

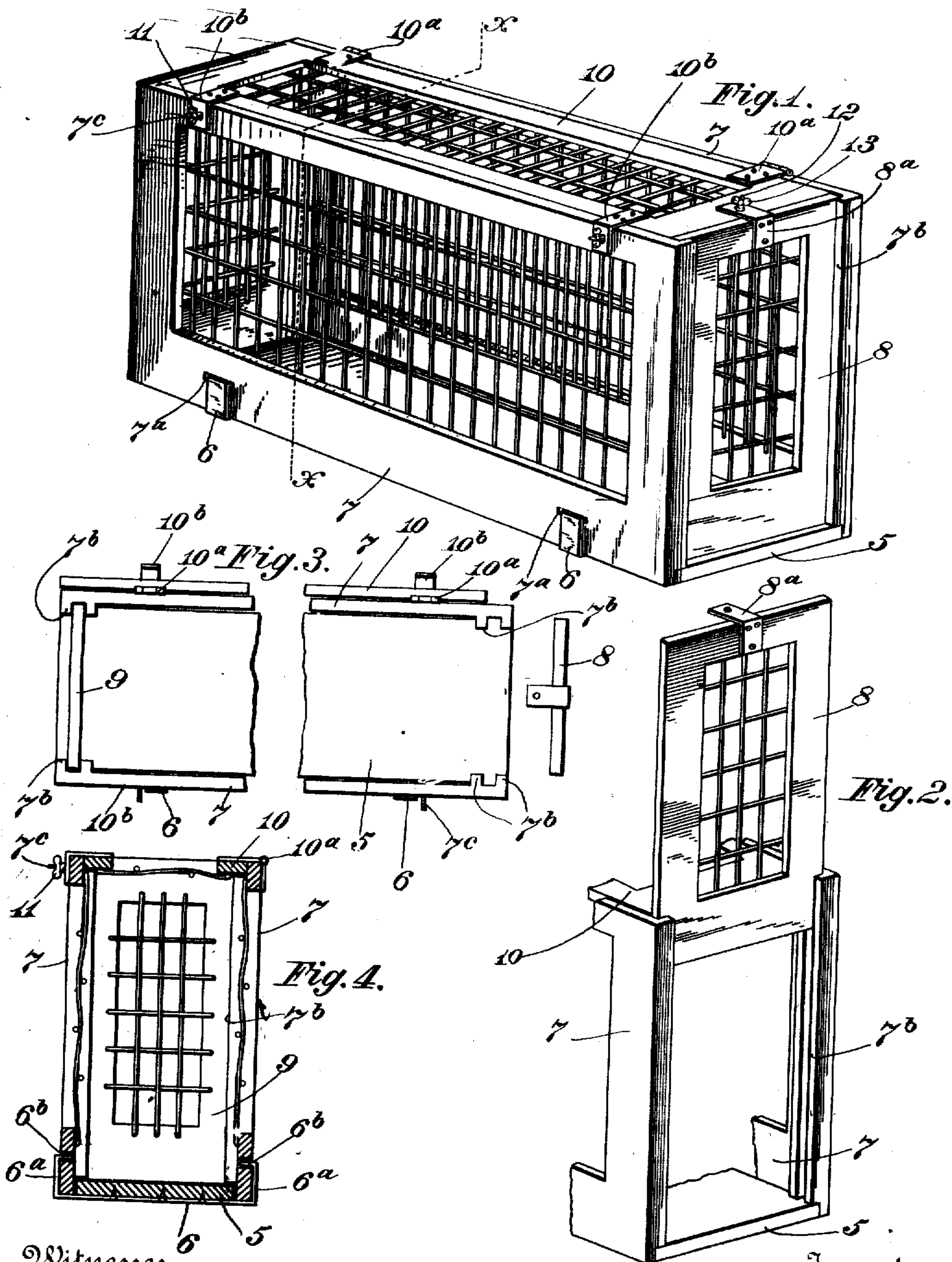
G. J. MULZER.

CRATE.

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922,020.

Patented May 18, 1909.



Witnesses
Buy. Finkel
Ada H. Gambe

Inventor
George J. Mulzer
by Finkel Finkel
his Attorney

UNITED STATES PATENT OFFICE.

GEORGE J. MULZER, OF POWELL, OHIO.

CRATE.

No. 922,020.

Specification of Letters Patent.

Patented May 18, 1909.

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To all whom it may concern:

Be it known that I, GEORGE J. MULZER, a citizen of the United States, residing at Powell, in the county of Delaware and State of Ohio, have invented a certain new and useful Improvement in Crates, of which the following is a specification.

The object of this invention is to provide an improved construction of knock-down crate, especially such as is used in shipping stock.

The invention is embodied in the construction herein shown and described, the features of novelty being pointed out in the claims appended hereto.

In the drawings herewith—Figure 1 is a perspective view of the crate with its parts assembled in closed position. Fig. 2 is a perspective view of that end of the crate containing the frame member that constitutes a door, said door being removable when the other parts are in closed crate-forming position, and said door being shown in the view as extensively raised. Fig. 3 is a plan view of the crate broken out near its middle and with the top frame or lid thrown back and with the slidable end door removed, the said end door being shown as standing opposite the doorway. Fig. 4 is a vertical section on a plane indicated by the line *x—x*, Fig. 1.

Like characters of reference in the several views designate corresponding parts.

In said views the character 5 designates the bottom piece or floor which is preferably a solid structure of wood. This bottom piece has secured to its under side two straps 6 of metal bent upward at their ends somewhat beyond the edge of the bottom, as seen at 6^a where they are formed with in-turned hooks 6^b. The lower portions of the straps 6 where they form the hooks constitute seats for the sides.

7, 7 are the side frames. These side frames are indicated as constructed of wood with wire mesh secured to them. In their lower parts the side frames are provided with holes 7^a to receive the hooks 6^b. The inner sides of the side frames 7 at their ends are each furnished with parallel beads or cleats 7^b forming vertical grooves to re-

ceive the end frames 8 and 9. The said ends in general are constructed like the side frames except that they are smaller.

10 designates the top frame or lid. At one edge the lid 10 is hinged as seen at 10^a to one of the side frames 7, and at the other edge said lid is provided with suitable hasps 10^b to be secured on threaded bolts 7^c on the opposite side frame by thumb nuts 11, as best seen in Figs. 1 and 4. The lid 10 is made of such width that it fits between the sides when the latter are in proper erect position with reference to the bottom and holds the sides from collapsing inward at their upper edges, and it is made of such length that when closed it covers and retains in place one of the end frames (9) but does not cover or retain the other end or door frame (8). Thus it is possible to raise or lower the end frame 8 (as indicated in Fig. 2), while the lid is closed and secured. The purpose of this last described construction is to permit the ingress and egress of the animal without disconnecting other parts and without trouble. But the sliding end frame or door 8 is furnished with a hasp 8^a by which it can be secured in closed position with the coöperation of a bolt 12 in the lid 10 and thumb nut 13. The lid 10 is also an open-work frame like the sides and ends.

It will be observed that the sides 7 can be easily detached from the hooks engaging them, and that after this the parts can be folded or placed together in compact form for handling and transportation. Thus when stock has been shipped in the crates the latter can be cheaply returned to the shipper or owner.

What I claim and desire to secure by Letters Patent is:

1. In a knock down crate, the combination with separable top, sides and ends, of a bottom piece provided at its under side with straps of metal having their ends projecting beyond the edges of the bottom to form seats for the sides, said ends being bent upward and inward to form hooks to automatically engage the sides when the latter are seated in erect position on said seats.
2. In a knock down crate, the combination with suitable separable sides and ends, one

of which latter is slidable when in place, of
a bottom provided with seats for the sides
and with stationary hooks adapted to auto-
matically engage the sides when the latter
5 are placed in proper position in their seats
on the bottom, a top, and means for tem-
porarily securing the top in closed position,

said top when closed adapted to secure in
place one of the ends and leave the slidable
end free to be slid.

GEORGE J. MULZER.

Witnesses:

H. S. WELCH,
EUGENE S. OWEN.