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F. ALBACH

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PACKING OR SHIPPING CASE

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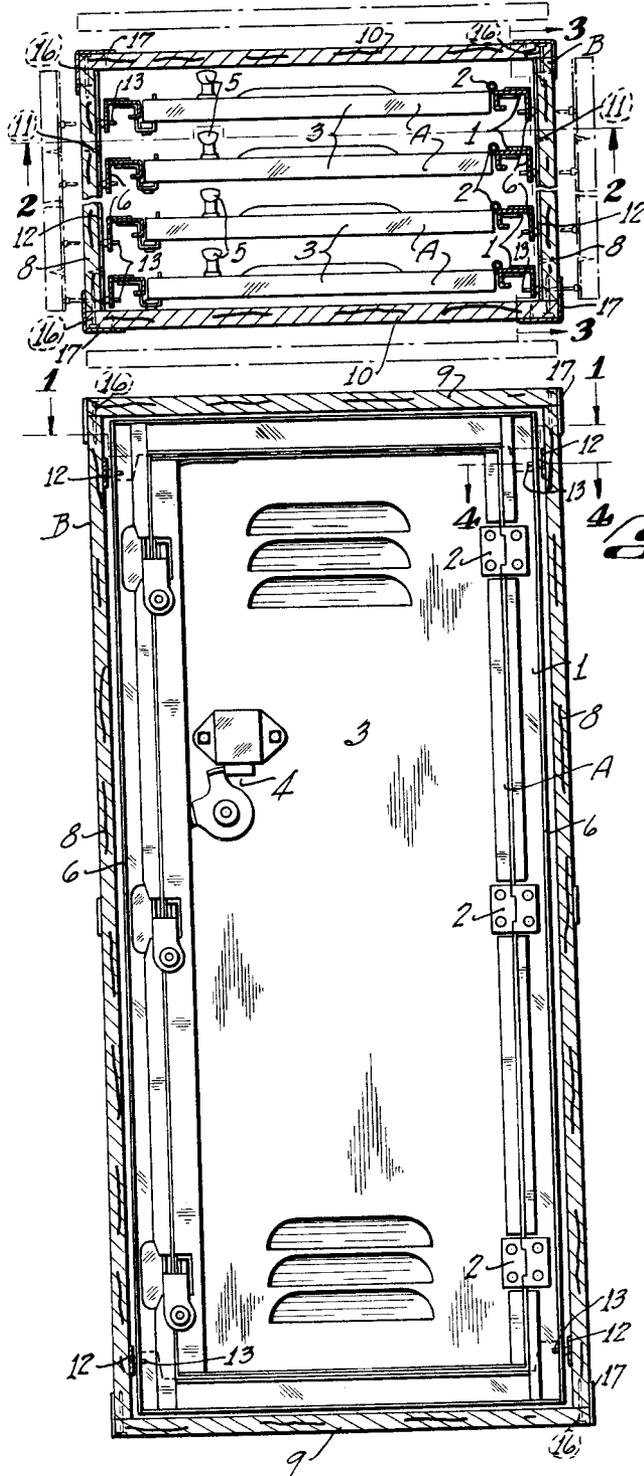


Fig. 1.

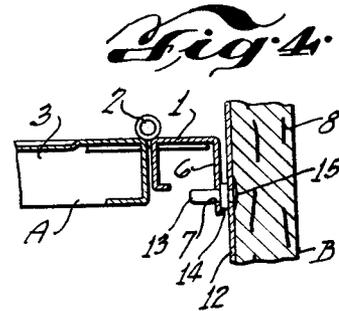


Fig. 4.

Fig. 2.

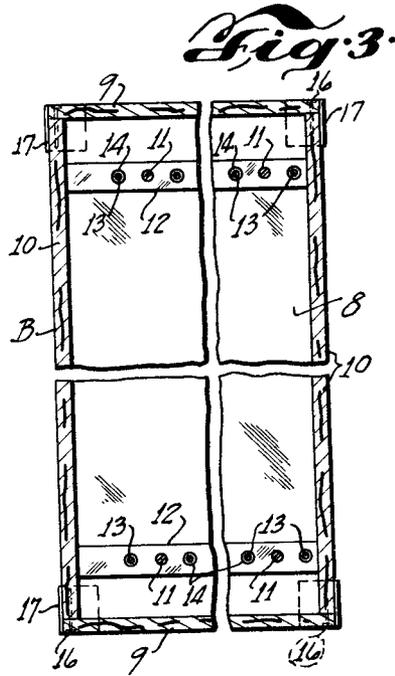


Fig. 3.

INVENTOR
Frank Albach.
By *Joseph Starnik*
ATTORNEY

UNITED STATES PATENT OFFICE

FRANK ALBACH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO FRED MEDART MANUFACTURING COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI

PACKING OR SHIPPING CASE

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This invention relates generally to packing and shipping containers, and has more particular reference to a case especially adapted for the packing and shipping of fabricated panel-sections and the like, that is to say, manufactured and finished articles of a generally flat approximately rectangular shape suitable for stacking in multiple in a shipping-container.

My invention has for its prime objects the provision of a container of simple and sturdy construction for enclosing the panels and embodying means for engaging the panel-sections for rigidly securing them in spaced apart relation for preventing finish-damaging shifting movement thereof within the container during shipment.

And with the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts hereinafter described and pointed out in the claims.

In the accompanying drawing,—

Figure 1 is a transverse sectional plan view, taken approximately along the line 1—1, Figure 2, of a packing-case or shipping-container of my invention, the walls of the case or container being shown by dot-dash lines in detached assembling relation;

Figure 2 is a longitudinal sectional view of the case or container taken approximately along the line 2—2, Figure 1;

Figure 3 is a reduced transverse sectional view of the case or container taken approximately along the line 3—3, Figure 1; and

Figure 4 is an enlarged fragmentary sectional view of a portion of a locker panel-section and an adjacent container-wall, taken approximately along the line 4—4, Figure 2.

Referring now more in detail and by reference characters to the drawing, which illustrates a preferred embodiment of my invention, A designates what may be described as a fabricated panel-section, that is to say, a finished or manufactured article of a generally flat more or less oblong rectangular shape and contour and hence adapted for multiple packaging for shipping purposes and the like. In the present instance, the panel-section A comprises a steel-locker door-

frame 1, permanently hingedly mounted in which, as by suitable hinges 2, is a door 3 suitably provided at its free margin with latching-mechanism 4 including a handle 5, whereby the door 3 may be conveniently latched to its frame 1 in closed position.

For economic reasons, to conserve shipping space, and to effect a saving in freight, the frame 1, door 3, and latching mechanism 4 are assembled at the factory and, as assembled, are shipped to the desired location for connection with the remaining side, rear, and end walls in the construction, formation, and installation of the complete locker. Such locker-walls, not shown, are usually in the form of flat metallic sheets or sections of the proper dimensions, and to facilitate permanent rivet-connection between the frame 1 and the remaining locker-walls, as will be understood, the frame 1 preferably includes lateral side or marginal portions 6 provided with suitably spaced rivet-apertures 7.

However, unless the locker-sections A are most carefully packed, marring or other damage to their finish frequently occurs in their shipment from the factory to the plant, gymnasium, school, hall, or other location where the lockers are to be completed and installed; and heretofore, so far as I am aware, for the want of an efficient packing case, great care had to be exerted and considerable expense incurred in the proper packing of the panel-sections A to insure their arrival in factory finished condition at their locker-formation destination. In either event, the care and expense, on the one hand, or the repairing of the damage, on the other hand, quite often neutralized the saving in freight that would otherwise accrue by reason of the shipment of the locker-sections in knocked-down relation.

My new packing and shipping case B efficiently meets all requirements and conveniently effects all the economies mentioned.

The container or case B may be of dimensions for enclosing a suitable or desired member of the sections A and preferably includes co-operable side walls 8, end walls 9, and front and rear walls 10. Preferably also the walls of the case B are initially in "knocked-

down" or detached condition, as shown by dot-dash lines in Figure 1, for subsequent assembly and closure upon a member of the panel-sections A, as will presently appear.

5 Fixed, as by suitable fastening elements 11, as shown in Figure 3, to and upon the inner face of each of the side walls 8, is a plurality, preferably a pair, of longitudinally spaced transverse preferably flat metallic straps or
10 bars 12, the bars 12 on one wall 8 being preferably, though not necessarily, in registration with the bars 12 on the opposite wall 8 of the assembled case B, as best seen in Figure 2, and so preferably located on the walls 8 as to
15 enable convenient utilization, for packing and shipping purposes, as will presently appear, of the rivet-apertures 7 of the respective sections A to be packed and shipped.

Fixed to, and rigidly projecting inwardly from, the respective bars 12, are series of pins or studs 13 suitably spaced and disposed for ensuing hookwise engagement with respective apertures 7 of the particular panels A to be packed within the case B, as will presently appear. Preferably, each of the pins or studs 13 comprises, as best seen in Figure 4, an integrally formed spacer-element or collar 14 for abutting the inner face of the bar 12 and a suitable rivet-shank extending from
20 the collar 14 through the bar 12 for rivet-heading purposes, as at 15, for rigidly and permanently securing the pin or stud 13 to the bar.

As shown in Figure 1, the pins or studs
25 13 are fixed on their respective bars 12 in such manner that, on bringing the several walls of the case B into panel-packaging assembled relation, the studs 13 on the opposite walls 8 are in opposed relation and registration for
30 co-operative panel-supporting engagement with corresponding opposed apertures 7 in the particular panel-sections A for thereby rigidly securing and retaining the same in spaced apart and substantially non-shiftable
35 relation within the case B, the several walls of which may be secured together about the panels A in any suitable manner, as by fastening elements 16, and, if desired, suitable corner bracing 17 may be employed for reinforcing the container-structure.

In the present instance, the several walls of the case B are shown as solid members of wooden construction; however, such walls may be of metal or other material, of frame construction with fiber or plywood panels, or of spaced slat skeleton formation, as may best serve the purpose.

In packing a number of the panels A for shipment, or in constructing a shipment-package thereof, as it may be said, the several panel-sections A are suitably engaged at a lateral side with a transversely disposed side wall 8, each section A engaging its corresponding lateral frame flange 6 with a pair of
40 the wall-presented studs 13, the other trans-

verse side-wall 8 is, in turn, disposed for engaging its studs 13 with the opposite lateral frame flanges 6 of the several panels A, and the walls 10 then applied and secured to the margins of the walls 8, as shown in Figure 1, the end walls 9 then being applied and secured to the margins of the walls 8 and 10, as shown in Figure 2. Thus, the packaging-case B is built-up and embraced around its contents for rigidly retaining the same in suspended spaced relation.

The resulting container-structure is of simple, yet sturdy and strong construction, and it will be seen that the panels A may readily be, and preferably are, supported in the case B in spaced relation from the walls thereof, merely the collars 14 being in engagement with the panel-flanges 6, and also that the studs 13 support and retain the panels A substantially immovably in the case B, thereby preventing finish-damaging contact of protuberant portions of one panel A, as for example, the handle 5 thereof, with the confronting portions of an adjacent panel, as best seen in Figure 1.

It will be understood that changes and modifications in the form, construction, arrangement and combination of the several parts of my new panel-package or case may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention, what I claim and desire to secure by Letters-Patent is,—

1. A packing case comprising, in combination, a panel-section having apertures in its opposite lateral sides, a case including opposed walls disposed transversely of said lateral sides of the panel-section, and opposed members projecting inwardly from said walls for securing engagement with the panel-section at said apertures.

2. A packing case comprising, in combination, a plurality of panel-sections having apertures in their respective opposite lateral sides, a case including opposed walls disposed transversely of said lateral sides of the panel-sections, and opposed members spaced one from the other along and projecting inwardly from the respective walls for engagement with the respective panel-sections at said apertures for securing the several sections in correspondingly spaced relation intermediate said walls.

3. A packing case comprising, in combination, panel-sections having apertured flanges on their respective opposite lateral sides, a case including opposed walls disposed transversely of said flanges, and opposed members spaced one from the other along and projecting inwardly from the respective walls for hookwise engaging said flanges at said apertures for securing the several panel-sections

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tions in correspondingly spaced relation intermediate said walls.

4. In a packing case, a plurality of panel-sections each provided with apertures in its
5 respective opposite lateral sides, wall-members forming part of the case extending transversely of the lateral sides of the sections, and a series of spaced studs projecting inwardly from the said wall-members for hook-
10 wise engaging the panel-sections at said apertures on assembly of the case for securing the panel sections in correspondingly spaced relation substantially immovably in the case.

5. In a packing case, a plurality of panel-
15 sections each provided with marginal flanges along its respective opposite lateral sides, said flanges being each formed with a series of spaced apertures, wall-members forming part of the case extending transversely of
20 said apertures, and a series of spaced studs projecting inwardly from said wall-members for hookwise engaging said flanges at said apertures on assembly of the case for securing the panel-sections in correspondingly
25 spaced relation in the case.

In testimony whereof, I have signed my name to this specification.

FRANK ALBACH.

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