July 17, 1928. 1,677,565

F. S. OPPENHEIM

CONTAINER

Filed Sept. 10, 1924

Fig. 1

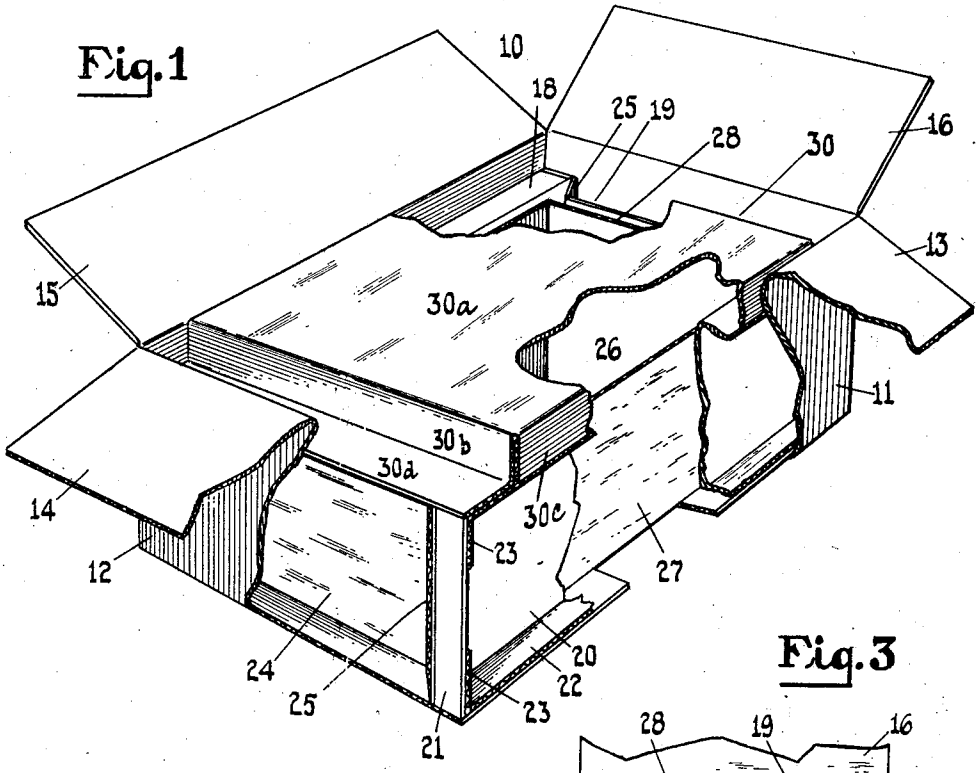


Fig. 3

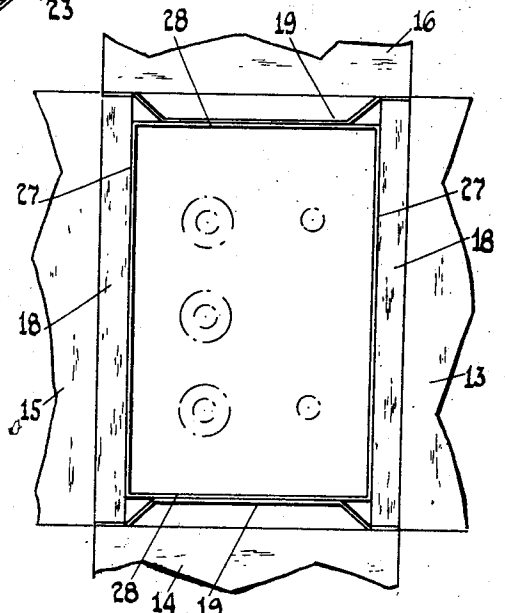


Fig. 2

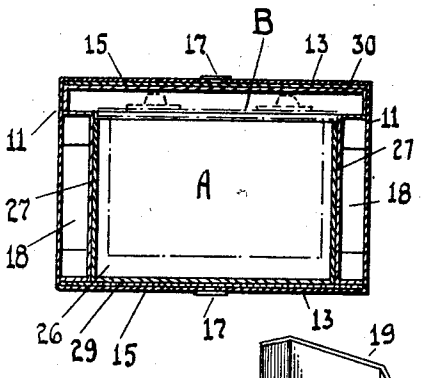
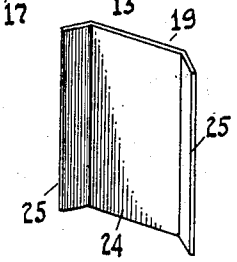


Fig. 4



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UNITED STATES PATENT OFFICE.

FERDINAND S. OPPENHEIM, OF NEW YORK, N. Y.

CONTAINER.

Application filed September 10, 1924. Serial No. 736,806.

This invention relates to packing and shipping boxes, and particularly it is directed to containers or cartons formed of corrugated paper board or the like material for packing and shipping delicately constructed apparatus, wholly or partially assembled, such as radio sets, meters, typewriters and the like.

An object of the invention is to provide an improved container or carton of the character described having means to effectively portect and cushion partially assembled apparatus from blows and contacts so as to prevent injury and damage due to careless and rough handling during transportation.

A further object of the invention is to provide an improved container or carton having the inner walls thereof formed by partition liners of simple construction, and adapted particularly for use in packing and shipping partially assembled apparatus mounted on supporting means provided in the container.

Another object of the invention is to provide an improved container or carton of the character described which is simple in construction, inexpensive to manufacture and efficient to a high degree for the purposes described.

Other objects of this invention will in part be obvious and in part hereinafter pointed out.

Certain features herein shown and described are shown, described and claimed in my copending application, Serial No. 736,807, filed in the United States Patent Office on the 10th day of September, 1924, and in my Patent No. 1,585,682, dated the 25th day of May, 1926, and accordingly are not claimed herein.

With the above exception, the invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter described and of which the scope of application will be indicated in the following claims.

In the accompanying drawings:

Fig. 1 is a perspective view showing a packing and shipping box embodying the invention, parts being broken away to show the interior construction.

Fig. 2 is a transverse cross sectional view of the box shown in Fig. 1, with the box closed and sealed, and illustrating a partially assembled radio set (shown in dot and dash lines) packed therein.

Fig. 3 is a plan view of the box shown in Fig. 1 with the cover open and the top cushioning member removed showing the partition liners and tray for the partially assembled radio set.

Fig. 4 is a perspective view of one of the end partition liners.

Referring in detail to the drawing, 10 denotes an outer casing or shell of a packing and shipping box embodying the invention which may have any desired shape or design and may be made of fibre board, card board or the like material but is preferably constructed of corrugated paper board, the cellular structure of which has been found to add greatly to the cushioning effect for the purposes described.

As seen in Fig. 1, the outer casing 10 is of collapsible construction and comprises elongated side walls 11, end walls 12 and cover flaps 13, 14, 15 and 16, all preferably formed from a single sheet of material, cut, creased and folded to form the rectangular shaped shell 10, the cover flaps being adapted to fold inwardly to form the top and bottom walls for closing the casing. When the flaps are folded into their closed position they may be held in place by any suitable means, as for example a strip of adhesive tape 17.

Partition liners or cushion members 18 and 19 are arranged against the side walls 11 and end walls 12 respectively, each member preferably being formed of a single sheet of corrugated paper board, cut, creased and folded into the desired shape. Members 18 have rectangular shaped body portions 20, end walls 21 and side walls 22, said side walls 22 being provided with flap extensions 23 which are bent to extend within and adjacent the end walls 21 and may be held in position by any suitable means. The flap extensions 23 or other fastening means for retaining the side and end walls in their relative positions may be omitted if desired, since it is apparent that when the members 18 are assembled within the casing 10, the structure is self-retaining (see Figs. 1 and 2). Members 19 are the simplest and most easily constructed form of partitions, each comprising a rectangular shaped mid-section 24 formed by creasing and bending the edge portions 25 of said member as is plainly shown in Fig. 4.

A tray 26 comprising elongated side walls 27, end walls 28 and bottom 29 is adapted

to provide a support on the upper edges of walls thereof for a partially mounted piece of apparatus, for example, a radio set as shown in Fig. 2. Said tray 26 is preferably formed of a single sheet of material, cut, creased and folded to give the desired shape and may have any suitable fastening means at the corners for retaining the side and end walls in their relative positions. In shipping radio sets assembled only on a front panel, the upper edges of the tray 26 may serve to support the said panel with the depending parts of the apparatus suspended in and protected by the tray as shown in Fig. 2.

It will be understood that the shipping box is of suitable dimensions to permit the packing of the tray 26 with its contents therein so as to substantially fill the space bounded by the partition liners 18 and 19, and that the latter are of proper design to completely cover the interior sides and bottom of the casing 10 to the height of the contents supported by the tray 26, said liners and contents preferably extending a substantial distance below the top of the casing for the purposes which will hereinafter appear.

Where the contents (as shown in Fig. 2) comprise a partial mounted radio set having the usual series of dials, levers and other like control means which project beyond the panel, a top cushioning member 30 may be provided which accommodates the upwardly projecting parts and acts to hold the set against supporting edges of the tray 26 and spaced from the top cover of the casing.

As seen from Fig. 1, the top cushioning member 30 is preferably constructed of a single sheet of corrugated paper board, cut, creased and folded to have a middle rectangular shaped recessed portion 30^a, the upstanding walls 30^b and 30^c thereof and edge flaps 30^d of said member 30 serving to support and space the contents from the top of the casing.

In the practice of the invention, the tray 26 with its contents is placed in the casing 10, and the side and end partition liners 18 and 19 are inserted in their respective places with their body portions spaced inwardly from the various walls of the casing and abutting the side walls of the tray 26 which thereby spaces the contents a substantial distance from the walls of the casing 10. With these parts in position, the cushioning member 30 is inserted in the top opening of the casing with the central recessed portion 30^a thereof arranged to enclose the various projecting parts, the member 30 being dimensioned to the proper height to fill the space between the panel of the set and the top of the casing. The cover flaps are then folded into position and the casing sealed in any suitable manner as by means of a strip of adhesive tape 17.

It will thus be seen that there is provided a device in which the several objects of this invention are achieved and which is well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention and as various changes might be made in the embodiment above set forth, it is to be understood that all matter therein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. A packing and shipping box comprising an outer casing having a single removable partition liner arranged therein for each of the sides and for the top wall of said casing, and a tray having a top opening, side walls and a bottom, said tray being formed to support an article within the tray on the rim portion of said opening, the tray bottom extending a spaced distance from the article to permit said tray to serve as a cushioning means when the tray bottom abuts the bottom side of the box, said liners and tray being adapted to secure the article against movement in the casing for protecting and cushioning same against damage during transportation.

2. A packing and shipping box comprising an outer casing having a single removable partition liner arranged therein for each of the sides and top for the wall of the casing, and a tray having a top opening, side walls, and a bottom, said tray being formed to support an article within the tray on the rim portion of said opening, the tray bottom extending a substantial distance below said article whereby said tray serves as a cushioning means when the tray is positioned with its bottom abutting the bottom side of the box to protect and cushion the article against damage during transportation, said tray occupying substantially the entire interior space in said casing, the side walls of said tray being arranged to normally engage and retain the wall liners in position.

3. A packing and shipping box of non-circular cross section, said box having a single relatively rigid, hollow, inner wall fitted against each of the outer walls, and a tray having the side walls and bottom fit into the box to abut said inner walls, the tray bottom abutting the bottom of the box, said tray being made of sheet material cut, creased and folded into shape, the free edge portion of the upstanding sides of the tray being adapted to support and to space partially assembled apparatus from the tray bottom, said inner walls and tray securing said apparatus against movement and serv-

ing to support and space the apparatus from the outer walls of the casing.

4. A container having bottom, side, end and top walls, a tray having a top opening received in said container and resting on said bottom wall, liners positioned between said side and end walls and said tray and extending above said tray, said container being adapted to receive a container of less height than said tray having a flange receivable upon the rim of said opening and extending into contact with said liners.

5. A container having bottom, side, end and top walls, a tray having a top opening received in said container and resting on said bottom wall, liners positioned between said side and end walls and said tray and extending above said tray, said container being adapted to receive a container of less height than said tray having a flange receivable upon the rim of said opening and extending into contact with said liners, and a spacer positioned over said tray and having a hollow portion cooperating with said opening.

6. A container having bottom, side, end and top walls, a tray having a top opening received in said container and resting on said bottom wall, liners positioned between said side and end walls and said tray and extending above said tray, said container being adapted to receive a container of less height than said tray having a flange receivable upon the rim of said opening and extending into contact with said liners, and a spacer positioned over said tray and having a hollow portion cooperating with said opening, said spacer being supported upon edge portions of said liners.

In testimony whereof I affix my signature.

FERDINAND S. OPPENHEIM.