

Oct. 13, 1953

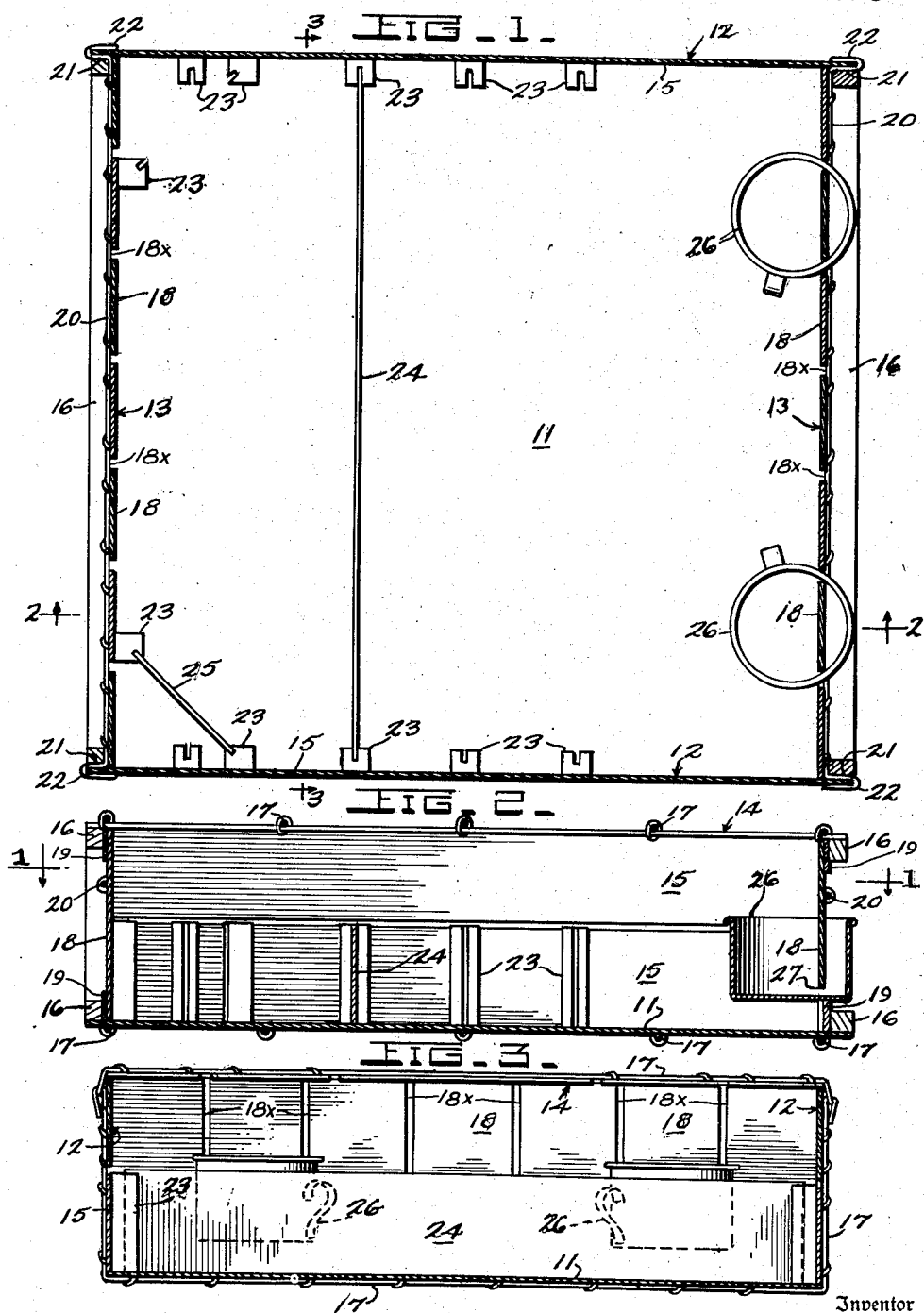
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2,655,130

CHICK CRATE WATER HOLDER

Filed Sept. 12, 1949

3 Sheets-Sheet 1



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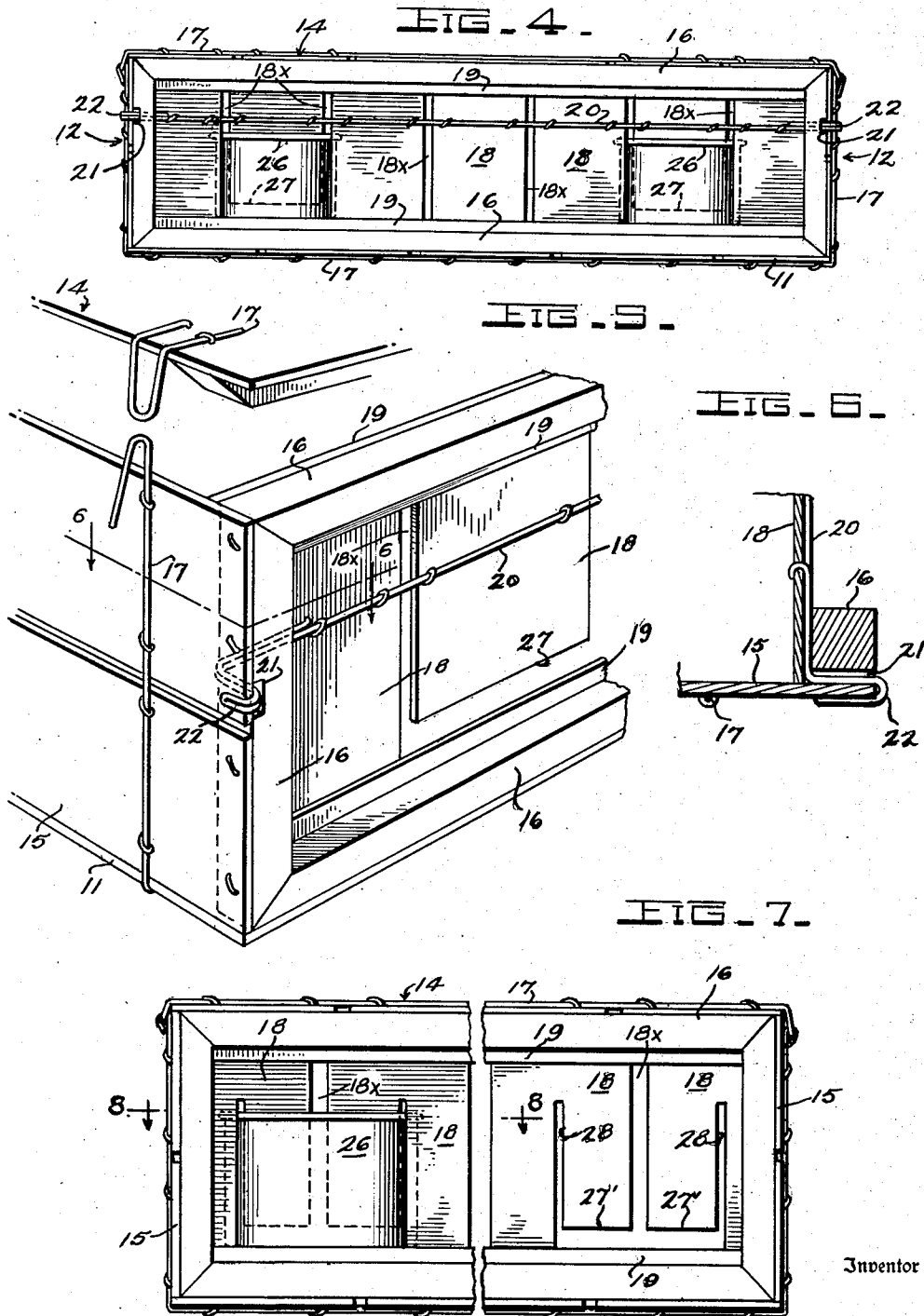
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CHICK CRATE WATER HOLDER

Filed Sept. 12, 1949

3 Sheets-Sheet 2



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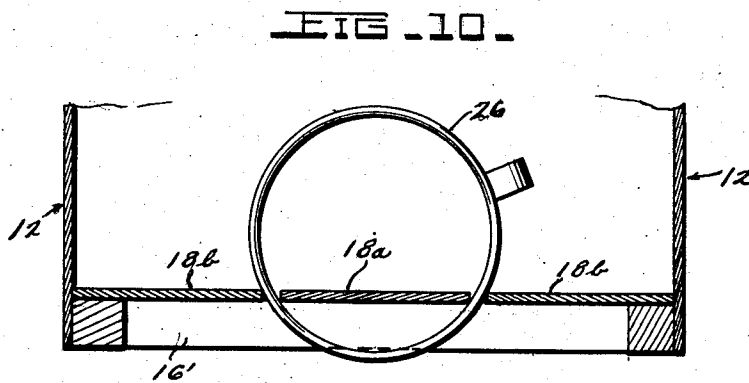
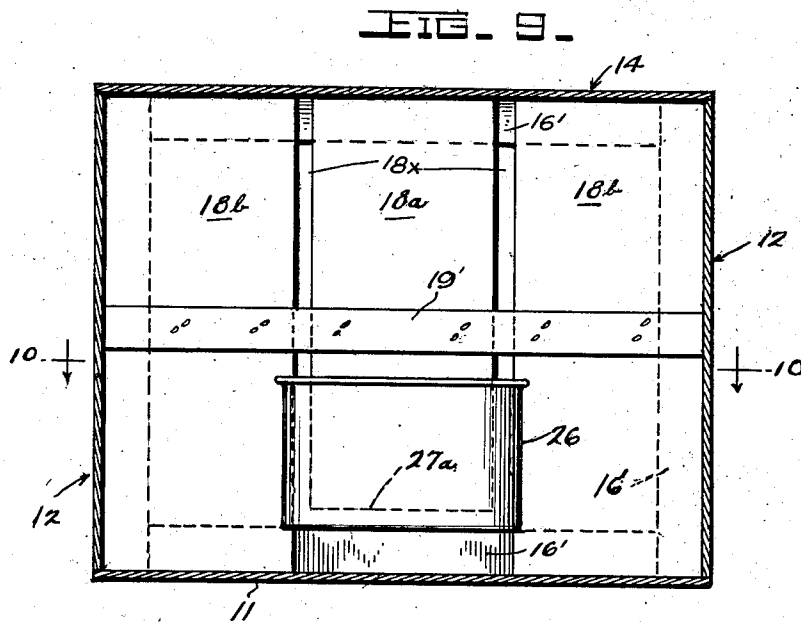
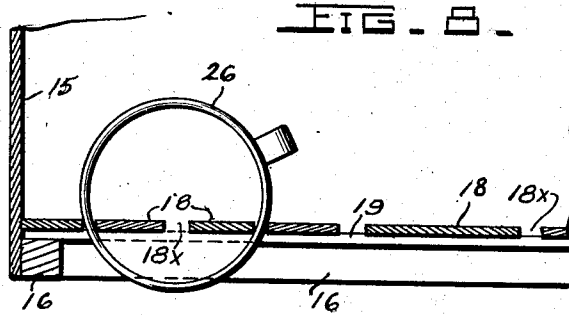
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CHICK CRATE WATER HOLDER

Filed Sept. 12, 1949

3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

2,655,130

CHICK CRATE WATER HOLDER

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Application September 12, 1949, Serial No. 115,259

6 Claims. (Cl. 119—18)

1

This invention relates to the art of wooden receptacles, and particularly to poultry shipping crates. For some time the hatchery and poultry supply trade has utilized cardboard packages for shipping stock of chick size. Although such containers are desirable in many respects, they are disadvantageous with regard to the proper retention of feed and water. Adequate water supply, particularly, is a vexing problem. Water receptacles placed in the shipping cartons are soon emptied by tilting and by the splashing of the chicks, so that most of the water spills and soaks into the cardboard. In a relatively short time the bottom of the carton becomes fouled and sodden, and is a source of damage to other merchandise. This objectionable characteristic has given rise to action on the part of public carriers to abolish the use of cardboard cartons in the transportation of chicks.

It is, accordingly, an object of the invention to provide a light wirebound wooden crate of inexpensive construction, adapted for shipping chicks without likelihood of spilling water in any amount sufficient to constitute a potential source of damage to contiguous freight.

Another object is to provide such a crate which may be supplied in flat blank form to dealers, in the manner of cardboard cartons.

Still another object is to provide a novel crate wall structure for mounting water holders in a manner to render them readily accessible at the crate exterior for filling while at the same time anchoring them against upsetting by milling stock.

Other and incidental objects will be apparent from the following description in conjunction with the accompanying drawings, in which:

Figure 1 is a horizontal sectional view through a crate embodying the invention, taken on line 1—1 of Figure 2;

Figure 2 is a sectional view on line 2—2 of Figure 1;

Figure 3 is a sectional view on line 3—3 of Figure 1;

Figure 4 is an end elevation from the right of Figure 2;

Figure 5 is a perspective view of an end top fastening detail;

Figure 6 is a section on line 6—6 of Figure 5;

Figure 7 is an end elevation similar to Figure 4 but illustrating an alternative embodiment of the water holding mounting;

Figure 8 is a sectional view on line 8—8 of Figure 7;

Figure 9 is a vertical sectional view through a crate provided with an alternative structure of end panel, and

Figure 10 is a sectional view on line 10—10 of Figure 9.

A specific embodiment of the invention com-

2

prises a wirebound wooden crate having a closed bottom panel 11 forming a floor, with sides 12, end panel assemblies 13, and a top 14. The sides and top are made of spaced slats 15 which extend longitudinally of the crate and are stapled to mitered end cleats 16 and hingedly connected by binding wires 17 stapled to the slats, as in conventional wirebound crate construction. The end panel assemblies consist of spaced vertical slats 18 all secured at their tops and some at their bottoms to thin flat connector strips 19 which abut the interior faces of the end cleats 16 when the crate is assembled. A horizontal binding wire 20 stapled to the slats of each end panel assembly is doubled at its ends and directed through a notch 21 in the adjacent cleat for bending as a hook 22 over the adjacent end of a side wall slat, whereby the end panel is detachably secured in service position, one such arrangement being shown in Figures 5 and 6.

The bottom slat of each side wall 12 has secured thereto a plurality of internal blocks 23 arranged in transversely aligned pairs. The opposed faces of the blocks are vertically grooved to receive a partition 24 that divides the interior of the crate into two compartments, one of which receives a supply of feed and confines it against spreading loosely over the entire floor of the crate. In like manner a pair of the blocks 23 may be carried by an end panel. The end panel blocks and a pair of the side wall blocks are grooved at their opposed corners to receive a shorter diagonal partition 25 cooperating with the corner of the crate to provide a smaller feed trough. It is obvious that the partitions may be used together or separately, and in any number and arrangement desired. The height of the partitions is sufficient to provide a barrier against spread of the feed without barring passage of chicks from one side to the other.

One end panel assembly mounts one or more water holders 26. These are containers formed of any suitable material, here shown as conventional cylindrical tin water cups. Each cup is held by a slat which, as shown in Figure 5, is cut away at the bottom to provide a shortened bottom edge 27 parallel to and spaced above the bottom connector strip 19. The width of the slat is less than the internal diameter of the cup, so that a substantial portion of the slat extends down into the cup somewhat above the bottom thereof when it is in place, and retains it against tilting far enough to spill its contents. The cup turns easily in the spaces between the slats, and its bottom seats on the connector strip 19 with only a minor portion of the cup disposed externally of the crate and readily accessible for filling. The inherent resiliency of the slat permits its free lower end to be sprung inward sufficiently to allow the cup to be applied thereover upwardly from the bottom.

In the alternative embodiment illustrated in Figures 7 and 8 the cup is mounted in a pair of adjacent slats each of which is formed with a vertical slot 28 open at its lower end to receive the wall of the cup. The bottom of each slat is cut away between its slot and its edge adjacent the companion slat to provide a shortened bottom edge 27' similar to the edge 27 of the preceding form. The distance between the slots 28 is less than the internal diameter of the cup and, as in the preceding form, a substantial portion of both slats extends down within the cup. The slots 28 are relatively narrow, so that the wall of the cup is frictionally held by the sides of the slots for a firmer support. If desired, the slots 28 may be of the same or greater width than the width of the space between the two slats.

Figures 9 and 10 illustrate the manner of mounting a cup in an end panel assembly of known square structure, in which a central slat 18a is disposed between two slats 18b of greater width, and with the slats attached directly to end cleats 16'. In such case the bottom of the center slat is cut away to provide a shortened bottom edge 27a. The internal diameter of the cup is greater than the width of the center slat so that a substantial portion of the slat extends down into the cup when it is in place. The cup is applied as in the preceding forms, and its bottom seats directly on the bottom cleat. A connector strip 19' is secured horizontally to the slats above the cup, to prevent loose swinging of the center slat 18a. In one piece end panel structures the panel is cut to form the slats 18a and 18b.

With reference to Figures 4, 7, and 9, it will be seen that the external diameter of the watering cup is greater than the overall distance between the slots in the end panel that define the side edges of the slat with which the cup is engaged. By reason of this arrangement, the cups are anchored against lateral movement and cannot shift to project laterally beyond the protective overhang of the end cleats 16; thus eliminating possibility of damage such as might easily occur if the cups projected far enough to become caught on contiguous crates or merchandise.

In each cup-carrying end panel assembly the spaces 18x between the slats constitute openings which, as shown, have parallel side edges that occupy planes which are normal to the longitudinal axes of the respective top and bottom cleats between which the panel assembly extends. The slots 28, as shown in Figure 7, also are openings with parallel side edges that occupy planes which are normal to the longitudinal axes of the top and bottom cleats between which the panel assembly extends. In each of the three forms of cup-carrying end panel assembly herein disclosed, two openings constituting an adjacent pair are connected by another opening which has a side edge (27 in Figure 4, 27' in Figure 7, and 27a in Figure 9) that is parallel to and spaced from the cleats. This latter opening receives the bottom of the associated watering cup.

Although the invention has been herein disclosed in certain specific forms it is not limited thereto. In crates having vertical slats in both the sides and ends the watering cups may, if desired, be mounted at any points in the sides or ends. It is within the purview of the invention that any structural organization may be employed that is within the scope of the invention as claimed.

I claim:

1. In a wooden poultry crate having a wall structure including slats, a pair of adjacent slats having in each a longitudinal slot opening to its bottom end, the bottom ends of the portions of the slats between the slots being spaced above the bottom ends of those portions of the slats outside the slots, and a watering cup applied upwardly over said spaced ends with the sides of the cup engaged in said longitudinal slots.

2. In combination, a wooden poultry crate having a wall structure including spaced vertical slats, means connecting all the slats transversely at their tops and some of the slats at their bottoms, at least one slat at its lower end being spaced above the bottom connecting means, a watering cup seated on said bottom connecting means, the spaced-end portion of the slat being disposed within the cup, and the sides of the cup being disposed through the spaces between the spaced-end slat and the slats adjoining, the diameter of the cup being greater than the distance between the spaces through which the sides of the cup are disposed.

3. In a wooden poultry crate having a wall structure including spaced slats and a pair of parallel cleats between which the slats extend, means connecting the end portions of all the slats transversely adjacent one cleat and abutting the interior face of the cleat, a second means connecting only some of the slats adjacent the other cleat and abutting the interior face of the cleat, at least one slat having an end free from the second connecting means and spaced therefrom, a watering cup seated on the second connecting means, said spaced end of the slat being disposed within the cup, and the sides of the cup being disposed through the spaces between said spaced-end slat and its adjoining slats.

4. A wooden poultry crate wall structure including a pair of spaced parallel cleats, a panel assembly extending therebetween, said panel being provided with a plurality of openings having parallel side edges disposed in planes normal to the longitudinal axes of said cleats, and said panel being further provided with at least one other opening connecting an adjacent pair of the first-named openings and having a side edge parallel to and spaced from said cleats.

5. In combination with the structure of claim 4, a substantially cylindrical watering cup mounted in said panel assembly with the cup wall extending in and through a pair of said parallel-sided openings and with the cup bottom disposed in the opening having a side edge parallel to and spaced from said cleats.

6. In the structure of claim 5, the diameter of the cup being greater than the distance between the pair of parallel-sided openings through which the cup wall extends.

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