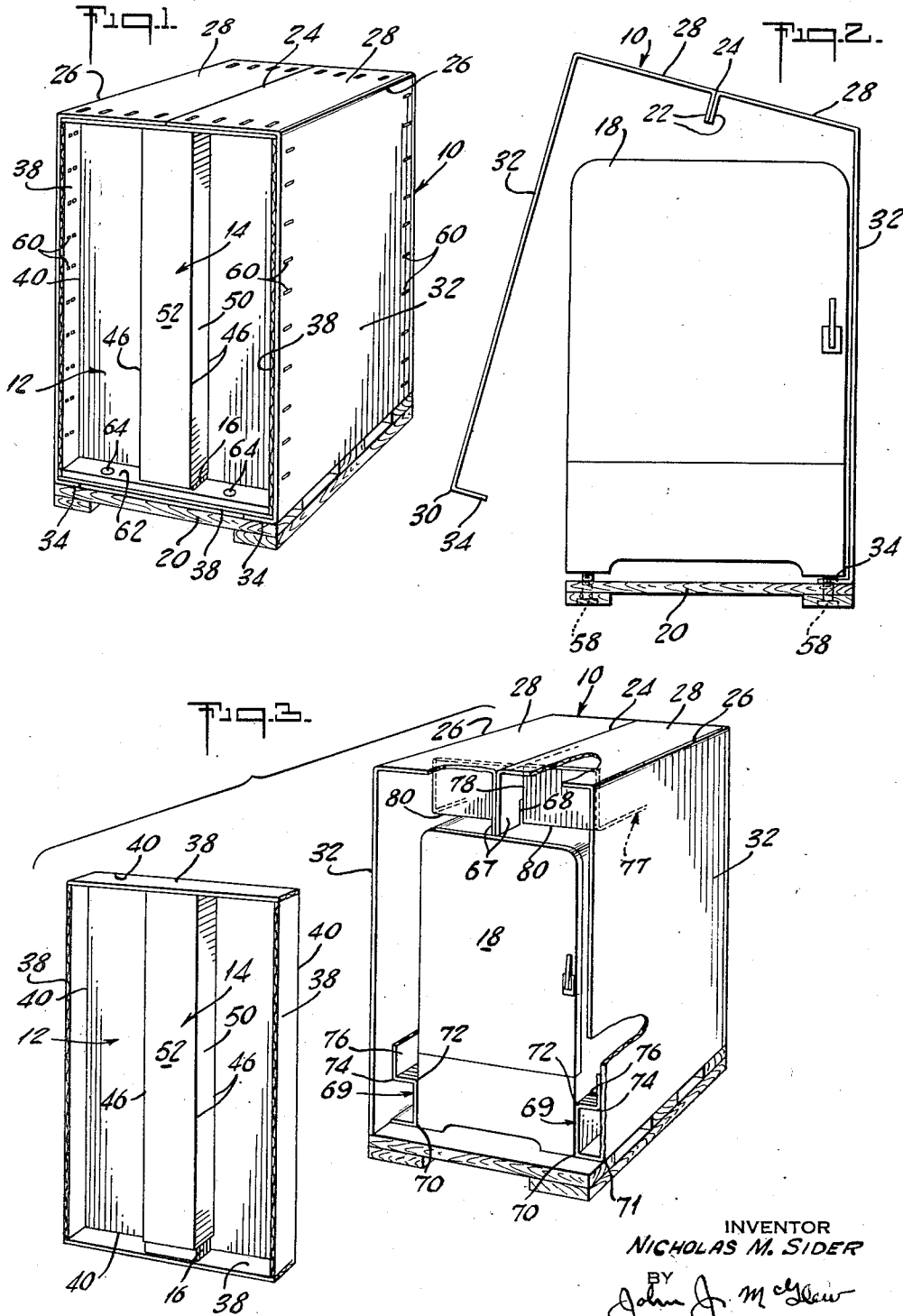
N. M. SIDER

2,797,800

APPLIANCE CONTAINER

Filed Aug. 6, 1954

2 Sheets-Sheet 1



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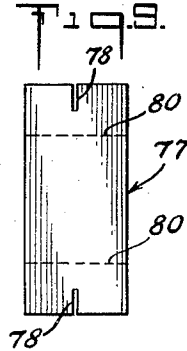
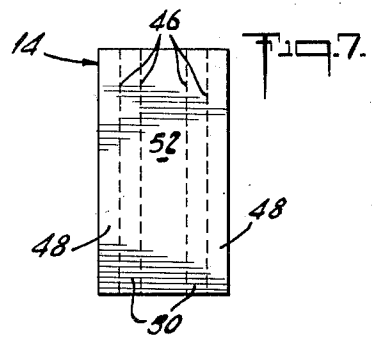
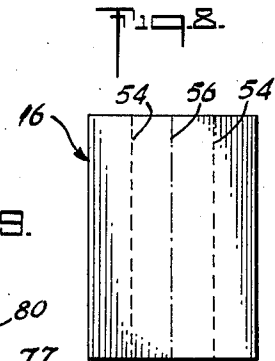
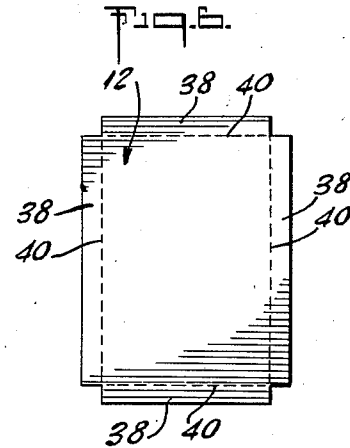
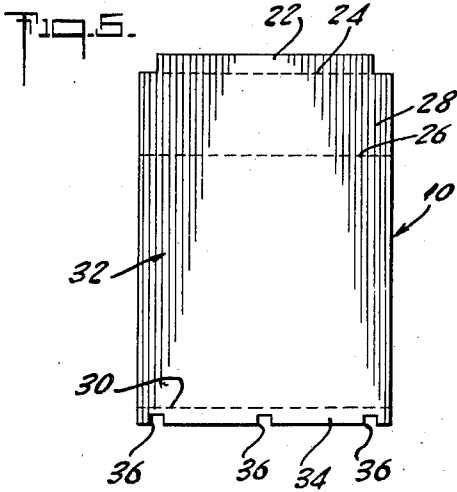
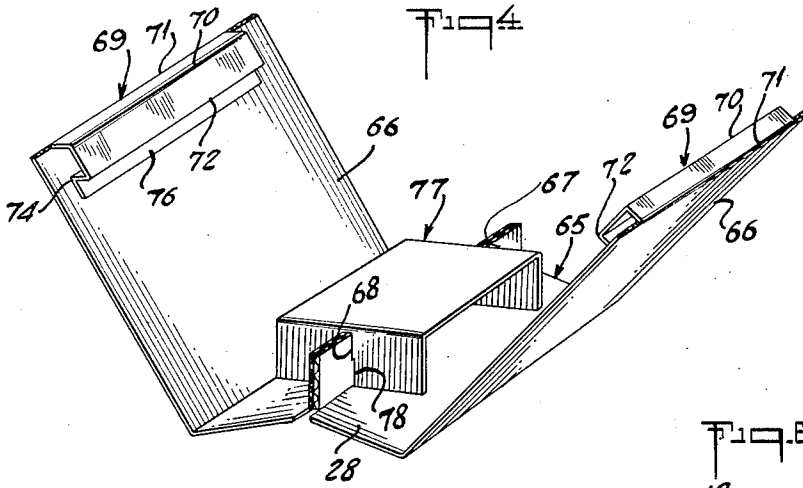
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1

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APPLIANCE CONTAINER

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Application August 6, 1954, Serial No. 448,227

5 Claims. (Cl. 206—46)

This invention relates to new and useful improvements in shipping containers and particularly seeks to provide a novel unitary container for the shipment of appliances or similar bulky cabinets.

An object of this invention is to provide a shipping carton particularly useful in connection with the transportation of appliances and which may be readily assembled about such appliances.

Another object is to provide a shipping carton in which the structural elements, including side and top wall panels and reinforced end closures, are formed from corrugated paperboard panels which are easily assembled to fit over and around an appliance and to interlock between the appliance and its skid.

Another object of this invention is to provide a packaging container of the character stated in which the enclosing walls and top are maintained in spaced relationship from the object to be packaged therein by padding formed by extensions of the side walls, and in which the enclosing walls and top are maintained in the erected positions by stapling or otherwise securing reinforced end closures to the enclosing walls and to a supporting skid.

Another object of this invention is to provide an inexpensive appliance container of the character stated, which is of simple design and easily transported when fully assembled and secured around an appliance.

The various features of novelty which characterize the invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention, its operating advantages and specific objects attained by its use, reference should be had to the accompanying drawings and descriptive matter in which there are illustrated and described preferred embodiments of the invention.

In the drawings:

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

Fig. 2 is a front elevation showing how the side and top portions of the container of Fig. 1 are assembled over an appliance which has been mounted on wooden skids;

Fig. 3 is a perspective view of another embodiment of an appliance container constructed in accordance with the invention;

Fig. 4 is an inverted perspective view showing how the top protective pad is interconnected with the side and top portions of the embodiment shown in Fig. 3;

Fig. 5 is a blank for one-half the top and one complete side wall for the embodiment shown in Fig. 1;

Fig. 6 is a blank for one end closure of either embodiment;

Fig. 7 is a blank for a reinforcing strip securing tube for each end closure;

Fig. 8 is a corrugated paperboard reinforcing strip; and

Fig. 9 is a blank for a rectangular top protective pad.

Referring to the drawings in detail, the invention as illustrated is embodied in a shipping package which in-

2

cludes two identical combination top and side wall panel members each formed from a blank 10, two identical end closures each formed from a blank 12 and provided with a reinforcement tube formed from a blank 14, and reinforcing strips 16 contained within the tubes 14, all arranged to enclose a refrigerator or other appliance 18 which is mounted on a skid 20.

Each blank 10 for the top and side wall members is notched at two end corners to define a narrow top securing flap 22 foldable about a score line 24 aligned with the bottom edges of the corner notches. A second score line 26 parallels the score line 24 and defines therebetween a top closure panel 28. Another score line 30, parallel to the bottom edge of the blank defines the lower edge of a side panel 32 and the upper edge of a narrow bottom-securing flap 34, the lower edge of which is notched as at 36 in order to span the skid mounting bolts of the appliance, as will be hereinafter more fully described.

Each end closure 12 is notched at all four corners to define four narrow end closure securing flaps 38 which are foldable about score lines 40 which are each, respectively, aligned with the end edges of the laterally adjacent flaps 38. Each end closure is reinforced by securing a reinforcing tube 16 to the central portion of each face. A plurality of reinforcing strips or one alternately reverse scored and slit accordion folded strip is inserted into the tubes to give them added strength. The reinforcing tubes are formed from rectangular blanks 16 each having four vertical score lines 46 defining two outer flaps 48, 48 and two side walls 50, 50 and a central panel 52. The blank is folded about these score lines to form a tube large enough to enclose the reinforcing strips 16, and each of the tubes thus formed is pasted or otherwise secured to the central portion of its associated end closure 12.

The reinforcing strips 16 are inserted into the tubes before the closures are assembled to the container. They can be formed either as a plurality of rectangular corrugated paperboard strips or as in this case a blank 16 which is scored along vertical lines as at 54 and reverse scored in two places as at 56, and then accordion folded into a multiple thickness strip.

To prepare a refrigerator 18 or other bulky appliance or cabinet for shipment in accordance with this invention the refrigerator is mounted on the skid 20 before mounting bolts 58 are tightened. The sides and top of the refrigerator are then covered by the two combination top and side wall panels 10 which are first secured by fastening the tabs 22 together. One of the bottom-securing flaps 34 is interposed between the refrigerator and the skid 20 with the notches 36 fitting around the bolts 58. The combination top and side wall panels are then folded about the score lines 24, 26 and 30, so that they cover the top and sides of the refrigerator as shown in Fig. 2, after which the other bottom-securing flap 34 is folded along its score line 30 and interposed between the refrigerator and the skid with the notches around the bolts 58.

After the combination top and side wall panels 10 are joined together and secured around the refrigerator the flaps 38 on the end closures are folded along their respective score lines 40 and 42, and the end closures 12 with the reinforcement tubes and reinforcing strips secured thereto are interposed in the openings at each end to close the container. In the closed position the top and side securing flaps 38 are in juxtaposition with the top closure panels 28 and the side panels 32, and these flaps are secured thereto as by staples 60. After the securing flaps are thus fastened along the top and side

3

the bottom securing flaps are secured in place by positioning wooden closure strips or cleats 62 thereover and fastening the same by screws 64 which extend into the skid 20.

In accordance with the principles of this invention the top and side wall panel members may be changed slightly to provide additional protection for articles to be packaged in the container. In the embodiment shown in Figs. 3 and 4 top closure panels 65 and the side panels 66 are similar to the ones formed from blank 10; however, the top securing flaps 67 are of a greater depth and are notched near each end as at 68, and in place of the bottom securing flaps 34 are integrally formed rectangular sections 69. Each rectangular section is of less width than panel 66 from which it is integrally formed and is scored along lines 70, 71 and 72 and reverse scored along line 74. The score lines are all parallel to the top and bottom edges of the panels 66. The reverse score line 74 is spaced close to the outer edge of the rectangular section, the others being spaced inwardly from it. A paste tab or flap 76 is defined by the edge of the rectangular section and the reverse score line 74. This strip is secured to the side panel 32 and the section is folded along its respective score lines into a substantially rectangular tube which forms a protective padding upon erection at each side of the refrigerator.

In addition to side protective pads a top saddle pad 77, as shown in Fig. 9, is formed from a rectangular blank which is notched midway between the edges of each end as at 78. It is also scored along two horizontal lines 80 spaced inwardly from each end. The top protective pad is folded along the score lines 80 into a U-shape and is secured to the joined-together combination top and side wall panels by interlocking the notches 78 on the saddle pad with the notches 66 on the top securing flap 22.

The invention provides a new and useful corrugated paperboard container which is particularly adapted for the shipping of relatively large refrigerators or appliances of a similar nature. It includes easily applied top and side walls which are rigidly secured by reinforced end closures. The paperboard blanks are simply and economically cut and scored and may be easily and quickly assembled about the article to be packaged. The container can be assembled and secured in place about an appliance and a skid connected to the bottom of the appliance and secured to the container after assembly; or the refrigerator may be mounted on a skid and the container assembled around the appliance and then tightened between the skid and the appliance. The completely packaged appliance can be easily handled with a lifting truck which will have direct access to the skid since the skid remains outside the container and flush with the container walls.

While a specific embodiment of the invention has been shown and described in detail to illustrate the application of the invention principles, it will be understood that the invention may be embodied otherwise without departing from such principles.

I claim:

1. A package of the class described formed from paperboard and comprising an appliance-mounting skid, an appliance mounted on said skid, and a carton surrounding said appliance comprising a top formed from two panels joined together, a side wall hingedly connected to each of the two sides of said top which are parallel to the line of juncture of said top panels, each of said side walls having a hingedly connected bottom-securing flap extending inwardly from the bottom edges thereof, said bottom-securing flaps being positioned under said appliance, substantially rectangular end closures each having end closure securing flaps hingedly connected to each end thereof and fastened to said side walls and said top, a rectangular tube fastened to the outside face of

4

each of said end closures, and a substantially rectangular reinforcing strip in each of said rectangular tubes.

2. A package of the class described formed from paperboard and comprising an appliance mounting skid, an appliance mounted on said skid, and a carton surrounding said appliance comprising a top formed from two panels joined together, a side wall hingedly connected to a pair of opposite sides of said top, each of said side walls having a hingedly connected bottom-securing flap extending inwardly from the bottom edges thereof, said bottom-securing flaps being provided along their inner edges with a plurality of notches aligned with said appliance-fastening means, said top and said side walls being folded to enclose the side and top of said appliance, substantially rectangular end closures each having end closure securing flaps hingedly connected to each end thereof and fastened to said side walls and said top, a rectangular tube fastened to the outside face of each of said end closures, and a substantially rectangular reinforcing strip in each of said rectangular tubes, a closure cleat overlying each of the bottom end closure securing flaps, and fastening means interconnecting said closure cleat, said bottom end closure flaps and said supporting skid.

3. A package of the class described formed from paperboard and comprising an appliance mounting skid, an appliance mounted on said skid, and a carton surrounding said appliance comprising a top formed from two panels joined together, a side wall hingedly connected to the two sides of said top which are parallel to the line of juncture of said top panels, each of said side walls having a hingedly connected bottom securing flap extending inwardly from the bottom edges thereof, said bottom securing flaps being provided along their edges with a plurality of notches aligned with said appliance-fastening means, said bottom-securing flaps being positioned between said appliance and said skid with the notches of said bottom-securing flaps positioned around said appliance fastening means, a depending rib of substantial depth located substantially in the center of said top having a plurality of notches extending upwardly a substantial distance from the bottom edge thereof, a generally U-shaped saddle pad having a notch extending inwardly from the edge of each leg portion interlocked with the notches of said depending rib, substantially rectangular end closures arranged to fit in the ends of said container and secured to said side walls and said top, each having end closure securing flaps hingedly connected to each end thereof, a rectangular tube fastened to the outside face of each of said end closures, a substantially rectangular reinforcing strip in each of said rectangular tubes, a rigid closure cleat overlying each of the bottom end closure securing flaps, and fastening means interconnecting said rigid closure cleats, said bottom end closure flaps and said supporting skid.

4. A package of the class described formed from paperboard and comprising an appliance-mounting skid, an appliance mounted on said skid, a top comprising two top panels each having a securing tab extending from one edge which are joined together, a side wall hingedly connected to each side of said top opposite said securing tab, said top and said side walls being folded to enclose the side and top of said appliance, a pair of substantially rectangular end closures each having end closure securing flaps hingedly connected to each end thereof and fastened to said side walls, said top and said skid, a rectangular tube fastened to the outside face of each of said end closures, and a substantially rectangular reinforcing strip in each of said rectangular tubes.

5. A package of the class described formed from paperboard and comprising an appliance-mounting skid, an appliance mounted on said skid, a top comprising two top panels each having a securing tab extending from one edge which are joined together, a side wall hingedly connected to each side of said top opposite said securing tab, said top and said side walls being folded to enclose

5

the side and top of said appliance, each of said side panels having at the bottom thereof three panels of less width than said walls folded back against said side walls and secured thereto whereby to form rectangular protective pads for said appliance, a pair of substantially rectangular end closures each having end closure securing flaps hingedly connected to each end thereof and fastened to said side walls, said top and said skid, a rectangular tube fastened to the outside face of each of said end closures, and a substantially rectangular reinforcing strip in each of said rectangular tubes.

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