Oct. 24, 1944. M. S. BROCKMAN 2,360,931

CARRYING CASE

Filed Nov. 8, 1941 2 Sheets-Sheet 1

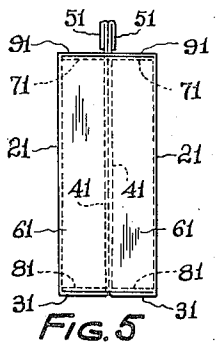

FIG. 5

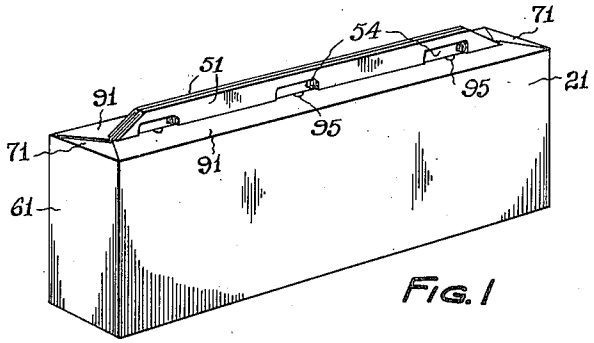

FIG. 1

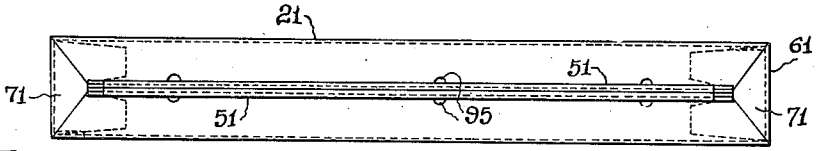

FIG. 3

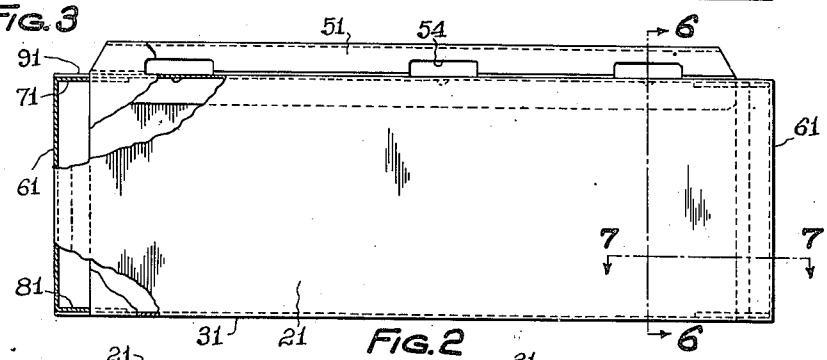

FIG. 2

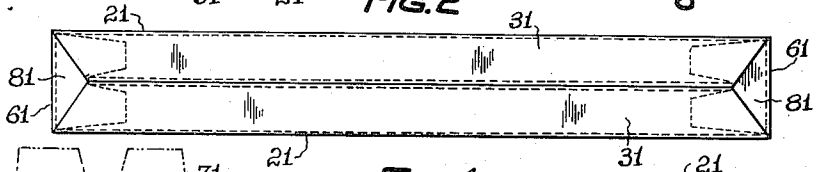

FIG. 4

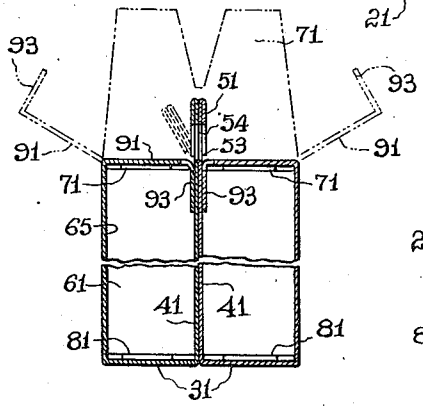

FIG. 6

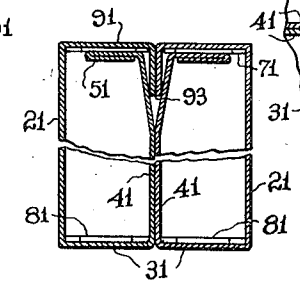

FIG. 8

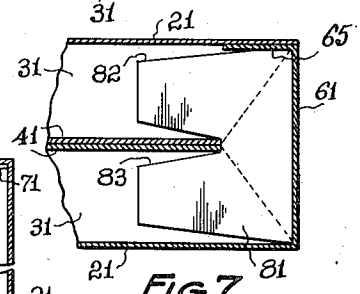

FIG. 7

INVENTOR.

Morton S. Brockman

Oct. 24, 1944. M. S. BROCKMAN 2,360,931

CARRYING CASE

Filed Nov. 8, 1941 2 Sheets-Sheet 2

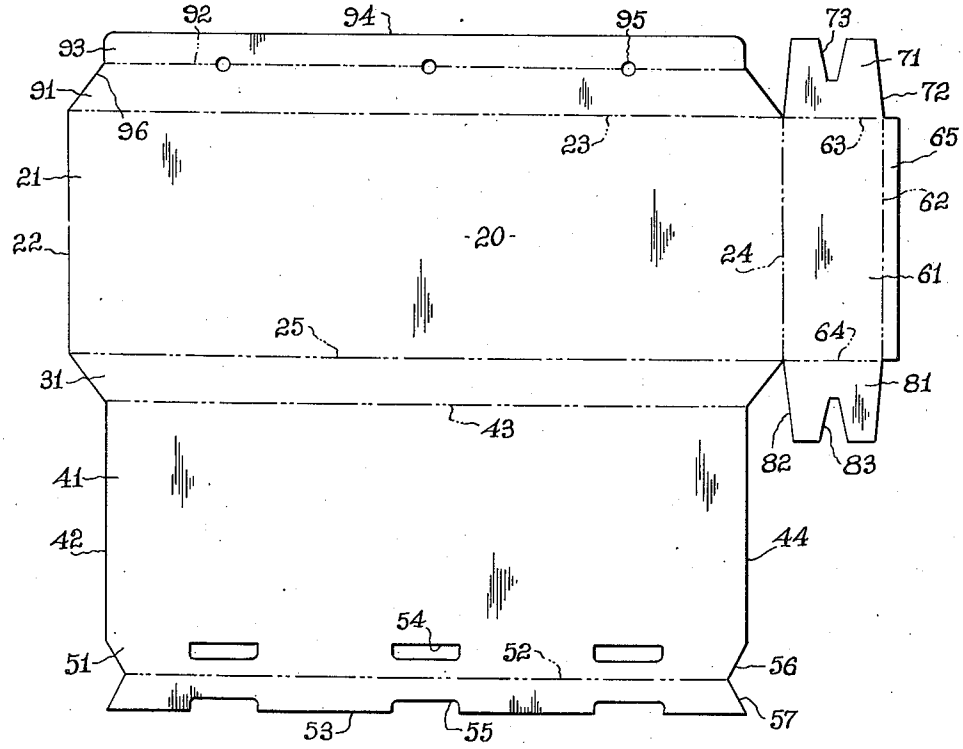

FIG. 9

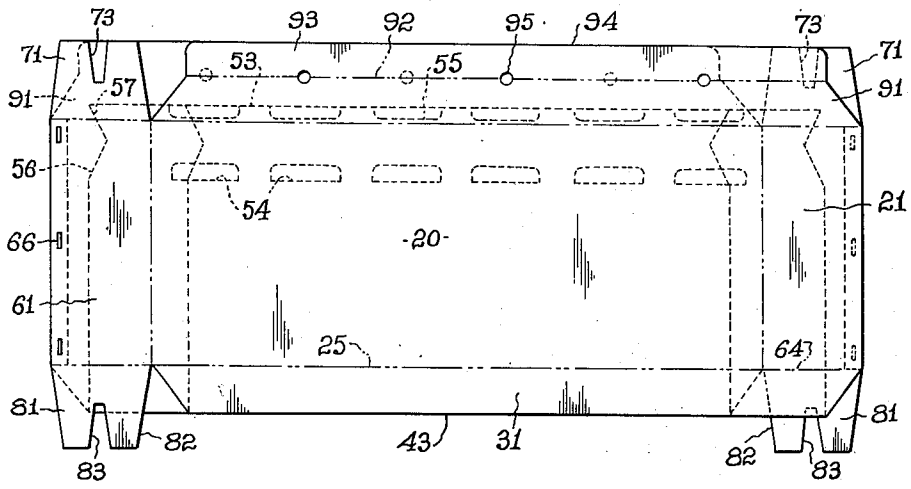

FIG. 10

INVENTOR.

Morton S. Brockman

Patented Oct. 24, 1944

2,360,931

UNITED STATES PATENT OFFICE

2,360,931

CARRYING CASE

Morton S. Brockman, Cleveland, Ohio

Application November 8, 1941, Serial No. 418,317

1 Claim. (Cl. 229—52)

This invention relates to carrying cases and particularly to paper board cartons of the type suitable for containing the portable dance floor described in the co-pending applications Serial Nos. 395,489 and 413,637, filed by me on May 14, 1941, and October 4, 1941, respectively. The carton, however, has certain advantages over prior art cartons and is, therefore, adaptable to a wide variety of other articles and uses.

The primary object of this invention is to provide an inexpensive, light weight and sturdy case for the use mentioned which may be blanked and formed out of sheets of corrugated board, and which permits shipment thereof in large quantities in a collapsed condition and which may be readily erected or opened for use as required.

Another object is to provide a device which has an integral central partition having sturdy handles and comfortable grips thereon, and which may be easily carried by either one or two persons.

A further object is to construct a device which may be assembled and erected speedily and with relatively few operations.

A further object is to construct a case of the type mentioned, the covers of which engage the handle portions and automatically become locked in the closed position.

Another important object is to provide a container in which the weight of the contents is transmitted from the carrying handle to the bottom of the container without oblique or otherwise destructive force on the cover or side walls thereof.

These and other objects and features of the invention will become apparent from a study of the following description and claim together with the accompanying drawings in which like parts are designated by like reference characters and wherein:

Figure 1 is a perspective view of a carrying case made in accordance with this invention;

Figure 2 is a side elevation of a case with portions broken away to show construction thereof;

Figure 3 is a plan view of the same case;

Figure 4 is a bottom view of the same;

Figure 5 is an end view of the same;

Figure 6 is a vertical cross-sectional view taken along the lines 6—6 of the Figure 2;

Figure 7 is a horizontal sectional view taken along the lines 7—7 of the Figure 2;

Figure 8 is a vertical cross-sectional view of the case showing the handles folded in and under the cover portions;

Figure 9 is a plan view of one of the two sheets of paper board used to form the carton; and

Figure 10 is a plan view of two of the blanked sheets attached together and assembled for shipping or storage purposes.

The carton of this invention is made of two blanked and scored paper board sheets 20, each of which are identical in size and shape. Each sheet 20 has an end edge 22 and an end flap 65 disposed opposite to said end edge 22, and the two sheets are fastened together by staples 66 or other similar means so that the end flap 65 of one is attached to the end edge 22 of the other.

Each sheet 20 has a side wall member 21, a bottom member 31, a partition member 41, a handle member 51, an end member 61, an end top member 71, an end bottom member 81, and a side top member 91. Each of these members connects to adjoining members at scored or fold lines as clearly shown in the Figure 9. Specifically, the bottom member 31 is connected to the side wall member 21 at the line 25. The end member 61 is connected to the side member 21 at the line 24. The top member 91 is connected to the side member 21 at the line 23 and the partition member 41 is connected to the bottom member 31 at the line 43. Similarly, the top and bottom end members 71 and 81 which are also referred to herein as tags or tuck portions are connected to the end members 61 at the scored lines 63 and 64 respectively.

The handle member 51 is integral with the partition member 41 which is slightly shorter than the side wall member 21 so that the edges 42 and 44 thereof are spaced from the end members 61 when the carton is set up and ready for use.

When fully erected and opened, the carton has the surfaces of the two partition members 41 contacting each other as is clearly shown in the Figure 6. The bottom members 31 connected thereto are folded horizontally and away from the partition members, and the two side wall members 21 are folded upward and parallel to the partition members 41.

When in this substantially rectangular position, the two bottom flaps 81 are folded inward and downward so that the notches or slots 83 engage the two partition members 41 therein and lay flat against the two aligned bottom members 31 as shown in Figure 7. The slots 83 are tapered as is shown so that engagement with the partition members 41, which are then loose and unsupported, is made easier. The distance from the notch 83 to the score line 64 is

exactly the distance from the vertical edge 42 or 44 of the partition members 41 to the middle of end wall 61. This snug fit materially helps to retain the shape of the case. The side edges 82 of the members 81 are tapered slightly so that the flap 81 can be turned downward in one operation with one hand, thus permitting the operator to turn down the two bottom flaps at one time quickly and easily. When the two bottom end members 81 thus engage the partition members 41, the corners of the carton become right angles, and the partition members 41 are equal distance from the two side wall members 21.

The end top members 71 are shaped similar to the end bottom members 81 and have notched portions 73 therein. After the case is filled, the two end members 71 are turned inward so that the notches 73 engage the handle portions 51 of the partition members 41, and finally, the two side wall top members 91 and flaps 93 thereon are folded over toward the outer side of the handle members 51, and thus completely close the container as shown in the Figure 6. The handle portion 51 of the partition member 41 then extends upward and over the top members 91 and between the two flaps 93.

If it is desired, for example, for transportation when space is to be saved, the top members of the case and the handle portions may be folded as shown in the Figure 8. In this way, the two handle portions 51 of the partition members 41 are folded away from each other and horizontal, and the top of the container is flat. The end top members 71 are folded downward over the handle portions 51, and then the longitudinal flap 93 of the top member 91 is inserted between the two partition members 41 and is tightly held there as is shown in the Figure 8.

The handle portions of the partition members 51 are doubled and folded as is shown in the Figures 6 and 8. This increased thickness not only makes a stronger and more comfortable grip, but also causes the face or ornamental surface of the board to be outward at all points, and thus improves the appearance of the finished case considerably.

Each handle portion 51 which is integral with the partition members 41 is blanked as shown in the Figure 9. Three horizontally aligned holes 54 are cut in the sheet, and the edge 53 thereof has notches 55 cut therein to correspond with the three holes 54 so that when the handle portion 51 is folded double along the line 52, the notches 55 and the holes 54 match and register to form grip openings. The two folded handle portions 51, made of four thicknesses of material, makes the case more comfortable and easier to carry.

One of the distinctive features of this carton is the fact that it has a plurality of grip openings 54/55 in the handle so that if the container is to be carried by one person, the center grip or opening alone may be used, but if the container is to be carried by two persons, than the two end grips alone may be used.

The vertical edges of the handle portion 51 are tapered somewhat, both to improve the appearance of the container and also to make the turning downward of the end top member 71 a little easier. The Figure 9 shows how the handle portion 51 is cut on the edges 56 and 57 respectively.

By making the handle portions 51 of double thickness material, and by folding them outward as shown, the edge 53 of the handle portion forms a slight bead, ledge, flange or shoulder-like part at the point where it meets the flap member 93 and the top portions 91. When the flaps 93 are inserted as shown in the Figure 6, the edge portions 53 of the handle members serve as locks at the score lines 92 to hold the top members in the closed position. To open the case, the two handle portions 51 are bent away from the top member 91 about to be opened. Fingers are inserted in the openings 95 in the top member 91 and thus lifted upward. When opening the other side of the case, the handle portions 51 are similarly bent away from the top member so that the flap member 93 will clear the bottom edge 53 of the handle member.

It will be noted that the end wall 61 of one blanked sheet is connected to the side wall 21 of the second sheet. Also, that there is no direct lift or vertical force applied to the two end walls 61. Therefore, when the container is lifted, the weight of the contents is equally distributed and divided without undue stress or strain among all the bottom side and partition members.

Furthermore, when it is recalled that the contents of cartons such as these may be slippery and will have a tendency to slide or shift when being carried by two persons of uneven gait, it becomes essential that the structure be such that the side walls, end walls and partitions do not get out of line, askew or distorted. This is particularly true of separable portable dance floor sections for which this carton is especially designed. The disclosed manner of notching the top and bottom members 71 and 81, instead of splitting them all the way, keeps the partition portions 41 in alignment with the side walls 21 and therefore keeps the two side walls in constant planar alignment with each other. It has been found from experience, that if the partition portions 41 extend all the way to the two end walls 61, the end walls 61 soon tear away from the bottom end member 81 at the lateral edge or crease. It is important therefore, that the end walls 61 carry as little of the weight as possible. By spacing the partition portions 41 from the end walls 61 and by partially notching the end portions 81 as aforesaid, the weight of the contents is more evenly carried and supported primarily by the partition portions 41 and the bottom portions 31 and is secondarily retained by the side and end walls 21 and 61 respectively, with the result that, even when the container is stood on end with the relatively heavy contents therein, no damage is done to it.

It will now be clear that there is provided by this invention a carrying case which accomplishes the objects of the invention. While the invention has been disclosed in its preferred form it is to be understood that the embodiment of the invention as described and illustrated herein is not to be considered in a limited sense as there are many other forms or modifications of the invention which are also considered to be within the scope of the appended claim.

It should also be understood that in the following claim the words "integral with" and "connected to" should be considered to be synonymous and interchangeable and each deemed to be the equivalent of the other as far as possible, for the reason that, this is necessarily a relatively large container and it may not always be possible to obtain sheet material of sufficient size to form an integral case or even a substantial part thereof; or it may not always be possible to use

or obtain machinery having sufficient size or capacity to blank or score an integral unit or substantial part thereof as described and illustrated herein.

Manufacturing limitations for constructing and forming the particular elements may require that they be first formed separately and subsequently made unitary and substantially integral by conventional attaching means, such as adhesives, staples or stitches, in which event, the ultimate result would be for all practical purposes, the same as if the stated parts were made in one integral unit.

I claim:

A carton comprising a pair of interconnected identical blanks of sheet material each formed to include a bottom wall, an end wall, an outer side wall, an inner partition wall, and an open top, a handle portion connected to and forming an extension of the partition wall, an inwardly folding cover portion connected to and forming an extension of the outer side wall, means for connecting the blanks together in end for end relation with the partition walls in face engaging relation to each other, a flap carried by each of the upper and lower ends of the end wall, said flaps each having a notch to receive the adjacent facing partition walls of the blanks so as to prevent separation thereof when the blanks are folded into operative position, and an outwardly and downwardly turned extension formed on the handle portions adapted to engage and retain the cover portions in their closed position.

MORTON S. BROCKMAN.