

Aug. 18, 1964

W. D. MUEHLEBACH ET AL

3,144,936

PACKAGE FOR COILS

Filed Dec. 12, 1960

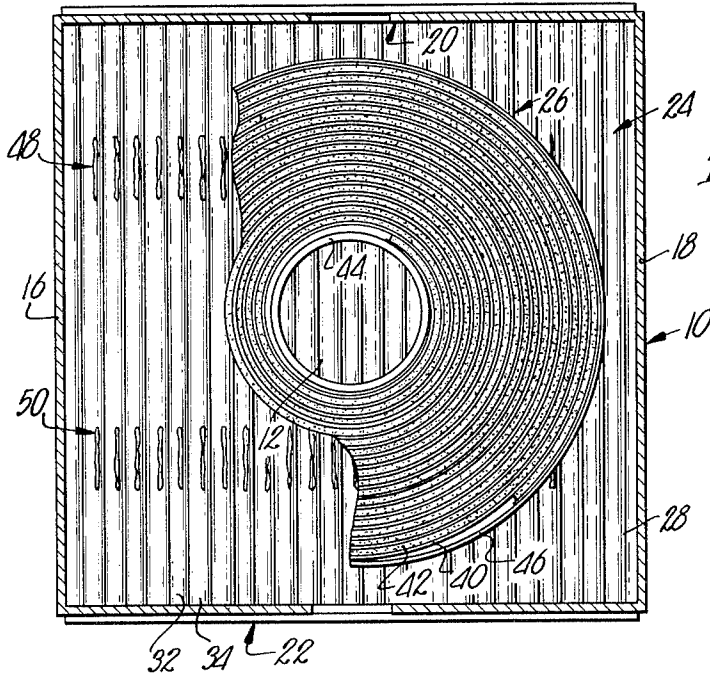


Fig. 1.

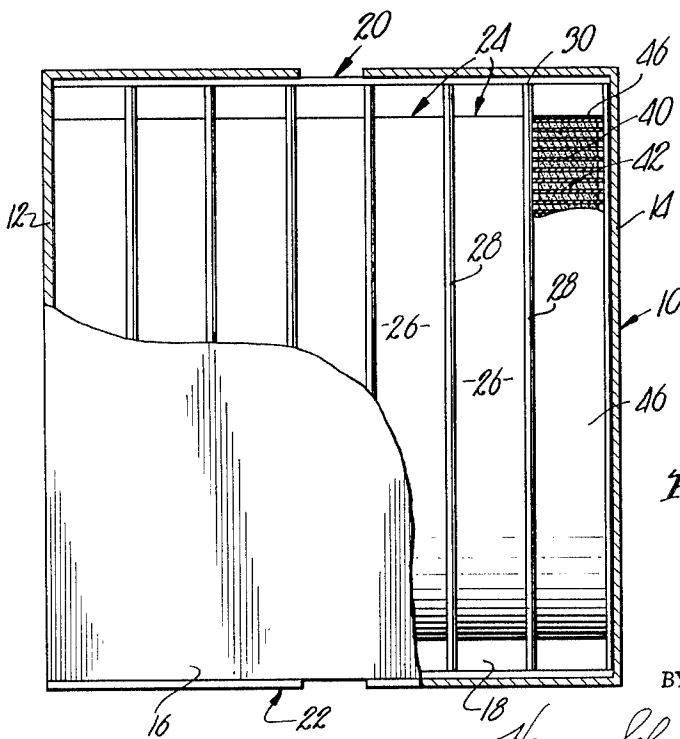
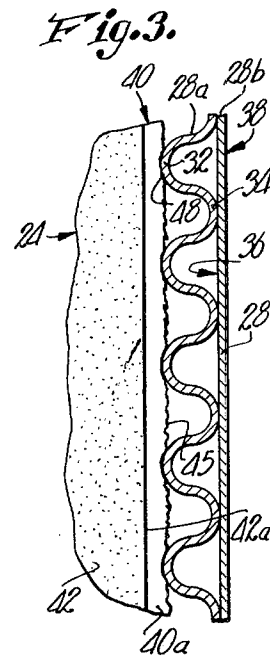


Fig. 2.



INVENTORS.

William D. Muehlebach
BY Alfred J. Paradise, JR.

Hovey, Schmidt Johnson & Hovey
ATTORNEYS.

1

3,144,936

PACKAGE FOR COILS

William D. Muehlebach, Kansas City, Mo., and Alfred J. Paradise, Jr., Overland Park, Kans., assignors to Chemical Sealing Corporation, Kansas City, Mo., a corporation of Missouri

Filed Dec. 12, 1960, Ser. No. 75,257

1 Claim. (Cl. 206—65)

This invention has to do with the packaging of vendible commodities or articles of manufacture and has for its primary object the provision of structure for supporting a device within a carton or container in a manner such that damage or deformation of the product so packaged is prevented during shipment and storage.

More particularly, it is an object of the instant invention to provide an inexpensive means for holding a plurality of tapes within a shipping container in a manner to prevent crushing of the tapes, one against the other or against the inner faces of the walls of the container itself, the invention having particular use when the tapes are wound in individual coils and serve as backing means for soft, pliable substances which should be maintained in a bead or ribbon-like form to facilitate ultimate use thereof when the tape is removed from the material at the time of, or subsequent to application.

It is common practice today to commercialize glazing caulking and sealing compounds in the form of continuous ribbons, beads or the like, supported by a backing tape and placed in the hands of the ultimate consumer ready for use. The putty-like materials remain in a relatively soft, pliable but tacky condition, and at times have an asphalt base, together with other substances such as asbestos or materials rendering the ribbon or beads suitable to close cracks in grain bins, for weatherstripping purposes and many other uses. The material is extruded or calendered upon one face of a sheet of paper-like material and rolled into a coil. When placed in a cardboard container or the like, it is necessary to not only separate the coils, but to hold them suspended away from the walls of the package.

In accordance with the present invention, therefore, there is provided structure for effecting the proper protection and taking the form of a supporting and separating panel for each coil respectively, and to one face whereof the coil is attached by use of adhesive.

In the drawing:

FIGURE 1 is a vertical, cross-sectional view through a package made pursuant to our present invention, parts being broken away and in section for clearness;

FIG. 2 is a side elevational view of the package at right angles to FIG. 1, parts being broken away and in section to reveal details of construction; and

FIG. 3 is an enlarged, fragmentary, detailed, cross-sectional view through one of the coils and the support therefor.

A container broadly designated by the numeral 10 as illustrated in the drawing, may be in the form of a conventional pasteboard box having a pair of end walls 12 and 14, a pair of side walls 16 and 18, a top 20 made up of a number of flaps and a bottom 22 of similar construction. The shape of the container 10, is however, of no consequence; hence, for example, it might well be cylindrical.

There is shown within the container 10, a plurality of side-by-side units 24, each consisting of a coil 26 and a support 28. The supports 28 are in the nature of flat panels of a polygonal nature so that the peripheries thereof conform substantially in size and shape to the cross-sectional configuration of the container 10. Hence, when the units 24 are placed in the container 10 in the manner illustrated by FIGS. 1 and 2, the straight

2

peripheral edges 30 of the supporting panels 28, engage the inner faces of all four walls 12, 14, 20 and 22. Such panels 28 should, of course, be circular if a cylindrical container 10 is used.

The particular nature of the supporting panel 28 chosen for illustration, is shown in FIG. 3 of the drawing. It may consist of corrugated pasteboard material having a pair of adhesively interconnected sections 28a and 28b, the latter of which consists of a sheet of relatively heavy paper and the section 28a being made to present a plurality of parallel corrugations 32 and 34, the latter of which engage and adhesively connect with one face 36 of the section 28b, the opposite face 38 thereof remaining flat and smooth.

Each of the coils 26 includes a tape 40 which may be made from a suitable tough, but highly flexible paper or the like having the aforementioned putty-like material 42 adhered to one face thereof, wound in a coil in a laminated manner around a core 44 so that the convolutions of the tape 40 and the convolutions of the material 42 alternate in a laminated manner. Core 44 may be made from cardboard or other material, but need not be tubular. A band 46 of paper or the like, surrounds the coil 26 to hold it against unwinding. However, neither the core 44 nor the band 46 is needed, insofar as the instant invention is concerned.

If desired, the tapes 40 may be slit or otherwise produced from a sheet of material to present jagged edges 45 in each of the convolutions of each tape 40, it being noted in FIGS. 2 and 3, that the marginal edges 40a of the tapes 40 extend outward beyond the corresponding longitudinal edges 42a of the material 42 that is in turn adhered to one face of the tapes 40.

Means is provided to adhesively bind each coil 26 to a corresponding support 28, it being suggested that there be provided two parallel strips 48 and 50 across each coil 26 to secure one edge 46 of a large number of the tape convolutions to the support 28. The strips of adhesive 48 and 50 may be applied to the corrugations 32 and the coils 26 placed thereon with the axes of the cores 44 perpendicular to the panels 28. As noted in FIG. 1 of the drawing, the parallel strips 48 and 50 are disposed one on each side respectively of the axis of the coil 26.

While the ragged edges 45 tend to enhance the effectiveness of the adhesive bond to the supporting panel 28, such as not deemed to be in any way critical to the success of the instant invention. Furthermore, it is of no particular consequence that the adhesive be arranged in a pair of elongated strips 48 and 50 as illustrated, since one entire edge of the tape 40 may be adhered to the support 28 if desired, or the tape areas may be spotted as desired on the support 28.

Furthermore, it is of no consequence that the support 28 chosen for illustration, include the corrugations 32 as a part thereof since much the same result could be obtained by adhesively securing the edge 45 of the tapes 40 to a supporting panel having opposed, flat, smooth surfaces.

When the material 42 is to be placed in use, however, it is to be preferred that the coil 26 be removed from its support 28, and in the construction chosen for illustration, the coil 26 is easily and quickly torn loose from the support 28. Or, if desired, the coil 26 may be unwound and each convolution of the tape 40 pulled loose from the support 28 progressively as the material 40 is applied or otherwise placed in use.

It is to be pointed out, therefore, that a minimum amount of adhesive interconnection between the tape edges and the support 28 is necessary; hence, there is some advantage in utilizing relatively stiff pasteboard material having the corrugations 32 for receiving the adhesive and use of the pair of strips 48 and 50 of the

3

binding material which is easily and quickly applied to the corrugations 32.

The inexpensiveness and ease of assembly of the packaging means above described now becomes quite apparent. The tapes 26 are all positively held in proper position as shown in FIGS. 1 and 2 of the drawings within the container 10 and at no time during shipment, storage or other handling, are the coils 26 damaged or deformed since they are not only held separated between the panels 28, but are retained in position where the bands 46 therearound remain spaced from walls 16, 18, 20 and 22 of the container 20. There is no need to attempt to attach or suspend the cores 44 or any other part of the coil 26 to the supports 28 or to the container 10 except for the attachment that is presented by the adhesive binding of one edge of each tape 40 to a corresponding support 28.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

In combination, a container; a plurality of polygonal panels and a number of coils of flexible material in the container, the peripheral edges of the panels engaging

4

the walls of the container and the coils alternating with the panels, the faces of the coils engaging the faces of proximal panels with the circumferential edges of the coils disposed in spaced relationship to said walls of the container; putty-like material on said coils; and a pair of spaced, generally parallel strips of adhesive binding one face of each coil respectively with a face of one corresponding panel next adjacent thereto, said strips of adhesive being located on opposite sides of the axis of a corresponding coil.

References Cited in the file of this patent

UNITED STATES PATENTS

1,070,940	Bauer	Aug. 19, 1913
1,201,768	Schloss	Oct. 17, 1916
2,340,116	Ferguson	Jan. 25, 1944
2,744,624	Hoogstoel	May 8, 1956
2,929,496	Muehlebach	Mar. 22, 1960

FOREIGN PATENTS

26,878	Great Britain	1913
571,665	Canada	Mar. 3, 1959