

No. 816,629.

PATENTED APR. 3, 1906.

J. J. WHITE.  
KNOCKDOWN BOX.  
APPLICATION FILED JAN. 5, 1905.

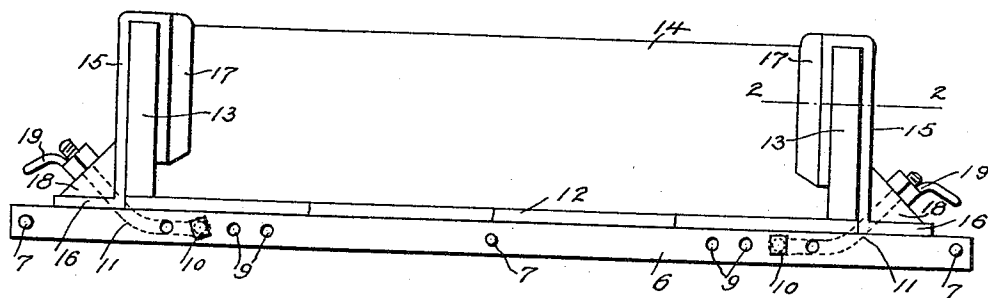


FIG. 1.

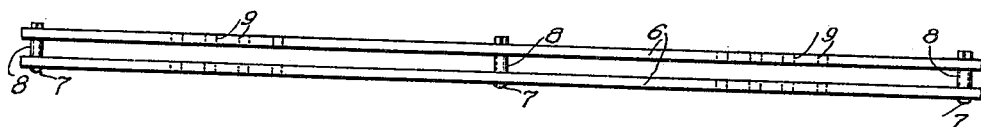


FIG. 4.

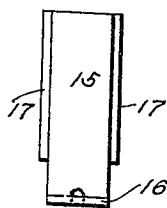


FIG. 3.

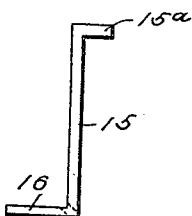


FIG. 5.

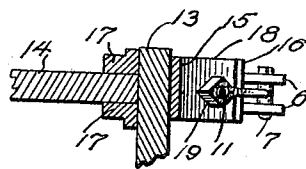


FIG. 2.

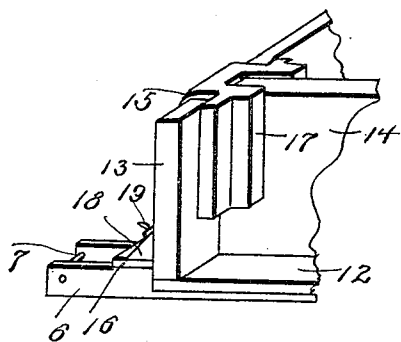


FIG. 6.

Witnesses

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# UNITED STATES PATENT OFFICE

JAMES J. WHITE, OF CHICAGO, ILLINOIS.

## KNOCKDOWN BOX.

No. 816,629.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed January 5, 1905. Serial No. 239,744.

*To all whom it may concern:*

Be it known that I, JAMES J. WHITE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Knockdown Boxes, of which the following is a specification.

This invention is a device particularly suitable for supporting and clamping together the boards of a mortar-box, although it is applicable to other kinds of boxes.

The object of the invention is to dispense with the use of nails and to provide means by the use of which a knockdown mortar-box may be set up quickly wherever and whenever desired and the box may be readily knocked down for transportation.

An ordinary box is unwieldy and not capable of convenient transportation. By the use of the device herein described the planks and fixings to form a box may be readily carried in small space.

In the accompanying drawings, Figure 1 is an end view showing a box provided with the invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a rear elevation of one of the clamps. Fig. 4 is a plan view of one of the sills. Fig. 5 is a side elevation of a form of the clamp suitable for the middle of the box. Fig. 6 is a perspective showing one of the corner-clamps.

Referring specifically to the drawings, the box is set up on as many sills as may be necessary, each of which consisting of a pair of spaced bars 6, held together by bolts 7 and spaced apart by sleeves 8 upon the bolts. The bars have near each end a series of holes 9 to receive bolts 10, whereby the clamping-screws 11 are attached to the sills. A series of holes are provided to allow the clamps to be set at different distances apart, so as to vary the width of the box.

The bottom planks of the box are indicated at 12, the side planks at 13, and the end planks at 14.

Each corner-clamp comprises a plate 15, having at the bottom a foot 16, which rests on the bars 6, and at the top an overhanging and depending pair of arms 17, forming a bracket adapted to support the side and the end planks. The side planks are placed in the bracket between the body 15 and the arms 17, and the end planks are fitted in be-

tween the arms 17. At the angle formed by the junction of the body and the foot is a triangular block 18, the inclined face of which receives the pressure of a hand-nut 19 on the screw 11. The bracket and block have openings to let the screw through, and the screw is curved to the proper degree to extend through the hole.

For use at the middle of the side planks of the box the depending arms are omitted, the bracket being as shown in Fig. 5, the body 15 having an overhanging part 15<sup>a</sup> to rest on the top edge of the plank. The clamping means are the same as those above described.

In use the floor of the box is laid on the sills and the side and end planks are inserted in the brackets, and by means of the screws the parts are drawn together tightly. The brackets hold the side and end planks in upright position and at a close joint with each other and with the bottom planks. To knock down the box, it is simply necessary to loosen the clamps, after which the planks can be separated and conveniently piled for transportation.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a knockdown box, in combination, sills, a bottom, sides and ends thereon, and clamps fastened to the sills and having arms which engage and support both the sides and ends of the box.

2. A corner-joint support for knockdown boxes, comprising a bracket having at the bottom a projecting foot and at the top overhanging and depending arms spaced from the body of the bracket and from each other and arranged to receive and support the sides and ends of the box in said spaces.

3. In a knockdown box, in combination, sills, bottom and side boards resting thereon, and clamps fastened to the sills and extending up on the outer side of said side boards and over the top and down on the inner side thereof, substantially as described.

4. The combination with the bottom, and side boards of a box, of sills under the box, and brackets clamped to the sills, having an upright body portion on the outer side of the side boards, and spaced arms depending on the inner side thereof, between which arms the ends of the adjoining side boards fit.

5. A knockdown box having sills, support-

ing-brackets for the sides and ends of the box,  
resting upon the sills, and inclined screws  
connected to the sills under the box and ex-  
tending outwardly and upwardly through  
5 the brackets and constructed to bind the  
brackets to the sills.

In testimony whereof I have signed my

name to this specification in the presence of  
two subscribing witnesses. ~~-----~~

JAMES J. WHITE.

Witnesses:

DENNIS CLEARY,  
WM. J. ROBINSON.