Aug. 21, 1956 R. P. BARBOUR 2,759,619

LID FOR LUG BOXES

Filed Aug. 24, 1953

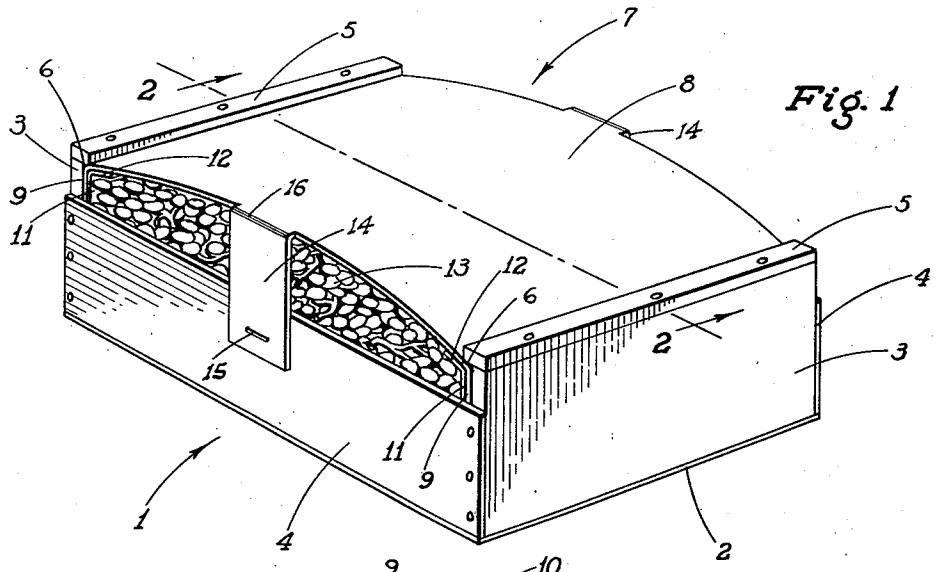


Fig. 1

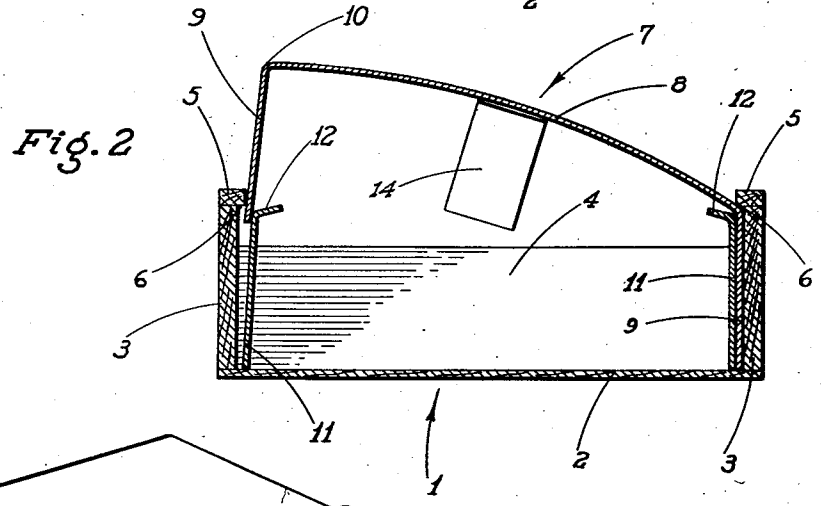


Fig. 2

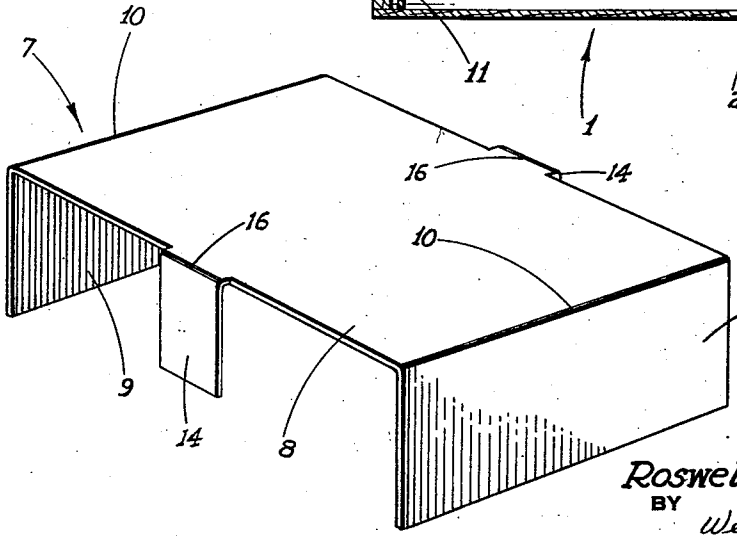


Fig. 3

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United States Patent Office 2,759,619 Patented Aug. 21, 1956

2,759,619

LID FOR LUG BOXES

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Application August 24, 1953, Serial No. 376,090

1 Claim. (Cl. 217—56)

This invention is directed to, and it is a major object to provide, an improved one-piece lid for use on a fresh produce shipping lug box; the lid being especially designed—but not limited—for use on fresh grape shipping boxes.

Another object of this invention is to provide a lid, for a fresh produce shipping lug box, which comprises a lid panel of relatively stiff but flexible and resilient material, such as paperboard; the box being cleated at the upper edges of the ends in a manner to form inwardly extending, downwardly facing shoulders, and the lid—which is longer than the inside lonigtudinal dimension of the box—is upwardly bowed or arched, and engages at the ends below said shoulders and abuts the inner faces of the box ends. As so disposed the lid panel is under compression, maintaining the upward bowing or arching of the pack, as is desirable, and additionally assuring that the ends of the lid cannot accidentally escape from the shoulders.

A further object of the invention is to provide a lid, for fresh produce shipping lug boxes—as in the preceding paragraph—wherein the lid panel is formed at the ends with depending rectangular flaps, and the latter—when the lid is in place—extending downward between the produce pack and the inner faces of the lug box; said flaps being dimensioned so as to seat at the lower edge on the bottom of the box when the ends of the lid are engaged beneath the shoulders, as aforesaid. These end flaps not only prevent downward displacement of the lid panel at the ends, but also tend to further assure of the maintenance of said ends in engagement beneath the shoulders.

An additional object of the invention is to provide a lid, for fresh produce shipping lug boxes, as above, which may be used successfully with box liners, and which are employed with certain fresh produce, such as grapes, to protect the pack, especially at the ends of the box.

Still another object of the invention is to provide a lid, for fresh produce shipping lug boxes, which requires no nails to secure it on the box; the lid being applied to or removed from the box readily and easily by hand.

It is also an object of the invention to provide a lid, for fresh produce shipping lug boxes, which is designed for ease and economy of manufacture.

A still further object of the invention is to provide a practical, reliable, and pack-protective lid, for fresh produce shipping lug boxes, and one which will be exceedingly effective for the purpose for which it is designed.

These objects are accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claim.

In the drawings:

Fig. 1 is a perspective view of a fresh produce shipping lug box having the novel lid in place thereon over a pack of fresh grapes.

Fig. 2 is a longitudinal sectional elevation on line 2—2 of Fig. 1, but with the produce pack omitted.

Fig. 3 is a perspective view of the lid after down-turning of the end flaps along the transverse score lines.

Referring now more particularly to the drawings, and to the characters of reference marked thereon, the present invention is adapted for use in connection with a fresh produce shipping lug box, indicated generally at 1, and which is of the type having a bottom 2, upstanding ends 3 disposed in facing parallel relation, and sides 4 which extend between and connect the ends 3.

The sides 4 preferably terminate at their upper edges short of the corresponding edges of the ends 3.

To a shipping box, as above, I apply transverse cleats 5 to the upper edges of the ends 3; such cleats being of a width, lengthwise of the box, such that when the cleats are flush with the outer faces of the ends 3, said cleats have an inward overhang whereby to each define a downwardly facing transverse shoulder 6. The shoulders 6—which are relatively narrow, longitudinally of the box—do extend from side to side thereof; this by reason of the fact that the cleats 5 are the same length as the ends 3.

The lid, indicated generally at 7, is formed of a relatively stiff but flexible and resilient material, such as heavy-duty paperboard; the lid including a lid panel 8 which is of elongated rectangular configuration in plan.

The lid panel 8 is of slightly greater length than the distance between the ends 3, for the purpose which will hereinafter appear.

At each end thereof the lid panel 8 is integral with a depending end flap 9 of the same width as said lid panel 8, and of a height substantially the distance between the box bottom 2 and the shoulders 6.

The lid panel 8 and end flaps 9 are initially formed as a flat blank transversely scored, as at 10, and along which score lines said end flaps 9 are down-turned.

The above described lid is used in the following manner:

When the lug box 1 is to be loaded with a pack of fresh produce, a pair of end liners 11 are disposed in the box one at each end thereof; said end liners being rectangular in elevation, resting on the bottom 2 in facing relation to the ends 3. Such end liners 11 are substantially the same height as the ends 3, and include inturned, full width flanges 12.

With the end liners 11 in place in the box 1, the latter is filled with the fresh produce; the pack—such as fresh grapes—being shown at 13 in Fig. 1.

With the pack 13 in the box 1 the end liners 11 lie between such pack and the box ends 3, with the inturned flanges 12 overlying the pack at the ends thereof.

A lid 7 is then manually applied to the box 1 by first engaging one of the down-turned end flaps 9 between one of the end liners 11 and the related box end 3 in the manner shown in the right-hand portion of Fig. 2; such end flap bearing, at its lower edge, on the bottom 2, and being disposed, at its upper edge, beneath the shoulder 6 of the related transverse cleat 5, along with the corresponding end of the lid panel.

Thereafter, the end liner 3, at the opposite end of the box, is pulled inwardly slightly by grasping the inturned flange 12, and the corresponding end flap 9 is inserted downwardly between said end liner 11 and the corresponding box end 3. As soon as said other end flap 9 engages the bottom 2, the lid panel 8 at the corresponding end will snap-engage—said lid panel 8 having been held bowed—beneath the adjacent shoulder 6. The lid panel 8, which is under compression, then remains bowed or arched over the pack 13, as shown in Fig. 1, and such compression of the lid panel assures that its ends remain, normally, under the shoulders 6 in abutment with the ends 3, and with the end flaps 9 extending downwardly, seating on the bottom 2 between the end liners 11 and box ends 3.

The lid panel 8 thus in effect is snap-engaged beneath the shoulders 6; the compression of the lid panel 8, together with the end flaps disposed as described, assuring that said lid panel remains in place and does not accidentally escape during transit to market.

When it is desired to remove the lid 7 it is only necessary to manually grasp the lid panel 8 on opposite sides and to bow it upwardly in the middle, whereupon said lid panel escapes the shoulders 6 and can be readily lifted away from the box, pulling the end flaps 9 out from between the end liners 11 and box ends 3 without in the least disturbing the pack 13.

The fruit naturally tends to settle somewhat in transit so that it is adapted for use on cardboard-side as well as liners 11. This causes the liner to press firmly against the lid flaps 9, and thus acting to resist undesired displacement and removal of the lid.

In addition to the novel manner of retention of the lid panel 8 on the box 1, the normal upward bow or arching of said lid panel tends to conform the lid to the pack 13, which normally similarly arches, and further affords substantial protection against damage to the pack.

In order to increase the range of usefulness of the lid so that it is adapted for use on cardboard-side as well as wooden boxes, and to provide what is in effect a lock or seal to prevent undesired removal of the lid without mutilation thereof, the lid panel 8 is formed at the sides and centrally of its ends, with integral depending tabs 14.

These tabs when in use overlap and lie outside the sides 4 of the box and are stapled thereto as shown at 15, and if used with a double-wall cardboard-side box, project between the thickness of such double-wall to stiffen the same.

The tabs are scored as at 16 adjacent their junction with the sides of panel 8, so that if the use of the tabs is not desired with certain loads, they may be folded under the lid panel and out of the way.

In the majority of cases, however, the tabs are a valuable adjunct to the lid, since when stapled in place they form a seal to discourage tampering or unauthorized displacement or removal of the lid, besides acting to hold the lid down and thus press the end flaps firmly against the box ends and under the cleats. The tabs also serve as a closure for the widest part of the gap between the bowed lid and the side slats of the box, preventing possible escape of any fruit while not interfering with ventilation or visual inspection of the fruit.

From the foregoing description it will be readily seen

that there has been produced such an article of manufacture as will substantially fulfill the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the article, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claim.

Having thus described the invention, the following is claimed as new and useful, and upon which Letters Patent are desired:

In a fresh produce shipping lug box which includes a bottom and opposed rectangular ends upstanding therefrom, transverse cleats on the box ends at the upper edges thereof, said cleats each having an inward overhang to form a downwardly facing shoulder, a rectangular lid panel of relatively stiff but flexible and resilient material, the lid panel being of a length to extend under the cleats in close engagement at its ends with the ends of the box, flaps depending from the ends of the lid panel and arranged to abut the box ends when the ends of the lid panel are disposed under the cleats, rectangular end liners bearing on the box bottom and upstanding therefrom to a level adjacent but below the cleats, and inturned flanges on the upper edges of the end liners to provide means to initially guide the lower end of the flaps into place between the end liners and box ends when the lid is being mounted on a produce-filled box.

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