

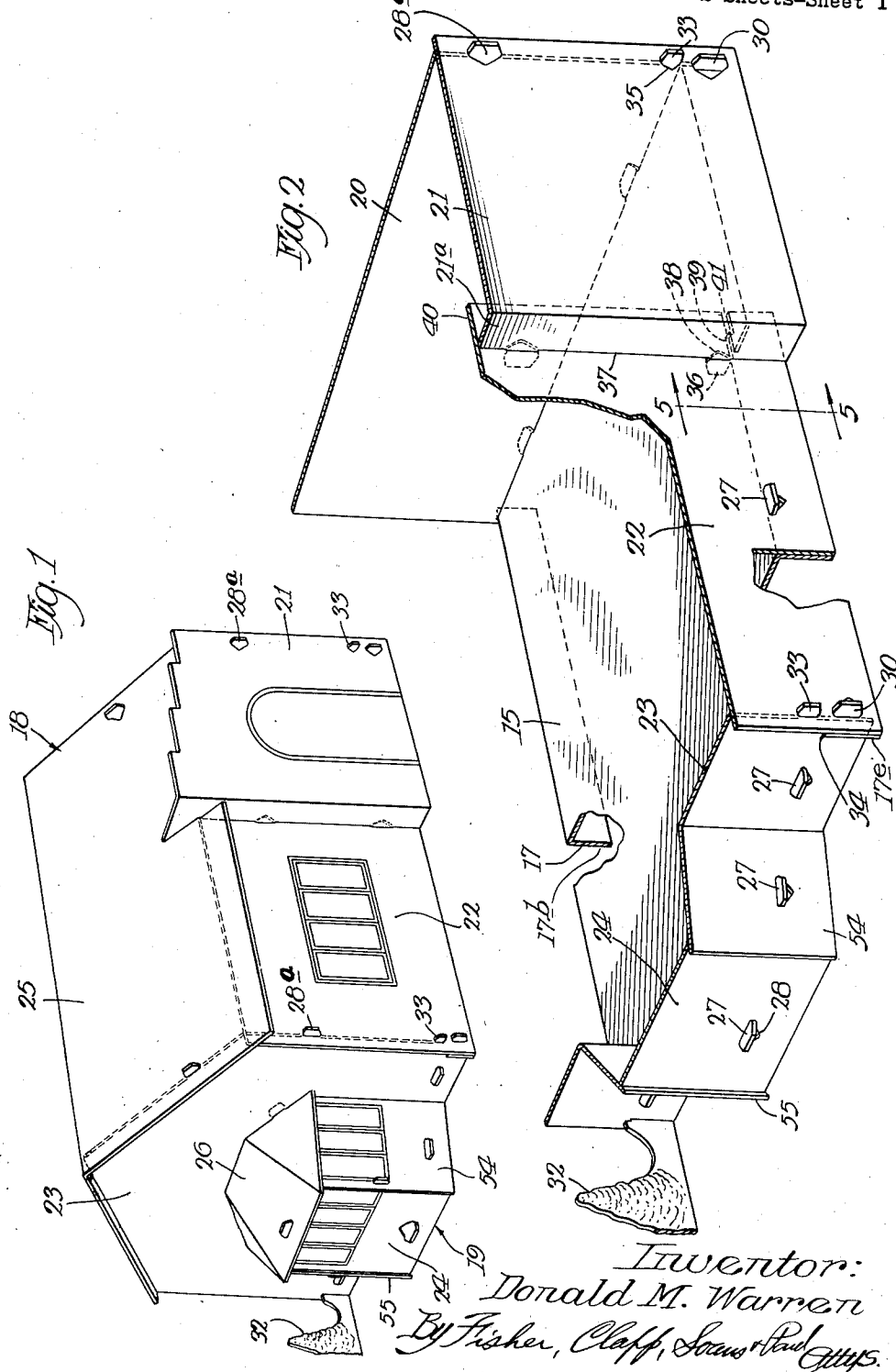
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TOY STRUCTURE

2,204,264

Filed Feb. 19, 1938

2 Sheets-Sheet 1



Inventor:
Donald M. Warren
By Fisher, Clapp, Soames & Paul, Attys.

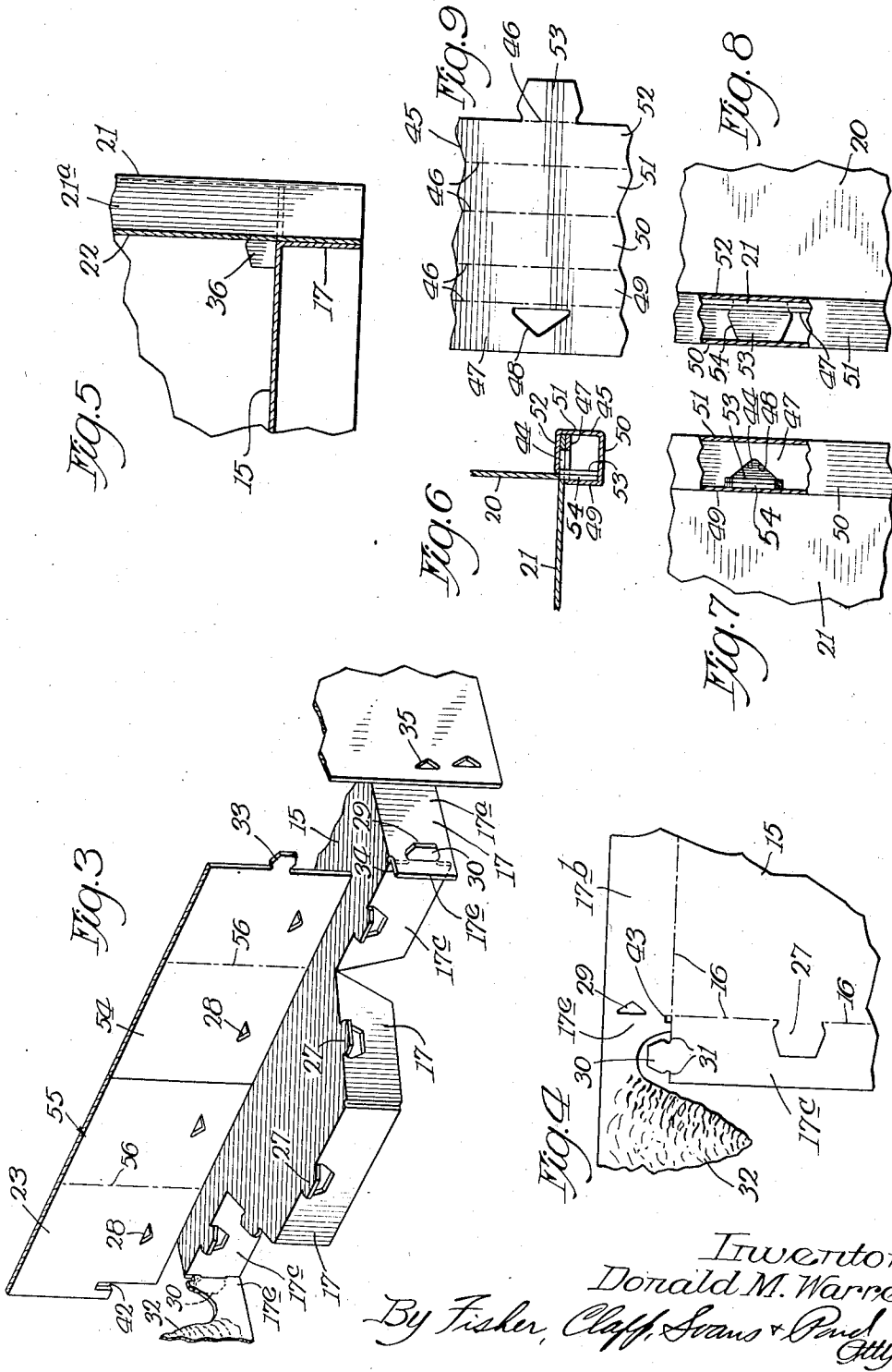
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Attys.

UNITED STATES PATENT OFFICE

2,204,264

TOY STRUCTURE

Donald M. Warren, La Fayette, Ind.

Application February 19, 1938, Serial No. 191,422

9 Claims. (Cl. 46—21)

This invention relates to improvements in a toy structure and more particularly to improvements in the construction of such toys as paper-board doll houses and other forms of toy buildings. The invention also contemplates improvements adaptable to the construction of toy articles which represent only a single room.

The main objects of the invention are to provide a structure which may be sold in a collapsed condition and which may be easily and quickly set up into a house or room by a young child; to provide a structure which, when set up, is rigid and will remain in set-up condition and the parts of which will not fall apart incident to the reasonable handling of the structure; and to provide a structure which may be collapsed to a flattened condition in which it may be conveniently and practicably packaged in an envelope instead of the usual, more expensive, box.

Other objects of the invention are to provide a structure wherein various connecting elements employed may be substantially concealed thereby to improve the appearance of the structure; to provide a structure which may be made economically and at low cost so as to be adapted to be retailed at relatively low prices; and in general it is the object of the invention to provide an improved toy structure of the class described.

Other objects and advantages of the invention will be understood by reference to the following specification and accompanying drawings wherein there is illustrated a toy structure embodying a selected form of the invention.

In the drawings:

Figure 1 is a perspective illustrating a setup doll house embodying a preferred form of the invention.

Figure 2 is a fragmentary perspective illustrating some of the details of the construction employed in the doll house shown in Figure 1.

Figure 3 is a fragmentary exploded perspective view illustrating the relationship of certain parts of the structure shown in Figures 1 and 2.

Figure 4 is a fragmentary plan of a portion of a base member showing certain details of the construction.

Figure 5 is a section on the line 5—5 of Figure 2.

Figure 6 is a plan section illustrating one arrangement for concealing certain connections shown in the structure of Figure 1.

Figures 7 and 8 are fragmentary front and side views of the elements shown in Figure 6, and

Figure 9 is a fragmentary plan of a blank in

flat condition and which is folded and applied to the corner construction to form the concealed arrangement shown in Figures 6, 7 and 8.

This application is in part a continuation of my pending application Serial No. 135,358.

Referring now to the drawings:

The structure shown in Figures 1 to 5, inclusive, embodies a base member 15 which is preferably formed of paperboard and of such thickness as will afford the desired stiffness and strength. The base member, when in collapsed condition, is a flat sheet equipped with scores or creases constituting fold lines such as indicated at 16 in Figure 4, which permit the bending of marginal portions of the base member to downwardly folded position, in which they constitute flanges 17—17.

As shown in Figure 1, the structure embodies a main house portion 18 and an auxiliary portion 19 which in this instance is shown as in the form of a bay window or sunporch.

The walls of the house herein shown comprise an end wall 20, front wall members 21 and 22, an end wall member 23, an end wall member 24, and there are roof members, 25 for the main house structure and 26 for the bay window.

The walls may be connected to the base or floor 15 through the agency of tongues such as indicated at 27, which project from the edges of the floor part 15. As best shown in Figure 3, the tongues 27 are cut out of the adjacent flange-forming portions 17 and it is preferable that the normal stiffness of the floor member 15 be maintained in said tongues and in the connection between said tongues and the floor member proper, wherefore the fold lines 16 are preferably omitted across the width of the tongues. Hence when the flange portions 17 are bent downwardly the tongue elements 27 will remain in their co-planar relation to the floor part 15. The wall parts are provided with openings such as indicated at 28 (Figure 3) for engaging said tongues 27, said tongues and openings preferably being of the type shown in my Patent No. 1,984,666. Such tongues effect a sort of snap locking action which effectively retains the parts in connected relation but permits separation when desired.

The walls may be connected to each other through similar tongue and opening connections such as shown at 28^a and the roof elements 25 and 26 may also be attached by such tongue and opening connections to the adjacent edge portions of the walls on which the respective roof portions rest.

When a base is formed as above explained, i. e., by bending down integrally marginal portions to form the depending flanges, there will normally remain sufficient resiliency in the paperboard stock to urge the flange portions to return to their unfolded or flatwise position relative to the main floor portion 15. Such tendency is, of course, resisted by the surrounding walls but it is preferable that additional means be provided for resisting such tendency. For that purpose, certain of the depending flanges, in this instance the front and rear flanges marked 17-a and 17-b, are provided with end extensions marked 17-e and adjacent their ends said flanges are provided with openings such as indicated at 29.

The openings 29 in the front and rear flanges are adapted to receive tongues 30 which project from the adjacent ends of the end flange members such as indicated at 17-c in Figures 3 and 4. It will be seen that when the end flanges such as 17-c are folded downwardly, the front and rear flanges 17-a and 17-b, respectively, may be folded downwardly so as to cause the openings 29 therein to fit over the respective end tongues 30 to cooperate therewith to lock said floor and rear flanges in their downwardly extending position against the end edges 21. The described connection also obviously serves to prevent the end flanges from unfolding.

Where such end extensions as 17-e would be conspicuous, as for example at the rear of the structure such as shown in Figure 1, such end extensions may advantageously be enlarged and shaped and printed or lithographed to represent any suitable object or ornamentation, for example a shrub such as indicated at 32.

In order to increase the rigidity of the structure, it is desirable to provide additional connections between the various parts for preventing buckling of the different elements and separation thereof. As shown herein, one such additional connection may consist in the provision of a tongue such as indicated at 33-33 on the front edges of the end walls 20 and 23. Such tongues, in this instance, are only about one-half the width of the other tongues shown and they are so located that their bottom edges engage the top edge portions 34 of the flange extensions 17-e (see Figure 3). The front walls 21 and 22 are provided with suitable openings such as indicated at 35 for receiving the tongues 33, as clearly shown in Figures 1 and 2. It will be observed that the tongue 33 serves the purpose of supplementing a connection between the tongues 30 and respective front wall portions 21 and 23.

A tongue 36 (similar to the tongues 33) is provided on the inwardly facing edge 37 of a front wall part 21-a which extends inwardly from the front wall part 21 and abuts the outside of the front wall part 22. The latter front wall part is provided with a suitable opening indicated at 38 for receiving said tongue 36. The relationship of the tongue 36 and the opening 38 is such that the upper edge of the tongue will lock in the opening 38 and such that the lower edge of the tongue, herein shown to be straight, will bear on the top of the floor member 15 to prevent the latter from rising or warping upwardly.

For additionally holding the front wall member 22 in assembled relation to the base, the latter is provided with a notch such as indicated at 39 substantially in continuation of the edge of the base element against which the wall element 22 is positioned. The inner end 40 of said wall ele-

ment 22 is extended sufficiently beyond the front wall part 21-a to project into said notch and if desired said end portion 40 may be still further extended and provided with a notch indicated at 41 for embracing portions of the floor member 15. It will be observed that the entrance of the wall portion 22 into the notch 39 will serve the purpose of preventing the wall 22 from buckling away from the edge of the base and that the entrance of a portion of the wall 15 into a notch such as 41 in the wall will serve to position the floor effectively.

In some instances toy structures such as herein shown are left open to permit access to the interior of the structure for the arrangement of toy furniture, et cetera, within the house. In some such cases the end walls are provided with extensions adapted to fold inwardly over the end portions of the rear flange 17 to hold it in downwardly folded position. In the present instance the structure is illustrated as being free of any such inwardly extending back wall forming portions, thereby providing freer access to the interior of the structure. To supplement the tongue opening connections 30-29, which holds the end back flanges 17-c and 17-b in their depending position, the end walls are extended at their rear edges so as to permit the provision of a notch such as indicated at 42 which is adapted to receive the thickness of the end extension 17-e of the rear flange 17-b. As best shown in Figures 3 and 4, the said end extension 17-e may also be provided with notches such as indicated at 43 adapted to receive the thickness of the end walls such as 23, thereby to lock the latter more effectively against the end flanges 17-c.

As shown in Figures 4, the provision of a tongue and opening connection 29 and 30 between the flange portions 17-b and 17-c requires the employment of some of the paperboard stock which would otherwise be cut away in forming the base unit. Hence, if an ornamental representation such as 32 is to be provided, it will either have to be of a very small object which can be made of the material located in the corner immediately beyond the end of the tongue 30 or it will have to be made by employing some material beyond the normal edges of the blank required for forming the base structure.

For concealing the connections between various parts, different expedients may be resorted to. By way of example there is shown in Figures 6 to 9, inclusive, one arrangement for concealing the connections between the ends of adjacent walls such as the walls 20 and 21. When the connections are to be concealed, it is preferable that the openings, such as indicated at 44 (Figures 6 and 7) which receive the tongues such as at 54 be so located that they are outward of the tongues when the parts are connected. The opening 44 and the tongue 54 in Figures 6 and 7 correspond respectively to the openings in the wall 21 and the tongues which enter said openings from the front edge of the end wall 20 to form, in Figure 2, the tongue and opening connection 28a. A corner concealing member 45 is suitably scored or creased to provide fold lines such as indicated at 46 to permit the member 45 to be folded to the substantially tubular corner post forms shown in Figures 6 to 8. In applying the member 45, one marginal portion 47 is equipped with suitable openings such as indicated at 48 to fit the tongues 54 and said marginal portion is first locked or buttoned on the tongues

54, said marginal portion overlying the end portion of the front wall 21 beyond or outwardly of the tongues 54. The member 45 is then bent forwardly to cause a portion 49 thereof to extend forwardly inside of the tongues 54, a portion 50 is bent to extend outwardly in parallel relation to the front wall 21, a portion 51 is bent to extend rearwardly in parallel relation to the end wall 20, and the other marginal portion 52 is bent to extend inwardly in parallel relation to the front wall 21 and in contact with the rear side of the end portion thereof as clearly shown in Figure 6. Tongues such as indicated at 53 are provided on the edge of the portion 52 and are adapted to be bent and inserted into the openings 44 and 48. The corner concealing member 45 may be applied after the house structure is erected in its entirety but it does not interfere with the disassembling of the house which may be effected in the usual manner merely by pulling the part, such as end wall 20, away from the front wall 21, whereupon the tongues 53 of the corner concealing member will be loose in the openings 44 and 48, and be readily removable therefrom.

It will be apparent that the corner concealing element 45 may be made of relatively thin stock since it need not withstand any material stresses or strains.

Similar concealing means may also be employed for concealing the connections between the floor member 15 and the side walls, such concealing means being in effect substantially represented by Figure 6 if the member 20 represented the floor and the member 21 an up-standing side wall.

As shown in Figures 1, 2 and 3, the bay window structure comprises an end wall portion 24 constituting a separate element suitably connected to the adjacent parts of the structure and front and back wall portions 54 and 55, which are made integral with the end wall 23 and adapted to be folded outwardly along suitable fold lines such as 56. Suitable slits are provided for permitting such front and back wall portions to be folded outwardly as indicated.

In the structure disclosed, the floor for the bay window or sunporch extension and the main house portion is a single integral element, as distinguished from separate connected elements such as have been heretofore employed in structures embodying main and auxiliary sections such as referred to. The employment of an integral floor element for the structure eliminates weaknesses and increases rigidity so as to eliminate to a considerable degree commercial objections to paper doll houses and like toy structures.

As indicated, the outside of the structure may be suitably printed or embossed to illustrate windows, doors and the like for ornamental purposes. Likewise, the interior may be appropriately ornamented to represent suitable fittings, et cetera.

Changes in the described structure may be made without departing from the spirit of the invention, the scope of which should be determined by reference to the following claims, the same being construed as broadly as possible consistent with the state of the art.

I claim:

1. A toy structure having main and auxiliary house parts, the latter constituting a reduced size portion projecting from the former, said structure comprising a floor member for the

main house part, an extension integral with said floor member and constituting a floor for said auxiliary house part, said extension having at least one edge extending from a point intermediate the ends of an edge of said floor member, and main and auxiliary house part walls, independent of the floor member and detachably secured against the edges thereof, said floor member being spaced upwardly from the plane of the lower edges of the wall member.

2. A toy structure comprising a flat paper-board member having a pair of side edges extending angularly relative to each other, said member being provided with fold lines spaced inwardly from said edges for facilitating folding of marginal portions of said member to flange-forming position on the member, one of said marginal portions having an end extension adapted to overlap the adjacent end of the other marginal portion when said portions are folded to said flange-forming position, said overlapping extension having an opening therein, a tongue projecting from said overlapped end and entering said opening for locking said marginal portions in said flange-forming position, and walls positioned against the faces of said flanges and connected to said member.

3. A toy structure comprising a flat paper-board member having a pair of side edges extending angularly relative to each other, said member being provided with fold lines spaced inwardly from said edges for facilitating folding of marginal portions of said member to flange-forming position on the member, one of said marginal portions having an end extension adapted to overlap the adjacent end of the other marginal portion when said portions are folded to said flange-forming position, said overlapping extension having an opening therein, a tongue projecting from said overlapped end and entering said opening for locking said marginal portions in said flange-forming position, and a wall part positioned against the face of the folded marginal portion having said opening, said wall part being provided with an opening adapted to receive said tongue for attaching said wall thereto.

4. A toy structure comprising a flat paper-board member having a pair of side edges extending angularly relative to each other, said member being provided with fold lines spaced inwardly from said edges for facilitating folding of marginal portions of said member to flange-forming position on the member, one of said marginal portions having an end extension adapted to overlap the adjacent end of the other marginal portion when said portions are folded to said flange-forming position, said overlapping extension having an opening therein, a tongue projecting from said overlapped end and entering said opening for locking said marginal portions in said flange-forming position, a wall part positioned against the face of the folded marginal portion having said end tongue, said wall part being provided with an edgewise extending tongue projecting over the end extension of said other folded marginal portion and engaging the upper edge thereof, and another wall part positioned against the face of said other folded marginal portion and having an opening for receiving said end tongue and another opening for receiving said edge tongue of the first-mentioned wall part.

5. A toy structure comprising a floor member, a wall member disposed adjacent an edge of

said floor member, and a second wall member extending outwardly from said first-mentioned wall member and having an edge disposed adjacent the face of said first-mentioned wall member, means for maintaining said floor member and first-mentioned wall member in substantially fixed relationship, and means for anchoring said second wall member to the face comprising a tongue extending inwardly from said edge of the second wall member, said first-mentioned wall member having an opening there-through for receiving said tongue, said tongue and opening being so positioned that said tongue engages said floor member.

6. A toy structure comprising a flat paper-board member having a pair of side edges extending angularly relative to each other, said member being provided with fold lines spaced inwardly from said angularly related edges for facilitating folding of marginal portions of said member to flange-forming position thereon, one of said marginal portions having an end extension projecting beyond the plane of the other when folded to said flange-forming position, a wall member adapted to be positioned against one of said flanges, connecting means for maintaining said wall member in assembled relation to said flanges and said flanges in folded flange

position relative to the normal plane of said member, said connecting means including at least in part said flange extension, and said extension being so shaped as to represent a selected object for decorative or like purposes substantially as described.

7. A toy structure of the class described comprising members interconnected through the agency of interfitting tongues and openings, and means for concealing such connections comprising a part substantially enclosing said connecting means and itself secured in place by engagement with said connecting means.

8. A toy structure comprising members interconnected through the agency of interfitting tongues and openings, and means for concealing such connections comprising an independent part foldable to form a substantially tubular element enclosing said connections, and means for detachably securing said part in place on the structure.

9. A toy structure of the class described comprising members interconnected through the agency of interfitting tongues and openings, and means attached to the structure for concealing said interfitting tongues and openings.

DONALD M. WARREN.