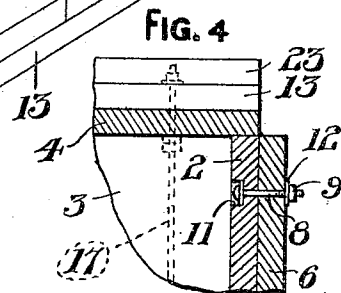
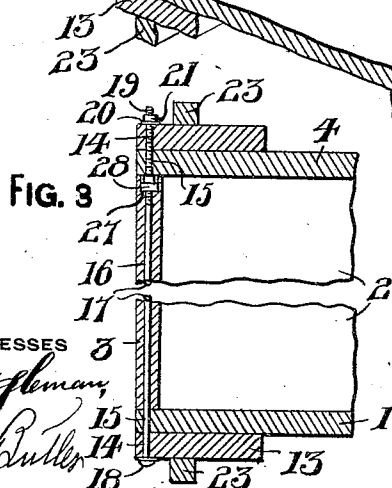
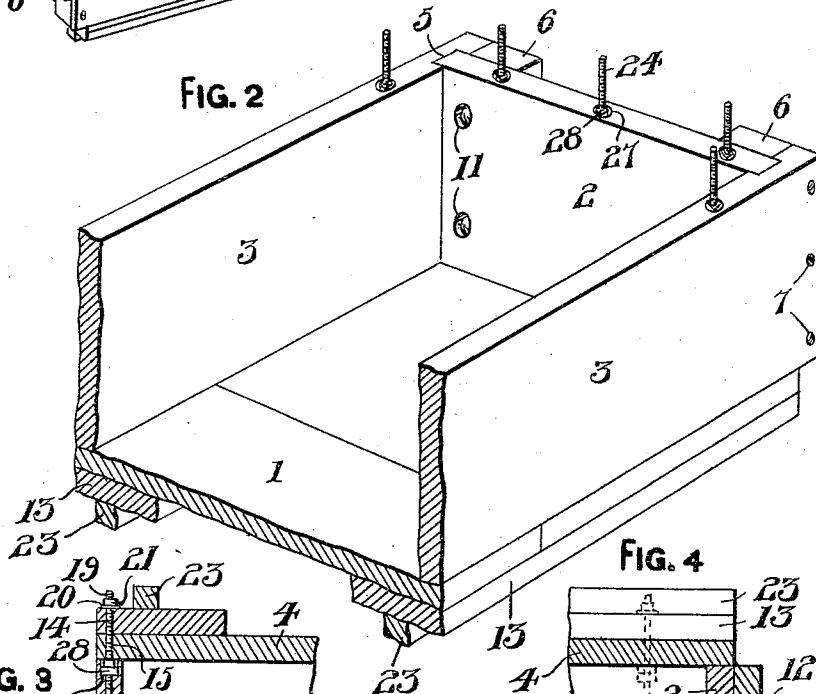
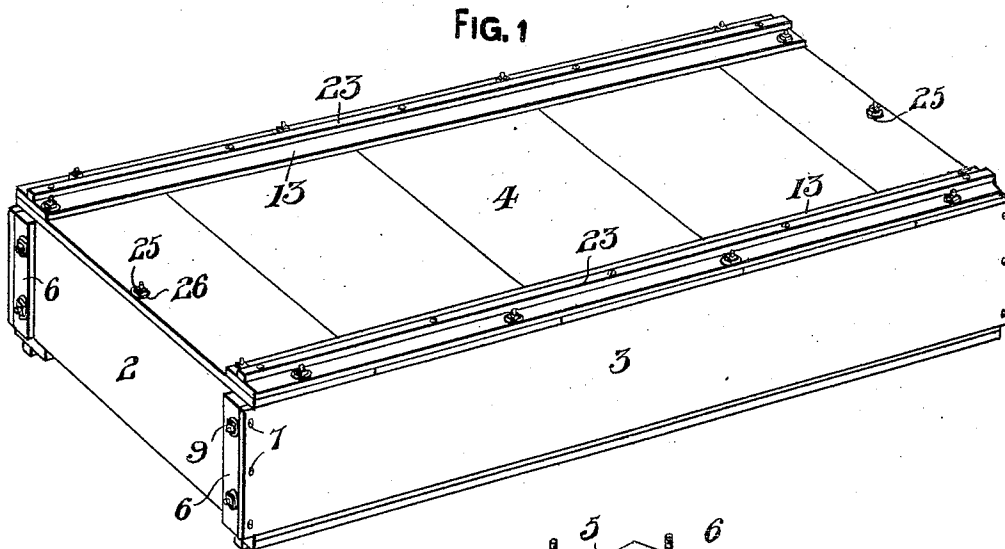


F. L. HAMILTON.
 KNOCKDOWN BOX.
 APPLICATION FILED JULY 29, 1912.

1,061,068.

Patented May 6, 1913.



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KNOCKDOWN BOX.

1,061,068.

Specification of Letters Patent.

Patented May 6, 1913.

Application filed July 29, 1912. Serial No. 712,004.

To all whom it may concern:

Be it known that I, FRANK L. HAMILTON, a citizen of the United States of America, residing at Ford City, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Knockdown Boxes, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to knock-down boxes, and the primary object of the invention is to provide a knock-down box or container adapted for the shipment of plate glass, which when set up presents a rigid structure capable of withstanding rough usage to which it is subjected during transportation and at the same time protecting the contents thereof.

Although the invention is designed primarily for use in connection with the shipment of plate glass yet it is to be understood that it can be used for any purpose wherein it is found applicable.

A further object of the invention is to provide a knock-down packing box having the end walls thereof reinforced in a manner to insure a strong and durable structure to protect the contents of the box.

Further objects of the invention are to provide a knock-down box which is comparatively simple in its construction and arrangement, strong, durable, readily set up and conveniently knocked down, efficient in its use, being unusually compact when knocked down and comparatively inexpensive to manufacture.

With the foregoing and other objects in view the invention consists of the novel construction, combination and arrangement of parts to be hereinafter more specifically described and illustrated in the accompanying drawing, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawing:—Figure 1 is a perspective view of a knock-down box in accordance with this invention, Fig. 2 is a perspective view broken away with the cover removed, Fig. 3 is a longitudinal sectional view broken away, and Fig. 4 is a longitudinal sectional view broken away of one corner of the box.

A box in accordance with this invention comprises a bottom 1 formed of a series of abutting sections, preferably wood, of a desired thickness, end walls 2 formed of one piece of material, side walls 3 formed of one piece of material and a cover 4 formed of a series of abutting sections.

The confronting faces of the side walls 3 in proximity to each end thereof, are provided with vertically extending grooves 5, for the reception of the end walls 2 which are mounted upon the bottom 1. Secured to the inner faces of the side walls 3 at the ends thereof are vertical strips 6 which constitute supports for the end walls 2. Hold fast devices, such as screws, as indicated at 7 are employed for securing the strips to the ends of the side walls 3. The strips 6 are also secured to the end walls 2 by bolts 8 and nuts 9. The heads of said bolts 8 are countersunk, as at 11 in the inner faces of the end walls 2. Interposed between the nuts 9 and the strips 6 are washers 12. The sections of the bottom 1 as well as the sections of the cover are secured together by longitudinally extending cleats 13, these latter being flush with the longitudinal edges of the bottom 1 and the cover 4. The outer portion of each of the cleats 13 is provided with a row of openings 14 which register with openings 15 formed in the bottom and cover, the openings 15 registering with vertically disposed openings 16 formed in the side walls 3. Extending through the openings 14, 15, 16 are tie rods 17 having their lower ends formed with heads 18 which abut against the cleats 13 and have their upper portions threaded, as at 19 and projecting above the cleats 13. Mounted upon the threaded upper ends of the tie rods 17 are washers 20 and nuts 21. Secured to each of the cleats 13 is a longitudinally extending bar 23 which prevents damage to the nuts 21 or heads 18 when the box is transported or when several of the boxes are superposed one upon the other. The bars 23 constitute what may be termed spacing means between two or more boxes when built one upon the other. By setting up the side walls with respect to the cover 4 and bottom 1 it is obvious that they can be readily knocked down when occasion so requires.

The end walls 2 are connected to the cover and bottom by vertically disposed tie rods

24 which are provided with nuts 25 and washers 26. The tie rods 24 are formed with heads which abut against the bottom 1.

To readily hold the side and end walls 5 of the bottom 1 prior to the positioning of the cover the top edges of said walls are formed with pockets 27 in which are positioned nuts 28 carried by the threaded ends of the tie rods. The nuts 28 engaging the 10 bottom of the pockets 27 bind the side and end walls against the bottom and prevent the side and end walls from becoming loose when the box is placed upon its side to be 15 packed prior to the securing of the cover in position.

From the foregoing construction and arrangement of parts it is obvious that the elements of the box can be easily and quickly 20 assembled and disassembled and that when the elements of the box are disassembled they can be packed in a compact manner and can be returned to the original shipper in a knocked down condition at a comparatively small rate for transportation. It is also ob- 25 vious that a knock-down box in accordance with this invention can be repeatedly used for the transporting of plate glass or other kinds of merchandise and it is also obvious that the box can be made of various sizes 30 and proportions.

What I claim is:—

1. A knock-down box comprising a detachable bottom, side walls, end walls, and 35 a cover, said walls having their top edges provided with pockets and further provided with vertical openings extending from the lower edge thereof and opening into said

pockets, vertical bolts extending through said bottom, said openings, said pockets, and through and projecting above the cover, 40 means mounted upon the upper portions of the bolts and lying in said pockets for fixedly securing said walls to the bottom prior to the securing of the cover in position, and nuts mounted upon the projecting ends of 45 the bolts and engaging the cover for securing the latter to said walls.

2. A knock-down box comprising a detachable bottom, side walls, end walls, and a cover, said walls having their top edges 50 provided with pockets and further provided with vertical openings extending from the lower edge thereof and opening into said pockets, vertical bolts extending through said bottom, said openings, said pockets, and 55 through and projecting above the cover, means mounted upon the upper portions of the bolts and lying in said pockets for fixedly securing said walls to the bottom prior to the securing of the cover in position, nuts 60 mounted upon the projecting ends of the bolts and engaging the cover for securing the latter to said walls, and strips secured to the outer face of the cover and lying adjacent to the upper ends of the bolts and 65 the nuts mounted thereon to protect said nuts and the upper ends of the bolts.

In testimony whereof I affix my signature in the presence of two witnesses.

FRANK L. HAMILTON.

Witnesses:

BENJ. WATROUS,
D. A. GOLDMAN.