Oct. 8, 1940. C. E. MENZEL 2,217,374

TOY

Filed Dec. 20, 1938

Fig. 1.

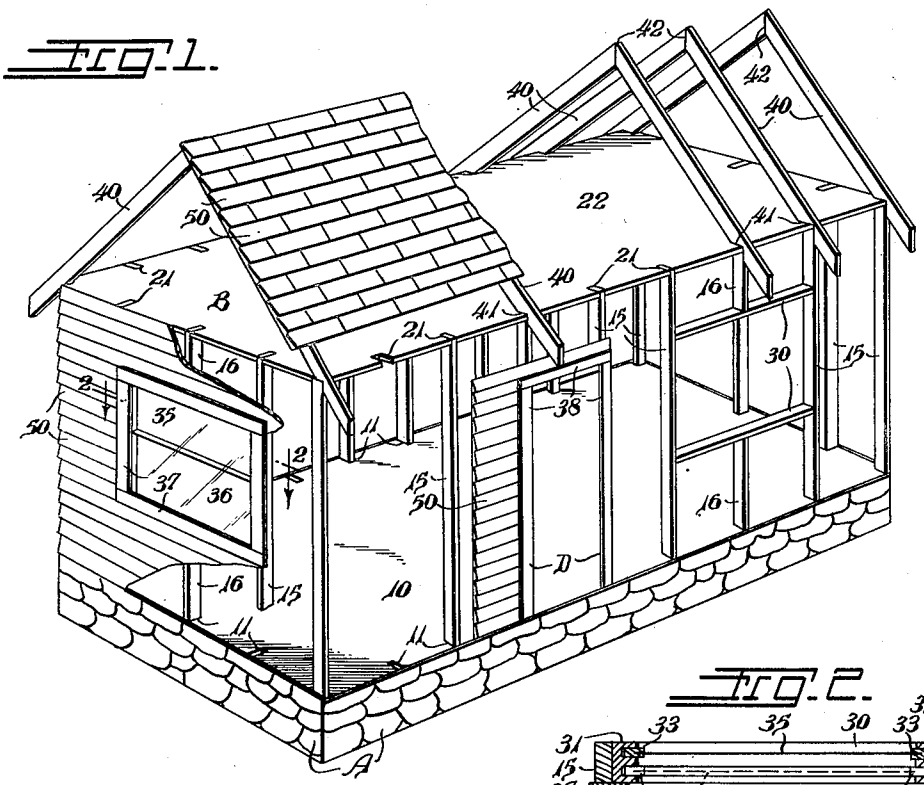
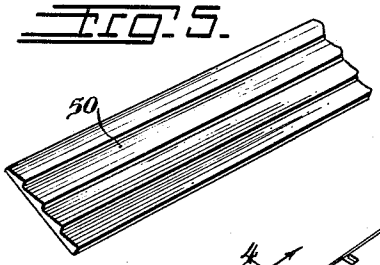


Fig. 2.

Fig. 5.



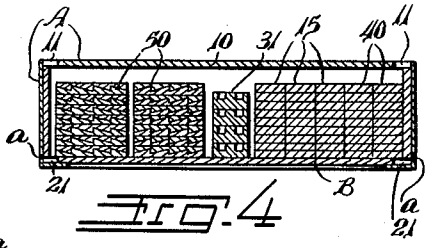


Fig. 4.

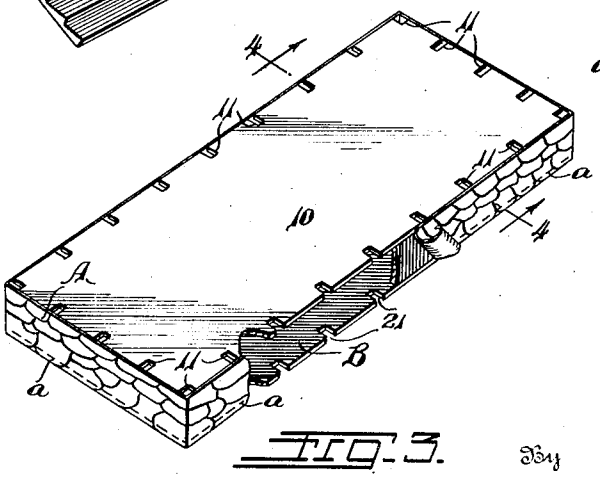


Fig. 3.

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TOY

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Application December 20, 1938, Serial No. 246,886

3 Claims. (Cl. 46—19)

This invention relates in general to toys of the type wherein miniature structural parts, building units and related members and accessories are designed to be assembled to form a structure simulating a toy house, building or similar construction.

More particularly, the present invention deals with an improved arrangement for a toy building set or the like comprising various small size structural parts and miniature building units of suitable shape, design and configuration to be readily assembled and securely held in such relation by cement, glue or other binding material in providing a substantially permanent, rigid and solidly constructed toy house or similar toy building structure.

In the construction of a toy house or other building in accordance with the invention, a principal object of the improved construction resides in the provision of a toy building set comprising various structural units and parts designed for what may be termed complementary interfitting relation and assembled in a manner which is interesting, fascinating and educational in developing a child's handiwork inclinations and constructive propensities.

Another primary object of the invention is to provide a toy building construction or the like composed of relatively simple parts and building units which require no unusual degree of skill in the assembly thereof to provide the desired structure and which parts are comparatively inexpensive and can be packaged in a compact, neat display at very low cost.

Still another object is to provide such a toy building set comprising parts and units which lend themselves to compact, neat packaging in a substantial box container, the body of which serves as the foundation for the structure to be erected and the lid employed as the ceiling or roof thereof.

A further object is to provide an inexpensive building toy of the type referred to comprising a minimum number of simple parts which are easily assembled in a manner readily understood by the average child from the directions furnished in fabricating a structure which is strong, durable and admirably suited for the purposes intended.

Further objects and advantages and other new and useful features in the construction, arrangement and general combination of parts of the invention will be readily apparent to those skilled in the art as a description thereof proceeds with reference to the accompanying drawing in which like reference characters designate like parts throughout the same, and in which:

Fig. 1 is a fragmentary perspective of a form of toy house constructed in accordance with the present invention, and showing the improved arrangement by which the box body and lid are incorporated therein, the structure otherwise having parts broken away or omitted to show details of the interior construction thereof;

Fig. 2 is a sectional view taken on line 2—2 of Fig. 1 showing the improved form of window frame construction employed in the present invention;

Fig. 3 is a perspective of the box-like container per se showing the general appearance of the toy building set as packaged and offered for sale, the selected wrapping and descriptive matter being omitted;

Fig. 4 is a section taken on line 4—4 of Fig. 3 showing the compact, neat packaging arrangement of the several parts of the toy building set in the box-like container; and,

Fig. 5 is a perspective of the structural part employed as the siding and roofing slabs of the improved toy building construction.

The present invention contemplates generally the provision of a toy building set provided in the manner of a neat compact package embodying a box-like container having a separable lid or cover, the body of the box being employed as the base or foundation of the house, building or other structure to be erected and the lid serving as the ceiling or roof thereof such that each and every element included in the package is utilized in providing a completed structure, thereby decreasing the number of parts usually required for such sets and otherwise reducing the cost of manufacture to a minimum. Although the erection of a structure from the building set of the present invention is a relatively simple procedure, a certain amount of skill and judgment is required to produce an excellent structure and this of course tends to develop the skill and ingenuity of a child as well as providing an attractive form of amusement for both children and adults.

Referring to the drawing, it will be understood that the various parts and units making up a toy building construction such as illustrated in Fig. 1, are designed preferably of uniform size and proportions to be conveniently and compactly packaged in a predetermined size box-like container, Fig. 3, consisting of a unitary base and body A having a lid or cover B. The usual number of such parts for any selected structure

may be evenly and compactly arranged in the container substantially as shown in Fig. 4, these parts usually comprising the studding, rafters, window sills and frames, door and door frame, siding and roofing slabs, etc., together with a quantity of suitable adhesive for fabricating a permanent, rigid structure as presently to be described.

Preferably the box-like container is provided with a wrapping or is merely painted to simulate a brick or stone foundation as illustrated, with the lid B separable therefrom as by severing or cutting along dotted line *"a,"* it being understood that the lid is held in position in a completed package by the wrapping or is otherwise secured thereto in any suitable manner as by brads or by gluing.

Referring now to Fig. 1, it will be seen that upon separation of the lid B from the package and the removal of the various structural parts therefrom, the base and body A of the box forms the simulated brick foundation of the structure with the lid serving as the ceiling or roof thereof. Thus the base of the box body, designated generally 10, becomes the floor of the structure, the same being suitably mortised to provide notches 11 at predetermined spaced points around its periphery adapted to receive and firmly retain the extremities of a simple form of studding 15 by substantial mortise and tenon joints, said studding being snugly fitted in such notches in the floor 10 and permanently and rigidly secured thereto by the adhesive.

The lid B corresponding in size to the base 10 is similarly notched around its periphery as at 21, and accordingly when set up in the building structure becomes the ceiling 22 thereof, it being understood the opposite extremities of the studding 15 are received in said notches 21 by substantial mortise and tenon joints which are glued in the usual manner to maintain the ceiling rigidly and permanently secured in spaced relation to the floor in the completed frame structure as shown. In this relation, that portion of the wrapping covering the notches 21, Fig. 4, serves not only to facilitate the assembly of the extremities of the studding 15 in said notches but also to rigidify the frame structure thus provided until the adhesive is fully dry and the respective parts firmly and positively secured.

The windows may be provided at any suitable point by omitting a full length studding 15 and employing instead sections of short studding 16 holding the horizontal window sills 30 in position while the vertical sills 31 are glued directly to the adjacent full length studding 15 as shown in Fig. 2. The vertical sills are provided preferably in the manner of substantially E-shaped frame members presenting parallel channels in which windows 33, 34 are slidably disposed, it being understood that the windows themselves are formed from relatively small window sashes of suitable size and including panes 35, 36 of any suitable material such as Cellophane or wire screening. In the installation of the windows, the sashes 33, 34 thereof are assembled in the E-shaped sills and the assembly then permanently secured in position by gluing said sills to the adjacent full length studding 15, Fig. 2, as aforesaid, whereupon the window framing may be finished off with trim laths or finishing strips 37 substantially as shown in the left portion of Fig. 1.

Likewise, in the provision of the door opening D, finishing strips 38 are glued directly to any two adjacent pieces of studding to form the desired trim finish for such opening in which a suitable door member (not shown), is expediently mounted in the completed building structure.

It is to be appreciated that the structure just described comprising ceiling 22 mounted in position, presents generally a complete framework for an ordinary flat roofed toy building construction such as a bird house, in which relation said ceiling 22 would form the flat roof thereof and may be covered by slabs 50, Fig. 5, or the like, in any suitable manner to simulate roof shingles, together with a chimney and other elements found necessary to complete a structure of this character.

Most often a gable roof construction is desired and for this purpose, rafters 40 are provided quite similar to the studding 15 except that they are provided with notches 41 intermediate their lengths and formed with bevelled end surfaces adapted to be disposed in abutting relation as at 42, to be glued in this position in providing a firm, rigid framework for the gable roof as shown in Fig. 1. The said notches 41 in the rafters are so cut as to seat rigidly on either side the corner edges of the ceiling 22, being glued preferably in line with the end surfaces of the extremities of the studding 15 for added strength and rigidity.

From the foregoing, it will be appreciated that the framework of a toy house or the like thus provided by the studding and rafters, presents a number of uniform plane surfaces throughout to which a preferred form of siding slab 50, Fig. 5, may be directly glued to provide the outer walls of the structure, the same being trimmed as necessary to form the corners necessary for an even precise fit around the window frames, door frame, etc. Preferably a number of such slabs are striped to simulate shingles and these sections are glued directly to the outer plane surfaces presented by the rafters 40 to complete the gable roof structure. The specific form of grooved slab represented in Fig. 5 is further advantageous in that sections thereof may be packed in face-to-face interfitting relation as shown in Fig. 4 to require only a minimum amount of space in a completed package construction.

A most important advantage of the present invention resides in the fact that practically all the parts and structural units embodied in any selected toy house construction may be produced at very low cost from inexpensive sections of wood, papier-mâché or the like, and inasmuch as certain of such parts such as the studding and rafters and siding slabs and roofing slabs are uniform in cross-section the same may be readily produced by relatively few manufacturing operations.

It is quite obvious that various other structures may be fabricated in accordance with the present invention with the teachings apparent from the foregoing description followed wholly or in part in the construction of many forms of miniature buildings such as dog houses, bird houses, etc., and in this respect buildings of more than one story may of course be erected and provided with the usual well known accessories such as chimneys, stairways, steps and related furnishings and equipment.

It is also quite apparent that though the preferred procedure for erecting a toy house or the like in accordance with the invention is substantially that set forth in the foregoing description, various other steps and alternate methods of procedure may be followed without departing from the spirit and scope of the invention. For

example, in the fabrication of the framework comprising the floor and ceiling of the structure, the studding 15 may just as well be secured first to the lid B and the assembly thus provided mounted onto the base of the box A comprising the floor 10 of the toy house or the like. Likewise, the roof comprising rafters 40 may be first set up as an individual unit, complete with the roofing slabs 50, and this unit subsequently mounted onto the free ends of the studding 15 secured in the foundation provided by the box A, substantially in the manner aforesaid.

And while this invention has been described in detail with a specific example such example is intended as an illustration only, since it will be apparent to those skilled in the art that other modifications in the construction, arrangement and general combination of parts of the invention may be constructed without departing from the teachings or essential characteristics thereof. The present embodiment is therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims rather than by the foregoing description, with all changes falling within the scope, meaning and range of equivalency of the claims intended to be embraced therein.

What is claimed and desired to be secured by Letters Patent is:

1. A toy building set or the like comprising a box and cover for said box, said box including a base provided with spaced openings and said cover being provided with openings having a spacing corresponding to the openings in said base of the box, studding elements assembled in said openings in the base and projecting therefrom in position to extend into the openings in said cover, said cover thereby serving to retain the adjacent ends of the studding elements with said studding elements supporting said cover in spaced relation to the base of the box in providing a framework for a toy building structure or the like, rafters mounted to extend above said cover to support a roof for said structure, roofing slabs supported by said rafters, and siding slabs secured to said studding elements to complete the walls of said structure.

2. A toy building set or the like comprising a box and cover for said box, said box including a base provided with spaced openings and said cover being provided with openings having a spacing corresponding to the openings in said base of the box, studding elements assembled in said openings in the base and projecting therefrom in position to extend into the openings in said cover, said cover thereby serving to retain the adjacent ends of the studdng elements with said studding elements supporting said cover in spaced relation to the base of the box in providing a framework for a toy building structure or the like, rafters mounted to extend above said cover, said rafters being similar to said studding elements but provided with notched surfaces designed to seat in the region of the edges of said cover to support a roof for said structure, roofing slabs supported by said rafters, and siding slabs secured to said studding elements to complete the walls of said structure.

3. A toy building set or the like comprising a box and cover for said box, said box including a base provided with spaced openings and said cover being provided with openings having a spacing corresponding to the openings in said base of the box, studding elements assembled in said openings in the base and projecting therefrom in position to extend into the openings in said cover, said cover thereby serving to retain the adjacent ends of the studding elements with said studding elements supporting said cover in spaced relation to the base of the box in providing a framework for a toy building structure or the like, rafters mounted to extend above said cover, said rafters having bevelled ends and being provided with notched surfaces designed to seat in the region of the edges of said cover with said bevelled ends in abutting relation to support a roof for said structure, roofing slabs supported by said rafters, and siding slabs secured to said studding elements to complete the walls of said structure.

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