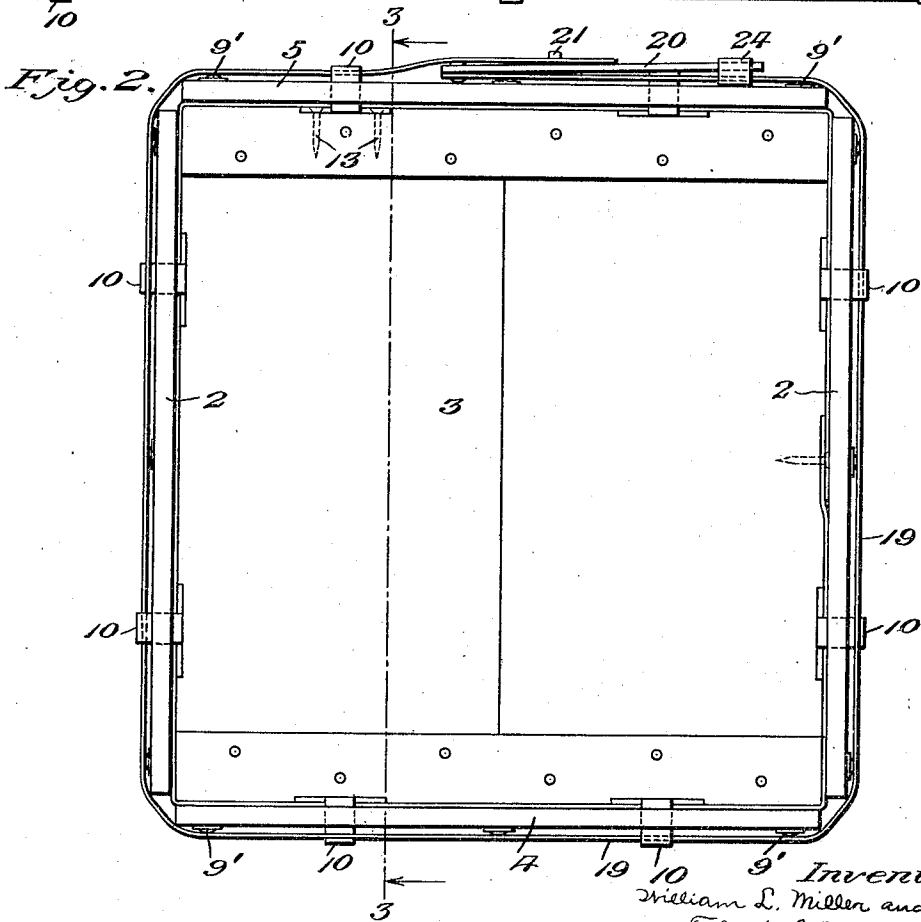
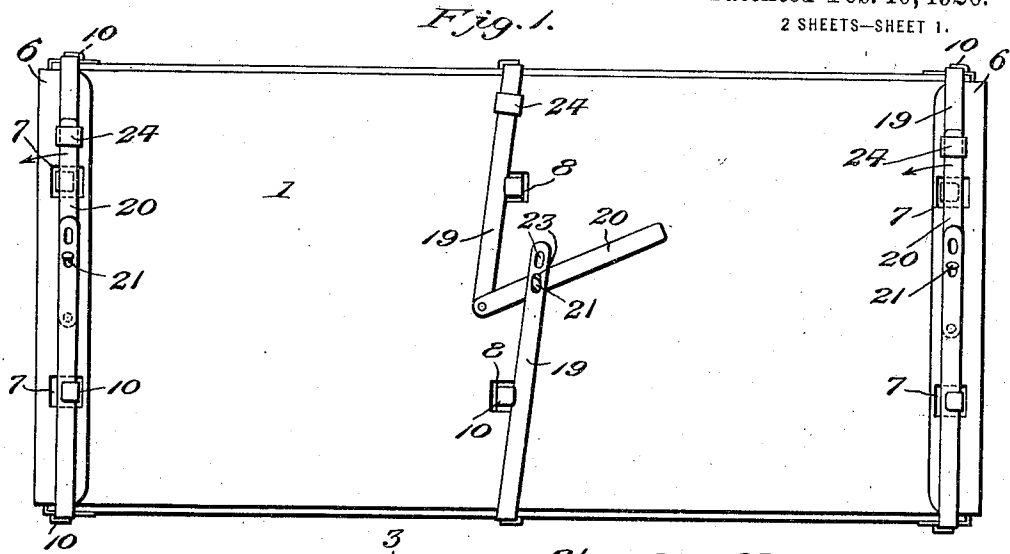


W. L. MILLER AND F. E. MORTON.
 KNOCKDOWN CRATE.
 APPLICATION FILED JUNE 4, 1918.

1,330,382.

Patented Feb. 10, 1920.

2 SHEETS—SHEET 1.



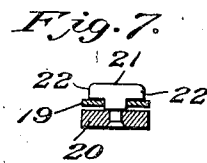
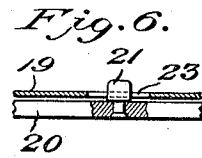
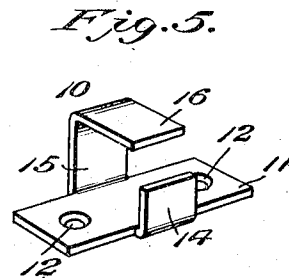
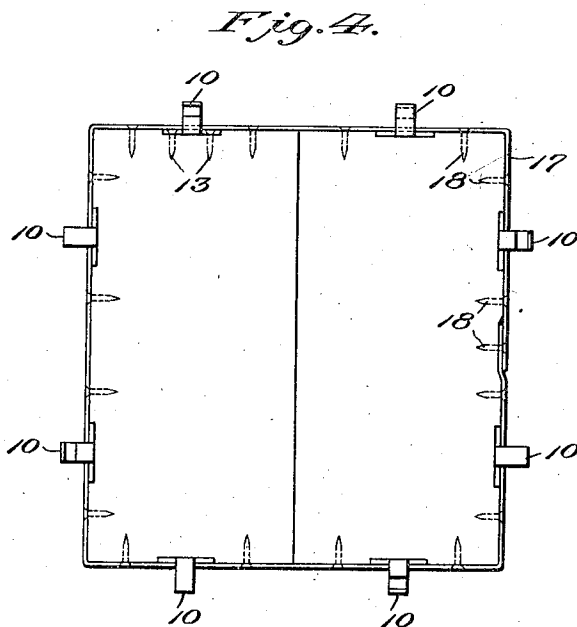
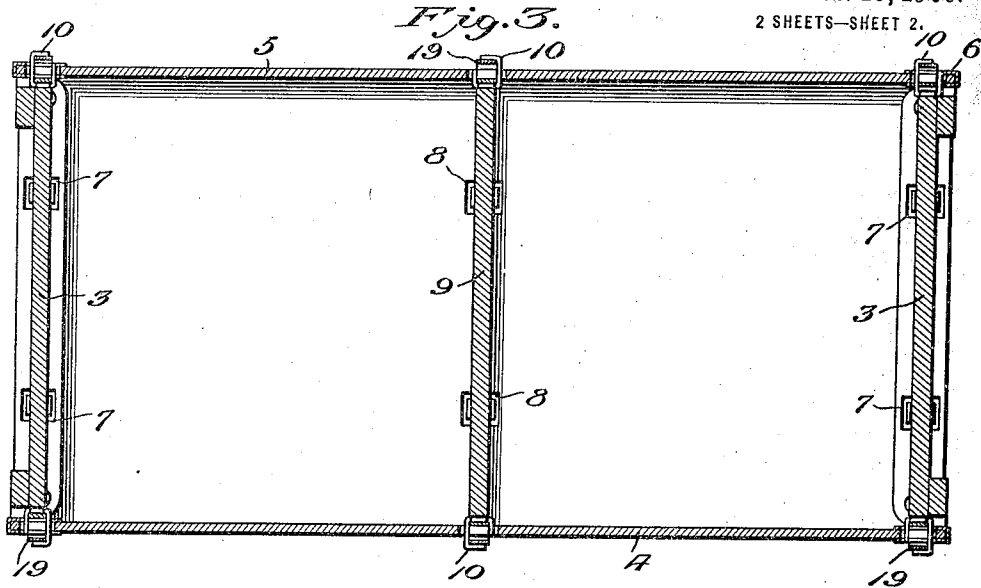
Inventors
 William L. Miller and
 Floyd E. Morton by
 Langdon Moore, Atty.

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2 SHEETS—SHEET 2.



Inventors
 William L. Miller and
 Floyd E. Morton, by
 Langdon Moore, *Atty.*

UNITED STATES PATENT OFFICE.

WILLIAM L. MILLER AND FLOYD E. MORTON, OF LEXINGTON, NEBRASKA.

KNOCKDOWN CRATE.

1,330,382.

Specification of Letters Patent.

Patented Feb. 10, 1920.

Application filed June 4, 1918. Serial No. 238,232.

To all whom it may concern:

Be it known that we, WILLIAM L. MILLER and FLOYD E. MORTON, citizens of the United States, residing at Lexington, in the county of Dawson and State of Nebraska, have invented new and useful Improvements in Knockdown Crates, of which the following is a specification.

This invention comprises a knockdown receptacle or crate. It is contemplated among its objects to provide a device wherein the sections may be easily assembled to form a receptacle, and readily dismantled for the purpose of return shipping; wherein there are but few parts, standardized, and all provided with an edge binding or reinforcement which minimizes splitting, warping, and other defects; and wherein, when assembled, the sections are all compactly bonded together by binding elements so arranged that they constitute, together with the other elements of the structure, a solid, compact and serviceable structure for shipping purposes, and which is admirably adapted for this purpose.

Still a further object of the invention is to provide, in connection with the binding elements, a means for readily securing the same around the outer portions of the receptacle, and drawing the ends together to constitute a binder for the sections; and other objects and advantages will in part be apparent and in part be brought out more fully in the description which follows:

Drawings are annexed illustrating an embodiment of the invention, the following views being shown:

Figure 1, is a view in top plan;

Fig. 2, is a view in end elevation;

Fig. 3, is a view in vertical section on the line 3—3 of Fig. 2;

Fig. 4, is a view in end elevation of a portion;

Fig. 5, is a detail view of a cleat; and

Figs. 6 and 7, are a longitudinal and transverse section respectively through a portion of the means for drawing the bands together.

Referring specifically to the drawings, 1 designates generally a receptacle of the knockdown variety and here shown in the form of a crate. It comprises side sections 2, end sections 3, a bottom section 4, and a top section 5. Each of these sections is provided in proximity to its ends with a binding strip 6 of any suitable material but

here shown as formed of metal and provided with openings 7 extending through the metal and through the body portion of each section. The sections may likewise be provided intermediate their ends with openings 8, in the event that the receptacle is to be divided by a partition, and the strips 6 are secured to the ends in any convenient manner such as by rivets or the like 9'.

The end sections, and an intermediate partition 9, if one is desired, comprise a blank of any suitable material and of an outline corresponding to the shape which it is desired to have the receptacle assume. Each of these sections is provided with a plurality of cleats 10 disposed in spaced relation around the outer edges of the blank and having a body portion 11 provided with openings 12 for the reception of means for securing the cleat to the edges of the sections. As here shown, these cleats are secured in countersunk notches arranged in the edges of the blank, as by screws or the like 13. Upstanding from the body portion 11 of this cleat there is a short section 14 and an elongated section 15 having a portion 16 bent back at an angle to the upstanding portion and extended out in parallelism with the body portion 11 of the cleat to constitute a housing for a binding element later to be described, the arrangement being such that the cleat is closed on three sides leaving an opening for the reception of a binding element 17 which is preferably arranged around the outer edges of the blank and over the body portion 11 of each cleat. This binding element is suitably secured to the edges in a desirable manner, fastening devices 18 being here shown.

In assembling the sections to constitute a receptacle, the bottom and side sections, and a top, if so desired, are disposed around the sides of the end sections 3, the cleats 10 passing through the openings 7, and 8, if there is a partition desired. When so disposed, an outer securing and binding element 19 is placed within the cleats underneath the extended portion 16 thereof, and it is found advantageous to have the cleats arranged in pairs, the openings therein being oppositely disposed, one with relation to the other in each pair. This insures against the binding element slipping out of the cleats when assembled therein.

For the purpose of drawing this binding element or securing means tightly into en-

gagement with the sections and maintaining them securely in position upon the ends and central partition, if used, there is provided a securing means, here shown consisting of a lever 20 pivotally secured at one end to one end of the binding element 19 and having intermediate its ends a clip 21 provided with lugs 22 preferably extending transversely of the lever. This slip is adapted to be inserted in slots 23 disposed on the free end of the binding element 19, the first position of assemblage being shown in Fig. 1. The lever is then drawn up into alignment with the body of the band 19, and a securing means 24, slidably disposed on said band, may be forced down to hold the lever in the position shown at the ends of Fig. 1.

When it is desired to return the box after a shipment, the sections may be disassembled and shipped in the flap as is well known. The device comprises a neat, compact, and serviceable crate or receptacle, and it will be understood that minor changes may be made in the construction and arrangement without departing from the spirit of the invention or its scope as set forth in the claims.

What we claim is:—

1. A knockdown receptacle comprising side and bottom sections having an end binding thereon, said binding and certain of the sections being each provided with an opening therein; a section having a cleat disposed on its edge; a binding element disposed around said cleat and said edge, a portion of said cleat being adapted to extend through an opening in one of said sections; and a fastening element adapted to embrace a portion of each section, and be disposed within a portion of said cleat.

2. A knockdown receptacle comprising

side and bottom sections having an end binding thereon, said binding and certain of the sections being each provided with an opening therein; a section having a cleat disposed on its edge; a binding element disposed around a portion of said cleat and said edge, a portion of said cleat being adapted to extend through an opening in one of said sections; a fastening element adapted to embrace a portion of each section, and be disposed within a portion of said cleat; means for drawing said fastening element into binding engagement with certain of said sections; and means for securing the binding element when drawn.

3. A knockdown receptacle comprising side and bottom sections having at their extremities a binding element, said binding element and certain of the sections being provided with openings therein; end sections having cleats secured around their edges and adapted to pass through the openings in the ends of the sections when assembled to constitute a receptacle; a binding instrumentality disposed around the edges of the end sections and over a portion of the cleats; said cleats being provided with oppositely disposed openings therein and a binding instrumentality adapted to embrace a portion of the side and bottom sections and be disposed beneath a portion of each cleat; means for drawing the binding element into position around the sections; and means for securing the binding element when drawn.

In witness whereof we have affixed our signatures.

WILLIAM L. MILLER.
FLOYD E. MORTON.