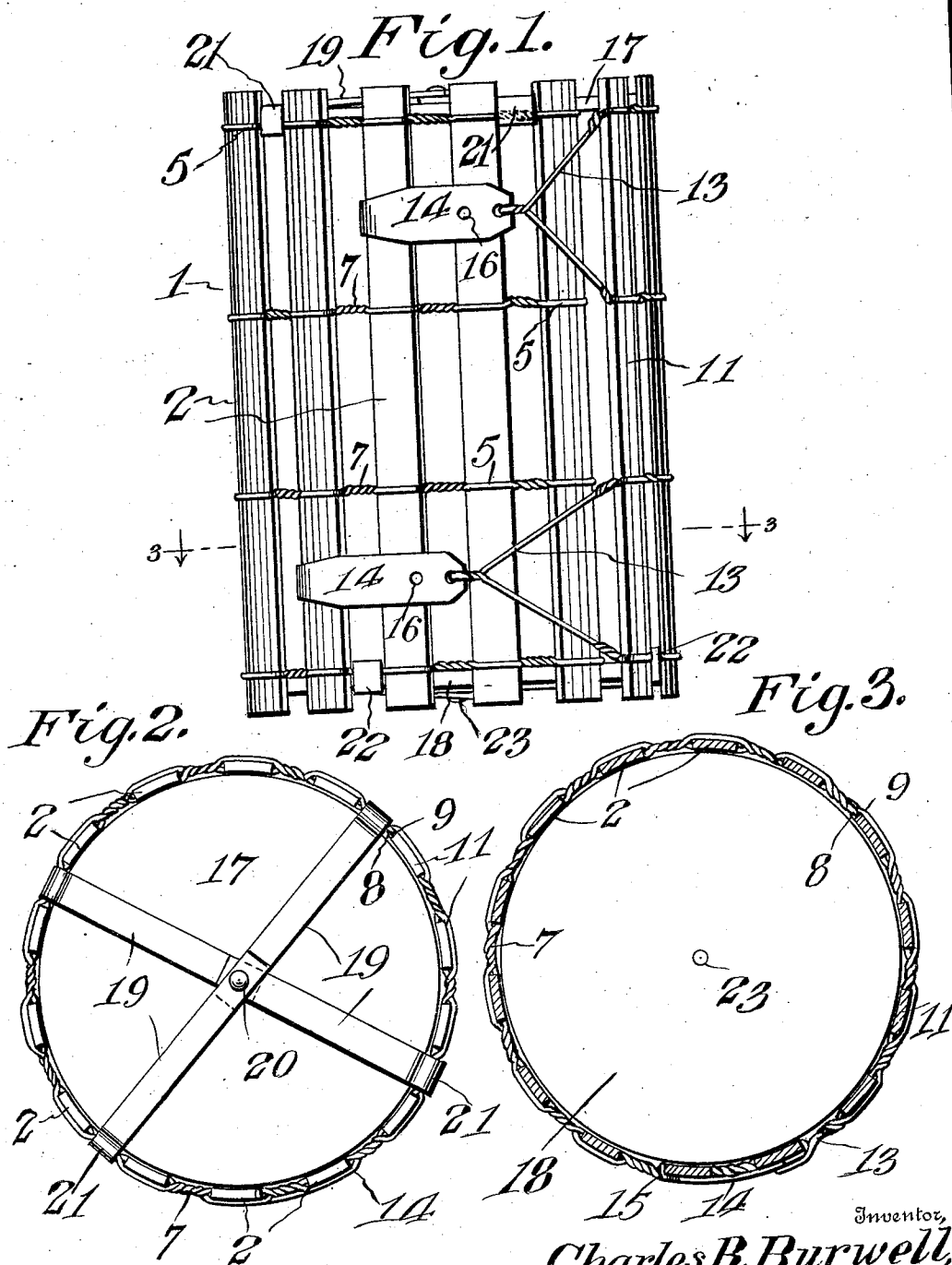


934,280.



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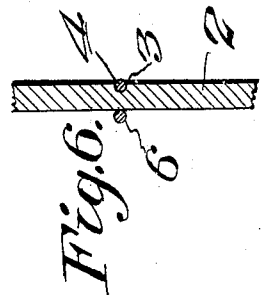
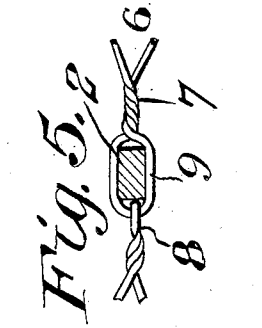
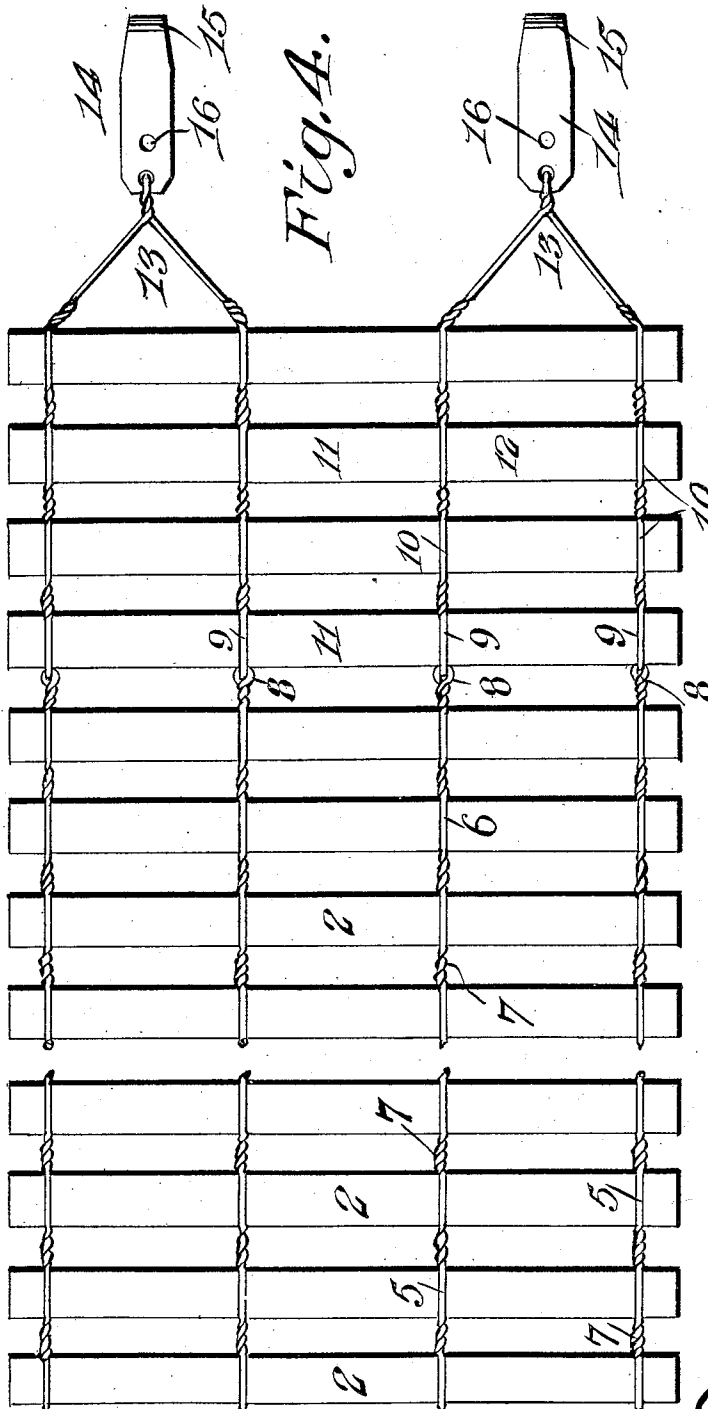
Witnesses:

Joe. P. Wahler.  
James A. Koehl.

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GRATE.  
APPLICATION FILED OCT. 6, 1908.

934,280.

Patented Sept. 14, 1909.  
2 SHEETS—SHEET 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

CHARLES B. BURWELL, OF COTULLA, TEXAS.

CRATE.

934,280.

Specification of Letters Patent. Patented Sept. 14, 1909.

Application filed October 6, 1908. Serial No. 456,440.

*To all whom it may concern:*

Be it known that I, CHARLES B. BURWELL, a citizen of the United States, residing at Cotulla, in the county of Lasalle and State of Texas, have invented new and useful Improvements in Crates, of which the following is a specification.

This invention relates to shipping and storing vessels, and more particularly to crates, and has for an object to provide a crate composed principally of a plurality of spaced slats adapted to form a cylindrical body when the crate is in an operative position, and to provide for a thorough ventilation in the transportation of vegetables or perishable products.

A further object of this invention is to provide a plurality of slats adapted to form a cylindrical crate, and to construct certain of the slats so that they effectively serve as a door for gaining access to the interior of the crate.

A further object of this invention is to provide a crate which may be readily knocked down when not in use so that it will occupy but little floor space during its transportation or storage, and to provide simple means for holding the crate in an operative or set up position.

Other objects and advantages will be apparent as the nature of the invention is better set forth, and it will be understood that changes within the scope of the claims may be resorted to without departing from the spirit of the invention.

In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a side view of the crate, Fig. 2 is a top plan view, Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 1, Fig. 4 is a plan view of the slats forming the crate body, Fig. 5 is a detail horizontal section showing the hinge construction of the door, Fig. 6 is a detail vertical section through one of the slats, Fig. 7 is a perspective view of one of the clasps.

Referring now more particularly to the drawings, there is shown a crate 1 comprising a plurality of slats 2 disposed in spaced relation to each other, and as shown, the said slats are provided upon their inner faces with a plurality of alining grooves 3 for receiving portions of the inner strands 4 of binding wires 5 having their outer strands 6 engaged with the outer faces of the slats, as

shown. The binding wires are twisted between the slats as shown at 7 to effectively hold the said slats in parallel spaced relation as previously described, and at one end each wire is twisted to form an eye 8 adapted to receive loops 9 of binding wires 10 engaged with the slats 11 of a door 12. The wires 10 are attached to the slats 11 in a manner substantially the same as that described for the wires 5. The binding wires 10 are disposed in line with the binding wires 5, and the said wires are preferably disposed or arranged in pairs, two pairs being shown in the present instance, and upon reference to Figs. 1 and 4 of the drawings, it will be seen that the wires forming the said pairs are bent to provide V-shaped portions 13 which are engaged with clasps 14 which are preferably constructed from sheet material and bent at their outer extremities in hook form as shown at 15. Each clasp 14 is provided with a passage 16 adapted to receive a suitable instrument in order that the said clasps may be rotated to twist the V-shaped portions 13 to provide adjusting means to be hereinafter better described.

From the construction described it will be seen that the crate is adapted to assume a cylindrical form when in an operative or set up position, and when in this position it will be readily understood that the hooked portion 15 of the clasps 14 are engaged with one of the slats 2 of the crate as clearly shown in Fig. 1 of the drawings. To effectively engage the clasps 14 with the slats 2 and to provide a perfect rigid construction it will be seen that the portions 13 of the binding wires 10 may be twisted as described so that the clasps 14 may be moved toward or away from the slats 11 forming the door for the crate.

Heads 17 and 18 are located at the upper and lower ends of the crate and are disposed inwardly of the slats forming the said crate, and as shown, the head 17 is provided with a plurality of radial arms 19 pivoted at their inner ends at the center of the head 17 as shown at 20, and at the outer ends the said arms 19 are bent around the twisted portions of the binding wires as shown at 21, the said twisted portions being thus located between the slats forming the crate effectively prevent rotation of the head which would probably cause displacement of the same during shipment. The arms 19, as will be understood, are engaged with the binding

wires at the top of the crate, and the wires at the lower end of the crate are engaged by similar hooked portions 22 of arms 23 pivoted upon the head 18.

5 From the foregoing description it is thought that it will be appreciated that a simple and novel form of crate is provided which is particularly adapted for use in the transportation of perishable products. The  
10 construction is such that the crate may be manufactured and put upon the market at a relatively low figure, and the construction is further such that the crate may be conveniently and quickly knocked down or set up  
15 as will be readily understood.

The arms 19 when in an operative position have their outer extremities disposed between pairs of slats forming the crate so that the arms are held from pivotal movement to consequently prevent their displacement.

20 Having thus described the invention what is claimed as new, is:—

1. A crate comprising a plurality of slats, binding wires engaged with said slats having twisted portions therebetween so that the  
25 slats are spaced from each other, a plurality of said slats being hingedly connected to the remaining slats to form a door for the crate, clasps carried by said binding wires having  
30 bent end portions forming hooks to be engaged with slats of the crate, said clasps having passages formed therein for receiving an instrument so that the clasps can be turned to twist portions of the binding wires  
35 to decrease the diameter of the crate, and removable heads at the ends of the crate having pivoted arms provided with hooked outer

ends for engagement with said binding wires between the slats.

2. A crate comprising a plurality of slats connected together so that they are spaced from each other, said slats being arranged in arcuate form to provide a portion of a cylindrical body, a plurality of slats hingedly connected to the first named slats, clasps  
40 carried by the last named slats having hooked ends adapted to be engaged with the first named slats so as to form a complete cylindrical body, removable heads disposed between said slats at the ends thereof, and  
45 pivoted arms carried by the heads at the ends thereof.

3. A crate comprising a plurality of slats, binding wires engaged with the slats so that they are spaced from each other, said wires  
50 each having at one end an eye, a plurality of slats having binding wires, said last named binding wires having portions disposed in the eyes of the first named wires so that the last named plurality of slats are  
55 hingedly connected to the first named slats, clasps carried by the last named slats adapted to engage the first named slats, removable heads at the ends of the crate, and a plurality of pivoted arms having hooked ends adapted  
60 to be engaged with the binding wires and to be confined between pairs of slats so that said arms are held against rotary movement.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES B. BURWELL.

Witnesses:

WILLIAM B. GUINN,  
THAUR T. PARKER.