United States Patent

Kroll

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[54] EXPANDABLE DOLL HOUSE

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[51] **Int. Cl.** **A63h 33/00**

[58] **Field of Search** 46/21, 13, 19, 16, 17, 11, 46/12; 220/8

[56] **References Cited**

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[57] **ABSTRACT**

A multi-room expandable and contractible doll house includes a plurality of slideably telescoping room-defining sections movable between contracted nesting and extended end-to-end positions. Each section includes a roof formed of upwardly converging top panels, a floor panel, a rear panel and an inner end panel, corresponding longitudinal panels of adjacent sections being slideably engageable. At least one longitudinal slot is formed in each rear wall and a headed pin is fixed proximate the inner edge of each rear wall and engages the slot in an adjacent wall to limit the outward movement of the sections to slightly overlapping end-to-end positions. The outer edge of each section is provided with a depending flange which terminate at a common level.

4 Claims, 4 Drawing Figures

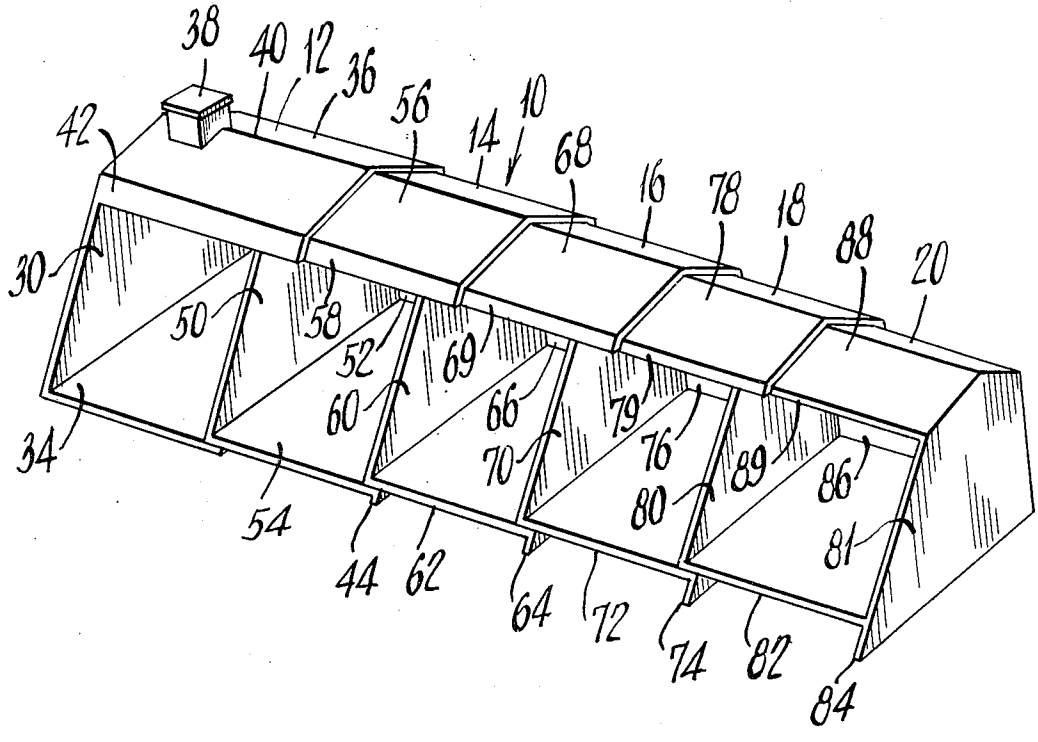


Fig. 1.

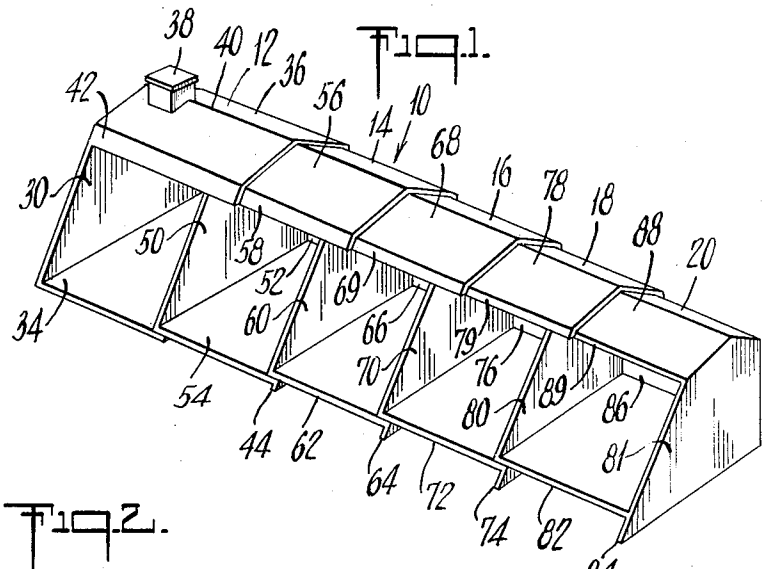


Fig. 2.

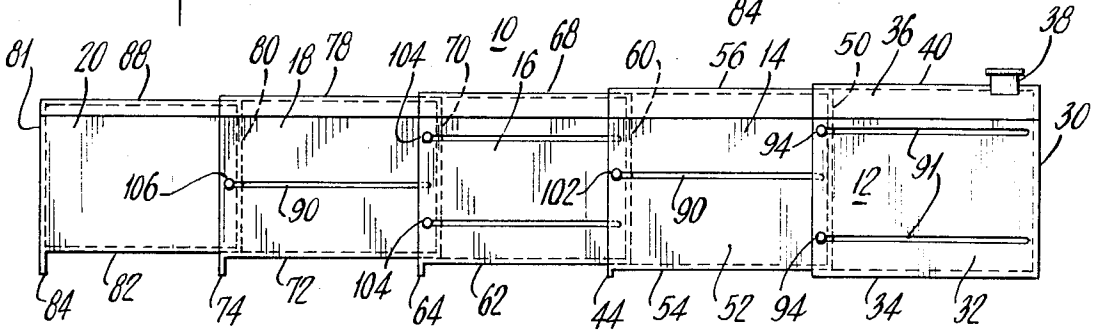


Fig. 3.

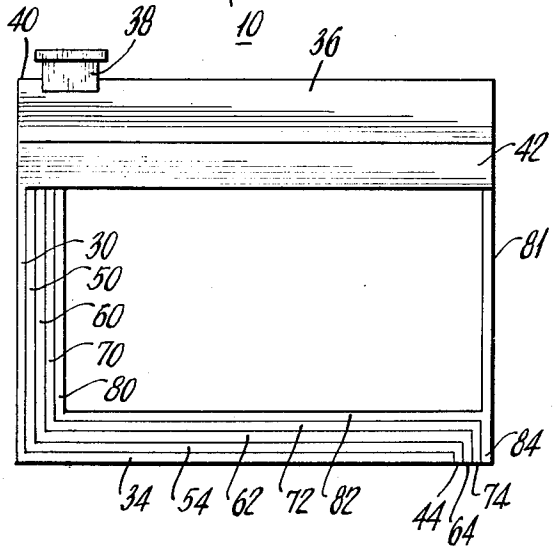
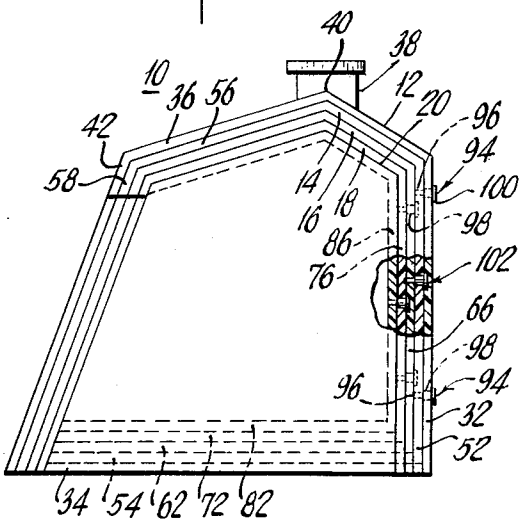


Fig. 4.



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EXPANDABLE DOLL HOUSE

BACKGROUND OF THE INVENTION

The present invention relates generally to improvements in toy doll houses and it relates particularly to an improved collapsible doll house.

The conventional doll house, particularly of the multi-room type and of a size which permits the positioning and arranging of reduced size furniture, furnishings and appliances therein is ordinarily a large and bulky device which occupies a large amount of space and is accordingly highly inconvenient. Many forms of collapsible doll houses have been proposed but these likewise possess numerous drawbacks and disadvantages. They are generally complicated, difficult and time consuming to erect and collapse, usually require a degree of skill not possessed by the child and otherwise leave much to be desired.

SUMMARY OF THE INVENTION

It is a principal object of the present invention to provide an improved doll house.

Another object of the present invention is to provide an improved collapsible and expandable multi-room doll house.

Still another object of the present invention is to provide an improved doll house which may be easily and rapidly collapsed to a compact condition and expanded to its extended condition and which obviates the need for separable connectors and fasteners.

A further object of the present invention is to provide a structure of the above nature characterized by its ruggedness, simplicity, ease of use, adaptability, attractive appearance and low cost.

The above and other objects of the present invention will become apparent from a reading of the following description taken in conjunction with the accompanying drawing which illustrates a preferred embodiment thereof.

In a sense, the present invention contemplates the provision of a collapsible doll house comprising a plurality of slideably telescoping successively smaller sections relatively longitudinally movable between an extended end-to-end position and a contracted collapsed condition wherein each of said sections nests in the next successive larger section, each of said sections comprising a bottom wall above the level of and slideable along the bottom wall of the adjacent larger section, a top wall below the level of and slideable along the top wall of the adjacent larger section, a rear wall extending between said top and bottom wall and disposed forwardly of and slideably along the rear wall of the adjacent larger section, and an end wall extending between said top and bottom walls and slidably registering with the adjacent larger sections, the front of each of said sections being open to provide access thereto.

According to a preferred form of the improved doll house of the present invention, each doll house section, except the smallest, has a longitudinal slot formed in its rear wall, the slots in adjacent walls being vertically offset, and each of the rear walls, except that of the largest section, has affixed thereto a headed pin whose shank slideably engages the slot in an adjacent rear wall, thereby to prevent the separation of the house sections while permitting their relative longitudinal movement.

A flange depends from the outer end edge of each house section except the largest and the flanges have bottom edges coplanar with the bottom wall of the largest house section. The smallest house section is provided with end walls at opposite ends thereof.

The improved doll house is collapsed merely by telescoping the several house sections into mutually nested positions and it is expanded merely by extending the house sections to the limit permitted by the interfitting slots and follower pins.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a perspective view of a preferred form of device constructed according to and embodying the present invention, and illustrated in expanded condition;

FIG. **2** is a rear elevation view thereof;

FIG. **3** is a front elevational view of the device in collapsed, telescoped condition; and

FIG. **4** is an end elevation view, partly n section, of the collapsed, telescoped device.

DESCRIPTION OF THE PREFERRED EMBODIMENT

The doll house of the present invention is indicated generally by reference numeral **10**, and includes a number of sections or individual room members, as base or main room **12**, intermediate rooms **14**, **16**, **18** and end room **20**. Main room **12**, as indeed all rooms, may be — and preferably is — formed as a unit, by moulding or casting of any suitable thermo-setting or thermo-plastic. Room **12** includes an outer end wall **30**, rear wall **32**, floor **34** and ceiling roof **36**. Ceiling roof **36** may be provided with a decorative chimney element **38**, projecting upwardly from the peak **40** of roof **36**. It will be readily understood, however, that the precise shape of the roof maybe altered without departing from the spirit of the invention. Roof **36**, at the front thereof, includes a downwardly extended flange or edge **42**, the reason for the presence of which will be developed below. There is no front wall to room **12**, nor is there any front wall provided for any other of the rooms, thereby to provide ready access to the interiors thereof for the placement of miniature furniture and furnishing elements and the like.

The adjacent room **14** is similarly shaped, but of such size and dimension as telescopically to nest and fit closely within room **12** when the house is collapsed into the position of FIGS. **3** and **4**. Thus, room **14** includes a side wall **50**, rear wall **52**, floor **54** and ceiling roof **56**, corresponding in shape to the side wall **30**, rear wall **32**, floor **34** and roof **36** of room **12**. Roof **56** is provided with a downwardly extending edge **58**, the frontal aspect of which is the same height as the rear face of edge **42** extending downwardly from the roof portion of room **12**. It will be appreciated that a complete room, except for the open front, will be defined by side walls **30**, **50**, floor **34**, rear wall **32** and ceiling roof **36**, side wall **50** serving as the leading wall of room **12** and side wall **30** serving as the trailing wall thereof. The leading end of room **14** is provided with a downwardly extended foot portion **44**, the height of which is equal to the thickness of floor **34** so that, when the rooms are extended to the position of FIGS. **1** and **2**, the floors will be at the same horizontal level.

In like manner, the leading edge of each of the successive rooms **16**, **18** and **20** is provided with a foot as **64**, **74** and **84** respectively of progressively increased height so that all room floors will be perfectly horizontal although at successively higher levels with respect to the room immediately preceding each thereof.

Room **16** is defined by a side wall **60**, a floor **62**, a rear wall **66** and a ceiling roof **68**. Room **18** is defined by a side wall **70**, a floor **72**, a rear wall **76** and a ceiling roof **78**. Each of rooms **12**, **14**, **16** and **18** have one integral side wall, the opposite side wall being provided by the trailing wall of the next adjacent room. The foremost or leading room **20**, however, has both side walls as integral parts thereof, being made up of side walls **80**, **81**, floor **82**, rear wall **86** and ceiling roof **88**, foot **84** being extended downwardly in line as a part of the leading wall **88**. As seen in FIGS. **1** and **4**, each ceiling roof but leading room **20** is provided with a downwardly extended forward edge as **42**, **58**, **69** and **79**, the extensions being of successively shorter height, as shown. Thus each room is guided between the floor, rear wall and the extensions, thereby to retain the rooms against rocking movement about the pin and slot connections.

Means are provided to retain the individual rooms in collapsible and extensible relation so that when the leading room **20** is drawn outward of the nested rooms, it will draw the next room **18** out with it, room **18** will draw room **16** and room **16** will draw room **14**. This is achieved by providing each of the back walls of rooms **12**, **14**, **16** and **18** with a longitudinal, horizontal slot or track as **90**, closed at its ends, or with a pair of longitudinal, horizontal slots or tracks as **91**. Back wall **32** of room **12** is provided with slots or tracks **91**, **91**, extending from side to side of wall **32**, the tracks being vertically spaced.

A pair of vertically spaced follower-defining guide pins **94** are affixed to and project rearwardly from the inner edge of wall **52** into sliding registry with corresponding slots **91** in wall **32**. Each pin **94** includes an end section **96** of reduced diameter secured to wall **52**, an enlarged intermediate section **98** slideably engaging a respective slot **91** and an enlarged flat head **100** slideably engaging the rear face of wall **32** bordering slot **91**. Similarly, a guide pin **102** is affixed to the inner border of rear wall **66** and slideably engages slot **90** in rear wall **52**, a pair of guide pins **104** are affixed to the inner border of rear wall **76** and slideably engage respective slots **91** in rear wall **66**, and a guide pin **106** is affixed to the inner border of rear wall **86** and slideably engages slot **90** in rear wall **76**. Guide pins **94**, **102**, **104**, and **106** are of similar construction and shallow longitudinal grooves are formed in the front faces of rear walls **32**, **52** and **66** registering with the paths of the enlarged heads of guide pins **102**, **104** and **106** to permit the free longitudinal movement thereof. It should be noted that the guide slots in adjacent rear walls are relatively vertically offset as are the guide pins.

Considering now the operation of the improved doll house **10**, in its fully extended position only the adjacent peripheral borders of adjacent rooms **12**, **14**, **16**, **18** and **20** are in telescoping overlapping condition, as shown in FIGS. **1** and **2**, further extension of the house **10** being prevented by the interfitting guide pins and slots. All the rooms are thus of maximum volume and are accessible through the front openings thereto. The house may be rested in a level condition on a suitable level surface by the depending foot pieces **44**, **64**, **74** and **84** and floor wall **34**. To collapse house **10** to its fully compact condition as illustrated in FIGS. **3** and **4**, the end walls **81** and **40** are merely contracted or pushed toward each other to telescope the room members into fully nesting positions. It should be noted that if desired, only selected rooms may be collapsed or extended, or that selected rooms may be partially collapsed or extended by correspondingly manipulating respective room sections.

While there has been described and illustrated a preferred embodiment of the present invention, it is apparent that numerous alterations, omissions and additions may be made without departing from the spirit thereof.

I claim:

1. A collapsible doll house comprising a plurality of slideably telescoping successively smaller sections relatively longitudinally movable between an extended end-to-end position and a contracted collapsed condition wherein the largest section comprises a bottom wall, a top wall, a rear wall and an end wall, and wherein each of said smaller sections nests in the next successive larger section, each of said smaller sections comprising a bottom wall above the level of and slideable along the bottom wall of the adjacent larger section, a top wall below the level of and slideable along the top wall of the adjacent larger section, a rear wall extending between said top and bottom walls and disposing forwardly of and slideable along the front face of the rear wall of the adjacent larger section, and an end wall extending between said top and bottom walls and slideably registering with the adjacent larger section, the fronts of a plurality of said sections being open to provide access thereto, including means interconnecting successive sections and means to maintain the bottom walls of all the smaller sections parallel to the bottom wall of the largest section both when the smaller sections are telescoped within the largest section and when the smaller sections are in the extended end-to-end position.

2. The collapsible doll house of claim **1** wherein each of said smaller sections is provided with means for maintaining said house in level condition, said latter means including a depending foot piece at the bottom of the outer end of each smaller section, said foot pieces increasing in height with the decreasing size of said sections and terminating at their bottoms at a common level.

3. The collapsible doll house of claim **2** wherein said foot pieces comprise transversely extending depending flanges.

4. The collapsible doll house of claim **1** including flanges depending from the front edges of said top walls of all of said sections greater than the smallest section, the flanges of adjacent sections being in mutual slideable engagement and terminating at their free ends at a common level both when the smaller sections are telescoped within the largest section and when the smaller sections are in the extended end-to-end position.

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