April 14, 1931. W. E. BOWERSOCK 1,800,713

PACKING CASE

Filed July 25, 1928

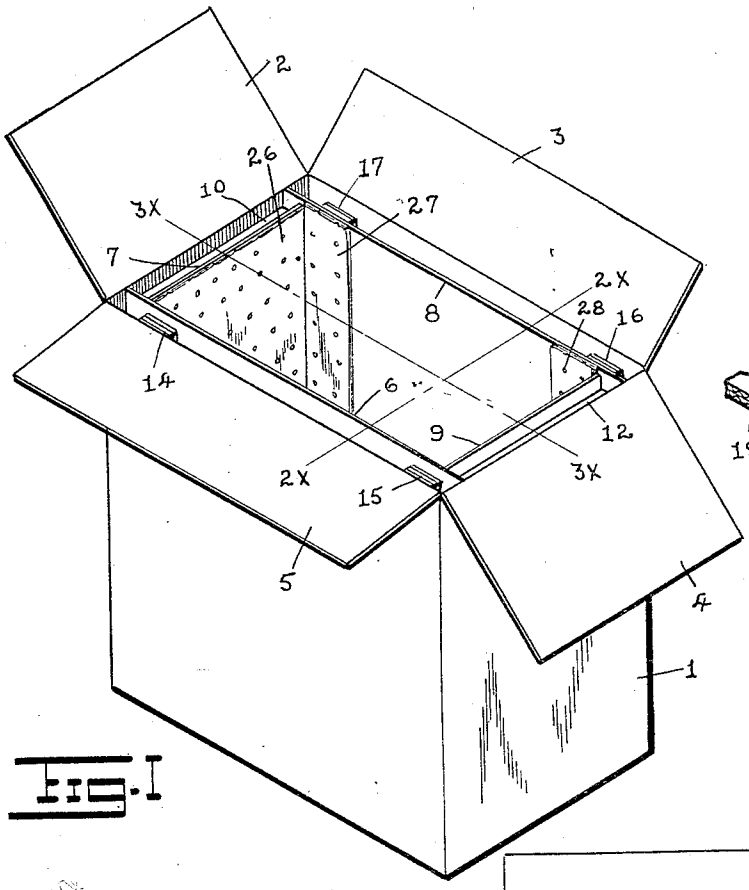



Fig. 1

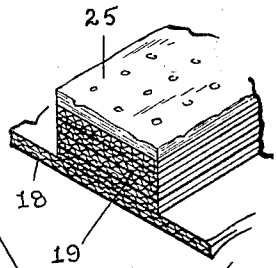



Fig. 4

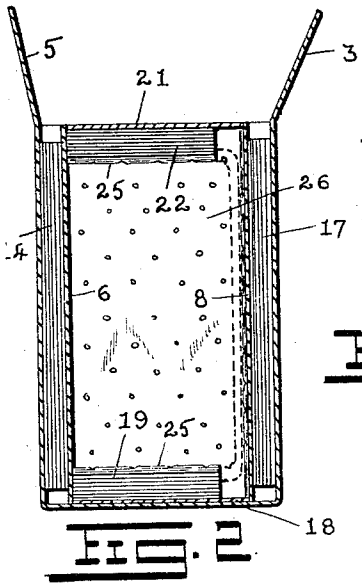



Fig. 2

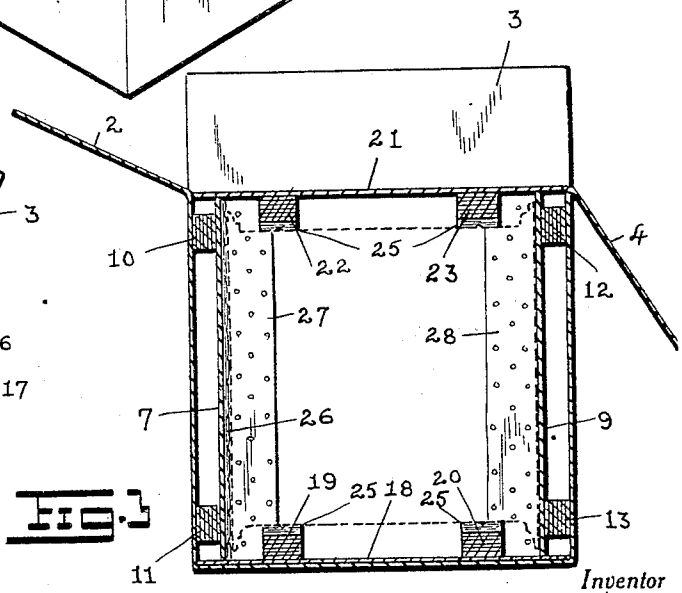



Fig. 3

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1,800,713

# UNITED STATES PATENT OFFICE

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## PACKING CASE

Application filed July 25, 1928. Serial No. 295,307.

The object of this invention is to provide a new and improved form of packing case made of paper products or more especially double faced corrugated board. Another object of the invention is to make the packing case with double walls, separated by cushion pads so that the cabinet or other contents of the packing case is practically suspended within the packing case so that it cannot be injured if the case is dropped on a corner, an edge or on the side.

This and other objects of the invention will be fully illustrated in the drawings, described in the specification and pointed out in the claims at the end thereof.

Figure 1 is a perspective view of the packing case with the cover flaps turned back at the top exposing the interior, with the inner top wall omitted.

Figure 2 is a vertical section on the line 2*x*—2*x* of Figure 1.

Figure 3 is a vertical section on the line 3*x*—3*x* of Figure 1.

Figure 4 is an enlarged perspective view of a portion of one of the cushion pads and the inner wall to which it is attached.

In the drawings, like reference numerals indicate like parts.

In the drawings, reference numeral 1 indicates a box made of paper products or preferably of double faced corrugated board in the ordinary way. On the top rim of this box are placed the flaps 2, 3, 4 and 5 which constitute the cover of the box. This box can be varied at will to any of the standard forms of packing cases for it is old and constitutes no part of my invention. The walls of this box are referred to as the outer walls of my improved packing case.

Inside of this packing case I provide the vertical walls 6, 7, 8 and 9. To the walls 7 and 9 are attached the horizontal cushion pads 10, 11, 12 and 13. These pads extend the full width of the walls 7 and 9, and from the wall 6 to the wall 8, and completely fill the gap between the walls 7 and 9 which are the inner walls of the box and the outer walls of the box adjacent thereto. On the walls 6 and 8 are provided the vertical cushion pads 14, 15, 16 and 17 which extend from near the top to near the bottom of the box. These pads fill the gap between the inner walls 6 and 8 and the adjacent outer walls of the box adjacent thereto.

On the bottom of the box is placed the horizontal inner wall 18 which carries the cushion pads 19 and 20, which extend up into the box. This bottom wall 18 extends the full length of the box and extends under the inner walls 7 and 9 and extends only between and to the inner walls 6 and 8. The top wall 21 has the same dimensions as the bottom wall 18 and rests on top of the inner walls 7 and 9 and rests between the inner walls 6 and 8. This top wall 21 is provided with the horizontal cushion pads 22 and 23 which extend down into the box.

The horizontal cushion pads 19 and 20 at the bottom of the box and the horizontal cushion pads 22 and 23 at the top of the box project into the box, so to speak, so that they come directly into contact with the cabinet that is carried by the packing case. These pads are all made short at one end as shown in Figure 2. That is, they come close to the wall 6 but are spaced at the end from the wall 8 so as to leave a gap between them and the wall 8, which gaps are adapted to receive the hinges of the doors on the front upright corners of the cabinet so that the hinges will not be subjected to any strain on the handling of the packing case with the cabinet in it.

The packing case is shipped knock down with the outer box folded up and the inner walls packed separately. When it is used in packing cabinets for shipment, the outer box is set up and the inner walls 8, 18 and 7 are placed therein in the order named. The wall 8 is first placed in position on its corresponding side of the box. The bottom wall is then put in place on the bottom against the wall 8 and the wall 7 is then put in place on the end with its lower end resting on the wall 18. The walls 7 and 8 are spaced from the outer walls by the cushion pads shown. The cabinet is then placed in the packing case with the front of the cabinet toward the wall 8 and the top of the cabinet toward the wall 7. The walls 9 and 6 are then forced into the packing case in the order named. The top

wall 21 is then laid in place with the cushion pads 22 and 23 resting on one end of the cabinet, the other end of the cabinet resting on the cushion pads 19 and 20 carried by the bottom wall 18. The flaps are then closed and the packing case is ready for shipment.

It will be understood that the top and front and the two ends of the cabinet are highly finished and polished and the back and the bottom of the cabinet are ordinarily not finished or polished. It is therefore not necessary to protect the back and bottom so carefully but it is necessary to protect the top and front and the two ends of the cabinet. Therefore, the pads 19, 20, 22 and 23 are each finished with a soft layer 25 and a similar soft layer 26 is spread over the whole of the inner wall 7 and bands of this soft layer 27 and 28 are placed on the inner wall at each end thereof from top to bottom so that the polished surfaces of the cabinet are in this way amply protected against scratching, abrasion or even rubbing. They also protect the polished surfaces against moisture making it unnecessary to wrap this cabinet in wax paper, it being understood that no paper wrapping of any kind is necessary on the cabinet when it is packed with this case.

The cushion pads on the inner walls of the box are built up with a series of layers of double faced corrugated board all suitably glued together as is shown in Figure 4 and on the cushion pads 19, 20, 22 and 23, a finishing layer is glued which is made of quilted paper of soft texture.

The case is made so that no part of the cabinet will come close to any part of the outer box, but all parts of the cabinet will be held an inch or two away from the outer box so that if the outer box is dropped on the corner or on an edge or on a side a portion of the outer box may be crushed but the blow will not be communicated to the cabinet within. Furthermore, the inner walls of the case are spaced apart from the outer walls and are placed in relation to each other so that the air contained in the air space that is enclosed between the inner and outer walls of the case and between the cabinet and the top and bottom walls 18 and 21 will itself act as a cushion, it being understood that while the case is not airtight it is sufficiently airtight so that the flow of air from one part of the case to another or from inside of the case to the outside thereof will be sufficiently retarded so that it will cushion any sudden blow that the case may receive in handling.

I claim:

1. A packing case having outer walls and inner walls around four sides of the case with an air space between the outer walls and inner walls, cushion pads between the outer and inner walls near the corners and corner edges of the box, said cushion pads being rectangular in longitudinal and transverse section, and being built up of a series of flat laminations spaced apart with corrugated laminations between them, each corrugated lamination being corrugated with small corrugations, the corners and the corner edges of the boxes being left open with air spaces therein between the adjacent cushion pads.

2. A packing case having outer walls and inner walls around four sides of the case with an air space between the outer walls and inner walls, cushion pads between the outer and inner walls near the corners and corner edges of the box, said cushion pads being rectangular in longitudinal and transverse section, and being built up of a series of flat laminations spaced apart with corrugated laminations between them, each corrugated lamination being corrugated with small corrugations, the corners and the corner edges of the boxes being left open with air spaces therein between the adjacent cushion pads, an inner wall on the bottom of the box, cushion pads carried thereon projecting up into the box, an inner wall on the top of the box, cushion pads carried thereon projecting down into the box, the inner walls on the four sides and the cushion pads on the inner walls at the top and bottom being adapted to hold a cabinet in suspension in the box.

3. A packing case having outer walls and inner walls around four sides of the case with an air space between the outer walls and inner walls, cushion pads between the outer and inner walls near the corners and corner edges of the box, said cushion pads being rectangular in longitudinal and transverse section, and being built up of a series of flat laminations spaced apart with corrugated laminations between them, each corrugated lamination being corrugated with small corrugations, the corners and the corner edges of the boxes being left open with air spaces therein between the adjacent cushion pads, an inner wall on the bottom of the box, cushion pads carried thereon projecting up into the box, an inner wall on the top of the box, cushion pads carried thereon projecting down into the box, the inner walls on the four sides and the cushion pads on the inner walls at the top and bottom being adapted to hold a cabinet in suspension in the box, two of the side walls placed opposite to each other resting on top of the bottom wall and making contact with the top wall.

4. A packing case having outer walls and inner walls around four sides of the case with an air space between the outer walls and inner walls, cushion pads between the outer and inner walls near the corners and corner edges of the box, said cushion pads being rectangular in longitudinal and transverse section, and being built up of a series of flat laminations spaced apart with corrugated laminations between them, each corrugated lamination being corrugated with small corruga-

tions, the corners and the corner edges of the boxes being left open with air spaces therein between the adjacent cushion pads, an inner wall on the bottom of the box, cushion pads carried thereon projecting up into the box, an inner wall on the top of the box, cushion pads carried thereon projecting down into the box, the inner walls on the four sides and the cushion pads on the inner walls at the top and bottom being adapted to hold a cabinet in suspension in the box, all of said surfaces that make contact with polished surface, the cabinet being covered with soft layers.

5. A packing case having outer walls and inner walls around four sides of the case with an air space between the outer walls and inner walls, cushion pads between the outer and inner walls, said cushion pads being rectangular in longitudinal and transverse section, and being built up of a series of flat laminations spaced apart with corrugated laminations between them, said pads being placed near the corners and the corner edges of the box with an air pocket between them, at the corners.

In testimony whereof I affix my signature.

WILBER E. BOWERSOCK.