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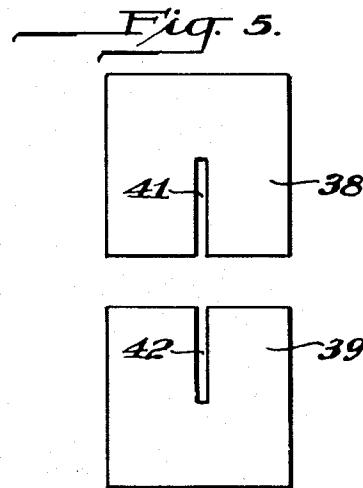
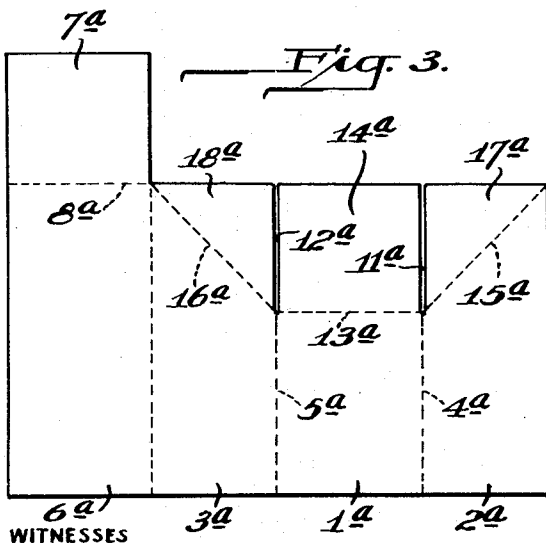
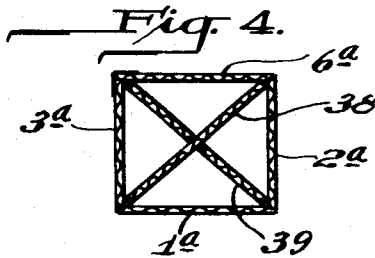
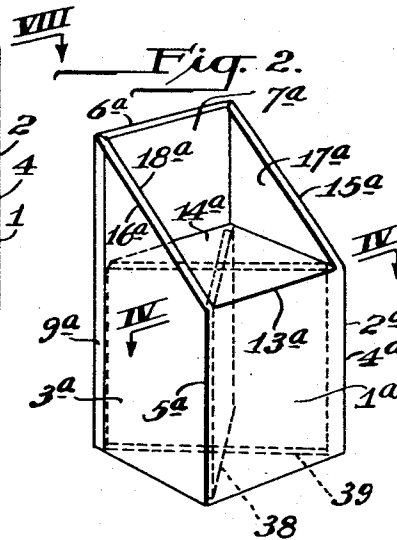
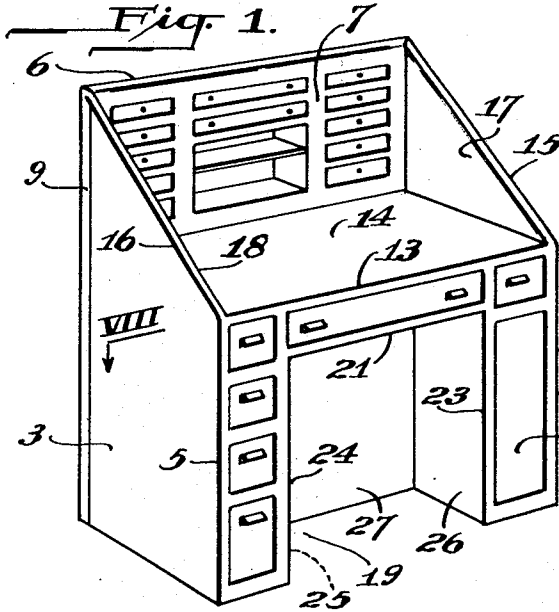
E. J. LAUTH ET AL

1,930,173

COLLAPSIBLE FURNITURE TOY

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2 Sheets-Sheet 1



WITNESSES
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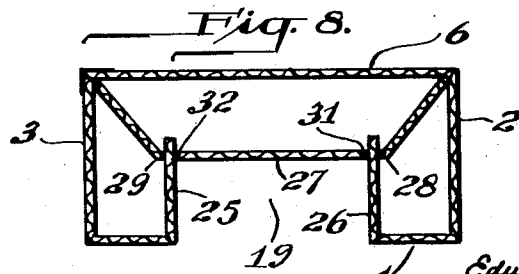
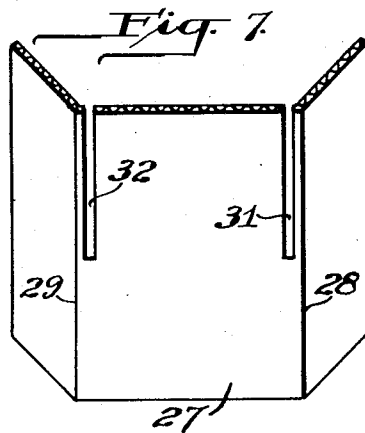
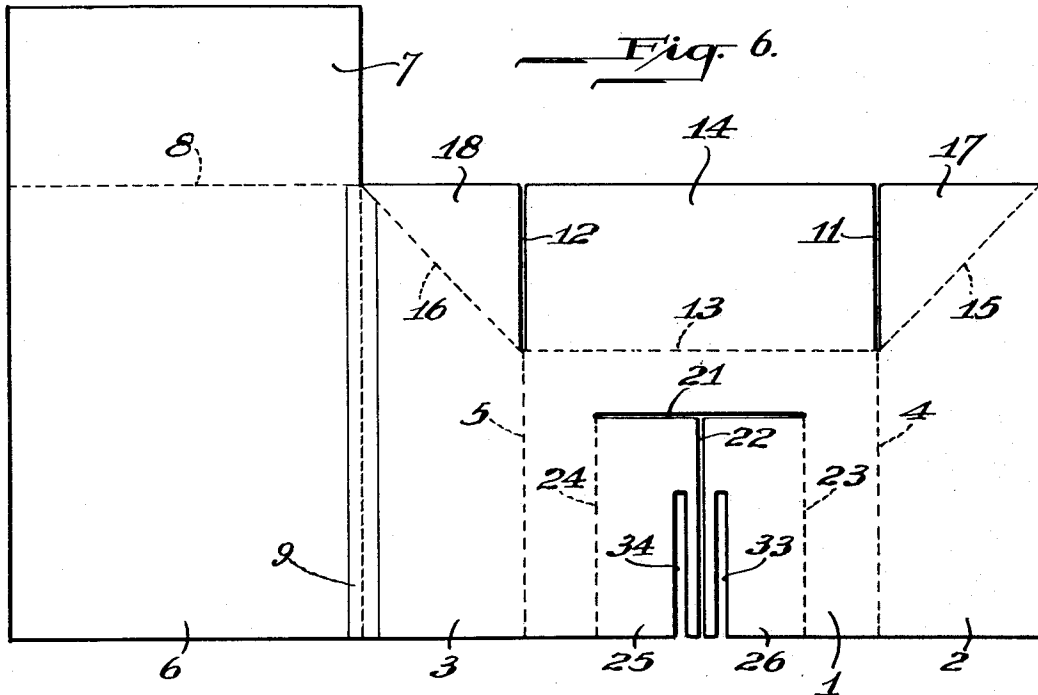
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2 Sheets-Sheet 2



WITNESSES

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UNITED STATES PATENT OFFICE

1,930,173

COLLAPSIBLE FURNITURE TOY

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Application June 8, 1933. Serial No. 674,857

7 Claims. (Cl. 46—37)

This invention relates to a collapsible structure adapted to be used either as a stand on which merchants can display packaged commodities, or as a light form of furniture intended more particularly as a toy for children, although not necessarily so limited.

An object of the invention is to provide a structure of this character made of corrugated paperboard, fiberboard, or material of that character, which is light, simple and inexpensive to manufacture, and both attractive in appearance and sturdy and durable of construction.

Another object is to provide a structure embodying the aforementioned characteristics which may be completely constructed at the source of manufacture in such a form as to be most easily assembled and stored or shipped to the user in the flat so as to require a minimum amount of space for such purposes.

These and various other objects, as well as the various other novel features and advantages of the invention, will be apparent when the following detailed description is read in conjunction with the accompanying drawings, in which Fig. 1 is a perspective view of a completely assembled embodiment of the invention having the shape of a writing desk; Fig. 2 a view similar to Fig. 1 of an embodiment of the invention having the shape of a chair; Fig. 3 a plan view of a blank out of which the structure shown in Fig. 2 is formed; Fig. 4 a horizontal section taken on the line IV—IV of Fig. 2; Fig. 5 an exploded view of the parts comprising the spacer member arranged in the base of the structure shown in Figs. 2 and 4; Fig. 6 a plan view of an assembled blank cut and creased ready for assembly to form the structure shown in Fig. 1; Fig. 7 a perspective view of the spacing member which is mounted in the base of the desk-shaped structure shown in Fig. 1; and Fig. 8 a horizontal section taken on the line VIII—VIII of Fig. 1.

It is more particularly intended, as stated above, that the invention will be practiced by embodying it in structures made of corrugated paperboard, fiberboard, cardboard or the like, and all such materials are contemplated wherever reference is had to any of them either in the specification or in the appended claims. As illustrated in Figs. 1, 6, 7 and 8, a desk-shaped structure is provided in accordance with the invention which is made out of several blanks of corrugated board which are cut and creased in such a manner as to permit their being easily and readily assembled and in a similar fashion collapsed or disassembled for storage or shipment.

While as will be readily appreciated by those skilled in the art a single blank, or various numbers of different shaped blanks, may be used to form the frame proper of the desk, in the particular structure illustrated two separate rectangular shaped blanks are employed for this purpose. The larger of these, as shown, includes a front wall 1 and a pair of side walls 2 and 3 which are disposed on opposite sides of the front wall, being divided therefrom by vertical creases 4 and 5, respectively. In the other blank there is provided a back wall 6 and a flap 7 which is formed on the upper end by a crease 8 for a purpose which will presently appear. This back wall to complete the frame is attached to the rear edges of the side walls 2 and 3 in a manner to permit folding by any suitable means such as strips of adhesive tape 9.

To provide a top for the desk the upper ends 11 and 12 of the creases 4 and 5 between the side and front walls are cut to a depth equal to the width of the side walls 3 and 4, and a crease 13 is impressed in the blank between the lower ends of these cuts to form a folding section 14 which is adapted to fold into the structure and function as the top of the desk.

The upper ends of the end walls 2 and 3 which are the same length as the back wall 6 are used as end enclosures above the top of the desk in the manner of a roll-top desk, and to render these smooth and sturdy creases 15 and 16 are formed in them which extend from the bottoms of the cuts 11 and 12 to the rear upper corners of such walls, thus forming triangular flaps 17 and 18 which are adapted to fold inwardly upon the side walls 2 and 3, as shown in Fig. 1. It is to hold these flaps in their folded position, as well as to give greater strength to the back wall 6, that the flap section 7 is provided on the upper end of the back wall 6, such flap being adapted to fold into the front of the desk and engage the edges of the flaps 17 and 18. To in turn hold this back flap in place, it is made sufficiently long to be engaged by the foldable section 14 on the upper end of the front wall 1 when the latter is folded into place to form the top of the desk.

In order to provide a knee space 19 in the front of the desk a horizontal cut 21 is made in the mid-section of the front wall 1 at a distance below the top of the desk surface which is equal to about the depth of the usual drawer located at such point in a regular desk. From the center of this cut a vertical cut 22 is extended to the bottom of the front wall, and vertical creases

23 and 24 are impressed in such wall at the ends of the horizontal cut 21. This provides a pair of door-like flaps 25 and 26 which are adapted to fold inwardly at right angles into the structure as shown in Figs. 1 and 8. To hold these latter flaps in position when the desk is assembled, and to also provide means for supporting the top-forming flap 14 against downward displacement, as well as means for assisting in preventing the structure from collapsing when set up, a spreader 27 is provided which comprises a rectangular piece of material having a height equal to the height of the desk top and a length which adapts it to be folded so as to both engage the flaps 25 and 26 and allow its ends to be extended into the rear corners of the structure to hold it in shape. To permit its being folded in such a fashion as to accomplish these results two creases 28 and 29 spaced apart a distance equal to the hinge-forming creases 23 and 24 of the flaps 25 and 26 are provided in it, and to hold such flaps in place slots 31 and 32 are cut in the upper ends of the creases 28 and 29 to engage a pair of cooperating slots 33 and 34 provided in the lower ends of the outer edges of the flaps 25 and 26.

To assemble the desk, assuming the wall portions and the spreader are cut and creased in the manner described above, and that the wall sections are joined together, the walls are first expanded to the shape of a rectangle, the door-shaped flaps 25 and 26 then folded inwardly, and the spreader 27 placed in the base of the desk to engage such flaps and hold the structure expanded. Next, the triangular flaps 17 and 18 on the upper ends of the side walls 2 and 3 are folded inwardly upon such walls and the flap 7 provided on the top of the back wall 6 then folded in upon the back wall, locking the side wall flaps in place. Finally, the top-forming flap 14 is folded inwardly to a horizontal position where it engages the back wall flap 7 as well as the lower edges of the side wall flaps 17 and 18 and rests upon the upper end of the spreader 27 which sturdily holds it in such position.

Referring to Figs. 2, 3 and 4, a chair-shaped embodiment of the invention is illustrated which differs from that above described desk-shaped structure only in that it is made from a single blank and no provision is made in it for a knee space in the front of the structure, and in that a spreader 35 is utilized which is formed of two parts 38 and 39 instead of one. As shown in Figs. 4 and 5, these parts are of similar shape, being provided with slots 41 and 42 in their centers which adapt them to be assembled in the form of the letter X and to be mounted in the base of the structure with the ends thereof projecting into the corners of the chair and the top-engaging cover flap 14 which in this embodiment constitutes the seat of the chair. For simplicity, the same characters, except for the addition of the suffix *a*, have been applied to the various parts of this structure corresponding to the similar parts of the previously described structure.

As will be appreciated by those skilled in the art, these structures are exceedingly simple and inexpensive to manufacture as well as assemble, and at the same time are provided with very substantial mechanical strength rendering them very adequately strong for the various uses for which they are intended. Furthermore, they are adapted to be rendered particularly attrac-

tive by the addition of simple decorations such, for example, as shown in Fig. 1, where imitation drawers and doors are painted on the front of the structure to make it look more realistic. A particular purpose for which such structures may be used is as a counter or window display, with the desk and chair supporting the goods being displayed, and such pieces in the way of children's toys held out as a prize or premium to the customers purchasing such goods.

According to the provisions of the patent statutes, I have explained the principle and mode of operation of my invention, and have illustrated and described what I now consider to represent its best embodiment. However, I desire to have it understood that, within the scope of the appended claims, the invention may be practiced otherwise than as specifically illustrated and described.

I claim:

1. A piece of collapsible furniture comprising a rectangular shaped housing foldable at its corners and having a rear wall of greater length than its front wall, side walls which taper upwardly from the front wall to the top of the rear wall, a top wall supported horizontally within all of said walls at the elevation of said front wall, and means in the base of the housing for holding said top wall in place.

2. A piece of collapsible furniture comprising a rectangular shaped housing foldable at its corners and having a rear wall of greater length than its front wall, side walls which taper upwardly from the front wall to the top of the rear wall, a top wall supported horizontally within all of said walls at the elevation of said front wall, and means in the base of the housing for holding said top wall in place and preventing said housing from collapsing.

3. A piece of collapsible furniture comprising a rectangular shaped housing foldable at its corners and having a rear wall of greater length than its front wall, side walls the upper front corners of which are foldable inwardly upon themselves along lines extending from the top of the front wall to the top of the rear wall, a foldable section attached to the rear wall adapted to fold inwardly upon the back wall and engage the edges of said side wall corners when folded upon themselves, and a foldable section attached to the front wall adapted to fold inwardly and form a top surface covering the space between said walls.

4. A piece of collapsible furniture comprising a rectangular shaped housing foldable at its corners having a rear wall of greater length than its front wall, side walls the upper front corners of which are foldable inwardly upon themselves along lines extending from the top of the front wall to the top of the rear wall, a foldable section attached to the rear wall adapted to fold inwardly upon the back wall and engage the edges of said side wall corners when folded upon themselves, a foldable section attached to the front wall adapted to fold inwardly and form a top surface covering the space between said walls and hold said rear wall folding section in folded position, and means disposed in the base of the assembly adapted to hold the side walls in position and the top wall against downward vertical displacement.

5. A piece of collapsible furniture made in the shape of a desk, comprising a rectangular shaped housing foldable at its side corners and having a front wall of lesser length than its rear, side walls which are tapered at their upper ends from the

front wall to the top of the back wall, a foldable section attached to one of said walls at the elevation of the front wall and adapted to form a cover for the space between said walls, a pair of foldable door-like sections cut out of the mid-section of said front walls in spaced relation to said cover section, and a support member mounted in the base of the desk to hold said front-wall folding sections in a position to form a knee space in the desk and hold said top wall in a horizontal position.

6. A piece of corrugated paperboard furniture made in the shape of a desk comprising a rectangular shaped housing having a front wall of lesser length than its rear, a pair of side walls equal in length to said back walls which have their upper front corners folded inwardly upon themselves on lines extending from the top of the front wall to the top of the back wall, a foldable section attached to the front wall and adapted to be folded to form a cover for the space between all of said walls, a foldable section at the top of the back wall adapted to be folded upon the back wall and to be engaged by said top wall when folded to place, a pair of foldable door-like

sections in said front wall, and a support and spreader member arranged in the base of said housing to hold said door-like folding sections in a position to form a knee space in the desk, hold said top wall in a horizontal position, and prevent said housing from collapsing.

7. A collapsible chair comprising a rectangular shaped housing foldable at its corners and having a rear wall of greater length than its front wall and side walls the upper front corners of which are folded inwardly upon themselves along lines extending from the top of the front wall to the top of the rear wall, a foldable section attached to the rear wall adapted to fold inwardly upon the back wall and engage the edges of said side wall corners when folded upon themselves, a foldable section attached to the front wall adapted to fold inwardly to a horizontal plane and form a seat for the chair, and a collapsible X-shaped spreader adapted to fit in said housing below said seat to hold it in position and prevent the housing from collapsing.

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