March 13, 1962 G. VINICK 3,024,935

BANANA PACKING MEANS

Filed Feb. 25, 1960 2 Sheets-Sheet 1

Fig. 1.

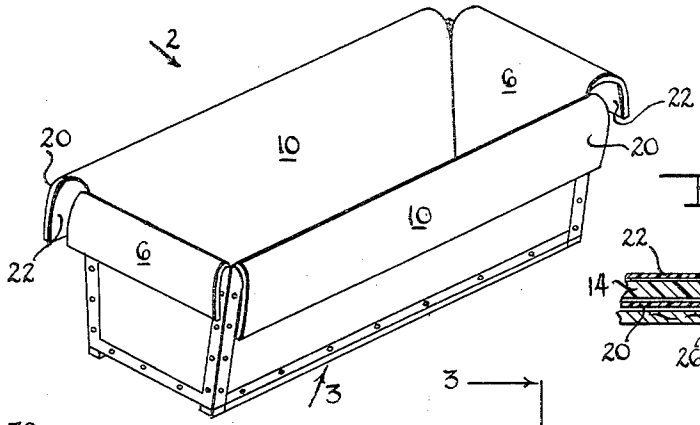
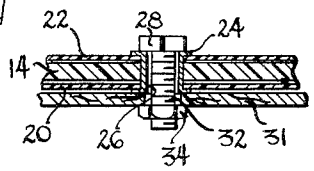


Fig. 4.



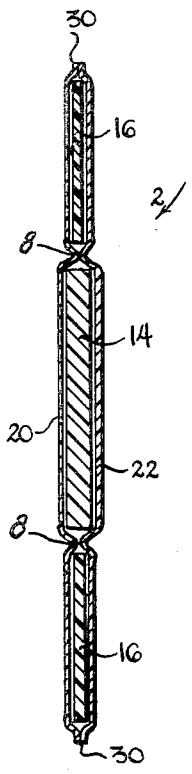
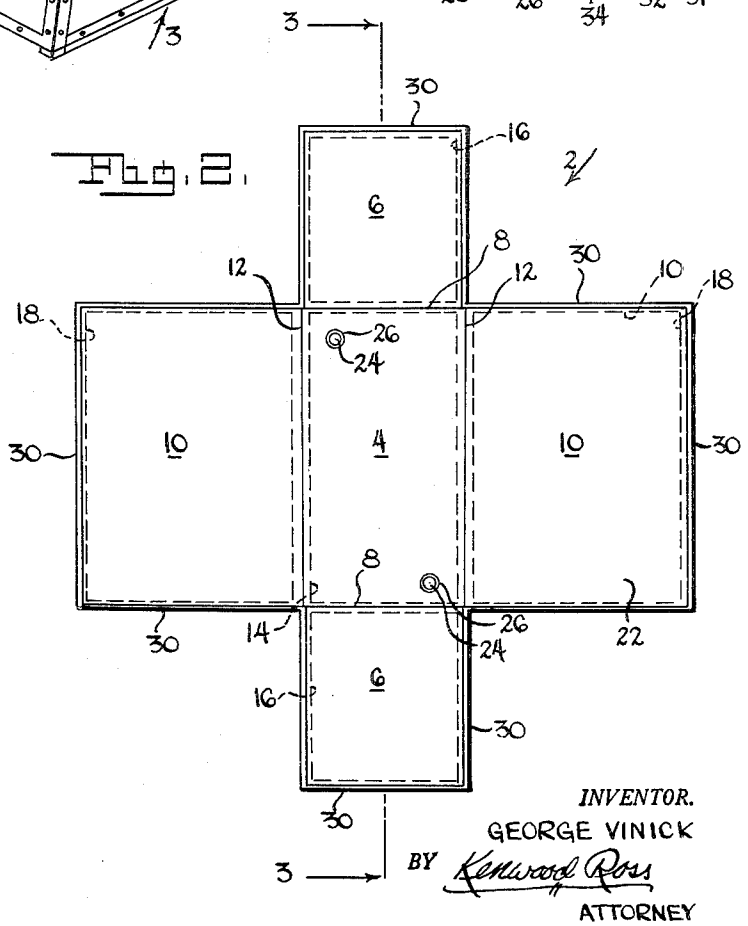


Fig. 3.

Fig. 2.



INVENTOR.
GEORGE VINICK
BY Kenwood Ross
ATTORNEY

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BANANA PACKING MEANS

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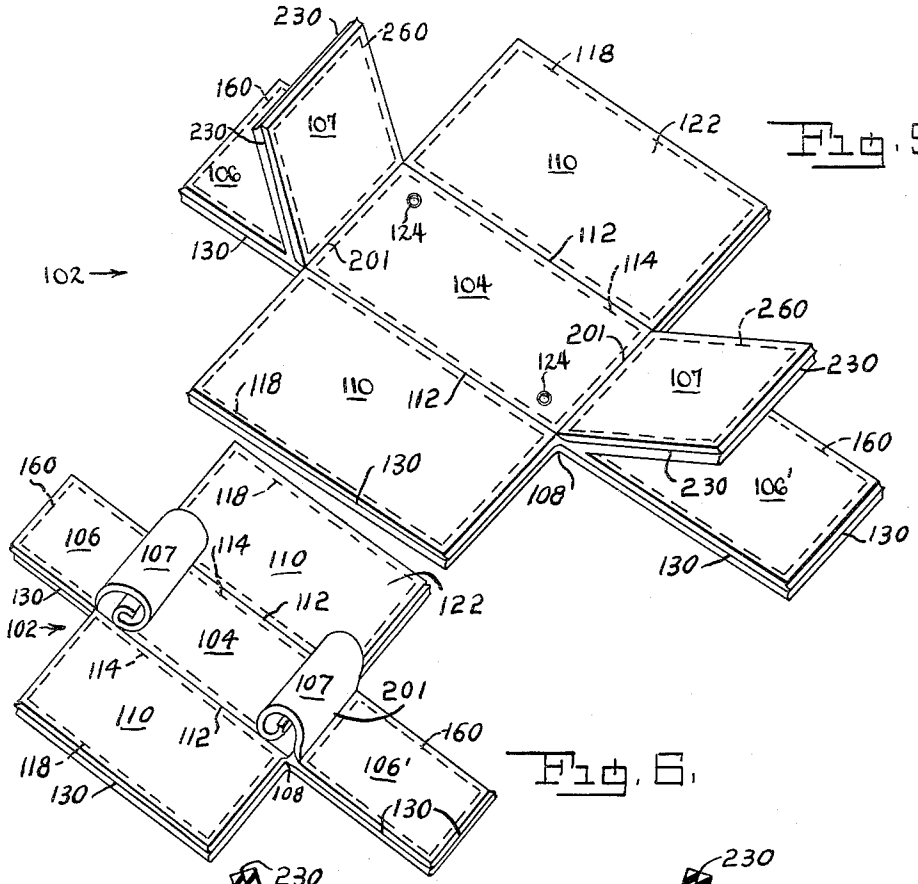


Fig. 5.

Fig. 6.

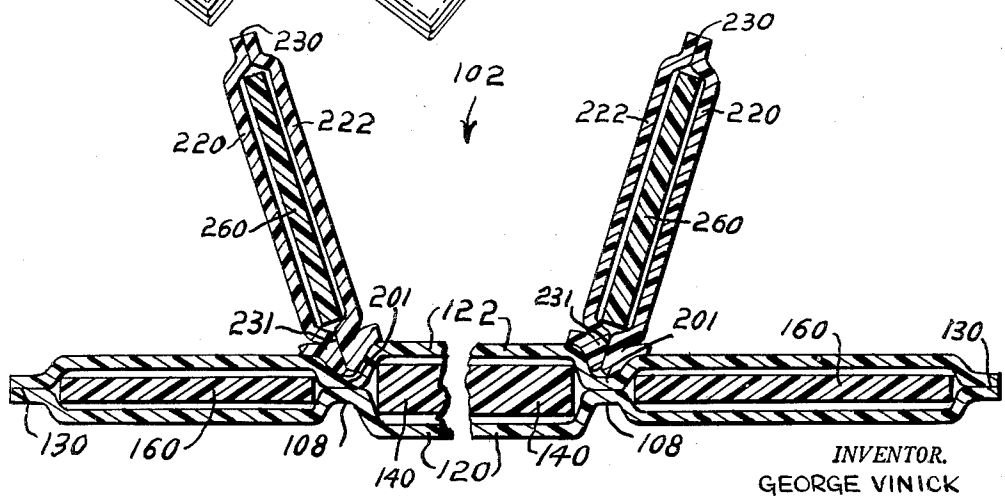


Fig. 7.

INVENTOR.
GEORGE VINICK
BY Kenwood Ross
ATTORNEY

United States Patent Office

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3,024,935

BANANA PACKING MEANS

George Vinick, 68 Virginia St., Springfield, Mass.

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1 Claim. (Cl. 217—3)

My invention relates to new and useful improvements in packing means and is directed particularly to structural improvements in a packing pad which is designed for use as a protective means in the crating and shipping of bananas as to be thoroughly effective for shielding same from injury due to rough handling or from the effects of cold.

Broadly, the invention envisions laminations of sheet material with a padding material sandwiched therebetween to present a structure of a character designed to function as a protective means for bananas during their storage and/or shipment.

A particular object of the present invention is, accordingly, to provide an improved flaccid packing member which combines a soft relatively thick pad body of strong, tough and durable material, with opposite facings of soft, unabrasive material, which latter may be disposed within and against the interior walls of the conventional banana box and against the bananas themselves when same are placed into the box, all without marring or scratching the same and in manner to effectively protect the bananas from damage by any object which may be jammed against the box during storage or shipment.

Another object is to provide an article of the character described which may be economically produced in quantity from cheap materials.

Still another object hereof is to provide a banana crate for the shipping of bananas having incorporated therewith a packing medium which is integrally combined therewith in manner as to offer a reasonable assurance of the return of the said packing medium when said crate is returned to the shipper following the removal of the bananas therefrom by the consignee, it being well known that it is the practice in the trade to return empty crates for subsequent reuse by the shipper.

The existing practice in the trade, whereby bananas and other soft fruits are packed in shredded paper or excelsior or the like which is loosely disposed within boxes, has proved to be most expensive both with respect to man-hours consumed and money expended. Additionally, these prior art materials fail to provide adequate protection to the fruit either against rough handling during shipment, or against extremes of heat or cold while in storage or during shipment.

Accordingly, it is another object hereof to provide an improved packing material consisting of a plurality of soft, relatively thick body or filler portions of polyether or like material, with opposite and outer thin, durable covering portions of vinyl or like material enclosing the same, the integral whole constituting a flaccid packing member having high insulation value both against shock and extremes in temperature.

Another salient object of the invention is to provide an article of sufficient durability so as to be capable of repeated use as a packing agent over a protracted period of time.

A further object hereof is to provide a pad of the character described having a rectangular base section, and integral elongated end and side flap portions, all having predetermined thicknesses in cross section. By this novel provision of sections or portions, when the end and side flap portions are folded over the article to be shipped in enclosing manner, the desired insulation and protection is provided.

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Still another feature is to provide a pad of the type which may be easily modified so as to provide additional or intermediate end flap portions, all to the end that additional protection may be afforded to the fruit being stored or shipped.

Another salient feature of my invention lies in the fact that all of the seams connecting the adjacent sections or portions and the outer peripheral edges are pressure sealed to provide extra long life to the pad and to give the article a neat, symmetrical appearance, making it quite suitable for use in connection with fruit displays, if such use is desired.

Another feature resides in the provision of a cold-resistant, heavy guage, vinyl film as the outer surface of the pad, thus giving the pad a high resistance to fruit juices, citric acids and the like and allowing it to remain odorless even when wet.

Still another object of the invention is to provide a pad which is sanitary and which can be cleaned quickly and simply without the use of agents other than water.

Another essential point in the invention is to provide a fastening means, such as grommets, eyelets or the like, which are extendable through the base section of the pad whereby same may be securely affixed to a shipping container as by bolts extending through the said grommets or eyelets and the bottom surface of the container and nuts threadedly engaged with such bolts.

The novel features which I consider to be characteristic of my invention will be best understood from a consideration of the following detailed description forming a part of this specification; nevertheless it is to be understood that the invention is not confined to such disclosure, being susceptible of such changes and modifications as shall define no material departure from the salient features of the invention as expressed herein; and it is further understood that this specific embodiment is illustrative, by way of example, of the principle of the invention and the best preferred mode, which has been contemplated, of applying that principle by way of a specific construction, in accordance with U.S. Revised Statutes, Section 4888.

In the drawings:

FIG. 1 is a view in perspective of the packing pad disposed within a banana box, preliminary to the packing operation;

FIG. 2 is a top plan view of the pad of the invention with the end and side flap portions thereof disposed in the extended or open position;

FIG. 3 is a sectional view taken on the line 3—3 of FIG. 2;

FIG. 4 is a fragmentary sectional view of the base section of the pad showing same engaged with the bottom wall of a banana shipping box;

FIG. 5 is a perspective view of a modification of the pad shown in FIG. 2;

FIG. 6 is a perspective view of the modified pad shown in FIG. 5 with intermediate flaps thereof in rolled condition; and

FIG. 7 is an enlarged broken sectional view taken on the longitudinal median line of FIG. 5.

Referring now to the drawings, which illustrate typical and preferred embodiments of the invention for the purpose of disclosure and form a part of this specification, I have shown, in FIG. 1, a packing pad, generally designated by numeral 2, disposed within a banana box, generally designed by numeral 3. Said pad comprises a rectangular base section 4, a pair of oppositely disposed end flaps 6 which extend outwardly from the opposite ends 8 of the base section 4, and a pair of oppositely disposed side flaps 10 which extend outwardly from the opposite sides 12 of the base section 4.

Said pad 2 is comprised of a plurality of separate rel-

atively thick body or filler portions 14, 16 and 18 which are generally rectangular in shape, and are comprised of polyether or like yieldable material.

Said filler portion 14 serves as the filler for what forms the base section 4, said filler portions 16 and 16 serve as fillers for what form the end flaps 6 and 6, and said filler portions 18 and 18 serve as fillers for what form the side flaps 10 and 10.

The filler portions 16 and 16 are spaced from the filler portion 14 at the opposite ends thereof and the filler portions 18 and 18 are spaced from the filler portion 14 at the opposite sides thereof.

The spaced filler portions 14, 16, 16, 18 and 18 are disposed between a pair of outer layers 20 and 22 of heavy guage vinyl film, said layers being of identical size, shape, and configuration, and being contiguous and joined together at their transverse and longitudinal outer edges 30 as by conventional heat or pressure sealing.

Adjacent the opposite ends 8 and sides 12 of the base section, the layers 20 and 22 are additionally joined together as by heat or pressure sealing.

In the preferred embodiment of my invention, the filler portion 14 will be of a certain thickness, say approximately one inch, the filler portions 16 will be of another certain thickness less than said certain thickness, say approximately one-half inch, and the filler portions 18 will be of still another certain thickness less than said another certain thickness, say approximately one-quarter inch, thus providing a pad which will offer substantially equal thicknesses on both the top and bottom of the structure when the end and side flaps are folded over upon the fruit disposed within the liner.

Disposed inwardly from each of the opposite ends 8 and sides 12 of the base section 4 of the pad, and diagonally opposed as to each other, are grommets or eyelets 24. Said grommets extend through the layers 20 and 22 and the filler portion 14 in manner to provide circular apertures 26, which apertures are suitable for receiving bolts 28 or other fastening device therethrough, as shown in FIG. 4.

Thus, when the pad or liner 2 is disposed within the container 3, the base 4 of the pad may be secured to the base 31 of the container by the insertion of bolts 28 through apertures 26 in said base section, and through appropriately aligned openings 32 in base 31 of the container. The bolts 28 may then be secured as by the nuts 34 threadedly engaged therewith.

It is contemplated that the base section 4 of the pad 2 will be of the same dimensions and configuration as the base of the container 3, that the base of the pad will be superposed upon the base of the container, and that the two will be secured together, if desired, as by the bolts 28. The sides 10 and the ends 6 of the pad, being of a width greater than the corresponding ends and sides of the container, will extend beyond the upper edges of said container ends and sides, as shown in FIG. 1. Thus, when bananas or other fruit are disposed within the container, the end and side flaps 6 and 10 of the pad 2 may be folded upon the fruit, giving it a high degree of protection. If a lesser degree of insulation or protection is desired, either the end flaps 6 alone, or the side flaps 10 alone, may be folded upon the fruit.

A bunch of bananas or other fruit is placeable within the banana crate into which the device of the invention has been placed and secured and the side and end portions may be brought into operative position thereover in overlapping manner so as to hold the fruit out of direct contact with the crate proper whereby the bruising of the fruit is thus obviated and the fruit is insured against direct exposure to the air so as to avoid freezing or the like.

The packing pad shown in FIGS. 5–7 is generally designated by the numeral 102. The pad comprises a rectangular base section 104, a pair of opposite end flaps 106, 106′ which extend outwardly from the ends of base section 104, and a pair of opposite side flaps 110 extending outwardly from the sides of base section 104.

As with pad 2, pad 102 is comprised of a plurality of separate relatively thick body or filler portions 140, 160 and 180 of polyether or like yieldable material and which are disposed between a pair of outer layers 120 and 122 of heavy gauge vinyl film, said layers being of identical size, shape and configuration, and being contiguous and joined together at their transverse and longitudinal outer edges 130 and at the juncture lines of the base section and the respective end flaps and side flaps as at 108 and 112 respectively as by conventional heat or pressure sealing.

One of the end flaps 106 is of substantially greater length than the other of the end flaps 106 and such elongated end flap is designated herein as 106′.

Such functions as the outermost covering when the structure is assembled in operating relationship in the box so that said end flap 106′ extends throughout the length of the structure so assembled.

Additionally, intermediate end flaps 107 are hingedly connected as at 201 at their inner ends to opposite ends of the base section 104 as by heat sealing or the like.

The intermediate end flaps 107, like end flaps 106 and 106′ comprise filler portions 260 of polyether sandwiched between outer layers 220 and 222 of sections of vinyl film, said layers being continuous and joined together at their transverse and longitudinal outer edges, as at 230, and at their transverse inner edges, as at 231.

As shown in FIG. 6, the intermediate end flaps may be rolled relative to the base section 104 to provide additional protection to the fruit after the pad has been placed in a banana box and the fruit deposited therein.

Grommets or eyelets 124 are similarly provided as in the case of liner 2.

It is contemplated that the base section 104 of the pad 102 will be of the same dimensions and shape as the base of the container with which used, that the base of the pad will be superposed upon the base of the container, and that the two will be secured together, if desired, as by the bolts. The sides 110 and the ends 106 of the pad, being of a width greater than the corresponding ends and sides of the container, will extend beyond the upper edges of said container, ends and sides. Thus, when bananas or other fruit are disposed within the container, the end and side flaps 106, 106′ and 110 of the pad 102 may be folded upon the fruit, giving it a high degree of protection.

Without further analysis, the foregoing is intended to so fully reveal the gist of my invention and its construction and operation that others can, by applying current knowledge, readily adapt it for various application without omitting features which, from the standpoint of prior art, fairly consititute essential characteristics of its generic and/or specific aspects. The substitution of equivalents and other changes, modifications and alterations as circumstances may suggest or render expedient, are contemplated since the invention is susceptible of such without departing from its real spirit or underlying principles. Stated otherwise, it is not desired to limit this invention to the exact construction shown and described as the objects hereof may be attained by the use of constructions different in certain respects from that disclosed; for instance, the pad may be rectangular, square or oval in shape, as desired.

The reference to the shipment of bananas is to be considered in a relative rather than an absolute sense, it being obvious that the packing pad may be used in the shipment of other soft fruits.

The invention is claimed, broadly as well as specifically, as indicated in the appended claim, and same is desired to include within the scope thereof all of said suitable variations, modifications and equivalents by which substantially the results of the invention may be obtained through the use of substantially the same or equivalent devices or means. Accordingly, limitation hereof should

only be made as determined by a proper interpretation of the subjoined claim.

What is desired to claim and secure by Letters Patent of the United States is:

A packing pad for disposition in a banana box and comprising, a base section and opposite end flaps and opposite side flaps hingedly connected to said base section at opposite ends and sides respectively thereof with said end flaps and side flaps being adapted for embracing the ends and sides of bananas respectively when disposed upon said base section and for being disposed in overlapping relation on the top of the bananas, the base section, end flaps and side flaps comprising heat sealable plastic sheets heat sealed at their edges to form pockets, separate cushioning members in said pockets, the cushioning member of said base section being of a certain thickness, the cushioning members of said end flaps being of another thickness less than said certain thickness, the cushioning

members of said side flaps being of a thickness less than said other thickness, one of said end flaps being of substantially greater length than the other of said end flaps, a pair of intermediate end flaps similar to and overlying said first mentioned end flaps hingedly connected to said base section at opposite ends thereof and being rollable into pillow formation adjacent the opposite ends of said base section, and a plurality of grommets extending through said base section for accommodating fastening means for securing the packing pad to the base of the banana box.

References Cited in the file of this patent

UNITED STATES PATENTS

1,187,749	Lane	June 20, 1916
2,143,662	Schwarz	Jan. 10, 1939
2,194,008	Colburn	Mar. 19, 1940
2,781,820	Rogers	Feb. 19, 1957