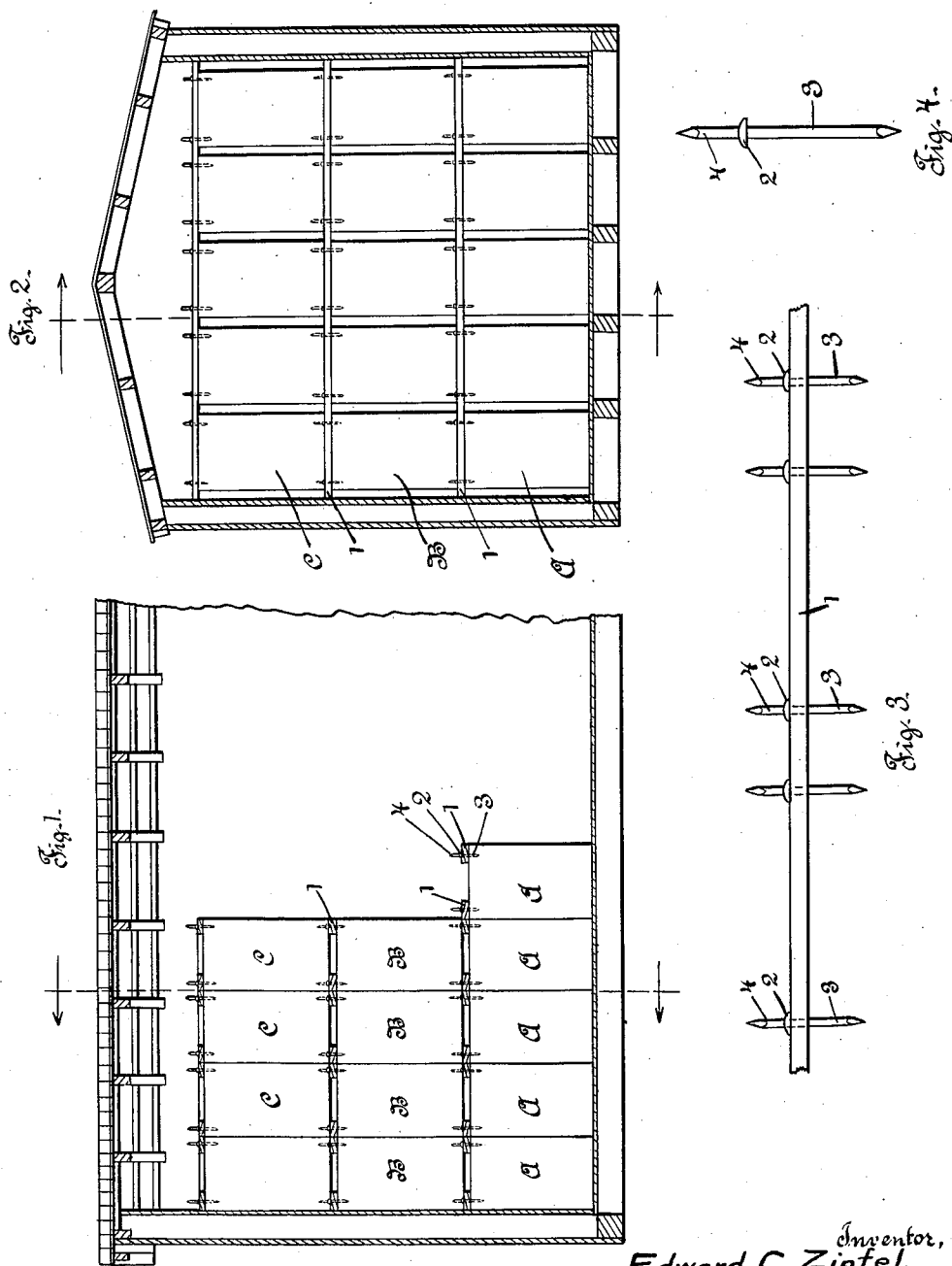


E. C. ZIPFEL.
 MEANS FOR PACKING FREIGHT.
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1,011,702.

Patented Dec. 12, 1911.



Witnesses:

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UNITED STATES PATENT OFFICE.

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MEANS FOR PACKING FREIGHT.

1,011,702.

Specification of Letters Patent.

Patented Dec. 12, 1911.

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To all whom it may concern:

Be it known that I, EDWARD C. ZIPFEL, a citizen of the United States, and a resident of Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Means for Packing Freight, of which the following is a specification.

My invention relates to means for packing freight in cars, especially freight consisting of materials and articles such as fruit which are put up in boxes and which it is necessary or desirable to have spaced apart so as to secure ventilation thereof.

It is the object of my invention to provide a simple and economical means for packing such articles in cars so as to maintain the proper spacing thereof at all times, and to prevent the displacement and breakage of the boxes resulting from shaking, jerking and sudden stopping of the car while in transit.

A construction embodying my invention is illustrated in the accompanying drawings, in which—

Figure 1 is a partial longitudinal section of a car partly packed with boxes, Fig. 2 is a transverse section of the same, Fig. 3 is a side view of one of the packing cleats, and Fig. 4 is a side view of one of the special nails used in making up the packing cleats.

In carrying out my invention I provide strips or cleats 1 which at suitable intervals have metal points projecting therefrom on both sides. These metal points are formed by the protruding ends of nails or nail-like bodies which are driven through the cleats so as to have their ends extending from each side thereof. The preferred form of these nails is shown in Fig. 4, the same comprising a metallic pin pointed at each end and having a central enlarged portion or head 2 disposed so that the portion 3 at one side of the head is longer than the portion 4 at the other side. The longer end 3 of the nail is driven into the cleat until the head 2 engages the same, and the relative lengths of the portions 3 and 4 is such that when so driven they protrude approximately equal distances from each side of the cleat.

In packing boxes into a car a row A of the same, suitably spaced, is placed upon the floor of the car, and across the upper ends of the same are placed one or more of the

cleats 1, the points 3 of the nails being driven into the boxes. The length of the cleats is made such that they engage the walls of the car, as shown in Fig. 2. A row B of the boxes is placed over the cleats so that the upper projecting points 4 penetrate the lower ends thereof, and the second row of boxes is thus, in effect, nailed to the cleats. The operation is continued until the boxes have been piled to a suitable height in the car, when another row is placed upon the floor and a pile built up as before. The cleats may extend either transversely to the car, as shown, or longitudinally thereof, or in some instances it may be desirable to extend the cleats both transversely and longitudinally of the car so as to secure the piles together in both directions. If desired, also, cleats may be placed on the floor of the car before the boxes are piled thereon, and other cleats may be placed across the tops of the upper rows of boxes. The cleats may be prepared before use by having the nails driven therein, or the nails may be driven into the cleats at the time the same are placed upon the boxes. By the use of the special form of nail shown, a uniform projection of the nails from the cleats is obtained, the heads 2 serving to gage the depth to which the nails are driven into the cleats.

It will be seen that by means of the cleats between the rows of boxes and the use of the points projecting from the cleats into the boxes at both sides thereof, cars may be packed with boxes spaced apart and the spacing maintained under all conditions of transit.

Now, having described my invention, what I claim and desire to secure by Letters Patent is:

1. A freight packing device comprising a cleat provided at intervals with metal points projecting from both sides thereof.

2. A freight packing device comprising a cleat and nails driven through the same at intervals, the nails having points projecting from both sides of the cleat.

3. A freight packing device comprising a cleat, metal pins pointed at each end extending through the cleat and projecting substantially equal distances at each side thereof.

4. A freight packing device comprising a cleat, metal pins pointed at each end and

having heads intermediate the ends, the pins each being driven through the cleat so as to project on both sides thereof with the head engaging one side and gaging the amount of projection.

5 5. A freight packing means for retaining boxes in spaced horizontal and vertical relations, comprising a series of cleats adapted to be disposed between tiers of the boxes to hold them in spaced relation, and series of
10 metal points projecting from both sides of the cleats and adapted to enter and hold in spaced relation the boxes on both sides of the cleats.

15 6. A freight packing means for retaining tiers of boxes in spaced relations to each other both horizontally and vertically, comprising cleats disposed horizontally between the tiers and holding the tiers in vertically
20 spaced relation, metal pins secured in the cleats and projecting from the lower sides thereof into each box of a tier to hold said boxes in spaced horizontal relation, and

similar pins extending from the upper sides of the cleats into the boxes of the upper tier. 25

7. Means for packing boxes in freight cars, comprising cleats disposed horizontally across a plurality of the boxes and engaging the sides of the car, nails passing through the cleats and into each of the boxes 30 whereby the latter may be held in horizontally spaced relation to each other and to the walls of the car, and points projecting upwardly from the heads of the nails and entering boxes disposed above the cleats so as
35 to hold said boxes in fixed relation to the lower boxes and in spaced horizontal relation to each other.

In testimony whereof I have hereunto subscribed my name in the presence of two 40 witnesses.

EDWARD C. ZIPFEL.

Witnesses:

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