

No. 731,984.

PATENTED JUNE 23, 1903.

A. VAUGHT.
CRATE.

APPLICATION FILED OCT. 18, 1902.

NO MODEL.

Fig. 1.

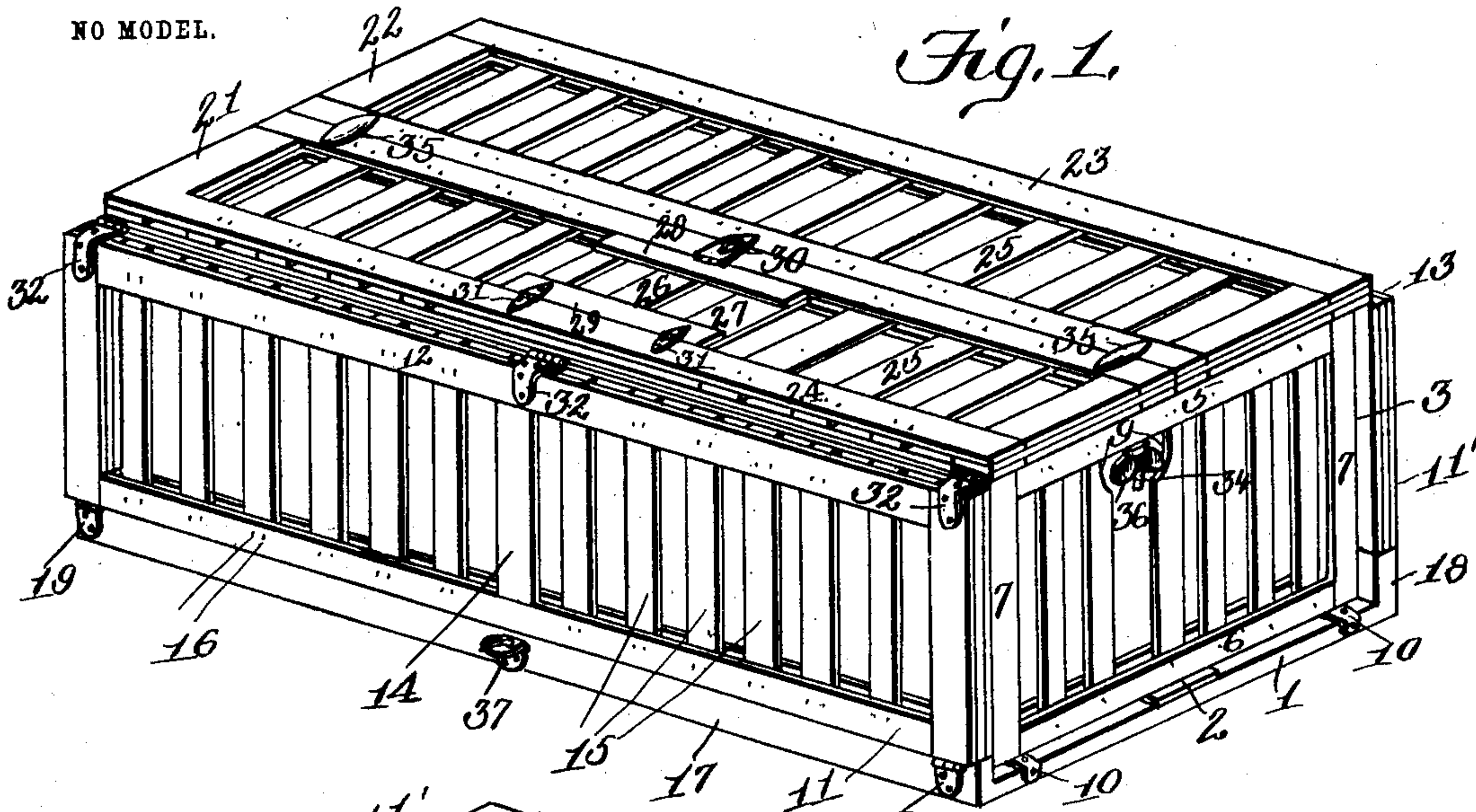


Fig. 2.

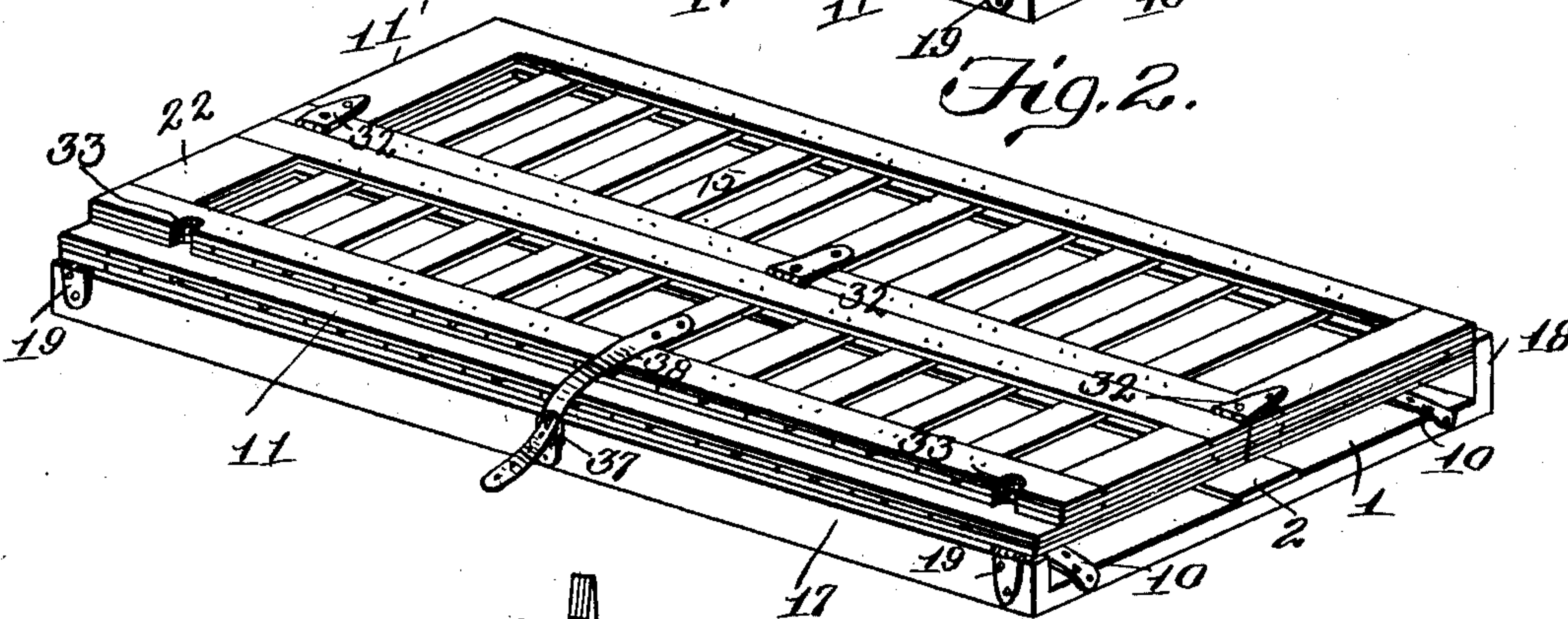
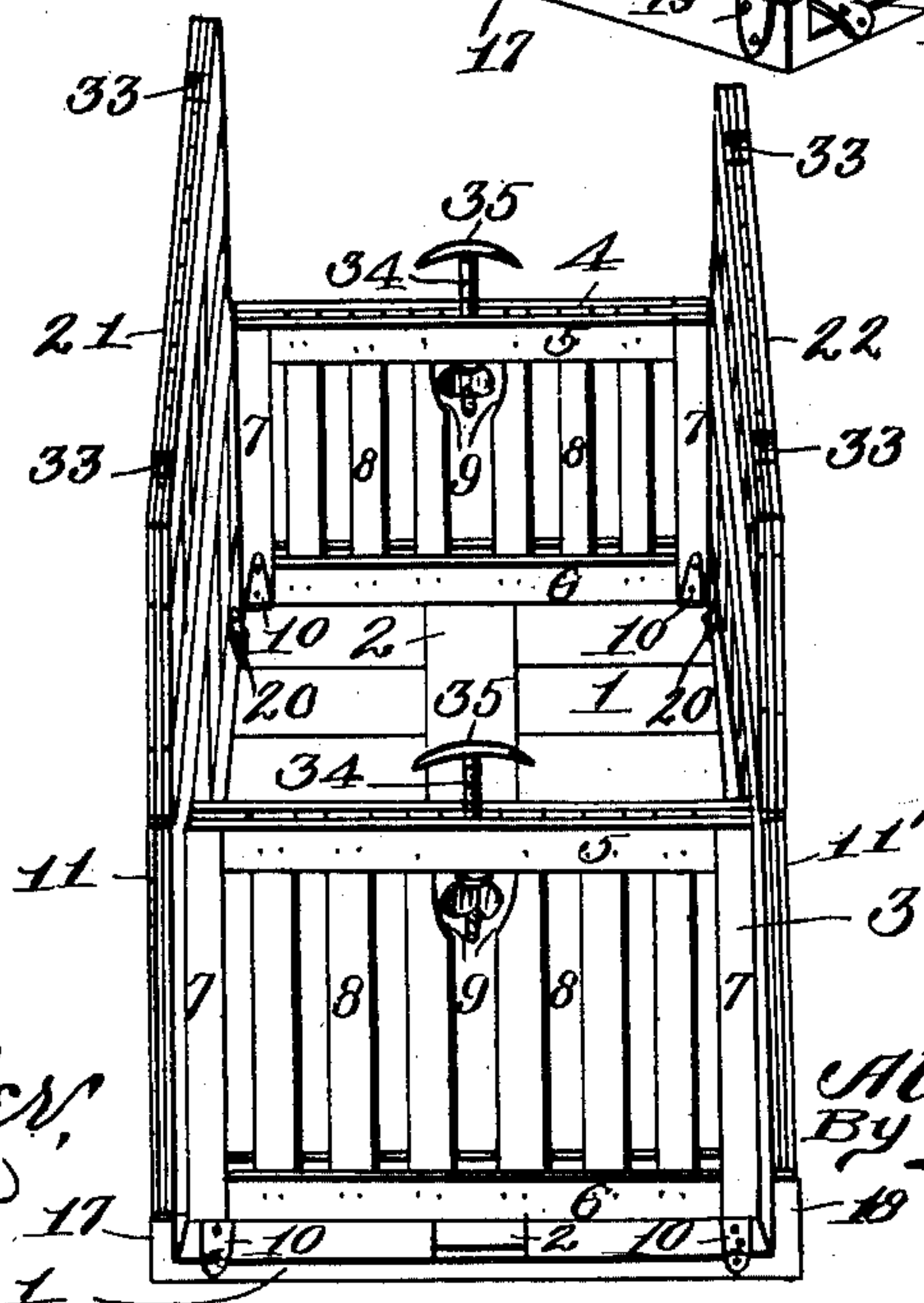


Fig. 3.



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UNITED STATES PATENT OFFICE.

ALEXANDER VAUGHT, OF PARAGOUL, ARKANSAS.

CRATE.

SPECIFICATION forming part of Letters Patent No. 731,984, dated June 23, 1903.

Application filed October 18, 1902. Serial No. 127,890. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER VAUGHT, a citizen of the United States, residing at Paragould, in the county of Greene and State of Arkansas, have invented new and useful Improvements in Crates, of which the following is a specification.

This invention relates to certain new and useful improvements in crates, and more particularly to the class of "collapsible" or "knockdown" crates.

The invention aims to construct a collapsible or knockdown crate that may be folded in a neat and compact form when empty, and thus reduced to a size equal to about one-fourth of a crate when built up, and therefore reducing the cost of transportation and storage.

The invention further aims to construct a collapsible or knockdown crate with new and improved means for securing the parts together when set up and which is adapted for use for the shipment or storage of berries, bread, poultry, or various other articles requiring a receptacle of this character.

The invention further aims to construct a collapsible or knockdown crate which shall be extremely simple in its construction, strong, durable, and efficient in its use, comparatively inexpensive to manufacture, and foldable into a small compass; and to this end the invention consists of the novel combination and arrangement of parts hereinafter more specifically described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views, and in which—

Figure 1 is an elevation of the crate when set up. Fig. 2 is an elevation of the crate when knocked down or folded; and Fig. 3 is an elevation of the crate, showing the top open and the means for securing the top in position when closed.

Referring to the drawings by reference-numerals, 1 denotes the bottom of the crate, which is constructed of any suitable material

and preferably rectangular in contour and has connected to its upper face a reinforcing-strip 2.

The reference-numerals 3 4 denote the front and rear walls, respectively, of the crate. Each of these walls is formed of an upper and a lower longitudinally-extending strip 5 6, respectively, of suitable material, and a pair of vertically-extending end strips 7, one of these strips being arranged between and at each end of the strips 5 6, so as to be flush with the strips 5 6, and, further, suitably connected thereto. The strips 5, 6, and 7 when set up form substantially an oblong frame, and to the inner face of the strips 5 6 is suitably connected a series of slats or panels 8. These slats or panels 8 are suitably spaced apart, and each of the central pair thereof at its top below the strip 5 is cut away at its inner edges, as at 9, for the purpose hereinafter described.

The reference character 10 denotes a series of strap-hinges, a pair of which is secured to the upper face of the bottom 1, at the front thereof, and which projects inwardly and is secured also to the inner face of the front wall 3, at the bottom thereof. The other pair of hinges is secured at the bottom 1 and projects inwardly from the rear edge thereof and is secured also to the inner face of the rear wall 4, near the bottom thereof. By this arrangement the front and rear walls are hinged to the bottom, so that when they are set up or elevated the outer face of the walls 3 and 4 will not be flush with the edge of the bottom 1, or, in other words, the front and rear walls are hinged to the bottom a suitable distance from the front and rear edges thereof.

The reference-numerals 11 11' denote the side walls of the crate. Each of these side walls is constructed of a pair of oblong frames 12 13, having a central brace-rod 14, and between the frames is arranged a series of panels or slats 15, suitably spaced apart. The panels or slats 15 are secured at their top and bottom to the frames 12 13 by any suitable fastening means, as at 16.

The reference character 17 denotes a support for the side wall 11, and the reference character 18 denotes a support for the side wall 11'. The support 18 is of greater height

than the support 17. These supports 17 and 18 are suitably secured to the bottom 1, and each has connected to its upper face a pair of strap-hinges 19, which project inwardly 5 and are also secured to the inner face of the side walls 11 11', as at 20. The side wall 11 is of slightly-greater height than the side wall 11'.

The top of the crate is formed of a pair of 10 sections 21 22. Each of these sections is constructed of a pair of oblong frames 23 24, between which is secured a series of slats or panels 25, suitably spaced apart. The section 21 is further constructed with a gate 26, 15 formed of a series of slats or panels 27, connected together by the bars 28 29, adapted to rest upon the panels 25 of the section 21. The bar 28 is provided with a suitable fastening device 30, which engages the sections 21 22 20 and is suitably connected thereto, and the bar 29 is hinged to the outer side of the section 21, as at 31. Secured upon the top of each of the side walls 11 11' is a series of strap-hinges 32, which project inwardly and are 25 also connected to the sections 21 22 for hinging the said sections to the side walls. The inner edge of each of the sections 21 22 is provided near each end with a semicylindrical groove 33 for a purpose hereinafter set forth.

30 The top sections 21 22 are secured in position when the crate is set up by means of a pair of fastening-bolts 34, one of which is adapted to extend through the bar 5 of the front wall and the other of which is adapted 35 to extend through the bar 5 of the rear wall. Each of the bolts 34 is screw-threaded and carries on its top a clamping-plate 35 and on its lower end the clamping thumb-nut 36. The cut-away portions 9 in 40 the panels or slats of the front and rear walls form an opening sufficient to enable the operation of the clamping thumb-nut 36. The semicylindrical cut-away portions 33 are adapted to receive the upper portion of the 45 bolt 34 when the bolt is in position to secure the top sections to the front and rear walls. The clamping-plates 35 when in their clamping position are adapted to extend in a longitudinal manner, so that the lower face of the 50 plates 35 will clamp the upper face of the sections 21 22, as shown in Fig. 1.

The reference character 37 denotes a buckle secured approximately centrally of one side edge of the bottom 1, and the reference character 38 denotes a strap having one end connected to the section 22 of the top. When 55 the crate is collapsed, the strap 38 is adapted to engage in the buckle 37 for securing the sections together, as shown in Fig. 2.

60 The crate is set up in the following manner: Assuming that the crate is in its collapsible position, as shown in Fig. 2, and the walls secured together by means of the strap 38 and buckle 37, the strap is released and the hinged 65 side walls 11 11' set up to a vertical position, which carry the sections 21 22 of the front

wall thereof, as shown in Fig. 3. The front and rear walls are then elevated to the position shown in Fig. 3. The clamping-bolts are then loosened and turned so that the plates 70 will extend in a horizontal position. The sections 21 22 are then folded upon the front and rear walls, the bolts seating themselves in the semicircular portions 33, formed in the inner edges of the sections 21 22. The bolts 34 are 75 then turned so that the plates 35 will extend in a longitudinal manner. The clamping-nuts are then screwed home, so that the plates 35 will engage the upper face of the sections 21 22 and securely clamp the walls together. 80 A reversal of the foregoing operations is used when collapsing or knocking down the crate.

It will be evident that by constructing the crate so that the front and rear walls will be arranged a suitable distance from the 85 front and rear edges of the bottom these walls are protected somewhat, because the side walls project outwardly on each side thereof. There is less danger of the front and rear walls being broken or mashed in. It will also 90 be evident that I have devised a simple, inexpensive, and novel form of knockdown or collapsible crate which can be readily set up and the parts clamped firmly together and one that is adapted for use for the shipment 95 or storage of berries, bread, poultry, or other articles, and it will furthermore be evident that changes, variations, and modifications may be resorted to without departing from the spirit of the invention or sacrificing any 100 of its advantages, and I therefore do not wish to restrict myself to the details of construction hereinbefore described, and as shown in the accompanying drawings, but reserve the right to make such changes, variations, and 105 modifications as come properly within the scope of the protection prayed.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is— 110

1. In a collapsible crate, a bottom, slatted front, slatted rear and slatted side walls suitably hinged to said bottom, a top formed of a pair of separable slatted sections each having its inner edge formed with a pair of grooves, 115 and a clamping means arranged between a pair of slats of each of the said front and rear walls and extending through the top of each of said front and rear walls, said clamping means adapted to engage the upper face of 120 and in the grooves in the said sections for connecting the same and said walls together.

2. In a collapsible crate, a bottom, slatted front, slatted rear and slatted side walls suitably hinged to said bottom, a top formed of 125 a pair of separate slatted sections suitably hinged to the side walls, each of the said sections having its inner edge formed with a pair of grooves, a screw-threaded bolt extending through the top of each of the front and rear 130 walls and arranged between a pair of slats of each of the said front and rear walls, a nut

5 mounted on the lower end of said bolt, a clamping-plate arranged upon the top of said bolt, said bolt adapted to extend through the grooves of the said sections and said plate adapted to engage the upper face of said sections for securing the walls and sections together when the nut is screwed home.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALEXANDER VAUGHT.

Witnesses:

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