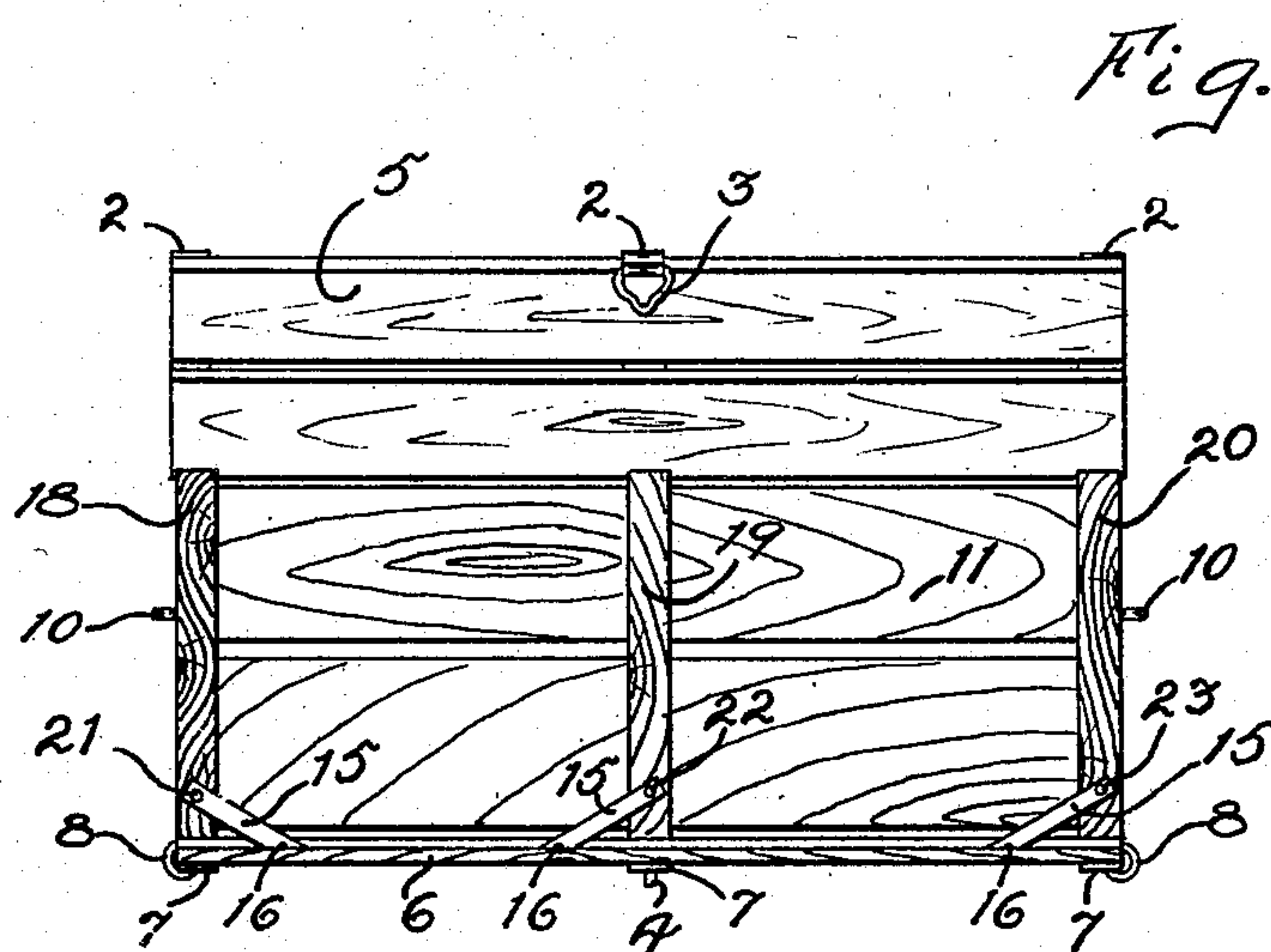
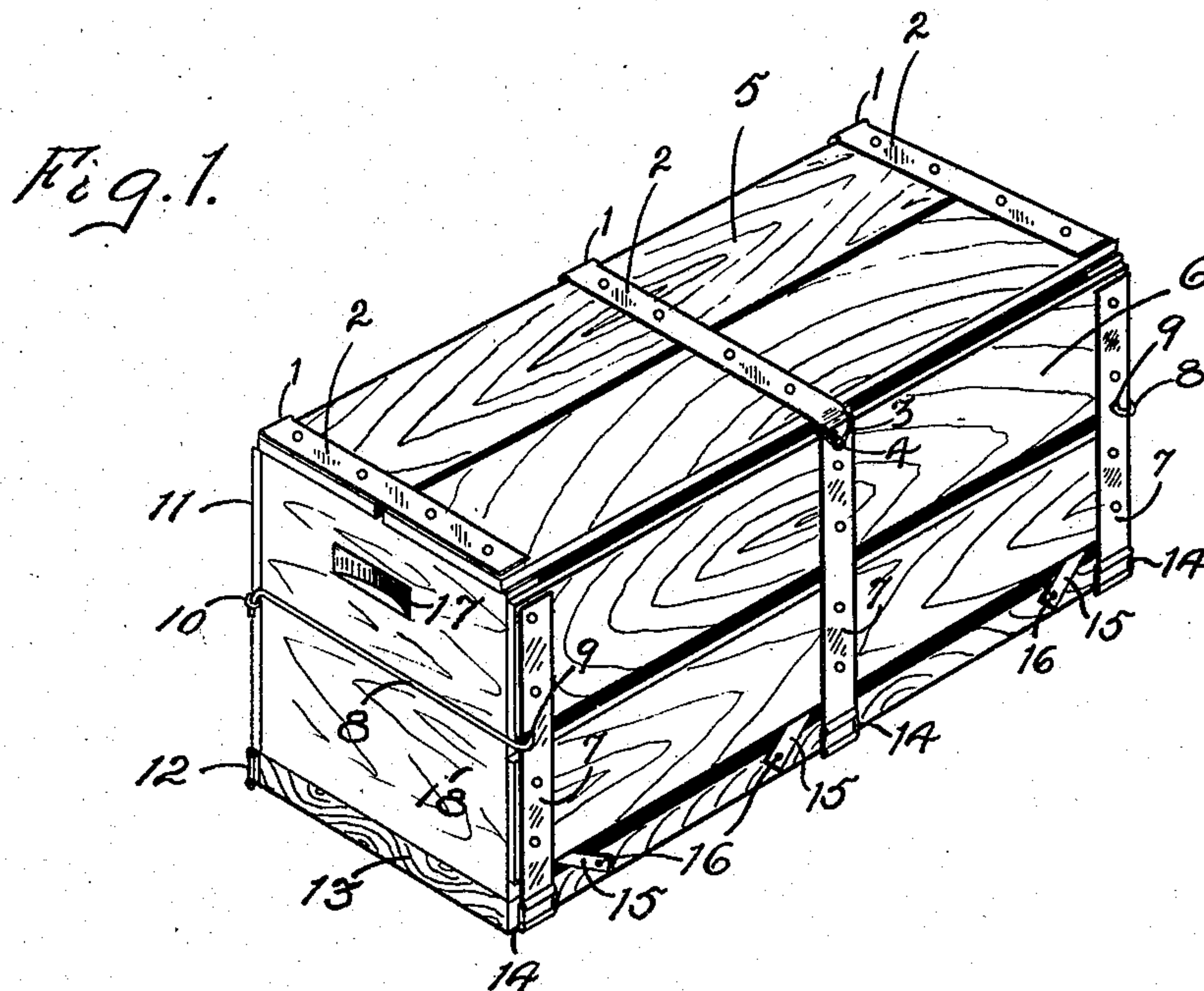


C. A. SMITH.
KNOCKDOWN CRATE.
APPLICATION FILED AUG. 12, 1908.

911,276.

Patented Feb. 2, 1909.

2 SHEETS—SHEET 1.



WITNESSES:

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911,276.

2 SHEETS—SHEET 2.

Fig. 3.

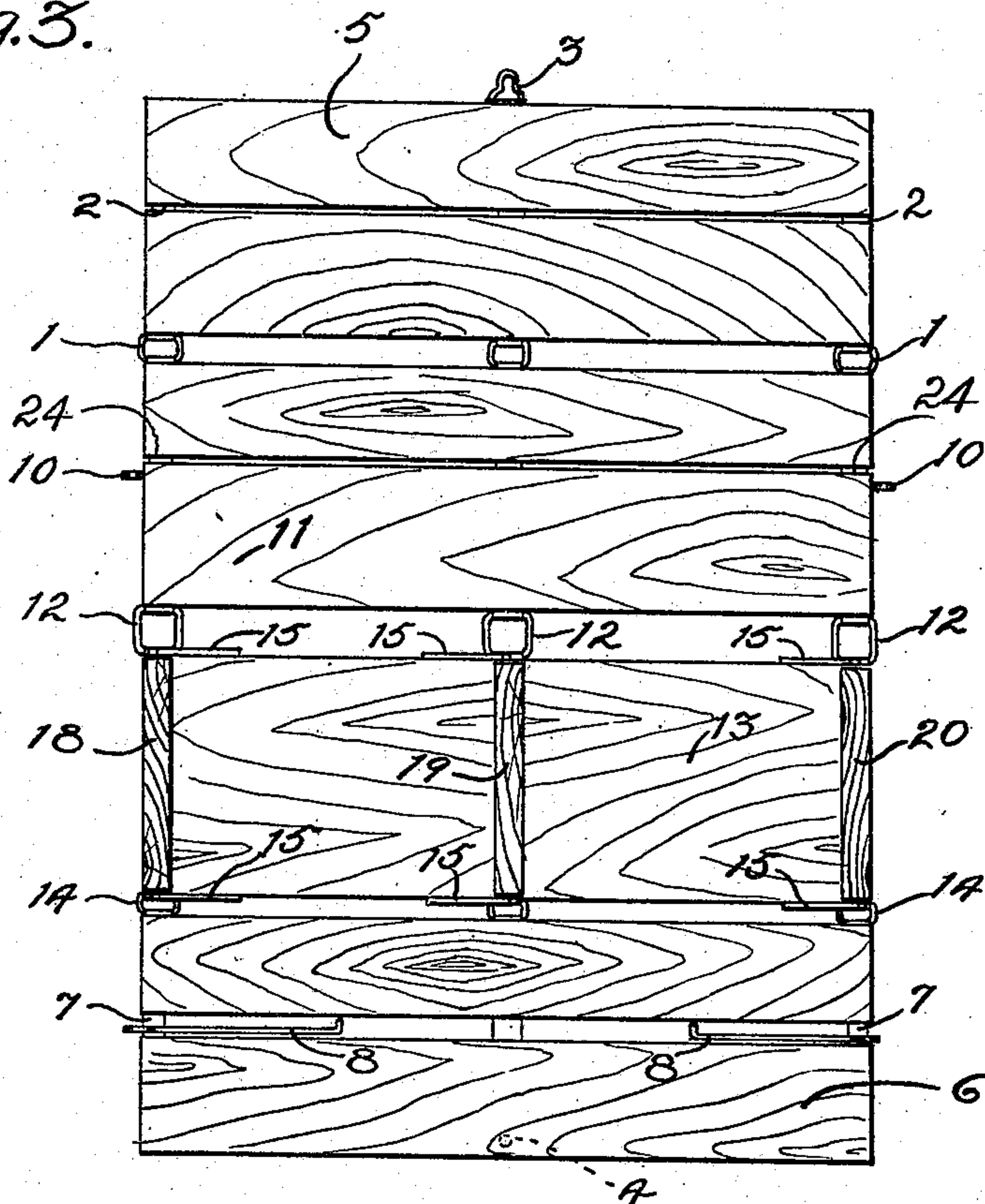
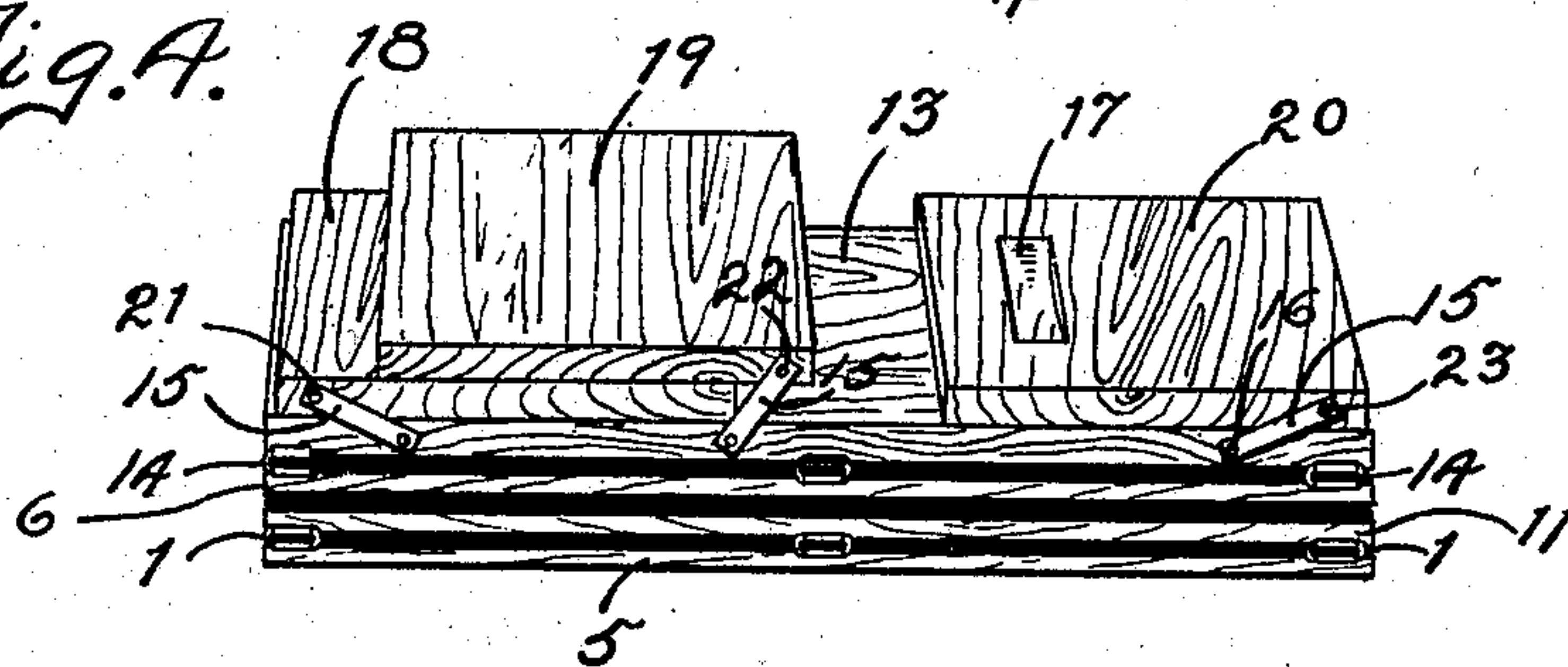


Fig. 7.



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UNITED STATES PATENT OFFICE.

CHUB A. SMITH, OF WATERLOO, IOWA.

KNOCKDOWN CRATE.

No. 911,276.

Specification of Letters Patent.

Patented Feb. 2, 1909.

Application filed August 12, 1908. Serial No. 448,234.

To all whom it may concern:

Be it known that I, CHUB A. SMITH, a citizen of the United States of America, and a resident of Waterloo, Blackhawk county, Iowa, have invented certain new and useful Improvements in Knockdown Crates, of which the following is a specification.

My invention relates to knockdown crates, and the object of my improvement is to provide a crate for fruit or other merchandise or materials, which will not only be simple and cheap in construction, but will also be so arranged in its foldable parts and their arrangement relative to each other when knocked down for return transportation after emptying, that it will be useful and an advance on other forms of crates now in use. This object I have accomplished by the means which are hereinafter fully described and claimed, and which are illustrated by the accompanying drawings, in which:

Figure 1 is a perspective of my improved crate as set up and secured together for holding merchandise. Fig. 2 is a side elevation of said crate showing the cover lifted and the right-hand side section laid down. Fig. 3 is a plan view of said crate, showing it with its cover and sides laid out flat but the ends and transverse partition in a vertical position. Fig. 4 is a perspective of said crate when knocked down for transportation.

Similar numbers refer to similar parts throughout the several views.

I am aware that various descriptions of knockdown crates have been heretofore invented and used, but I find that as a rule they are expensive to construct and somewhat complicated in construction.

I have designed by my invention to return to a simple form, of small cost, and easy to manipulate in setting up or knocking down.

The bottom 13, as well as the ends 18 and 20, and the transverse partition 19, is constructed of one piece of material. The sides 11 and 6 are constructed of two boards in parallel each, spaced apart and secured together by parallel metallic bands 24 and 7 respectively. The cover 5 likewise is formed of two parallel boards, spaced apart, but secured together by the parallel metallic straps 2.

The transverse pieces 18, 19 and 20 are secured to the base 13 by means of pivoted

straps 15 on each side, secured pivotally by screws or nails 21, 22 and 23 at the tops of said straps respectively to said transverse pieces and by similar pivots 16 at the lower ends of the straps and the edges of the base-board 13. This form of hinge restricts the movement outward of the ends 18 and 20 beyond a vertical plane, but affords scope for their inward movement to slide smoothly upon the board 13 when knocked down, and also permits the transverse piece 19 to lie over on either one of said end-pieces, as indicated in Fig. 4. A different form of hinge is used with which to connect together the top and sides to each other and to the base-board 13. The top or cover 5 is hinged to the left-hand side 11 by double short link hinges 1. The right-hand side 6 is hinged to the base-board 13 by similar hinges 14, but the left-hand side 11 is hinged to said base-board by double long link hinges 12, for a purpose to be described. The end-pieces 18 and 20 have hand-holds grooved out of their outer sides, as shown at 17.

When the crate is set up and filled, it may be secured together in the following manner. The numeral 3 designates a hook or loop at the right-hand end of the middle strap 2 of the cover 5, adapted to be caught and secured over a stud 4 projecting outwardly from the upper part of the middle strap 7 of the right-hand side 6. The ends 18 and 20 are secured by means of the rods 8, one at each end. One end of each rod is hooked to engage a screw-eye or loop 10 on the edge of the side-piece 11, while the other end of each rod is hooked and adapted to be sprung into a hole 9 in one of the end straps 7 of the side 6.

The crate is knocked down by removing the hook or loop 3 from over the stud 4, then springing the hooks of the end-rods 8 from the holes 9. The right-hand side 6 may then be turned to lie under the base-board 13, the top 5 and side 11 then being folded outwardly upon each other and then turned under the side 6, this being facilitated by the use of the long link hinges 12. The ends 18 and 20 are then laid over upon the said baseboard, and finally the transverse partition 19 is turned over upon either of said end-pieces.

It will be seen that, taken together, the crate is very simple in construction, and easily knocked down or set up as desired.

Having described my invention, what I

claim as new, and desire to secure by Letters Patent, is:

1. A knockdown crate, composed of a base, sides, ends, top and a transverse partition, the ends and transverse partition being pivotally linked to the base by connecting-straps, means for preventing the ends from swinging outwardly beyond a vertical plane when the crate has been set up, one side of said crate being hinged to said base by double short link hinges, the other side being hinged to said base by double long link hinges, the top being hinged on one side only to one of said sides by double short link hinges, and means for detachably securing said top to the other side after the crate has been set up.

2. A knockdown crate, composed of a base, ends, sides, top and transverse partition, the ends and partition being each formed of a

single piece, the top and sides being formed of slats spaced apart and secured to transverse straps, connecting-straps pivotally connecting the ends and also the partition with said base, double short link hinges connecting one of the sides with the base and connecting the top on one side only with one of the sides, double long link hinges connecting the other side with the base, detachable fastening means connected between the top and one of said sides, and detachable rods having hooked ends passed over said ends and having their hooks detachably secured to both of said sides.

Signed at Waterloo, Iowa, this 25th day of July, 1908.

CHUB A. SMITH.

Witnesses:

O. D. YOUNG,

G. C. KENNEDY.