

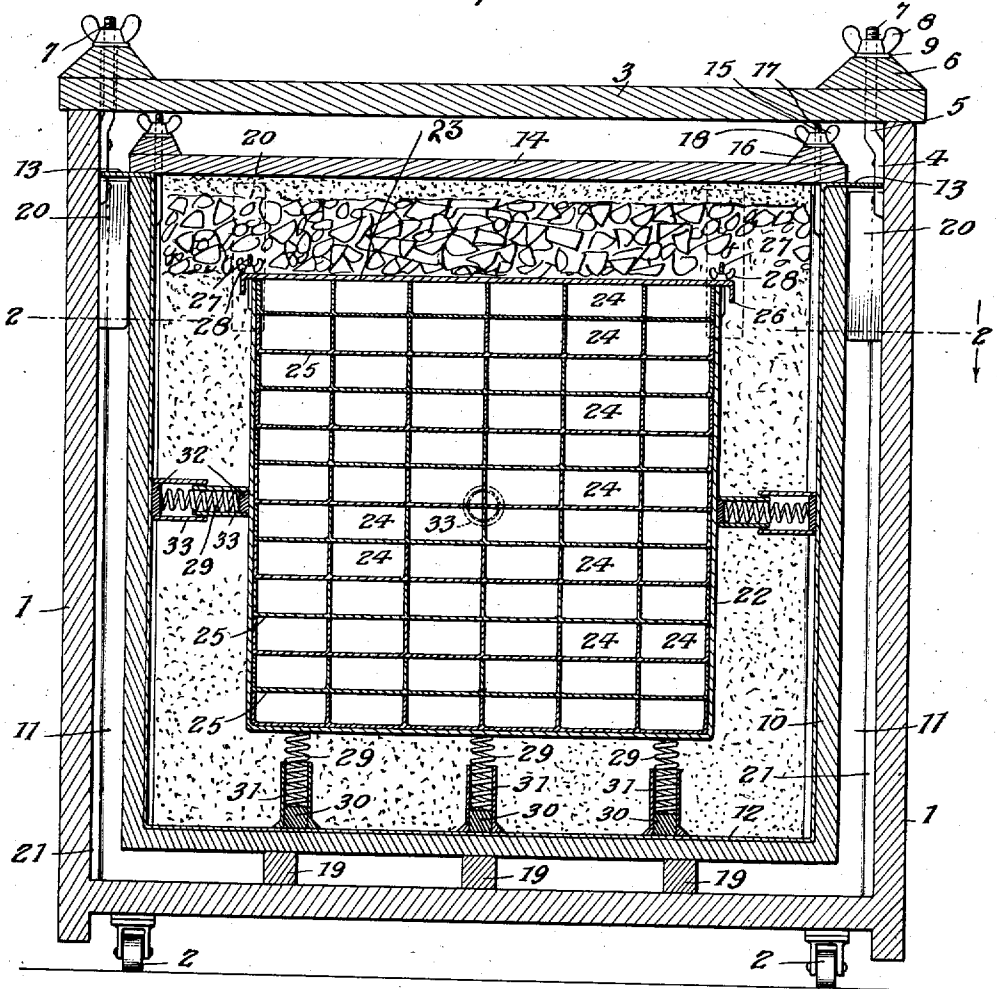
F. I. LAMASNEY & F. H. PIERCE.
SHIPPING RECEPTACLE.
APPLICATION FILED APR. 27, 1909.

956,810.

Patented May 3, 1910.

3 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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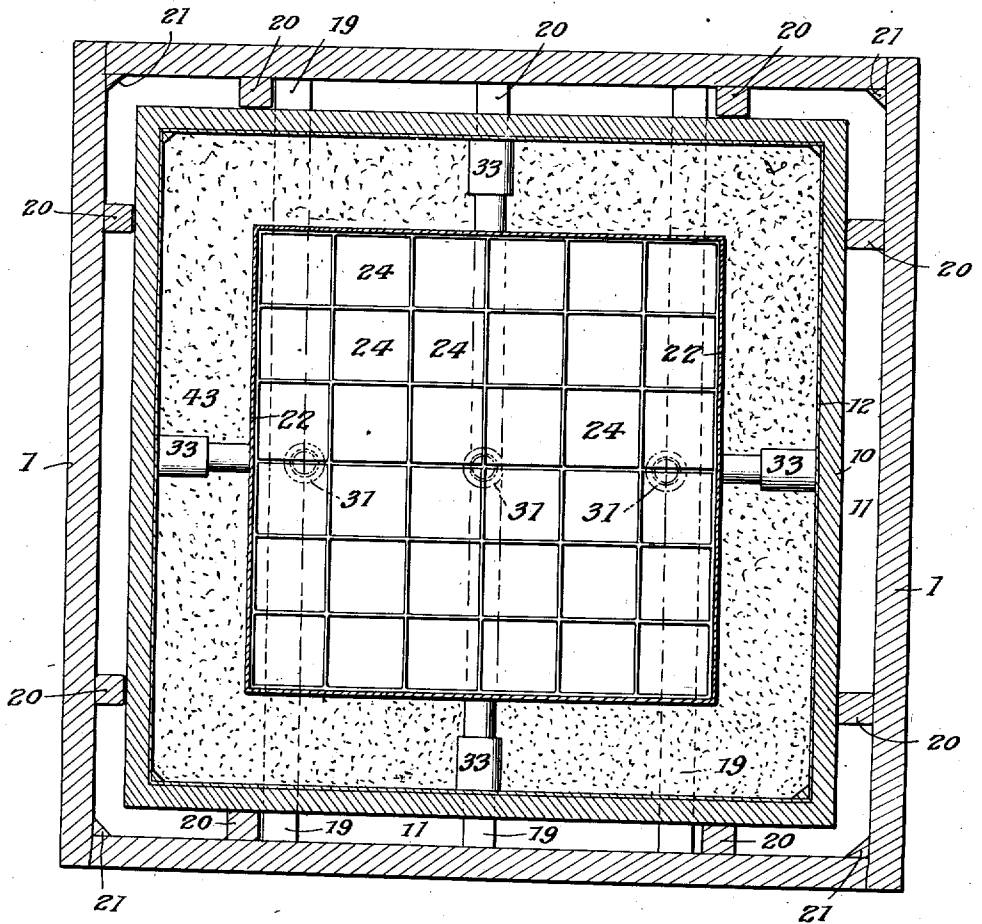
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3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

Fig. 3.

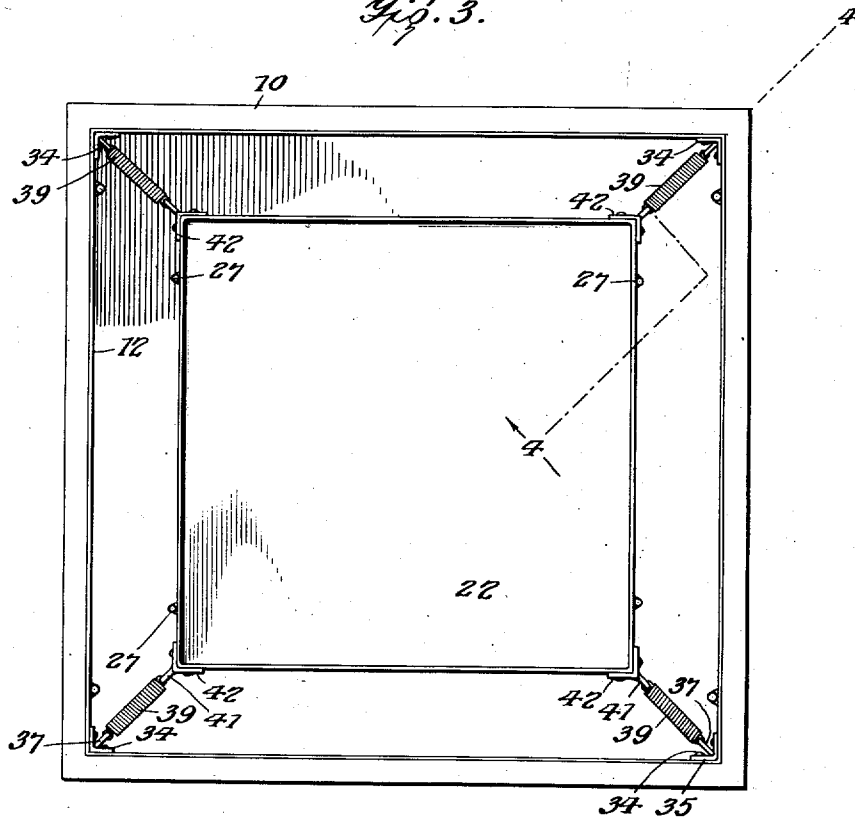
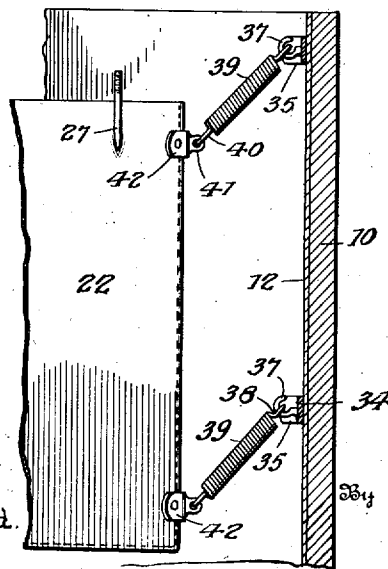
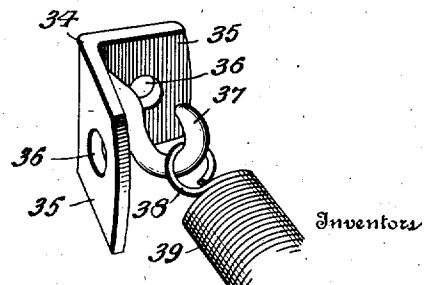


Fig. 4.



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Fig. 5.



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UNITED STATES PATENT OFFICE.

FRANK I. LAMASNEY AND FORRESTER H. PIERCE, OF BEVERLY FARMS,
MASSACHUSETTS.

SHIPPING-RECEPTACLE.

956,810.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed April 27, 1909. Serial No. 492,552.

To all whom it may concern:

Be it known that we, FRANK I. LAMASNEY and FORRESTER H. PIERCE, citizens of the United States of America, and residents of Beverly Farms, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Shipping-Receptacles, of which the following is a specification.

This invention relates to certain new and useful improvements in shipping crates and the like, designed primarily for use in shipping soft shelled crabs, lobsters and other perishable articles, and it has for its objects among others to provide a simple and cheap, yet efficient shipping receptacle admirably adapted for such purposes.

We have found by experience that it is a difficult matter to ship live crabs etc. a long distance and have them reach their destination in good condition. We have found that certain conditions must exist. Rough handling, too great a degree of heat and too great a degree of cold will kill them. The crabs, especially the soft shelled ones, crush very easily, hence it is essential that they be kept from contact with each other as well as from contact with the walls of the receptacle, or the tray. We find that a temperature of about 55° Fahr. is best suited to them and in it they thrive to the best advantage. Also it is desirable that the receptacles, there being a plurality of them, one within the other, shall all be kept practically air tight.

With the above objects in view our shipping receptacle has been designed.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention, in its preferable forms, is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a substantially central vertical section through a shipping refrigerator constructed in accordance with our present invention. Fig. 2 is a cross section taken on the line 2—2 of Fig. 1, looking in the direction of the arrow. Fig. 3 is a plan looking down on the inner receptacle and the intermediate one with the covers and trays removed, showing a modified form of means for yieldingly supporting the inner

receptacle at the corners. Fig. 4 is a sectional view, taken as along the line 4—4 of Fig. 3. Fig. 5 is a perspective detail showing one of the angle brackets and its hook for attaching one end of the spring.

Like numerals of reference indicate like parts throughout the several views.

Referring to the drawings 1 designates the outer box, of any suitable material and capacity. It is, by preference, mounted upon suitable rollers or wheels 2, as shown, for convenience in moving about, but it is evident that the rollers or wheels may not always be present.

3 is the cover or top for this box; it is designed to fit air tight thereon, and is held firmly to place by suitable means, as the clamps 4 which are secured to the inner walls of the box by suitable means as seen in Fig. 1, and which are offset as at 5, and thence extended upward through openings in the top 3 and through suitable openings in the cleats 6 secured to the outer face of the top, the upper portions being screw threaded as seen at 7 and receiving the thumb nuts or the like 8, by means of which the parts may be drawn together, a washer or the like 9 being employed if necessary between the thumb nut and the adjacent face of the cleat, as seen in Fig. 1, for an obvious purpose.

10 is the intermediate box, of like contour to the outer box but of sufficiently smaller dimensions as shown to provide an air space 11 between the walls of the two boxes. This box 10 is provided with a lining 12 of suitable material and thickness; we preferably make the box of wood and the lining of galvanized iron. At the top this lining is extended outward upon all four sides of the box to form a flange 13 as seen in Fig. 1, which closes the top of the air space 11, as will be clearly understood from said figure.

The box 10 is provided with a cover or top 14 which is secured to place thereon to form an air tight receptacle, by any suitable means as the clamp screws 15 secured to the inner walls of the box as shown in Fig. 1 and extended upward through the top of the box and through cleats 16 secured to the outer face of said top, said screws receiving thumb nuts or the like 17, a washer 18 being interposed between the upper face of the cleat and the under face of the thumb nut if desired, as seen in Fig. 1.

In order to keep the two boxes properly spaced and prevent them from being thrown one against the other we provide the spacing blocks 19 which extend across the bottom, and the spacing blocks 20 disposed vertically near the top, the latter being disposed upon all four sides of the box as will be understood from Figs. 1 and 2. The outer box is braced at the corners interiorly as by the triangular blocks 21 secured thereto in any suitable manner.

22 is the inner receptacle, preferably of galvanized iron, of the required capacity, and this is provided with a cover or top 23, which is designed to be secured thereupon air and fluid tight. In the present instance it is shown as designed to hold twelve trays each having a plurality of compartments 24, the trays 25 fitting quite closely within the receptacle, as shown.

The cover 23 extends beyond the side walls of the box 22 as seen in Fig. 1 and has a depending flange 26 to aid in keeping the water from the melting ice from getting in the joint between the box and cover, and through this lateral extension of the cover extend the screw bolts or the like 27 which are secured to the outer wall of the box 22 as shown in Figs. 1 and 4 and the upper ends thereof receive the thumb nuts or the like 28 by which the cover may be secured in place.

In order to prevent injury to the contents of the inner box by the rough usage such boxes are liable to receive in transportation we employ cushions between the inner box 22 and the adjacent walls of the intermediate box 10. As seen in Fig. 1 these cushions comprise springs 29 having their ends seated in lead blocks 30. At the bottom these springs are disposed within the shells 31 of any suitable material secured at one end to the bottom of the intermediate box 10 and at the other end secured to or bearing against the outer face of the bottom of the box 22, as seen clearly in Fig. 1. These lead blocks form a firm seating for the springs and serve to keep them in alinement within their shells or housings. At the sides each end of each spring is secured to a lead block 32, and to each block is secured a shell or the like 33, one telescoping within the other, as seen clearly in Fig. 1. By this means the inner box is free to move in all directions to compensate for the vibrations occasioned by the motions of the cars or other vehicle, as well as the throwing about the receptacle is apt to get in moving it about.

In Figs. 3, 4 and 5 we have shown another means for yieldingly supporting the inner receptacle so that it may have freedom of movement in all directions. In this form we employ angular brackets 34 each having one or more openings in each of its members 35, these openings 36 being designed to receive suitable means for securing them to

the adjacent sides of the box 10 at the corners as seen in Figs. 3 and 4 and each bracket has extending from its angle a hook 37 designed to engage an eye or the like 38 on a spring 39; the other end of the spring has a like eye 40 which is received in an eye or the like 41 projecting from the angle of the angular bracket 42 which embraces the angle or corner of the box 22 as seen in Figs. 3 and 4 to which it is secured in any suitable manner. We preferably employ two of these springs at each corner of the box, one near the top and the other near the bottom, the springs being disposed inclinedly as seen best in Fig. 4 and being of sufficient strength to support the inner box 22 when it is filled with crabs or other articles and keep it from contact with the bottom of the intermediate box 10 as will be readily understood from Fig. 4. The upper ends of the springs may be readily disengaged from their holding hooks when desired but cannot become accidentally displaced during transportation or use of the device.

In practice, the box 10 is placed within the box 1, being held spaced therefrom by the spacing blocks as shown and as hereinbefore described. The inner box 22 is then placed in position, being seated upon the springs at the bottom and the cushions at the sides being properly placed in position. The trays are then filled and placed in position, one upon the other, as seen in Fig. 1. It is to be understood that the compartments of each tray are of such size as to hold a crab and a sufficient amount of seaweed or the like to prevent the crab from coming in contact with the walls of the compartment and of such height that when the trays are placed one upon another the bottom of the uppermost tray will not contact with nor press upon the crab in the tray beneath it. It will be understood that if the trays are to be used for shipping lobsters they will be of a different form than those for the shipment of crabs.

After the trays are all in position then the cover of the box 22 is fastened down, the space between the box 22 and the box 10 is then filled with sawdust or the like as seen at 43, and then a layer of sawdust or the like, about one inch in thickness is placed on the top of the box 22 as seen in Fig. 1 and on top of this is placed cracked ice and the latter then covered with sawdust. For a box of a capacity of thirty six dozen crabs we employ about twenty three pounds of cracked ice, more or less, which we have found sufficient to keep the contents of the inner box at a temperature of substantially 41° in a car or room where the temperature is 70°, for a period of seventy two hours. The cover to the box 10 is then secured down and then the cover to the outer box 13

is secured in position, making all air tight, and then the receptacle is ready for shipment, with the assurance that the contents will reach their destination in good condition.

From the above it will be seen that we have devised a simple, cheaply constructed, yet efficient and durable shipping receptacle in the nature of a refrigerator, and while the structural embodiment of the invention as hereinbefore disclosed is what we at the present time consider preferable it is evident that the same is subject to changes, variations in proportions and details of construction without departing from the spirit of the invention or sacrificing any of its advantages; we therefore do not intend to restrict ourselves to the exact details shown and described, but reserve the right to make such changes, variations and modifications as come properly within the scope of the protection prayed.

What is claimed as new is:—

1. A shipping crate comprising inner and outer boxes with an air space between them, spacing blocks extending across the bottom and vertically near the top upon all sides, a

lining to the inner box extended outwardly at its top upon all sides closing the top of said space, an inner receptacle within the inner box, yielding means allowing movement of said inner receptacle in all directions, a plurality of removable compartment trays within the inner receptacle, and independent air-tight closures for said receptacle and for the inner and outer boxes.

2. A refrigerator shipping crate comprising inner and outer wooden boxes, spacing means therebetween, a metallic lining to the inner box, a metallic inner receptacle within the inner box with a space therebetween, elastic cushions between the inner box and the said receptacle allowing of limited freedom of movement of the inner receptacle, a metallic air-tight closure for the inner receptacle, and closures for the inner and outer boxes.

Signed by us at Beverly Farms, Mass. this 23 day of April 1909.

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FORRESTER H. PIERCE.

Witnesses:

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