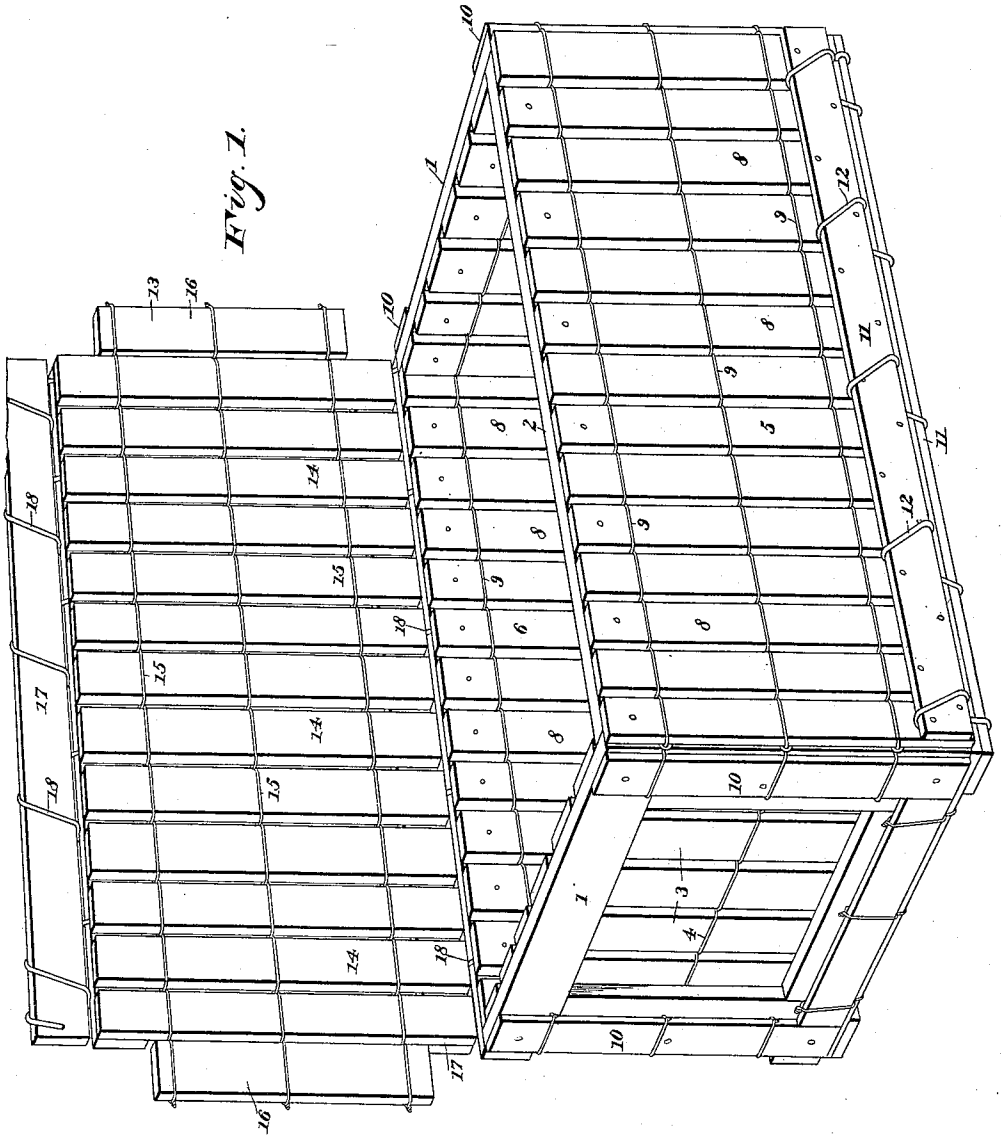
(No Model.) 2 Sheets—Sheet 1.

F. B. SITES.

CRATE.

No. 484,059. Patented Oct. 11, 1892.

Fig. 1.



Witnesses;

J. M. Withrow.

W. S. Duvall.

Inventor,

Frank B. Sites.

By his Attorneys,

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.)

2 Sheets—Sheet 2.

F. B. SITES.

CRATE.

No. 484,059. Patented Oct. 11, 1892.

Fig. 2.

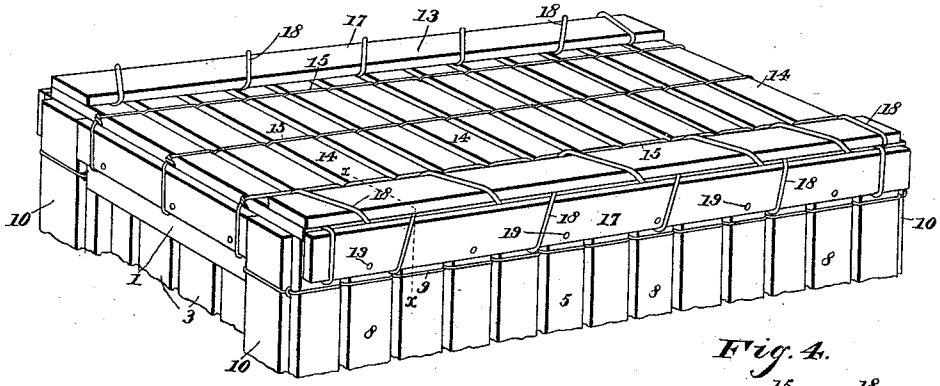


Fig. 4.

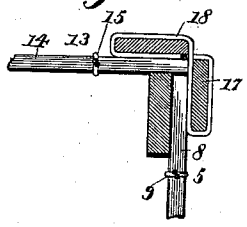
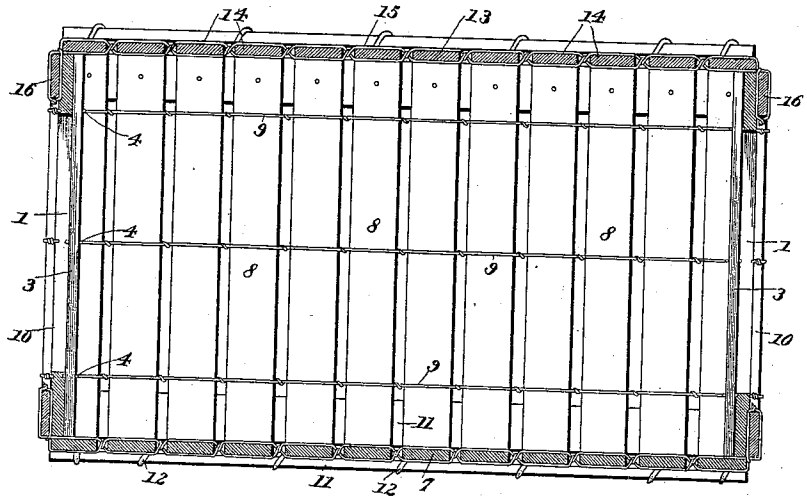


Fig. 3.



Witnesses;

J. M. Withers

W. L. Durrell.

Inventor,

Frank B. Sites,

By his Attorneys,

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK B. SITES, OF DEFIANCE, OHIO, ASSIGNOR OF ONE-HALF TO HENRY D. BOKOP, OF SAME PLACE.

CRATE.

SPECIFICATION forming part of Letters Patent No. 484,059, dated October 11, 1892.

Application filed December 14, 1891. Serial No. 415,022. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. SITES, a citizen of the United States, residing at Defiance, in the county of Defiance and State of Ohio, have invented a new and useful Crate, of which the following is a specification.

This invention relates to improvements in crates, and has particular reference to United States Patent No. 428,642, granted me May 27, 1890.

The objects of my present invention are to improve the durability of the crate as a whole, permit of the handling of the same without danger of engaging the clothes, hands, or the floor, and to provide a ready means for securing the cover of the crate in position.

Other objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of a crate constructed in accordance with my invention, the lid or cover being elevated. Fig. 2 is a similar view of the upper portion of the crate, the cover being lowered and secured in position. Fig. 3 is a longitudinal vertical section. Fig. 4 is a detail cross-section on the line *x x*, Fig. 2.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing my invention I employ opposite rectangular end frames 1, the upper front corners of which I connect by means of a longitudinal bar 2. To the inner faces of the end frames there is connected by means of nails end walls, which end walls each consist of a series of vertical slats 3, connected at their upper and lower ends and at their centers by pairs of strands of wire 4, which wires are interwoven around the strips so as to form a continuous wall. The front, rear, and bottom walls 5, 6, and 7, respectively, are similarly constructed—that is, consisting of the series of vertical strips 8 and the upper, lower, and intermediate pairs of strands of wire 9, interwoven around the strips. The front and rear walls are slightly longer than the actual length of the crate, so that an extra strip 10 may be bent at a right angle to the remainder of said front and rear walls, and thus made to embrace the outer faces of the rectangular frames 1, to which position they are secured by nails, similar nails serving to connect the upper ends of the strips to the longitudinally-disposed front connecting-bar 2. The four lower edges of the crate thus constructed are protected each by a pair of corner-strips 11, each pair of corner-strips 11 being connected by a binding-wire 12, preferably of larger gage than those employed for connecting the strips of the front, back, and side walls. This wire 12 of each strip, after passing in a diagonal manner alternately around the same, has is ends tucked between the strips and the walls of the crate. In applying the strips 11 to the edges or corners of the crate the strips of each pair are bent at a right angle to each other, so as to embrace the bottom and one of the side or end walls, and are nailed in position, as shown, to the bottom and the side or end walls. It will thus be seen that the body of the crate is very strongly and cheaply manufactured and that all terminals of wires employed in binding the strips together are hidden from view and do not project to offer obstructions to a ready pushing of the crate about the floor of a warehouse, freight-car, or deck of a boat, and, furthermore, do not project to tear the clothes and hands of the handlers.

The cover 13 of the crate consists of a series of strips 14, connected by inner, outer, and intermediate pairs of wire strands 15, which are interwoven around and between the strands, as shown. The cover is made slightly longer than the length of the crate, so that extra strips 16 project beyond the end walls of the crate when the cover is lowered in position. These strips 16 are shorter than the strips 14, and when the cover is closed upon the crate the strips 16 may be bent downwardly at a right angle to the remaining portions of the cover, so as to embrace the opposite ends of the crate and lie between the end strips 10 of the front and rear walls of the crate. In a similar manner the corner-strips at the opposite lower ends of the crate take between the corner-strips at the front and rear lower corners thereof.

The front and rear edges of the cover are provided with pairs of corner-strips 17, the inner strips being nailed, as shown, to the

opposite edges of the cover, while the outer strips of the rear pair are nailed to the upper edge and exterior of the rear wall. These pairs of strips 17, like those at the lower edges or corners of the crate, are connected each pair by a binding-wire 18, the ends of which are tucked in between the strips and body of the crate. The binding-wire of the rear pair of strips 17 serves as a flexible hinge by which the cover may be swung up from or down upon the crate. In a similar manner does the front binding-wire 18 serve as a flexible connection between the front pair of strips 17, and by providing the same the outer front strip 17 and the end strips 16 may, when the cover is closed, be swung down against the front and end walls of the crate. These flexibly-connected strips I provide with a series of inwardly-disposed nails 19, which, after the strips are swung down into position, may be conveniently driven into the walls of the crate, and hence the cover secured in position. It will be obvious that by inserting a screw-driver, hatchet, or other convenient tool under the strips thus secured they may be pried away from the body of the crate and the nails withdrawn.

From the forgoing description, in connection with the accompanying drawings, it will be seen that I have provided a combination wire-and-wood crate that is strong and durable, readily manufactured, may be conveniently handled without danger to the handler, and readily slid about warehouse and other floors, and finally the cover of which may be conveniently secured in position and readily removed when occasion requires and subsequently, if desired, resecured.

Any of the distinct features of my invention may be used singly or combined, and I do not wish to limit myself to the use of them all in one structure.

Having described my invention, what I claim is—

1. The herein-described improved crate, the same consisting of the opposite end and side walls and bottom, the pairs of corner-strips nailed to the ends and sides and bottom of the crate, and the strand of wire for each pair of strips, said strand having its ends tucked between the strips and walls of the crate and its intermediate portion alternately wrapped about the pair of strips, substantially as specified.

2. The herein-described improved crate, the same consisting of the opposite rectangular end frames, the longitudinal bar connecting the upper front corners thereof, the slatted end walls secured to the inner faces of the frames, the front and rear slatted walls connecting the frames and having their end slats or strips secured to the outer faces of the end frames and embracing the corners thereof, and the series of pairs of corner-strips, and the binding-wires connecting each pair, said strips being disposed at a right angle to each other and nailed to the side, end, and bottom walls, the end corner-strips being interposed between the end strips of the front and rear walls, substantially as specified.

3. The herein-described improved crate, the same consisting of the body portion, the cover, and the flexibly-connected opposite side and end strips, the rear side strips being secured to the rear wall of the crate and the remaining strips adapted to be bent down to embrace the front and end walls of the crate, substantially as specified.

4. The herein-described improved crate, the same consisting of the body portion, the cover composed of a weaving of slats and wires, the outer slats being adapted to be folded down upon and embrace the ends of the crate, and the front and rear pairs of strips or slats, and binding-wires connecting those of each pair, the inner slats being connected to the front and rear edges of the cover and adapted to be nailed to the walls of the crate, substantially as specified.

5. The herein-described improved crate, the same consisting of the body portion, the cover composed of a weaving of slats and wires, the outer slats being adapted to be folded down upon and to embrace the ends of the crate and provided with nails adapted to be driven into the walls of the crate, the front and rear pairs of strips, and the binding-wires connecting those of each pair, the inner strips being connected by nails to the front and rear edges of the cover and the outer front strip being provided with inwardly-disposed nails adapted to be driven into the front wall of the crate, substantially as specified.

6. The herein-described improved crate, the same consisting of the body portion, the cover composed of a weaving of slats and wires and the front and rear pairs of strips or slats, and binding-wires flexibly connecting those of each pair, the inner slats being permanently connected to the front and rear edges of the cover and adapted to be nailed removably to the walls of the crate and be swung up therefrom, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

FRANK B. SITES.

Witnesses:
JNO. P. CAMERON,
Mrs. I. W. WISLER.