Oct. 29, 1929. J. J. FULLERTON 1,733,728

CRATE FOR HANDLING HOLLOW TILE OR THE LIKE

Filed Jan. 10, 1928

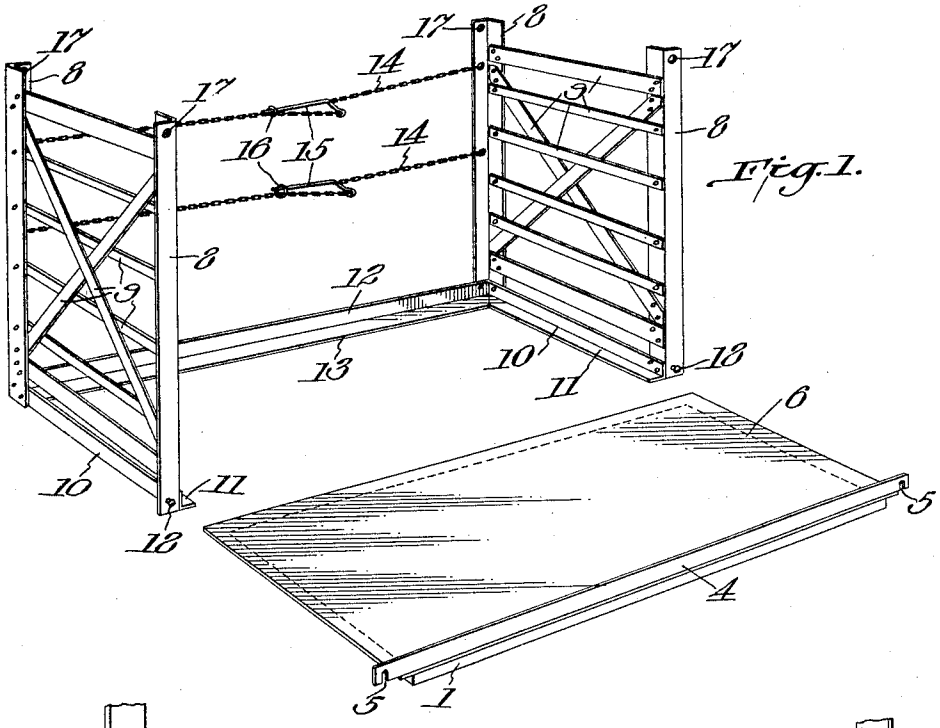


Fig. 1.

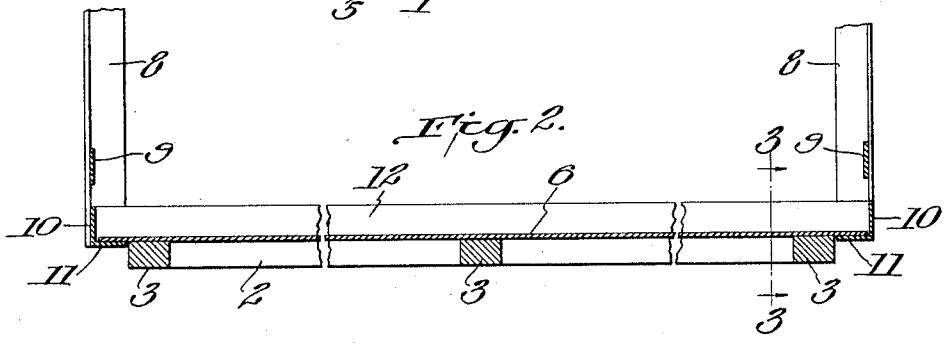


Fig. 2.

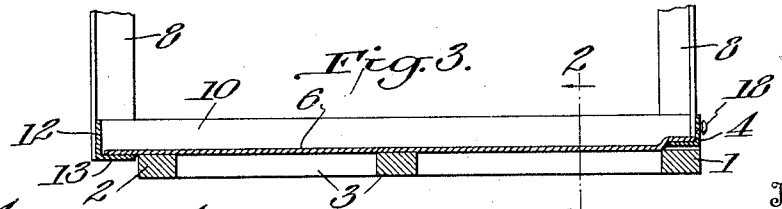


Fig. 3.

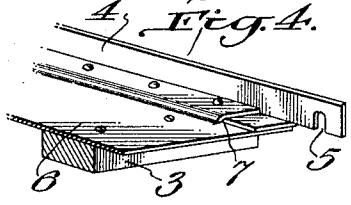


Fig. 4.

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UNITED STATES PATENT OFFICE

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CRATE FOR HANDLING HOLLOW TILE OR THE LIKE

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This invention relates to a container or crate for the handling of hollow tile or similar articles.

The general purpose of this invention is to greatly reduce the manual labor consumed in handling hollow tile or similar articles from the point of manufacture to their place of ultimate use.

One object of the invention is to provide a container including a separable platform on which the tile or the like articles are piled at the factory or kiln where they are produced and in which they are handled and shipped as a unit to the point where they are used.

Another object is to provide a container having a removable portion, which portion functions as a platform upon which the articles are shipped, the remaining part of the container functioning as a carrying and handling crate and a counting device for the articles piled on the platform.

A further object is to provide a container which is durable, light in weight and easily and simply handled by unskilled labor.

These and other objects will be apparent from the following description taken in connection with the accompanying drawings, wherein

Fig. 1 shows the crate and platform separated therefrom,

Fig. 2 is a section on line 2—2 of Fig. 3, showing the platform and crate assembled,

Fig. 3 is a section on lines 3—3 of Fig. 2, and

Fig. 4 is a detail perspective of one corner of the platform.

The carrying or piling platform is made up of a frame work having a front board 1 and back board 2 with suitable cross braces and longitudinal braces 3, 3. Secured to the front board 1 is an angle iron 4 with its vertical flange thereof flush with the outer surface of the board 1. The two ends of the angle iron 4 extend beyond the front board 1, as seen in Figs. 1 and 4, and the horizontal flange of the angle is cut off from this overhang, as seen in Fig. 4. The vertical flange of the angle 4 has a downwardly opening notch 5 in each end thereof.

A sheet metal plate 6 of substantial thickness is secured to the upper surface of the platform, being secured to the frame pieces 2 and 3 by screws or the like. The sheet metal plate 6 overhangs the frame at both ends and the back thereof by approximately 3 inches. At its front edge the plate 6 is slit near its two side edges, one such slit being shown at 7 in Fig. 4. The portion of this front edge between the slits thereof is offset upwardly to rest on the top of the horizontal flange of the angle 4, this portion of the plate 6, the angle 4 and the front piece 1 being rigidly secured by bolts or rivets. The portions of the plate 6 beyond the slits 7 pass beneath the horizontal flange of the angle 4, all as clearly shown in Fig. 4.

The platform as thus described serves as a loading surface upon which the articles to be shipped are piled.

The carrying frame consists of two rigid end sections formed of corner angles 8, facing in opposite directions, as shown, with suitable cross and angle braces 9 riveted thereto. An angle iron 10 is secured to the lower ends of corner angles 8 of each end section, and has one flange 11 thereof extending inwardly and flush with the lower ends of the corner angles.

The two end sections of the carrying frame are secured together by a longitudinal angle iron 12, which is riveted to the lower ends of the rear corner angles 8, the horizontal flange 13 thereof being in alignment with the flanges 11 of angles 10. It will be seen that the flanges 11 and 13 form an inwardly projecting shelf, upon which the overhang of metal plate 6 is received.

Secured at spaced points along the rear angle irons 8 are chains 14 to each of which is secured the hook 15, one end of which may be secured by the sliding ring 16, whereby the chains may be lightened. These chains serve to brace the two end sections.

Each corner angle 8 has an opening 17 near its upper end for detachably receiving the depending hooks of a sling carried by a crane, or the like. The two front angles 8 have forwardly projecting headed members 18, such as headed rivets, for cooperative engagement in openings 5 of the platform.

In using the device, the platform is placed on the ground or any support and piled with hollow tile or other articles to be handled. The carrying frame is then lowered to a position adjacent the platform, as in Fig. 1, with the open front of the frame facing the back of the platform. Due to the frame members 1, 2 and 3, the overhanging edges of plate 6 stand clear of the ground and the carrying frame may be slid in laterally, such that the flanges 11 and 13 pass beneath these overhanging edges. Due to the construction of the corners of the platform as seen in Fig. 4, the horizontal flange of angle iron 4 is above plate 6 at the side edges thereof, and the flanges 11 have an unobstructed path to slide under overhanging sides of plate 6. When the carrying frame is now raised, the platform will be picked up by engagement of flange 13 along the back edge of plate 6 and engagement of side flanges 11 with the side edges of the plate. The openings 5 in angle iron 4 of the platform will interlock with rivets 18 to prevent the possibility of the platform slipping out of the carrying frame, but no lifting strain is put on these rivets.

The carrying frame can be used as a means of counting the number of articles shipped, since it will be clear that if the load on each platform reached the level of the top brace 9, and this was previously found to be, say, 144 hollow tile, the total number shipped may be quickly counted.

The loaded platform thus picked up will be deposited on an automobile truck, a railroad flat car, a lighter or barge or any other means of transporting it. At each point where the load is to be rehandled, one or more carrying frames will be supplied and the platform with its load will be handled as a unit, the final dumping or unloading taking place only at the point of ultimate use of the articles. In the case of hollow tile, this will be the scaffold of the building adjacent the mason who is laying the tile.

It will be obvious that the invention is not limited to the detailed structure, as shown, but is capable of various changes within the scope of the invention as defined in the following claims.

I claim:

1. An apparatus for handling hollow tile, or like articles, in combination, a loading platform having overhanging flanges on three sides thereof, a carrying frame having cooperative flanges for engagement under said platform flanges by transverse movement of said frame, the carrying frame having a plurality of headed members thereon and said platform having corresponding notches for interlocking engagement therewith upon upward movement of said frame.

2. A loading platform adapted for use with a detachable carrying frame, including an underframe, a top plate secured on the upper surface thereof and overhanging said underframe on three edges, and a member secured to the fourth edge of said underframe and projecting beyond said top plate.

3. The structure as in claim 2 wherein the member secured to the fourth edge of said underframe comprises an angle iron having one flange thereof in vertical alignment with the edge of said underframe.

4. The structure as in claim 2 wherein the member secured to the fourth edge of the underframe comprises an angle iron, one flange thereof being secured between the top plate and the underframe and passing through slots in said top plate to lie above the same adjacent each end of said flange.

5. A carrying frame for cooperative engagement with a portable loading platform, comprising two rigid end sections, said sections being connected at their rear sides to thereby form a crate having an open bottom and one open side, and means projecting inwardly of said crate adjacent the open bottom thereof to form a narrow horizontal shelf on three sides of said carrying frame, wherein the means projecting inwardly of said crate adjacent the open bottom thereof comprises angle iron flanges.

6. A carrying frame for cooperative engagement with a portable loading platform having two rigid ends, each end having angle irons forming the two vertical edges thereof and an angle iron forming the lower edge and secured to the said vertical angles, each of the said vertical angles having one flange lying substantially in the plane of the end, the other flanges thereof extending in opposite directions.

In testimony whereof, I affix my signature.

JOHN J. FULLERTON.