No. 786,398. PATENTED APR. 4, 1905.

F. O. ANDERSON.

KNOCKDOWN DRAWER.

APPLICATION FILED JULY 21, 1904.

Fig. 1.

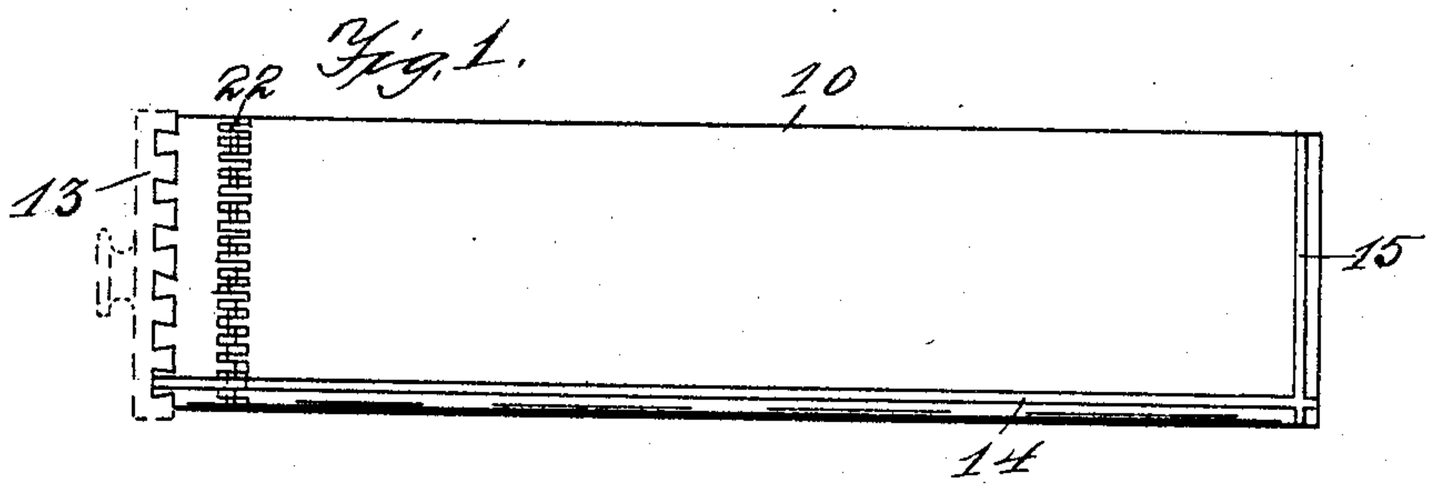


Fig 2

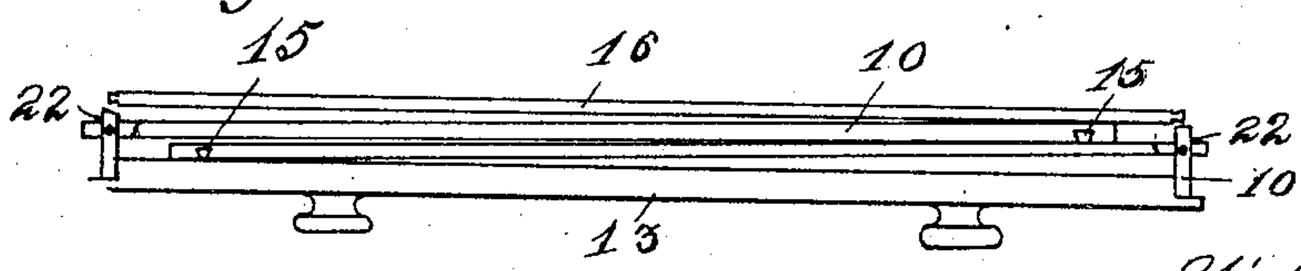


Fig 5

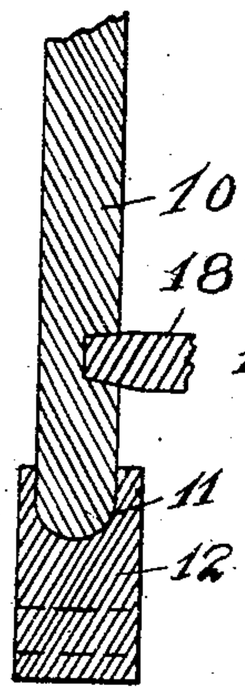


Fig. 3.

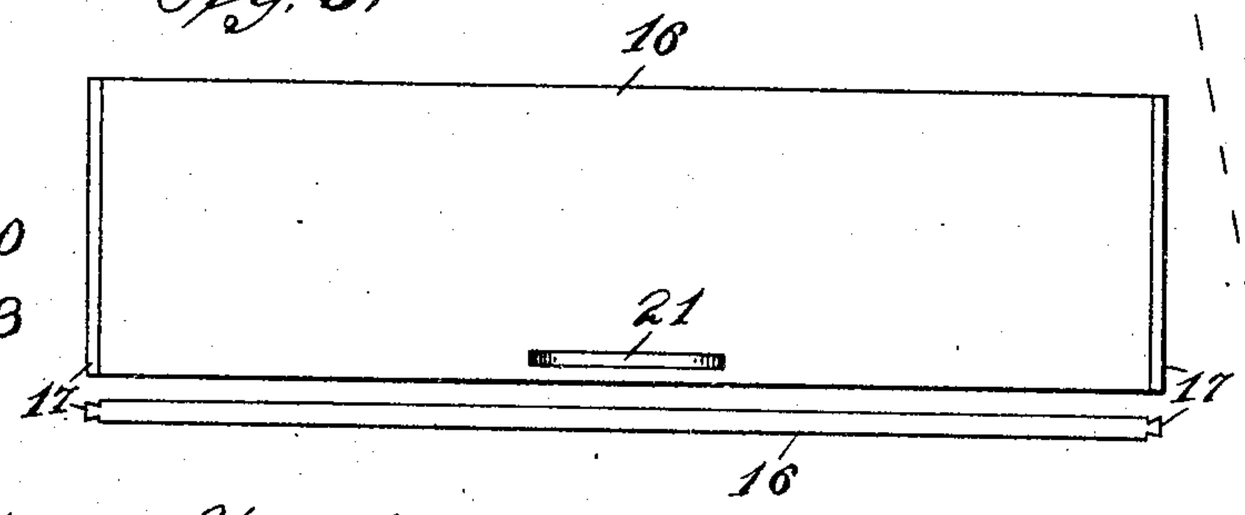


Fig. 6.

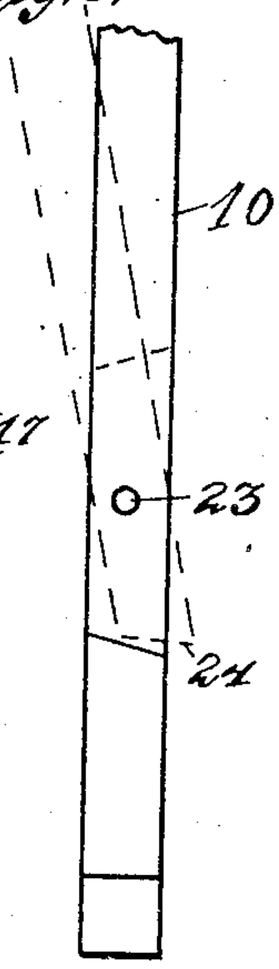


Fig. 4

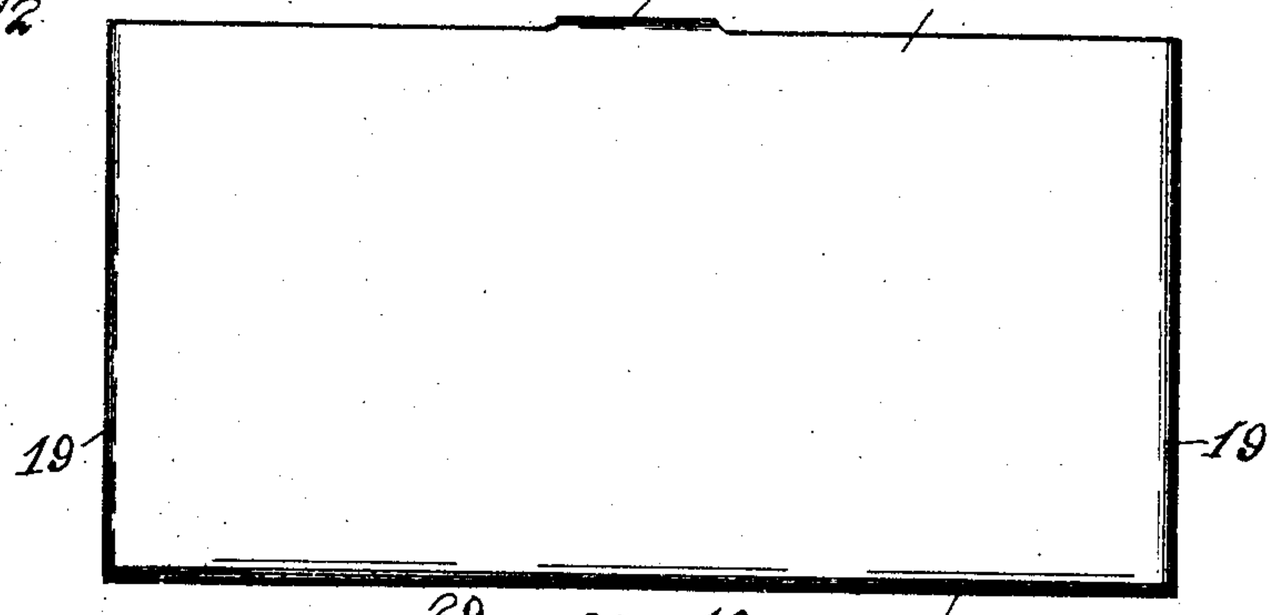
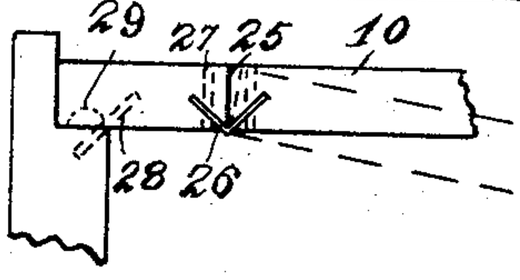


Fig. 7.



Witnesses

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No. 786,398. Patented April 4, 1905.

UNITED STATES PATENT OFFICE.

FRANK O. ANDERSON, OF JAMESTOWN, NEW YORK.

KNOCKDOWN DRAWER.

SPECIFICATION forming part of Letters Patent No. 786,398, dated April 4, 1905.

Application filed July 21, 1904. Serial No. 217,544.

To all whom it may concern:

Be it known that I, FRANK O. ANDERSON, a citizen of the United States, residing at Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Knockdown Drawer, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The invention relates to the construction of folding drawers for knockdown furniture; and the object of my improvement is to make a drawer which can be easily knocked down or set up and locked in the set-up form without the use of additional means—such as hooks, nails, screws, and the like—for securing the parts in position.

In the drawings, Figure 1 is an elevation of the inner side of a drawer end with the drawer-front in dotted line and showing the groove for the drawer-bottom, the dovetailed groove for the drawer-back, the dovetailed attachment to the drawer-front, and the tongued, grooved, and pinned hinge in the drawer end. Fig. 2 is a plan view of a folded drawer without the bottom board. Fig. 3 is an elevation of the inner side of the drawer-back and an edgewise view of the same, showing the dovetail-shaped ends. Fig. 4 is a plan view of the drawer-bottom, showing the locking projection on the rear edge. Fig. 5 is a sectional view of a lower corner of the drawer end and bottom and the drawer-support, the main portion of the drawer being broken away. Fig. 6 is a plan view of the upper edge of the drawer end at the hinge, showing my preferred form of hinge with the bevel-ended meshing tongues. Fig. 7 is a plan view of a portion of the drawer end and front, showing modification of the hinged construction.

Similar numerals refer to corresponding parts in the several views.

The numeral 10 indicates the drawer end, which is made with a rounded lower edge 11 to work in my drawer-support 12, which drawer-support is preferably made after this form, as shown in my former Letters Patent, No. 702,389. This is not absolutely necessary, for any good form of support would sustain my drawer; but this form allows of complete freedom for lateral displacement or removal. Drawer end 10 is dovetailed to the drawer-front 13 in the usual manner. A groove 14 is cut near its lower edge for the drawer-bottom, and a dovetail-shaped groove 15 is provided at the rear end for securing the back 16 and the rear corners of the drawer. The two ends 17 of drawer-back 16 are cut in dovetail form to fit groove 15, so that the back 16 can be easily slipped into the opposite grooves 15 on the inner side of the drawer end.

Drawer-bottom 18 is formed with chamfered front and end edges 19 to fit corresponding grooves 14 in the drawer ends and front. The rear edge of bottom 18 has a projection 20 to engage a slot 21 in drawer-back 16. Drawer-bottom 18 is made just the size desired for the drawer when set up, so that by springing drawer-back 16 outwardly sufficient to allow projection 20 to enter slot 21 the drawer is locked securely in the set-up form.

In order to fold a drawer, it is apparent that the drawer ends 10 should fold inwardly onto the drawer-front. Accordingly a hinge 22 is provided in the drawer end preferably a short distance from the drawer-front, so that the inwardly-folded parts of the drawer ends can fold within the same. The drawer-back 16 is placed against the folded parts, and the drawer so assembled can be placed in its regular drawer-opening in the frame, suitable provision having been made for knocking down said frame. The hinge 22 is preferably made with tongue-and-grooved parts which fit one another, as shown, and a pin 23 is inserted down through the center of these intermeshing parts. This form of hinge is preferred, because it is simple, does not take any space outside of the regular drawer end, and is strong and durable, not weakening the drawer. The ends 24 of the intermeshing tongues are preferably made at a slight angle, as shown in Fig. 6, so that when the inwardly-folding part of the drawer end comes out into line with the part attached to the

drawer-front it is stopped, and in consequence the back 16 is held more firmly in place in grooves 15.

In Fig. 7 is shown two modifications of hinged joint 22, which are neither of them as good as hinge 22, but which would serve a good purpose in folding in drawer end 10.

First. The drawer end 10 is made in two parts with abutting ends at 25, and a malleable sheet-metal V-shaped piece 26 is inserted in clefts in the two parts, so that the angle comes at the line 25. The sheet-metal piece 26 is held in place by suitable rivets 27, and it is apparent that the malleable sheet metal will bend at the angle, allowing of the folding of the drawer for shipment and the setting of it up again.

Second. Substantially the same idea is shown at 28, wherein a sheet-metal strip is inserted in the drawer end and drawer-front across the angle of their abutment. In this latter modification, however, the drawer end cannot be dovetailed onto the drawer-front, but a tenon 29 is provided on the end of the drawer-front which fits a corresponding mortise on the drawer end 10, and this tenon 29, in combination with the metal piece 28 across the angle of the joining of the two parts, form a fairly-strong joint, and it is apparent that the entire side can be folded inwardly by the bending of the malleable sheet-metal strip 28.

I claim as new—

1. The combination in a folding drawer, of a suitable drawer-front, drawer ends attached to the said front having hinges therein to fold inwardly, and a drawer bottom and back slidably mounted in suitable supporting-grooves in said ends.

2. The combination in a folding drawer, of a suitable drawer-front, drawer ends attached to the said front and having a tongue-and-grooved bisection in each end and pins passing through said intersecting tongues and grooves to form hinges to fold the rear part of the drawer end inwardly, and a drawer bottom and back slidably mounted in suitable supporting-grooves in said drawer ends.

3. The combination in a folding drawer, of a drawer-front, drawer ends having hinges therein to fold inwardly, a drawer-back having dovetail-shaped ends and opposite dovetail-shaped grooves in the drawer ends to slidably receive said drawer-back, and a drawer-bottom slidably mounted in a supporting-groove in said end.

4. The combination in a folding drawer, of a drawer-front, drawer ends attached thereto having hinges therein to fold inwardly, a drawer back and bottom slidably mounted in suitable supporting-grooves in said ends, a projection on said drawer-bottom, and the drawer-back provided with an opening for said locking projection.

5. The combination in a folding drawer, a drawer-front 13, drawer ends 10 dovetailed to the front 13 and having a tongue-and-grooved bisecting hinge 22 with pivot-pin 23 and angular ends 24, a drawer-back 16 having dovetail-shaped ends 17 to slidably engage opposite dovetail-shaped grooves 15 in drawer ends 10, and a drawer-bottom 18 having a projection 20 to engage a locking-slot 21 in drawer-back 16, substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK O. ANDERSON.

Witnesses:
LOUIS B. BROWN,
S. ARTHUR BALDWIN.