Oct. 3, 1950 C. M. ELLIS 2,524,378

RESILIENT SUPPORT FOR BOX LOADS

Filed Jan. 30, 1948

Fig. 1

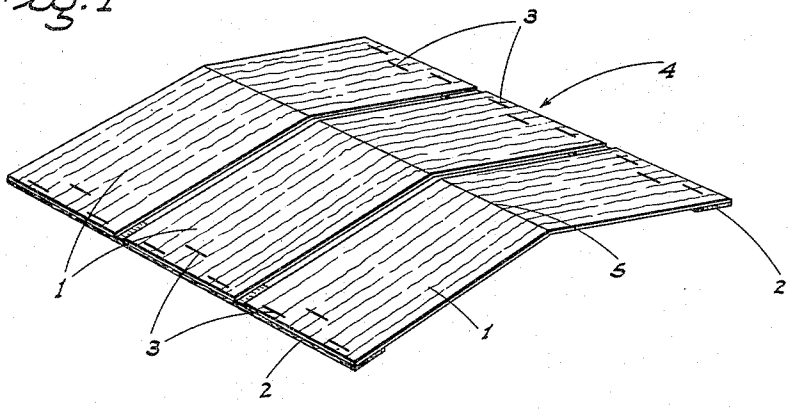


Fig. 2

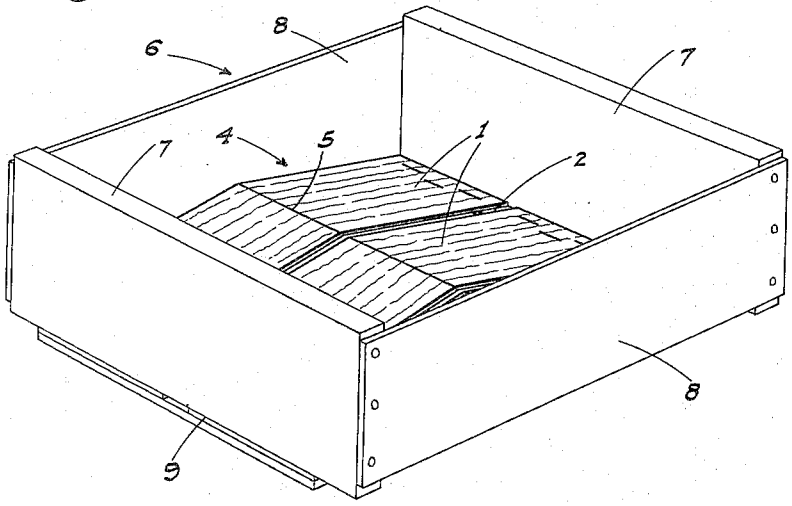
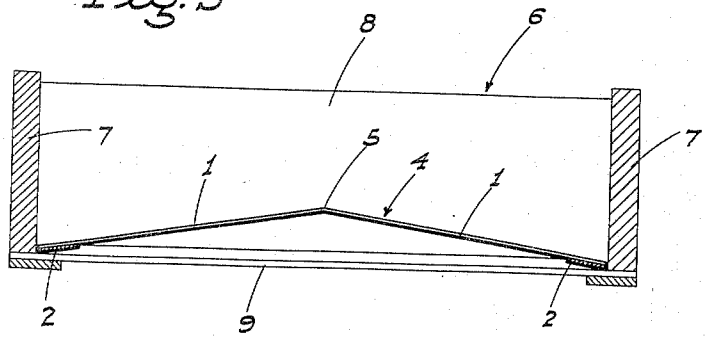


Fig. 3



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RESILIENT SUPPORT FOR BOX LOADS

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1 Claim. (Cl. 217—52)

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This invention is directed generally to fruit shipping boxes or crates, especially for table grapes.

One object of the present invention is to provide, in a shipping crate, as above, a load support comprising a supplemental bottom section resting directly on the bottom of the crate in resilient supporting relation to the pack of grapes therein; the configuration of such section being such as to minimize shattering or crushing of the grape bunches during transit, and, additionally, permits of desirable ventilation of the pack in storage or in transit.

Another object of the invention is to provide a load supporting supplemental bottom section, in a grape crate, which carries the pack in a manner such that it arrives at the market with a fresh, full-pack appearance; all substantial sagging being eliminated.

An additional object of the invention is to provide a load support, for crates, which makes possible more effective pre-shipment, or en route, gassing of the contents of crates in a loaded box car.

A further object of the invention is to provide a resilient support, for box loads, wherein the aforesaid supplemental bottom section comprises a plurality of side by side, relatively thin and resilient wooden panels secured together at the ends by cross cleats; the section being pre-bent to impart a symmetrical pitch downwardly in opposite directions from a transverse center line, and as so formed the section is of a length substantially that of the length of the bottom of the crate on the inside of the latter. In other words, the supplemental bottom section is centrally peaked on a transverse line and thence slopes symmetrically downward to opposite ends of the crate.

A further object of the invention is to provide a practical and reliable load support for grape crates 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:

Figure 1 is a perspective view of the resilient support, detached, for box or crate loads.

Figure 2 is a perspective view of a grape box or crate having the resilient support therein.

Figure 3 is a longitudinal sectional elevation of a crate embodying the support.

Referring now more particularly to the characters of reference on the drawings, the resilient support for box loads is especially designed for use in connection with the shipment of grapes although the invention may be adapted for use with other types of fruit or vegetable shipment.

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The resilient support, as shown detached in Fig. 3, comprises a plurality of flat elongated panels 1 disposed in side by side relation and connected together at the ends by cross cleats 2 stapled to said panels, as at 3.

The panels 1 are of wood and quite thin whereby said panels are resilient, yet not subject to easy fracture, nor subject to disintegration by moisture.

The support comprising the panels 1, connected by the cross cleats 2, forms a rectangular supplemental bottom section, indicated generally at 4, for a grape crate. During the course of manufacture thereof it is creased, as at 5, from the underside along a transverse center line and then bent or bowed upwardly at the center so that the rectangular section 4 extends at a downward slope symmetrically and in opposite directions from said line. This creasing and bending is done when the wood of the panels is green or is pre-moistened, so that splintering does not occur; the sections maintaining their peaked shape after the bending operation.

The panels 1 are initially of greater length than the bottom of the crate inside the same but when creased and peaked, as described, said section 4 is of substantially the same length as said bottom, for the advantageous purpose hereinafter described.

The supplemental bottom section 4 is adapted to be used in a grape crate, indicated generally at 6, which includes ends 7, sides 8, and a slatted bottom 9.

The load support comprised of the supplemental bottom section 4 is disposed in the crate 6 in the manner illustrated in Figs. 2 and 3 with the panels 1 running lengthwise of the crate.

The dimensions of the supplemental bottom section 4, when pre-formed to its peaked shape are substantially those of the inside of said crate; the ends of the section 4 resting on the bottom 9 and abutting the ends 7.

When so disposed in the crate 6, the supplemental bottom section 4 cannot extend lengthwise which assures that the panels 1 will remain in their downwardly sloping relation from the transverse center line 5, and cannot flatten against the bottom 9 of the crate.

After the supplemental bottom section 4 is placed in a crate 6, as described, the bunches of

grapes comprising the load are placed in the crate in supported relation on said section 4.

As said section slopes downwardly in symmetrical relation from the transverse center line 5 the weight of the load is distributed horizontally through the crate rather than bearing directly on the bottom of the crate as now occurs with conventional practices. This minimizes shattering or crushing of the bunches of grapes comprising the load and reduces to a negligible amount the detachment of the grape berries from the bunches before arrival at their destination.

Additionally, the load is effectively centrally supported so that sagging does not occur, with the result that upon reaching the market the load presents a fresh, full-pack appearance.

It should also be noted that by supporting the load in a crate by means of a supplemental bottom section 4, as herein shown, that the load can be effectively aerated or ventilated during storage or in transit.

There is also the further advantage that the fruit in car loaded crates can be very effectively gassed for mold control or the like.

From the foregoing description it will be readily seen that there has been produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, 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 is desired:

A load support for a crate, comprising a supplemental bottom section; said section being rectangular and comprised of a plurality of initially relatively thin, elongated flat, resilient wooden panels disposed in side by side relation, and cross cleats connecting the ends of the panels, the section being peaked intermediate its ends with portions sloping downward in opposite directions at an obtuse angle from the peak, the peak being at the transverse center line of the section.

CLARENCE M. ELLIS.

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