A. F. WEGENER.

TOY HOUSE.

APPLICATION FILED SEPT. 24, 1921.

1,428,405. Patented Sept. 5, 1922.

Fig. 1.

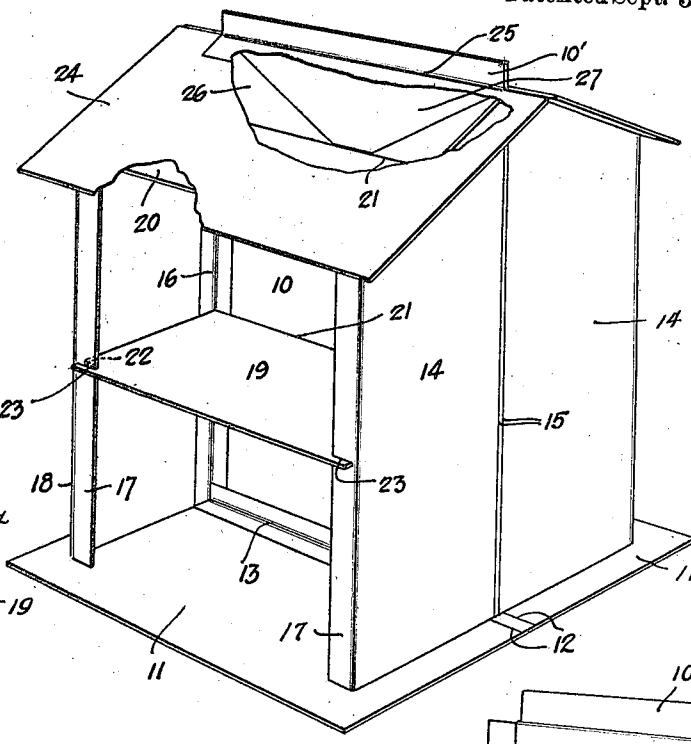


Fig. 4.

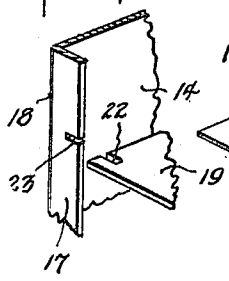


Fig. 2.

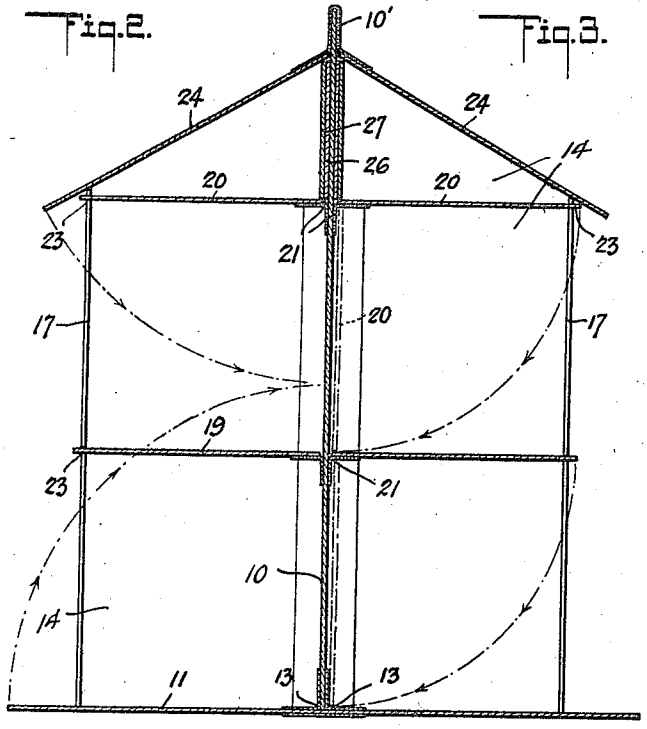
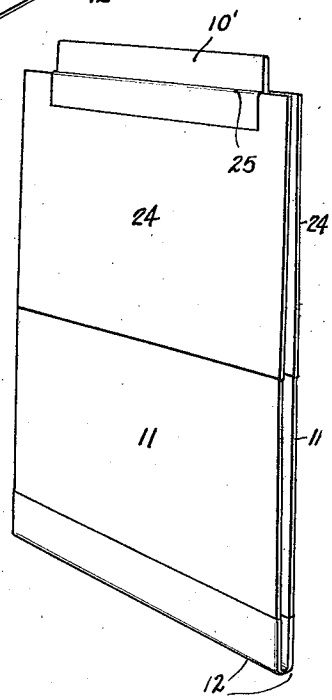


Fig. 3.



INVENTOR

A. F. Wegener

BY

Geo. A. Beeler

ATTORNEY

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UNITED STATES PATENT OFFICE.

AUGUST F. WEGENER, OF RIDGEWOOD, NEW JERSEY.

TOY HOUSE.

Application filed September 24, 1921. Serial No. 502,842.

To all whom it may concern:

Be it known that I, AUGUST F. WEGENER, a citizen of the United States, residing at Ridgewood, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Toy Houses, of which the following is a specification.

This invention relates to toy buildings, and especially to such structures as are adapted for being readily set up or erected and subsequently knocked down or collapsed by any child, a house made in accordance with this invention being capable of affording practically unlimited amusement to the child as well as a considerable range of instruction to the child.

Among the objects of the invention, therefore, is to provide a toy building, all the parts of which are made of one piece or of different pieces permanently united, so as to be in effect one piece, whereby either the loss of any of the parts or such disarrangement of them as would make it difficult for setting up is avoided.

Another object of the invention is to provide a foldable or collapsible toy building, so designed and arranged that the roof and foundation portions of the structure constitute a substantial protecting covering for the other parts when collapsed.

A still further object of the invention is to provide a toy building which may be set up in a neat and substantially rigid form without requiring the use of any extraneous fastening means, such as pins, mucilage, or the like, and which after being erected may be moved about readily as a child may require without disturbing the set up condition of the parts.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a perspective view showing a preferred form of a toy house made in accordance with this invention.

Fig. 2 is a vertical transverse section of the same.

Fig. 3 is a view of the house collapsed.

Fig. 4 is a detail of the joint described below.

Referring now more specifically to the drawings I provide a vertical wall or panel 10 which may be regarded as the backbone of the structure, the same extending all the way from the base or foundation to and above the top of the building. To the lower end of the center wall panel 10 are secured the two foundation or base panels 11. These panels 11 may be from a single rectangular sheet of strawboard or its equivalent provided with two parallel scores 12 relatively close together, and hinged at 13 to both sides of the lower end of the panel 10 so as to fold upward relatively to said panel 10. When the building is erected the bottom panels 11 lie in the same horizontal plane.

Each end of the building comprises two vertical gable panels 14, which like the base panels 11 may be made from a single sheet of material scored along the two lines 15 or may be made of two separate panels, being hinged on the inside to the adjacent vertical edge of the panel 10 as indicated at 16. The upper ends of the gables will be shaped in accordance with the design of the roof structure, and the two panels at each end are adapted to fold inward toward the opposite sides of the center panel. To the free edge of each gable panel is attached or has formed integral therewith a corner piece 17 constituting an angle member scored or hinged so as to either lie flat when folded or stand at right angles to the main portion of the end panel when erected, the hinge being indicated at 18.

Any desired number of floor pieces may be provided, but I indicate two of such members 19 and 20 for each side of the center panel, thereby constituting a four room building in addition to the attic space above the upper floor panels 20. These panels 19 and 20 are hinged at 21 to the opposite sides of the panel 10 and are adapted to fold downward directly against the same. The free portions of the floor panels are notched at 22 for co-operation with similar notches 23 formed in the corner pieces 17 for interlocking co-operation between the floor panels and said corner

pieces. Thus the end panels 14 lie against the ends of the floor panels and are secured in said position by the interlocking of the parts aforesaid. The end panels 14 are so hinged together and to the center panel as to resist to a certain extent the swinging outward thereof away from the floor panels. Hence with a reasonable degree of friction at the notched portions of said parts there is no danger of the parts moving or swinging relatively unless the end panels are sprung outward from the floor panels to disengage the notched portions.

In folding, the floor panels 19 and 20 after being released from the end panels are dropped downward flat against the center panel, covering thereby practically all of both faces of the center panel up to the hinges of the upper panels, it being noted that the height and depth of each room is preferably one half of the width of the center panel or length of a room. The end panels are then folded inward against the upper surfaces of the four floor panels.

As indicated I have produced a toy house which in structure is symmetrical at both sides of the center panel, and so it includes an inclined roof panel 24 over each half of the building, the upper edge thereof being hinged to the center panel. By extending the center panel upward slightly as indicated at 10′ I provide for a neater ridge for the building with a stronger hinge action, a means for grasping the upper portion of the building for lifting it bodily, and also for the attachment of chimney pieces or other ornamental parts which I furnish with the toy buildings in sheet form with instructions for cutting out by the children, but which are not shown herewith since they do not constitute any part of the building. The roof panels 24, as well as the base panels 11, fold inward flat against the outer surface of the end panels 14 in collapsed form, and while the roof and base panels for the best appearance extend well beyond the other parts when erected, yet when folded they substantially meet each other, due to the fact that the hinges 25 of the roof panels are above the upper floor plane far enough to accommodate these parts. Hence the base and roof members constitute protecting covers for the other parts when collapsed. That portion of the center panel 21 between the hinges 25 and the hinges 21 of the floor panels 20 is reinforced by two plates 26 and 27, the former being rectangular and fixed directly against the center panel while the plates 27 are substantially triangular to conform to the space between the beveled upper ends of the end panels 14 when folded. Thus the center panel is reinforced, and incidentally there are left practically no hollow spaces in the structure when folded, reducing thereby the likelihood of breaking or otherwise damaging the building when collapsed.

It will thus appear that I have provided a unitary toy building adapted to be readily set up or knocked down, the same being of the cheapest possible design, enabling it to be put on the market at such low price as to bring it within the reach of almost all children, and moreover a structure which is susceptible of easy and pleasing decorative possibilities. For example while I have indicated a building comprising four rooms plus attic space, all of the rooms may be decorated differently so as to establish in the mind of the child the various uses for which the several rooms may be adapted, thereby not only pleasing the child but teaching it to observe color harmonies or the like. Also the cut-out feature above referred to may include furniture for the several rooms, as well as window, door, or other structural or ornamental details.

I claim:

1. A toy building comprising a roof, a base, a vertical wall panel, means to pivotally connect the roof and base members to said panel, other wall panels, a floor panel pivoted to the first mentioned wall panel and movable into horizontal position between said other wall panels, and means to fasten said other wall panels and floor panel in fixed position for holding the roof and base members and wall panels from pivotal movement when the building is set up.

2. A toy building comprising a base, an interior wall panel movably connected to the base, a roof movably connected to the upper portion of said wall panel, end wall panels movably connected to the opposite remote vertical edges of the interior wall panel, and means acting between said wall panels to hold the aforesaid parts from relative movement when the building is set up.

3. A toy building comprising a central vertical panel, two roof members pivotally connected to opposite sides of the central panel, end wall panels pivotally connected to the vertical edges of the said central panel and movable with respect thereto on opposite sides of the central panel, and pairs of floor panels one above another movably connected to opposite sides of the central panel and co-operating with the end wall panels to hold all the parts in set up position.

4. A foldable toy building comprising a main vertical panel, roof, base, and wall panels, each of the last mentioned panels being hinged directly to the main vertical panel and so is foldable toward it, and also a floor panel between the roof and base panels and likewise hinged directly to the main vertical panel.

5. In a toy house, the combination of a main vertical panel, a roof panel movably connected thereto, a plurality of parallel

floor panels movably connected one above the other to said main panel beneath the roof panel, end wall panels connected to the edge portions of the first mentioned vertical panel and movable toward each other in folding, and means to interlock the floor panels with the outer edge portions of the end wall panels in set up position.

6. A toy house set forth in claim 5 in which the floor panels swing downward flat against the first mentioned main panel, the end walls swing against the upper surfaces of the floor panels, and the roof swings downward against the outer surfaces of the end wall panels.

7. A foldable toy building comprising a main vertical panel, and roof, base, wall, and floor panels all permanently hinged directly to said main panel and so foldable that the roof and base panels constitute a cover for all the other panels.

In testimony whereof I affix my signature.

AUGUST F. WEGENER.