Feb. 3, 1931. S. B. E. McVAY ET AL 1,791,367

CONTAINER

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Fig. 1.

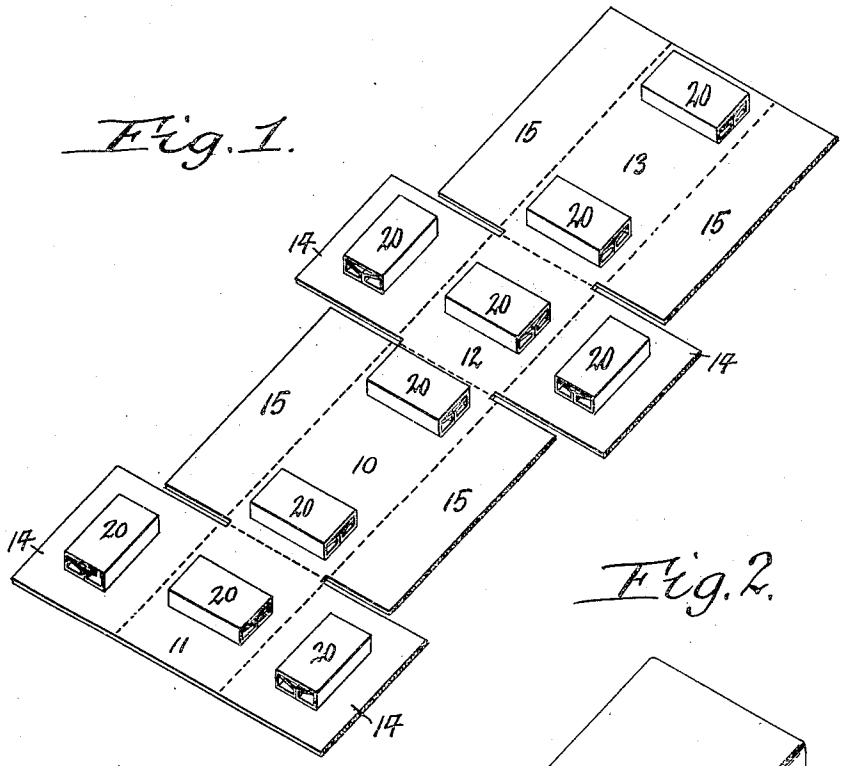


Fig. 2.

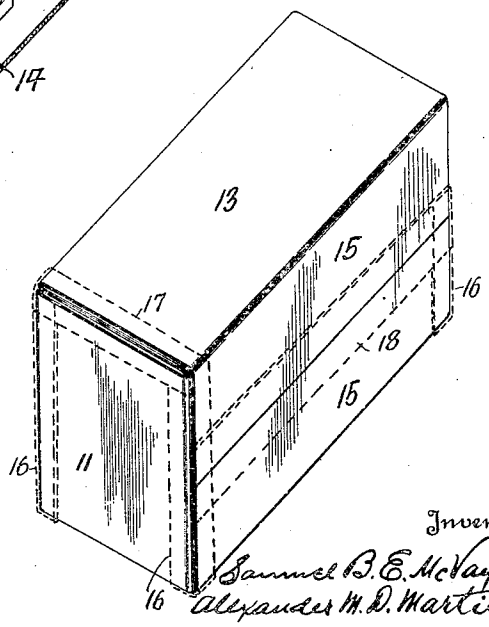
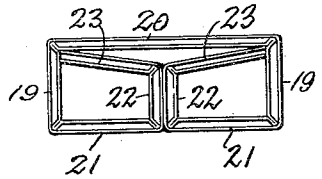


Fig. 3.



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Fig. 4.

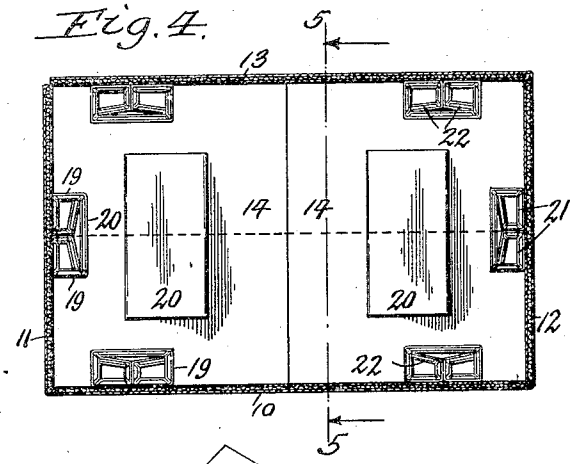


Fig. 5.

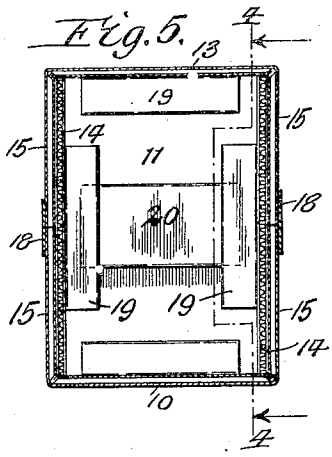


Fig. 9.

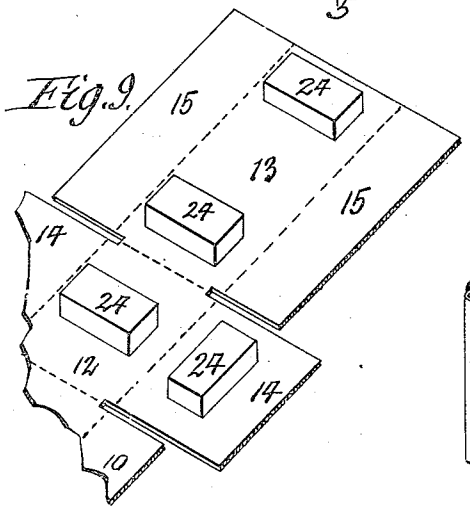


Fig. 6.

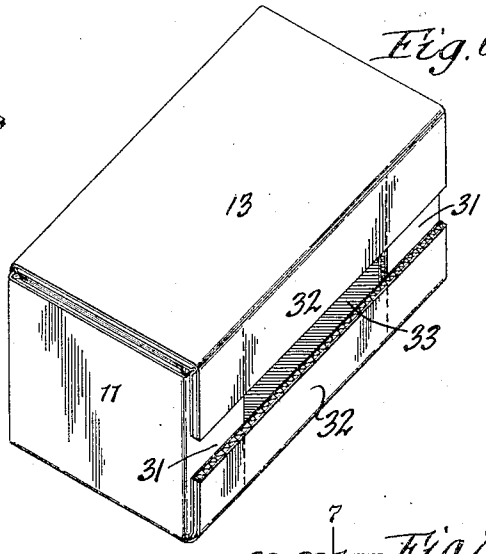


Fig. 7.

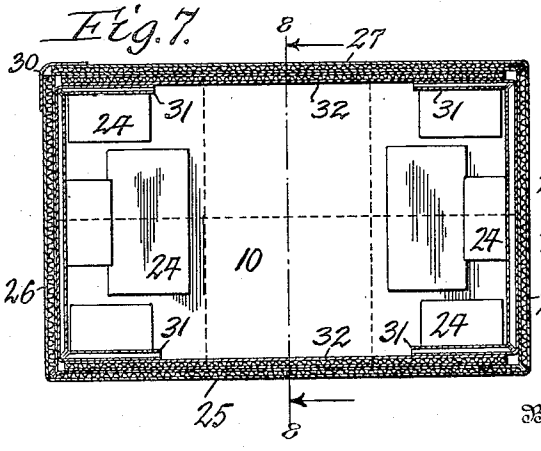
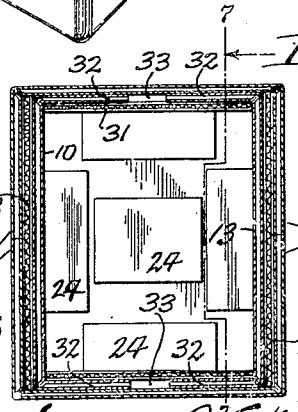


Fig. 8.



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UNITED STATES PATENT OFFICE

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CONTAINER

Application filed April 11, 1929. Serial No. 354,199.

This invention relates to a container which is more particularly intended for packing articles such as radio apparatus furniture, and other articles so that the same may be shipped and stored with greater safety, and it is the object of this invention to provide a container for this purpose which is composed of a minimum number of parts, which permits of easily and expeditiously packing articles for shipment or storage, and which affords the maximum protection against injury for the article packed.

In the accompanying drawings:

Fig 1 is a perspective view of the unfolded prepared sheet forming the body of one form of the container embodying our invention together with the retainers on the inner sides of the same holding the article packed therein against displacement.

Fig. 2 is a similar view showing the same in a folded condition.

Fig. 3 is an end view on an enlarged scale, of one of the retainers whereby the article is held in place within the body of the container.

Fig. 4 is a longitudinal section of the container taken on line 4—4, Fig. 5.

Fig. 5 is a transverse section taken on line 5—5, Fig. 4.

Fig. 6 is a perspective view showing this invention embodied in a container adapted to be enclosed in a separate casing.

Fig. 7 is a longitudinal section of the container shown in Fig. 6 with an enclosing casing taken on line 6—6, Fig. 8.

Fig. 8 is a transverse section, taken on line 8—8, Fig. 7.

Fig. 9 is a fragmentary perspective view of a prepared sheet for use in forming a container provided with a modified form of retainer.

In the following description similar characters of reference indicate like parts in the several figures of the drawings.

Referring to Figures 1–5, the numeral 10 represents the bottom or lower plate of the container, 11, 12 the end walls bent upwardly from opposite transverse ends of the bottom and 13 the top or upper plate bent downwardly from the upper transverse edge of one of the end walls and extending to the upper transverse edge of the other end wall.

Each of the end walls is provided at its opposite vertical edges with two inner side wall flaps or wings 14, 14 which are bent horizontally and longitudinally inward so as to meet the two similar side flaps 14, 14 of the other end wall.

At the opposite longitudinal edges of the bottom and top plates the same are each provided with two outer side wall flaps or wings 15, 15 the flaps of each of these plates being bent inward along the longitudinal edges of the respective plate so as to meet the corresponding outer side wall flaps of the other plate.

The several bottom and top plates, end walls and flaps are formed as an integral unit from a single sheet of material such as corrugated paper board or the like so that when the same is completely unfolded all these members are arranged in the same plane as shown in Fig. 1.

Preparatory to packing the merchandise within the body of the container the same is folded into the position shown in Figs. 2, 4 and 5 with the lower plate and end walls thereof secured together at the corners by means of adhesive tape 16, or otherwise, but with the top plate left loose to permit of introducing the merchandise into the container. After the merchandise has been placed within the container the top plate is closed so as to meet the upper edge of the respective end wall and the outer side wall flaps engage the outer sides of the inner side wall flaps and meet the outer side wall flaps of the lower plate after which these members may be united so as to completely close the carton by means of strips 17, 18 of adhesive tape or other suitable fastening means.

A container of this construction requires a minimum of material and provides walls of double or two ply thickness at the longitudinal sides thereof so as to reduce the possibility of damaging the goods placed within the container.

For the purpose of securely holding the merchandise against displacement within the container and prevent injury thereof

during shipment retaining or holding means are provided consisting preferably of a plurality of retainers having the form of blocks which are secured to the inner side of the container walls and so placed as to fit the shape of the particular article which is being packed and engage the sides of said article and thereby prevent the article from shifting about within the container. Each of these retainers may be variously constructed, that shown in Figs. 1, 3 and 4 being preferred and constructed as follows:

The numeral 19 represents two outer end walls, 20 a long, outer face plate or top connecting the upper ends of the end walls, 21 two short base plates or sections extending inwardly from the lower ends of the end walls and meeting at their inner ends, 22 two inner walls arranged between the outer end walls and parallel therewith and extending upwardly from the inner ends of the base or bottom plate sections 21, and 23 two braces extending from the upper ends of the inner walls in opposite directions to the inner corners between the top plate 20 and the end walls, as best shown in Fig. 3.

In the preferred construction the inner walls are of less height or shorter than the outer end walls and the braces incline in opposite directions from the upper ends of the inner walls to the corners between the outer walls and the top plate, thereby leaving the central part of the top plate free to be deflected inwardly and thus provide a cushion support for the goods within the container which are engaged by the top plate of the retainer. These several members of the retainer are preferably constructed of a single strip or sheet of corrugated paper board which is folded inwardly from opposite ends thereof into the above described form.

Any approved means may be employed for securing the retainers to the inner side of the walls of the container body but it is preferable to accomplish this by securing the base sections of the retainers to the walls of the container by cement, glue or other adhesive.

If desired the retainers may be constructed of blocks of material which is soft and provides a cushion bearing against the goods packed in the container, such blocks being shown at 24 in Figs. 7, 8 and 9, and may consist of balsa wood or similar solid but slightly yielding material.

When the character of the goods or the conditions under which the same are shipped require a greater amount of protection against injury the container may be further enclosed in an additional outer casing constructed from corrugated paper, card board or the like the form of which is in all respects like the container shown in Figs. 1, 2, 4 and 5, having a bottom 25, two end walls 26, 26, a top 27, two inner side wall flaps 28, and two outer side wall flaps 29 which are sealed or connected with each other by adhesive tapes 30 at the joints after receiving the inner container enclosing the goods to be shipped.

When employing such outer casing the inner container may have its inner side wall flaps 31 made short so that the inner side wall flaps of the end walls do not meet and the outer side wall flaps 32 of the upper and lower plates may also be shorter so that they do not meet, thereby reducing the amount of material which is used and still completely covering the article which is being packed because the outer casing extends across the opening 33 formed on each side of the inner container between the respective flaps.

We claim as our invention:

1. A spacer for containers consisting of a sheet of material which is folded to form two outer end walls, a face section connecting the upper ends of the end walls, two base sections extending inwardly toward each other from the lower ends of the end walls, two inner walls extending transversely inward from the inner ends of said base sections, and two braces extending longitudinally outward from the inner ends of said inner walls to the corners between said face section and said outer end walls.

2. A spacer for containers consisting of a sheet of material which is folded to form two outer end walls, a face section connecting the upper ends of the end walls, two base sections extending inwardly toward each other from the lower ends of the end walls, two inner walls extending transversely inward from the inner ends of said base sections, and two braces extending longitudinally outward from the inner ends of said inner walls to the corners between said face section and said outer end walls, said inner walls being of less height than said outer walls and said braces being inclined and out of contact with the central part of said face section.

In testimony whereof we hereby affix our signatures.

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ALEXANDER M. D. MARTIN.