

No. 689,153.

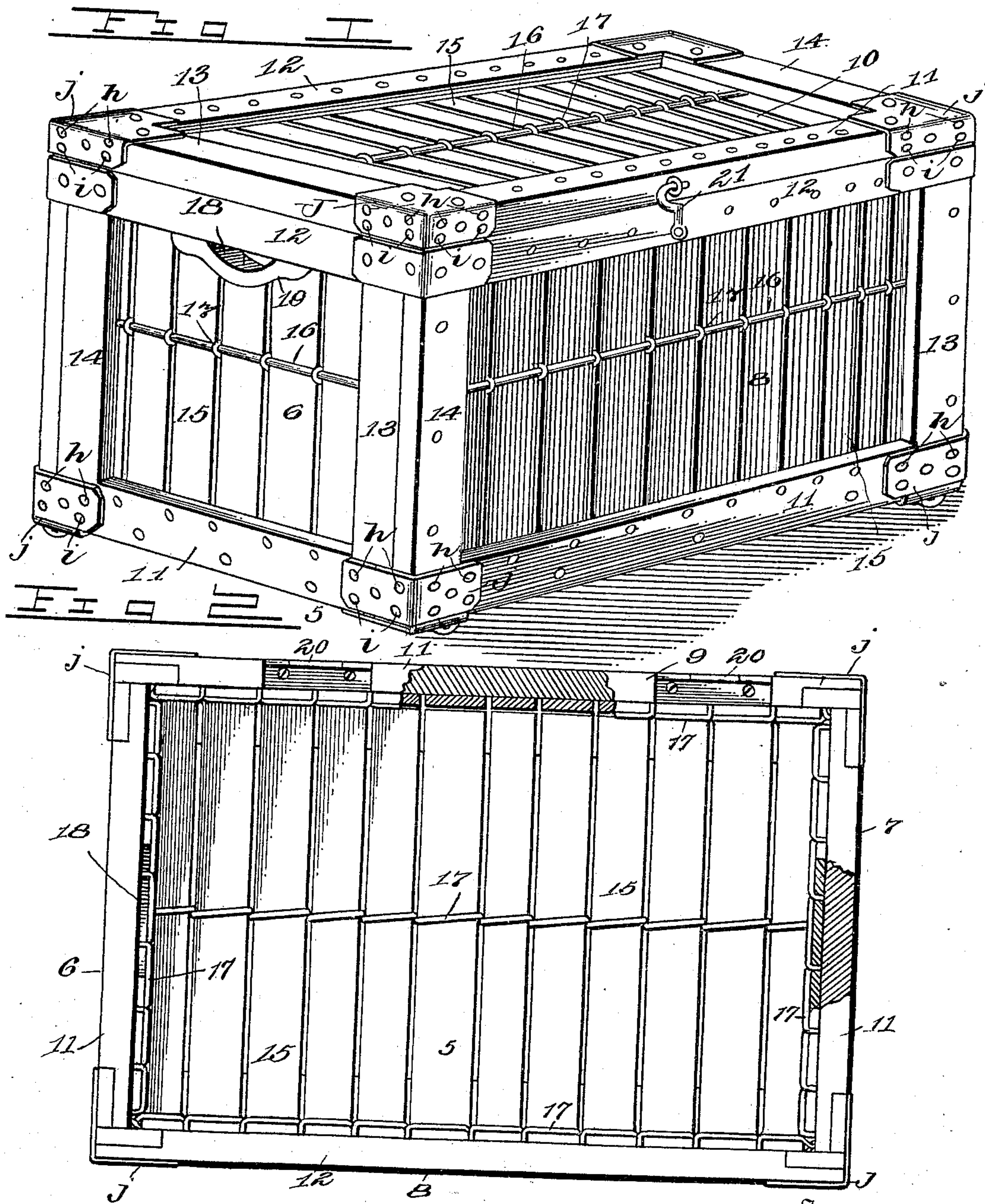
W. O. ANDERSON.
RECEPTACLE OR CRATE.

Patented Dec. 17, 1901.

(No Model.)

(Application filed Aug. 29, 1901.)

2 Sheets—Sheet 1.



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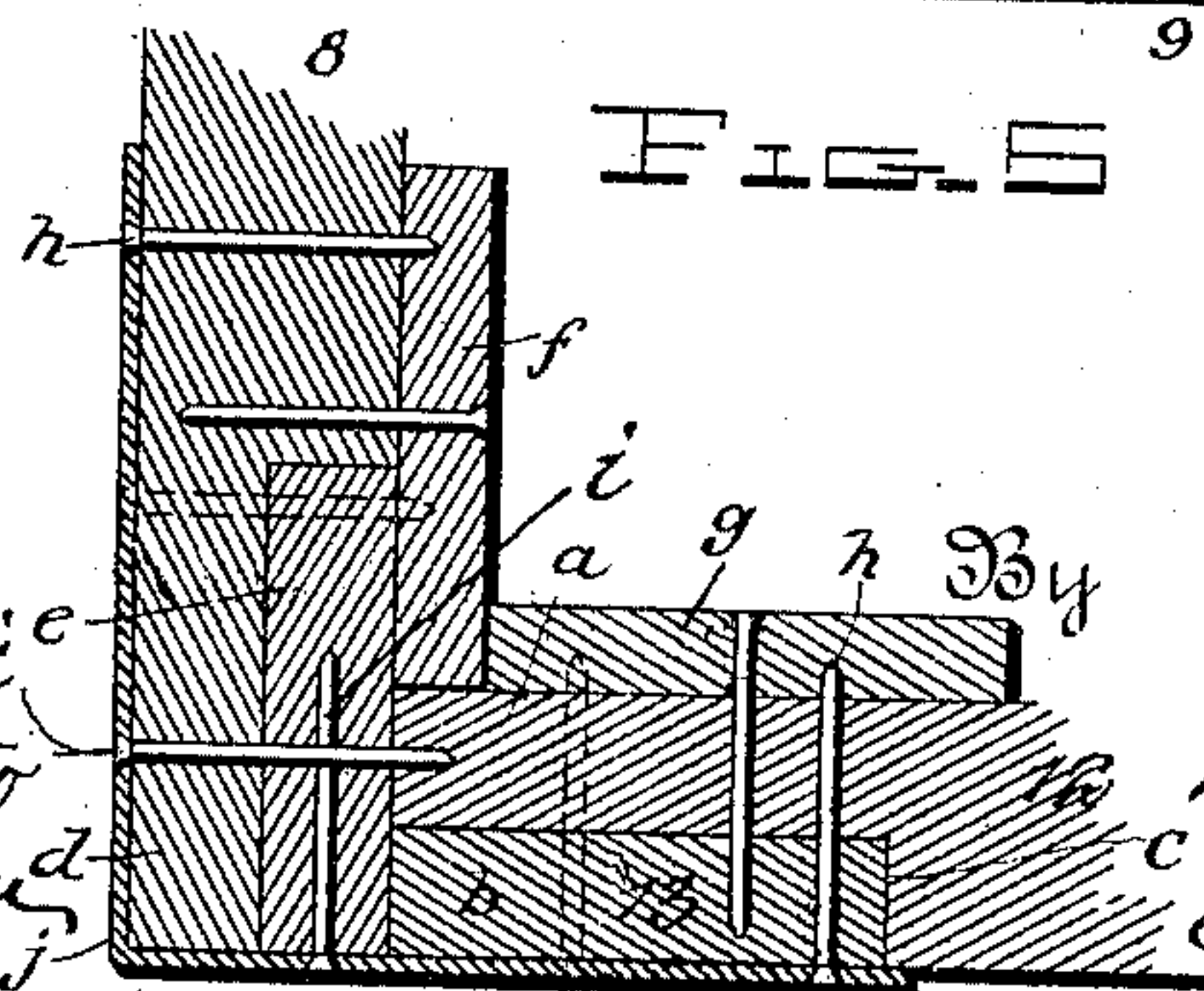
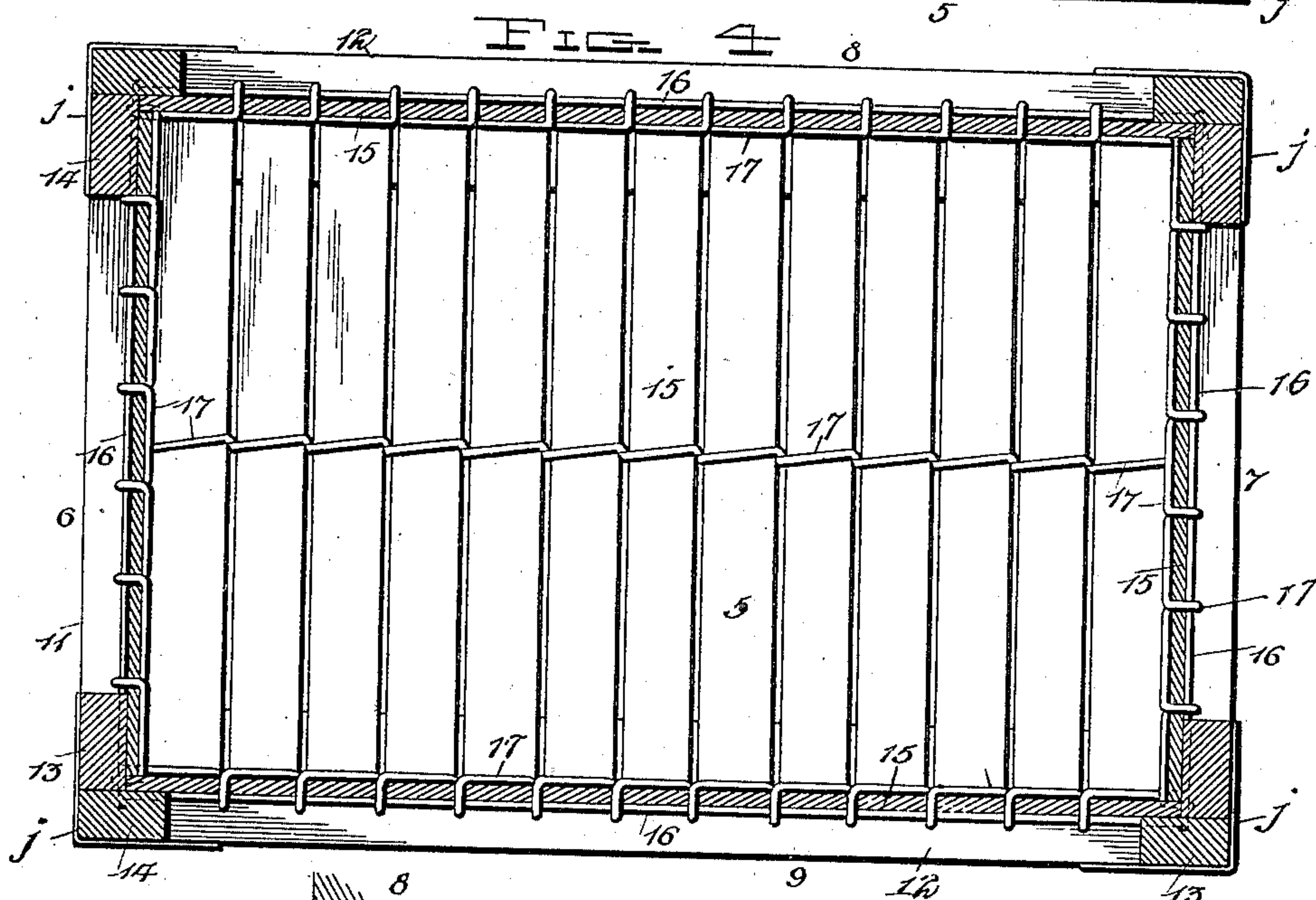
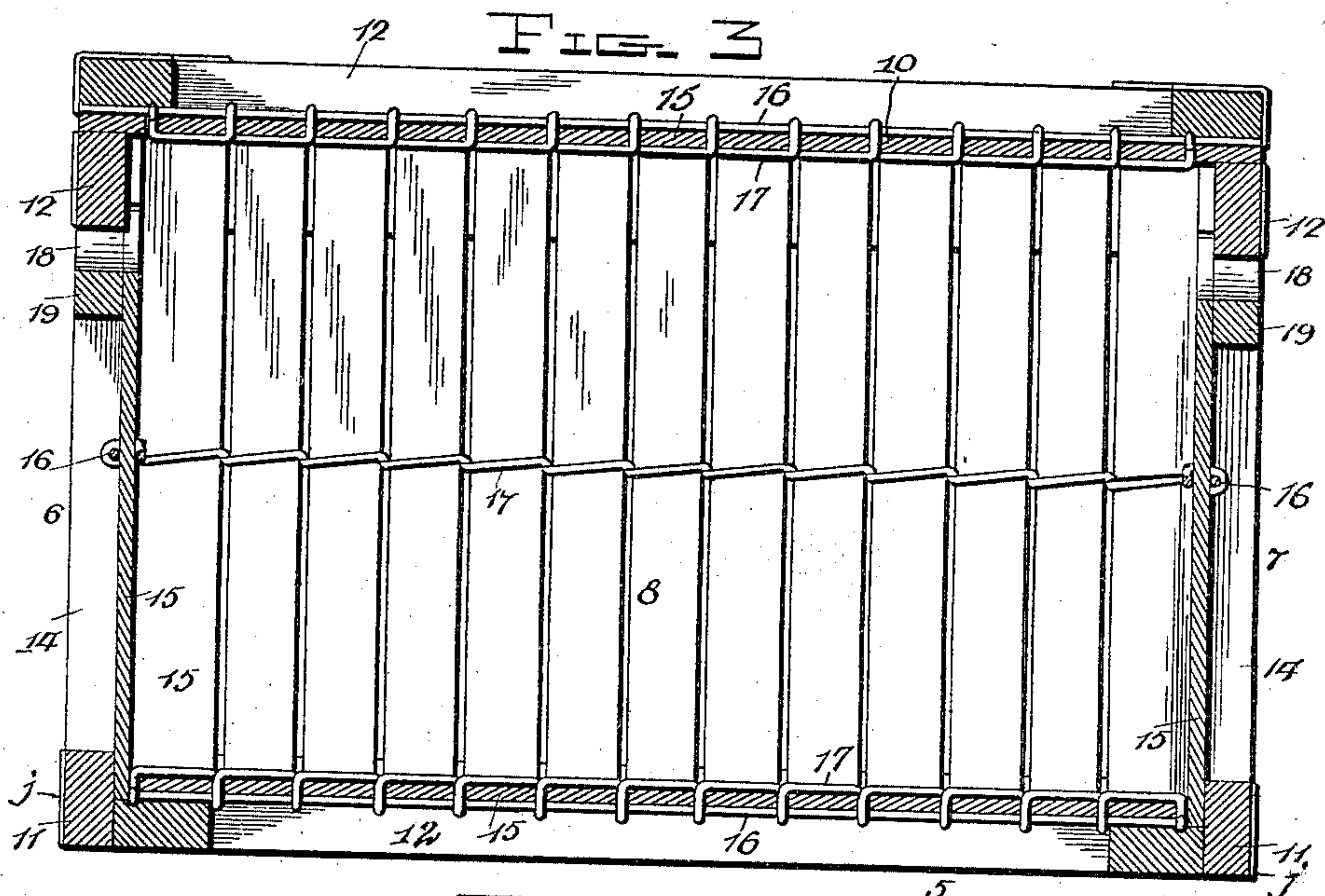
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UNITED STATES PATENT OFFICE.

WILLIARD O. ANDERSON, OF HENDERSON, KENTUCKY.

RECEPTACLE OR CRATE.

SPECIFICATION forming part of Letters Patent No. 689,153, dated December 17, 1901.

Application filed August 29, 1901. Serial No. 73,709. (No model.)

To all whom it may concern:

Be it known that I, WILLIARD O. ANDERSON, a citizen of the United States, residing at Henderson, in the county of Henderson and State of Kentucky, have invented a new and useful Receptacle or Crate, of which the following is a specification.

My present invention relates to improvements in receptacles of that class which are adapted for use as baskets, shipping-crates, trucks, or the like for the storage or transportation of various kinds of merchandise.

The object of the invention is to produce a crate or receptacle which will be light, durable, freely ventilated, and to some degree elastic, so as to render it capable of being roughly and rapidly handled without being damaged.

Another object of the invention is to so unite the several parts of the structure as to preclude the possibility of their individual release and to construct the box of independent sections or walls disposed in such relation as to present a receptacle having a smooth unobstructed interior and rigid frame-bars, all disposed upon the exterior of the crate and having such relative disposition as will permit any side of the box to lie flat upon a supporting-surface.

Other and subordinate objects of the invention will hereinafter appear as the necessity for their accomplishment is developed in the succeeding description, which is directed to the exposition of the construction of the preferred form of the invention illustrated in the accompanying drawings and embraced within the scope of the appended claims.

In said drawings, Figure 1 is a perspective view of a crate organized for use as a truck. Fig. 2 is a top plan view thereof with the cover removed. Fig. 3 is a vertical longitudinal section of the subject-matter of Fig. 1. Fig. 4 is a horizontal section of the same. Fig. 5 is a detail sectional view illustrating the manner of connecting the members or walls of the crate at the corners thereof.

Referring to the characters employed to designate corresponding parts in the several views, the crate is built up, as shown in the drawings, of the bottom section 5, the end sections or walls 6 and 7, the side sections 8

and 9, and the top section or cover 10, each of which in the preferred embodiment of the invention is completely constructed independently of the others and is afterward assembled with them to form the complete crate. Each section consists of a rectangular or oblong frame made up of side frame-bars 11 and 12 and end frame-bars 13 and 14, the several bars being preferably connected to each other at the corners of the frame by rabbet or half-lapped joints formed by rabbeting the end of each frame-bar for the reception of the corresponding rabbeted end of the contiguous frame-bar. If desired, however, the several bars of the frames may be connected by other forms of joints—that is to say, instead of being rabbeted or half-lapped they may be mitered, lock-cornered, or connected by a tongue and groove, or by any other form of joint adaptable to the structure and consistent with the invention. Each of the frames thus constructed has attached upon the inner side thereof in the manner of a panel a series of slats 15, slightly separated or spaced to provide for the free circulation of air through the crate necessary for the ventilation of the contents thereof.

The slats of the side and end sections or walls of the crate are disposed vertically, and their upper ends are brought flush with the upper edges of the several frame-bars 12, as clearly illustrated in Fig. 3 of the drawings, while the lower ends of these slats, instead of extending to the bottom edges of the several frame-bars 11, preferably terminate, on the contrary, in a plane sufficiently above the lower edges of the frame-bars 11 to permit the frame-bars of the bottom section 5 to be set into the crate and to have their upper faces abutted against the lower ends of the slats of the side and end sections—that is to say, the side and end sections or walls of the crate being assembled the bottom wall or section is introduced between the lower bars 11 of the several sections, so that the bottom edges of the side and end walls will lie in the same horizontal plane as the under sides of the frame-bars of the bottom section, which latter is thus surrounded by the side and end walls of the crate and abuts against the lower ends of the slats thereof, so that said slats serve to protect the joint between the bottom

and each of the side and end walls or sections. It is evident, however, that instead of having the lower ends of the slats of the side and end sections terminate short of the bottom edges of the side and end walls, as stated, 5 said slats may be extended flush with both the top and bottom edges of the frames, so that the frame of the bottom section, instead of abutting against the lower ends of the side 10 and end slats will be imposed against the inner faces thereof, the interior surface of the box or crate in either event being smooth and uniform, as desired.

The peculiarity of each of the end or side 15 walls or sections in the illustrated construction is that the slats extend entirely to one edge thereof and terminate short of the other edge for the accommodation of the bottom section; but the slats of said bottom section, 20 on the contrary, terminate well within both edges of the frame, so that the ends of the bottom slats abut against the inner faces of the side slats (see Fig. 3) at the lower ends of the latter, to form therewith a lap-joint, which 25 insures the smooth uniform contour of the interior of the crate and at the same time protects and strengthens the joint between the frame-bars of the side and bottom sections. It will also be observed that the end slats of 30 the series constituting the bottom panel abut at their outer side edges against the lower ends of the slats of the end sections, against the lower ends of which the end frame-bars 13 and 14 of the bottom section abut—that is 35 to say, the end slats of the bottom panel abut against the inner faces of the slats of the end sections, while the frame-bars of the bottom section bear directly against the frame-bars of the side and end sections in the illustrated 40 construction. As has already been suggested, however, the side and end slats may, if desired, be extended to the extreme lower edges of the side and end frames, in which event both the frame-bars and slats of the bottom 45 section would bear against the inside faces of the side and end slats.

The arrangement of the slats of the cover-section differs from both the bottom sections and the sections constituting the side and end 50 walls of the crate. The distinguishing difference is that the slats of the cover extend entirely across the latter transversely and terminate flush with the opposite side edges thereof, so that when the cover is swung down upon the 55 crate the slats constituting its under side abut against the upper ends of the slats of the side and end sections and also against the frame-bars 12 thereof. While the slats of the several sections are preferably nailed or otherwise 60 secured to the frames, I prefer to provide auxiliary means for securely retaining them in position and for strengthening them at points intermediate of their ends, where they are most apt to bend or break when the crate 65 is subjected to rough usage. This slat-securing means is preferably embodied in one or more comparatively stout wires or string-

ers 16, disposed longitudinally of the section and flat against the outer faces of the slats, the ends of the wires or stringers being preferably retained between the end frame-bars 13 and 14 and the terminal slats of the adjacent series. The slats are secured individually to these wires or stringers by means of one or more binding-wires 17, disposed against 75 the interior face of the slats and passed around the stringer 16 at points opposite each of the intervals between the several slats of the series—that is to say, the binding-wires are first secured to the ends of the stringers 80 and are then passed around the adjacent slat and wrapped or looped upon the stringers, then around the next succeeding slat to the stringers, and so on until the entire series of slats has been bound to the stringers in a 85 manner to constitute the latter central stiffening devices for the comparatively fragile panel formed by the slats.

We have now seen in what manner the sections are constructed and how the joints 90 between the bottom sections and the side and end walls and between the top section and the side and end walls are produced for the purpose of producing a crate having a smooth, nicely-finished interior, but it remains to be 95 pointed out in what particular manner the joints between the side and end walls or sections at the corners of the crate are formed in order to secure the necessary stability of the structure and to at the same time pre- 100 serve that uniformity of the interior which is one of the primary objective points of the invention. In the detail view, Fig. 5, of the drawings I have endeavored to illustrate the peculiar manner in which these corner-joints 105 are formed to secure the desired ends.

It has been stated that the frame-bars of each frame are preferably connected by rabbet-joints at the corners thereof, and this construction is clearly illustrated in Fig. 5, where- 110 in the tongue of the frame-bar 12 of the end section 6 is indicated by the letter *a* and is shown as lapped by the tongue *b*, formed at the upper end of the end frame-bar 13 of the section 6 and located within the rabbet *c* of the bar 115 12, so that the outer faces of the several frame-bars of the section are disposed in the same plane. Obviously the side and end bars of the side section 8 are likewise formed with overlapping tongues *d* and *e*, which form a 120 rabbet-joint, and it will be noted that in assembling the sections the opposite ends of the end section 6 are made to abut against the inner faces of the side sections at the ends thereof, so that the rabbet-joints formed at 125 the contiguous corners of the side and end sections are made to lap; but a further interlocking engagement of these members or sections is secured by locating the contiguous slats of the sections 6 and 8 adjacent to the 130 corner in similar lapping relation—that is to say, the terminal slat *f* of the section 8 abuts at one side edge against the inner face of the frame of the section 6, and the adjacent ter-

minal slat *g* of the section 6 abuts at one side edge against the inner face of the slat *f*. This relation of the slats preserves the continuity of the interior of the crate and also protects the joint between the side and end frames at the corner of the crate. This aggroupment of the frame bars and slats is possessed of still another utility for the reason that it enables the securing devices—as, for instance, the screws or nails *h* and *i* of a metal corner-bracket *j*—to serve as retaining means for grouping the corner-plate, the lapped end bars of a section, and the slat of that section in rigid relation and also to rigidly connect the frames of the side and end members, the latter function being performed by the retainer or nail *i*—that is to say, this peculiar aggroupment of parts facilitates the assembling of the crate for the reason that the members thereof may be placed in position and the corner-brackets secured in the usual manner, the securing of these brackets resulting in the permanent connection of the frame-bars of each frame, the connection of the frames, and the connection of each of the slats *f* and *g* to its frame and to the frame with which the joint is made.

A further feature of the crate resides in the peculiar construction of handholds 18, which are formed by cutting away the upper ends of one or more of the end slats to a point slightly below the side bars 12 of the end sections for the purpose of permitting these side bars to be utilized in lifting the crate, hand-hold-frames 19 being attached to the under sides of the bars 12 and to the upper ends of the slats cut away for the accommodation of the handholds, so that while the latter extend entirely through the end walls the slatted panels are reinforced and rendered secure by the employment of the frames. According to the use to which the basket, crate, or truck is to be put the top or cover section may be employed or not, as desired; but when used it is preferably secured to one of the side sections by means of hinges 20 and is fitted with a suitable lock or retaining device 21. It is also evident that, if desired, the casters shown in the drawings may be omitted and that additional strength may be secured by employing additional corner-posts upon the inside of the box.

From the foregoing it will be evident that I have produced a light, durable, and inexpensive receptacle designed for the employment of a box, crate, truck, or other storage or transportation container; but while the present embodiment of the invention is thought to be preferable I desire to reserve the right to effect such changes, modifications, and variations thereof as may be properly embraced within the scope of the protection prayed.

What I claim is—

1. A receptacle of the character described, comprising side and end walls having their lower edges located in the same plane, and

each comprising a rectangular frame and slats secured to the inside face thereof, a bottom wall surrounded by the side and end walls and likewise comprising a frame and slats, the slats of the several side and end walls being abutted at their lower ends against the frame of the bottom wall, and the slats of the bottom wall being abutted against the inner faces of the slats of the several side and end walls.

2. A receptacle of the character described, comprising walls or sections, each comprising a frame composed of separate frame members and slats imposed against the inner faces of the frame members, corner-brackets disposed at the corners of the receptacle, and securing devices each of which extends through a bracket and serves to connect the frame members of a section, and also a slat of said section to the frame members thereof, and to connect a pair of adjacent sections to each other.

3. A receptacle of the character described, comprising side and end walls or sections, each composed of a rectangular frame made up of connected members and a series of slats secured to the interior face of the frame, stringer-wires disposed against the outer faces of the slats and having each of their ends clamped between a frame member and a slat, binding-wires disposed within the receptacle and passed around the stringer-wires opposite the intervals between the slats, and securing devices each of which is passed through a plurality of frame members and through a wire-clamping slat for the purpose of uniting the members to each other and of holding the slat against the face of a member to secure the stringer-wire.

4. A receptacle of the character described, comprising side and end walls or sections each composed of a rectangular frame made up of connected members and a series of slats secured to the interior face of the frame, stringer-wires disposed against the outer faces of the slats and having each of their ends clamped between a frame member and a slat, binding-wires disposed within the receptacle and passed around the stringer-wires opposite the intervals between the slats, securing devices each of which is passed through a plurality of frame members and through a wire-clamping slat for the purpose of uniting the members to each other and of holding the slat against the face of a member to secure the stringer-wire, and another securing device passed through a plurality of frame members and into the adjacent frame to unite a pair of frames and the members of one frame.

5. A receptacle of the character described, comprising walls made up of frame members and slats, certain of the slats being cut away adjacent to a frame member to form a handhold, and a strengthening-frame connected to the cut-away slats and to the adjacent frame member.

6. A receptacle of the character described,

comprising separate and complete side and end sections or walls and a bottom section or wall, each of said sections comprising a rectangular frame and a series of slats upon the inner face thereof, said frames being composed of members connected at their ends by rabbet-joints, and said side and end walls surrounding the bottom wall and having their lower edges located flush with the under side thereof, the slats of the bottom wall being abutted against the inner faces of the slats of the side and end walls, and the slats of the end walls being abutted against the inner faces of the slats of the side walls whereby a crate having a smooth, unobstructed interior surface is produced.

7. A receptacle of the character described, comprising side and end walls or sections, each composed of a rectangular frame whose members are connected at their ends by rabbet-joints, and a series of slats secured to the interior face of the frame, the slats of the side walls being abutted against the frames of the end walls and the slats of the end walls abutted against the inner faces of the slats of the side walls, a corner-bracket embracing contiguous portions of the side and end walls,

securing devices, each of which is passed through the corner-bracket, a plurality of frame members and a slat to securely unite said parts, and another securing device passed through the corner-bracket, a plurality of frame members, and into the adjacent frame to unite a pair of frames and the members of one frame.

8. A receptacle of the character described comprising side and end members or walls each composed of a rectangular frame and a series of slats secured to the inner face thereof, certain slats of the end walls being cut away directly under the upper horizontal members of the end frames to form hand-holds, and curved strengthening-frames connected to the upper ends of the cut-away slats and to the under sides of the adjacent frame members.

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

WILLIARD O. ANDERSON.

Witnesses:

RICHARD H. CUNNINGHAM,
LUTHER McDONALD.