

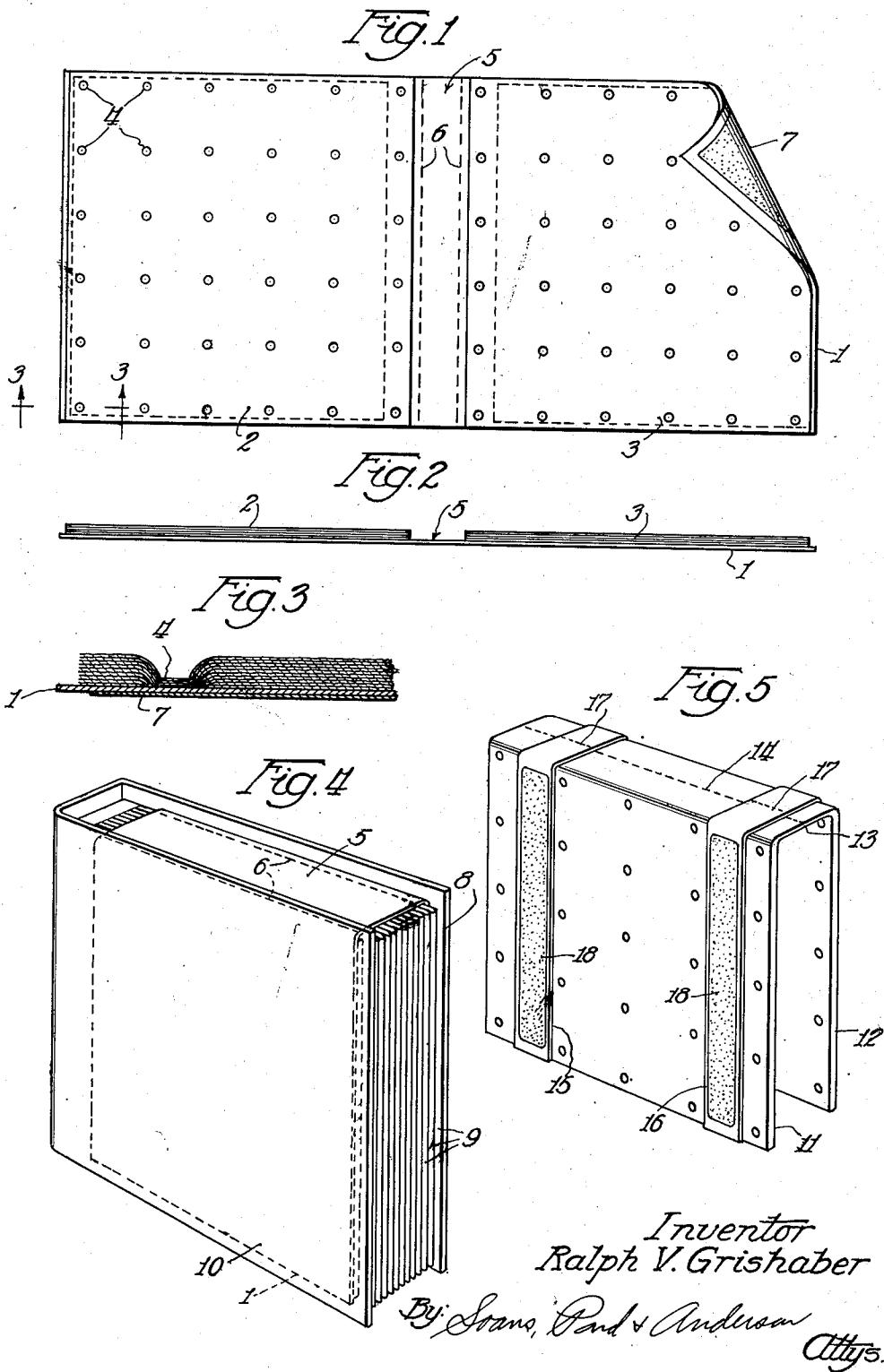
Dec. 8, 1953

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2,661,835

PACKAGE CUSHIONING AND SEALING MEANS

Filed Oct. 29, 1948



UNITED STATES PATENT OFFICE

2,661,835

PACKAGE CUSHIONING AND SEALING
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Application October 29, 1948, Serial No. 57,173

4 Claims. (Cl. 206—46)

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This invention relates to a package cushioning and sealing device, that is to say, to a device embodying a structure whereby the content of a container may be protected against damage by protective cushions, and whereby the container may be sealed in such a manner that it cannot be opened without leaving visible evidence that it has been opened.

The device to be described has been designed especially for application to packages, such as phonograph record albums and book type packages generally, and it will be described in connection with a package of that type. However, other applications may occur as the field of utility is explored.

The main object of the invention is to provide a simple but efficient means for protecting fragile articles packaged between covers of a book-like structure, such as a phonograph record album, against breakage incident to normal handling and transportation to which such products are subjected; to provide a device of the character indicated whereby a book-type package may be sealed in its initially filled condition so that the purchaser may have reasonable assurance of receiving fresh, unused and unworn merchandise as originally packaged; to provide such a protective packaging and sealing device which will be inexpensive both in respect of the cost of materials and labor involved producing it and, in general it is the object of the invention to provide an improved device of the character indicated.

Other objects and advantages of the invention will be understood by reference to the following specification and accompanying drawing (one sheet) in which there is illustrated a package cushioning and sealing device embodying a selected form of the invention.

In the drawing,

Figs. 1 and 2 are plan and edge views respectively of the improved package cushioning and sealing device;

Fig. 3 is a cross section on the line 3—3 of Fig. 1;

Fig. 4 is a perspective illustrating the application of the device to a phonograph record album, and

Fig. 5 is a perspective illustrating one modified form of the cushioning and sealing device.

The cushioning and sealing device shown in Figs. 1 to 4, consists of a base sheet or backing sheet 1 of suitable flexible material, a good grade of kraft paper being satisfactory. On the backing sheet 1 there are applied pads 2 and 3 respec-

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tively of cushioning material. These pads may be of any desired material. Cushioning material formed of a multiplicity of superposed plies of creped tissue paper constitute one satisfactory type of material. If the pads 2 and 3 are made of superposed plies of creped tissue paper, the plies are preferably bonded together by being highly compressed in small spaced areas, such as indicated at 4. The sheets are compressed under sufficient pressure to cause them to become substantially welded together in the areas of compression. One of the cushioning materials suitable for the purpose is described in Patent No. 2,106,246. These pads 2 and 3 are spaced from each other as indicated at 5 and the backing sheet 1 in the space between the pads is preferably provided with cut, scored or slitted lines of weakness, such as indicated at 6, which cooperates to form a central strip which may readily be torn out of the backing sheet to separate the structure into two independent elements.

The cushions 2 and 3 are adhesively bonded to one side of the backing sheet 1, any suitable adhesive being employed for that purpose. Adhesive attachment may be effected over the entire areas of the cushions or pads, or in smaller localized areas or strips if preferred. On the opposite side, the backing sheet may be coated with adhesive as indicated at 7, the adhesive 7 being applied over the major portion of the area of the backing sheet opposite the pads 2 and 3, or in smaller localized areas as may be found desirable.

A cushioning and sealing unit, such as illustrated in Figs. 1 and 2, is applied to a phonograph record album by first adhesively attaching one end portion of the backing to the inside of the back cover 8 of a phonograph record album, the padding 3 (for example) facing the inside of the album. The record holding envelopes or pockets 9 of the album, having been filled with the desired records, are then closed over the pad 3, the front cover 10 of the album remaining open. Then the central portion 5 of the unit is carried forwardly over the upper edge of the assembled record envelopes and the pad 2 brought downwardly over the front of the then forward or top envelope. The other end portion of the device, i. e. the portion carrying the pad 2 is then adhesively bonded to the inside of the cover 10 by closing that cover and thereby bringing it into engagement with the adhesive surface opposite the pad 2. As soon as the adhesive sets and dries, the covers will be effectively sealed closed incident to the continuity of the backing sheet 1 which has portions adhesively united to the inside

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faces of both the front and back covers. To open the album the strip 5 is removed by tearing along the weakened lines 6, leaving the pads 2 and 3 secured in place on the inside of the album covers. Hence, the pads remain in place and offer protection for the album content at all times.

If desired, the device may have its pad portions secured to the back face of the rearmost envelope and to the front face of the front envelope, the envelopes being thereby sealed in closed condition while leaving the album covers free to be opened so as to permit inspection of any data which may be carried by the inside faces of the covers. The pad and backing over the front envelope may be provided with an opening registering with the usual envelope front opening to permit inspection of the label on the central portion of the record.

The adhesive may be applied as a step in the manufacture of device and dried so that the device may be applied after wetting the adhesive coatings. However, the adhesive may be applied at the time the device is applied to the article and, of course, the adhesive may be applied to either the device or the article to be sealed or both. Pressure sensitive or other suitable adhesives may be used instead of ordinary wet adhesives.

It is not necessary that the paper or other backing 1 extend over the entire area of the pads 2 and 3 and it is not necessary that the padding be in independent sections.

If desired, a continuous piece of padding having end portions 11 and 12 and an intermediate portion 13 may be employed as shown in Fig. 5. The portion 13 is preferably embossed, i. e. compressed to reduce its thickness and it may be provided with tear lines as in the form shown in Fig. 1 or with a single tear line 14 to facilitate separation of the sections 11 and 12 from each other. Also, said intermediate portion 13 may consist of less than the entire number of plies in the pads 11 and 12 so that such lesser number of plies constitutes, in effect, a backing element similar to the backing element 1 except that they would provide a backing of the same material as the pads.

Tape strips such as indicated at 15 and 16 (Fig. 5) suitably secured to the respective pads 11 and 12 and the intermediate portion 13 may serve the purpose of the over-all backing of the first described form. The tapes are also provided with lines of severance such as indicated at 17 in register with the tear line (or lines) in the underlying portion of the padding. The tapes 15 and 16 or either of them may be provided with adhesive material indicated at 18 for facilitating attachment of the structure to a book-like package in the manner above explained in respect of the first described form of construction.

While the use of a paper backing as above described presently seems preferable, experience may show that this backing, and the described paper strip backing, may be wholly eliminated and the padding material secured directly to the package structure, especially if the padding is employed in the continuous form shown in Fig. 5 in which the intermediate portion 13 of the padding, like the intermediate backing portion 5 serves to prevent removal of records or the like from the open upper edges of the album envelopes, which, in the absence of said intermediate portions, might be effected even without opening the covers of the album.

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By embossing the intermediate padding portion 13, strength is added to that portion and clean severance along one or more tear lines is made practicable.

In the illustrated embodiments, the pads are shown as being of such size as to cover most of the area of the album. It is preferable that the pads be spaced at least about one inch from the hinged edges of the album covers and the pads may be much narrower than the width of the book. The pads may be of narrow strip-like form located at any selected position intermediate hinge edge and the opposite edge of the book, for example, about midway between these edges.

Two or more such narrow strips may be employed if desired. In still another arrangement, one or more narrow padding strips or small sections of padding may be secured to a paper backing sheet at suitable points to provide the required protection.

The paper backed structure shown in Fig. 1 may be very expeditiously manufactured by feeding a web of suitable paper in the direction of its length, applying adhesive to one face of the web either in two broad bands approximately corresponding to the width of the pads to be attached or in one or more lengthwise extending narrow stripes or bands, or in a series of spot-like areas, and then feeding a pair of webs of padding material into overlying relation to the coated face of the backing web. The padding webs would, of course, be spaced edgewise from each other so as to leave an uncovered intermediate backing strip portion corresponding to the portion 5. Suitable pressure means may be employed for pressing the assembled padding webs and backing web together to insure proper adhesive attachment of the parts. Adhesive may be applied to the other face of the backing web by suitable adhesive applying mechanism either before or after the cushion webs are applied. After the structure is assembled and united, end portions of the proper width may be cut therefrom to produce individual units of the character shown in Fig. 1. These fabricating operations may be carried on continuously and at fairly high speed so that the material may be produced at very low cost.

It will be apparent that the purchaser of a book type of package closed by the described device will be assured of receiving fresh and unused merchandise. The package may very readily be opened by tearing the sealing device either along a single tear line extending along the intermediate portion 5 of the backing or by removing a strip therefrom by tearing as explained, or otherwise. Once the intermediate portion of the backing material or padding is separated by tearing or cutting, the fact that the package has been opened becomes apparent to the purchaser. To merely prevent opening of the book-like covers, the severable intermediate portion may be located across either the bottom edge or across the side opposite to the hinge connection between the covers of the package. Also, the pad portions of the device may be applied to the outside of the package covers but this is not considered desirable, especially in connection with a phonograph record album type of package in which the padding, when located inside of the covers, provides a high degree of protection for the records.

For mere book-type package sealing, the padding element or elements of the described devices may be omitted and plain sealing webs em-

ployed. In such an application of the invention, the intermediate web portion such as the portion 5, may extend across the edges of the book pages or envelopes at either the top or bottom sides or across the edges at the front side opposite the hinged side, and the end portions of the web may extend into the book so as to embrace all or part only of the pages said end portions being suitably united to either of the adjacent page faces including the inside of the front and back covers which, for the purpose of this patent application, may be regarded as the first and last pages of the package. Also, for the purpose of this patent application, record and like envelopes as in a phonograph record album may be considered "pages" of the package. The edges of the pages over which the intermediate portion of the sealing element extends are preferably recessed inwardly from the corresponding edges of the covers so that said intermediate portion is thereby protected against damage by relatively projecting margins of the front and back covers.

Various other changes may be made in the details of construction while retaining the principles of the described constructions.

I claim:

1. A sealed book-type package comprising a book-like member having hinged front and back covers and intervening pages, the inner sides of said covers and said intervening pages presenting face areas within the package, and a sealing member having a severable intermediate portion extending across the edges of the pages at one side thereof, and end portions extending into the package in face-to-face engagement with a selected pair of said face areas and united thereto, thereby to normally prevent opening of the pages intermediate said selected face areas, and a pair of cushioning pads attached respectively to the sealing member end portions which are united to said pair of face areas.

2. A sealed and cushion-protected package comprising a book-like member having hinged front and back covers and intervening pages, the inner sides of said covers and said intervening pages presenting face areas within the package, said pages having mutually registering edges which are recessed relative to the corresponding edges of said front and back covers, and a sealing and cushioning member having a severable intermediate portion extending across the recessed edges of said pages, and end portions extending into the package in face-to-face engagement with a selected pair of said face areas and united thereto, thereby to normally prevent opening of the pages intermediate said selected pair of face areas, the cover portions which extend outwardly from said recessed page edges serving to protect said intermediate portion of the sealing member against damage, and a pair of cushioning pads attached respectively to the

sealing member end portions which are united to said pair of face areas as aforesaid.

3. A sealed and cushion protected book-type package having a plurality of hingedly interconnected members, and a sealing and cushioning means comprising a web having end portions and an intermediate portion, said intermediate portion being disposed across selected edges of said hinged members at one edge of the package other than the hinge edge thereof, and said end portions extending into the package inwardly of the outermost hinged members thereof and being united to faces of hinged members disposed adjacent to said end portions, thereby to normally prevent opening of the members to which said end portions are united and any intervening hinged members, and cushion means carried by said end portions to protect the material in the package intermediate said end portions, said intermediate portion being adapted to be separated from at least one of said end portions to permit opening of the initially sealed portion of the package.

4. A sealed and cushion protected book-type package having front and back covers and a plurality of hingedly interconnected envelopes having open upper edges providing access to the interiors of said envelopes, and sealing and cushioning means comprising a web having end portions and an intermediate portion, said intermediate portion being disposed across the open upper edges of said envelopes, and said end portions extending into the package inside of said covers and united to the inside faces thereof, thereby to normally prevent opening of the package, and cushioning means carried by said end portions to protect the material in said envelopes, said intermediate web portion serving also to block access to said envelopes through the open edges thereof and being adapted to be separated from at least one of said end portions to permit opening of the package.

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