

April 14, 1931.

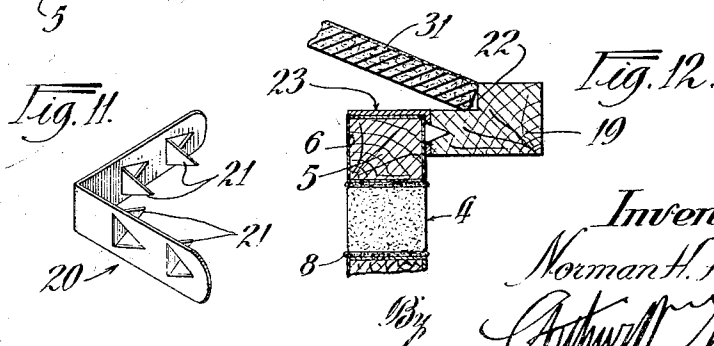
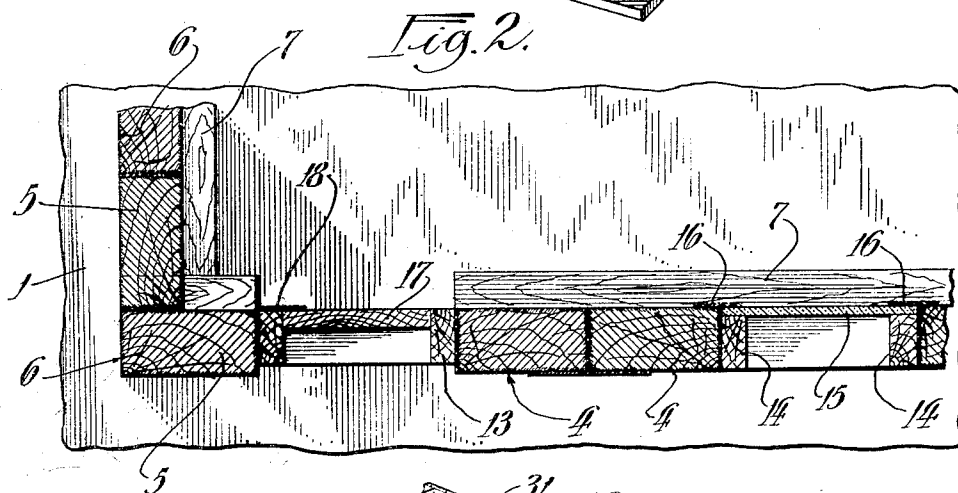
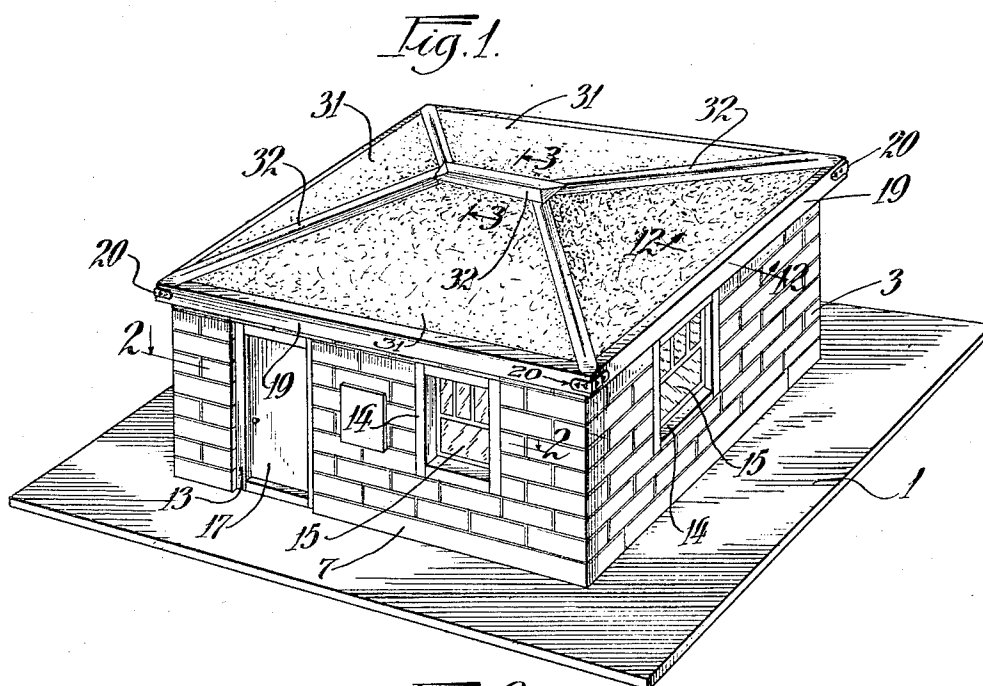
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TOY BUILDING STRUCTURE

Filed Feb. 18, 1929

2 Sheets-Sheet 1



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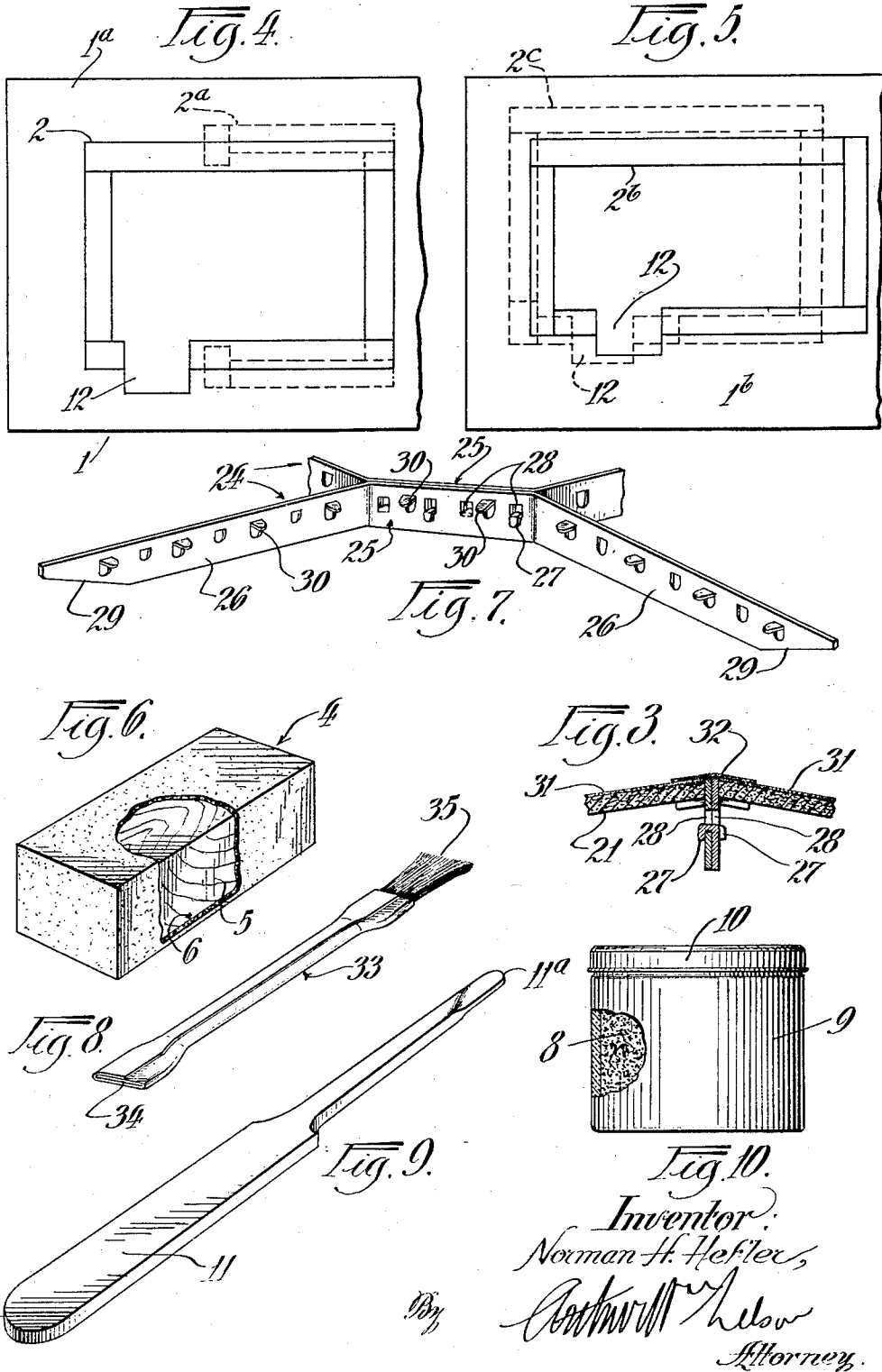
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UNITED STATES PATENT OFFICE

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TOY BUILDING STRUCTURE

Application filed February 18, 1929. Serial No. 340,824.

This invention relates to improvements in toy building structures and it consists of the matters hereinafter described and more particularly pointed out in the appended claim.

5 The primary object of the invention is to provide a toy building structure in the form of a kit comprising not only the requisite number of elements to be assembled in building form but also the necessary implements
10 and material for assembling the same in building form in a manner simulating masonry.

Another object of the invention is to provide a structure of this kind comprising
15 parts to be assembled upon a supporting base having delineated thereon means to be followed in assembling the parts whereby error in such assembly for a particular type of toy building is reduced to a minimum.

20 Still another object of the invention is to provide a structure of this kind which will be instructive for children and at the same time will provide a source of amusement for them in assembling the various parts to
25 produce a toy building or buildings of various kinds which may be moved about as a whole upon an associated base without danger of collapse or falling apart while so being moved.

30 These objects of the invention as well as others, together with the many advantages thereof, will more fully appear as I proceed with my specification.

In the drawings:

35 Fig. 1 is a perspective view of a toy building simulating a railroad depot of conventional form embodying my invention.

40 Fig. 2 is a horizontal sectional view through the assembled toy building as taken on the line 2—2 of Fig. 1.

Fig. 3 is a vertical sectional view through the ridge of the roof of the building as taken on the line 3—3 of Fig. 1.

45 Fig. 4 is a view in obverse or top plan view of the base upon which the toy building is to be constructed.

Fig. 5 is a view in reverse or bottom plan view of the base shown in Fig. 4.

50 Fig. 6 is a perspective view of one of the

elements simulating a brick, forming a part of the improved structure.

Fig. 7 is a perspective view showing one form of roof supporting element employed in my improved structure.

55 Figs. 8, 9 and 10, respectively, are perspective views of implements employed in assembling the various elements into a toy building and which form parts of each complete kit as presented for sale.

60 Fig. 11 is a perspective view of a clip employed to connect the eaves strips of the roof together at the corners.

Fig. 12 is a detail vertical section through the eaves portion of the roof and top edge
65 of an assembled wall as taken on the line 12—12 of Fig. 1.

In general, my invention contemplates the provision of a kit or set of elements which, when assembled according to a direction
70 sheet forming a part of such kit or set, will result in the production of a toy building that may be moved about in ordinary play without collapsing or falling apart. Such a kit or set includes a supporting base which has
75 delineated thereon one or more outline plans to be followed in arranging the building elements thereon to form one of a number of walls of miniature buildings well-known to children. Upon said base in conformity
80 with the plan delineated thereon, the elements are arranged and are secured together preferably by a suitable cementitious material to provide the upright wall of the building. During the assembling of the wall
85 units, miniature door and window frames, together with doors and windows are assembled and secured in place. Thereafter the elements designed to make up a roof are assembled into roof form, which is then placed
90 upon the building wall to complete the assembly of the toy building.

Referring now in detail to that embodiment of the invention illustrated in the accompanying drawings, 1 indicates as a whole
95 a base or support upon which the elements hereinafter referred to are assembled into building form. Such a base, which may be made of any suitable light-weight material such as wood or fibrous wall-board, is of a
100

plan area greater than that of the building to be assembled or erected thereon. On one or both sides of the base, within the margins thereof, is delineated one or more plans defining the simple outline of a plurality of conventional buildings well known to children, such as railroad depots, garages and the like. In Fig. 4, I have illustrated the top or obverse side 1^a of the base having delineated thereon full and dotted lines 2 and 2^a, respectively, for two simple forms of buildings and the bottom or reverse side of the base 1^b has likewise delineated thereon, in full and dotted lines 2^b and 2^c, respectively, two other simple forms of buildings. The line 2 on the obverse side of the base defines the plan for the conventional toy railroad depot shown in Fig. 1.

Upon the outline 2 thus delineated upon the base, may be arranged the elements of the set providing the walls 3 of the building. Preferably such walls are made up of elements 4—4 simulating well known building elements such as cut stone or brick and in miniature form. Such a brick element is best shown in Fig. 6 and comprises a rectangular core 5 of brick form enclosed in a covering of material 6 and this covering material is preferably cementitious which will harden and dry to fully protect the core. Preferably, but not necessarily so, I prefer to first dispose upon the plan delineated upon the base, sill elements 7 secured in position by means of a cementitious material. This material, bearing the numeral 8 in Fig. 10, forms a part of the kit, comes in a can 9 with a removable cover 10 and this material 8 is removed from the can by a paddle 11 as best shown in Fig. 9. This material is applied to one side and to the ends of the sill elements 7 which are then placed in position upon the plan being employed so as to adhere to the base and to adjoining parts of adjacent sill elements. In applying the sill members to the base and when following the delineated plan thereon, it is apparent that no sill element is placed upon the space 12 provided for the entrance door for the building. After the sill elements are in place upon the base, a door frame 13 is set up and cemented in said space.

Thereafter, with the paddle, cementitious material 8 is applied to the bottom and ends of brick elements 4 which are laid in courses upon the sill members and flush with the outer and exposed surfaces thereof, the sill elements being wider than said brick elements as best shown in Fig. 2. In laying the several courses, the joints are staggered as in brick laying and during the building up of the walls, window frames 14 are cemented in place. Each window frame carries a pane 15 marked off in any suitable manner to simulate sash and this pane is secured to the associated window frame by ad-

hesive tapes 16—16. Associated with the door frame is a member 17 to simulate a door which is hingedly secured along one side of the frame as by a strip of adhesive tape 18 as shown in Fig. 2.

When the walls have been built up of brick elements to the proper height, the roof of the building is next assembled from parts provided with the kit, after which the roof as a whole is positioned upon said walls in supporting relation with respect thereto.

The elements for the roof comprise four eaves strips 19—19 which are mitred at their corners and are secured together in open frame-like relation by corner clips 20. As best shown in Fig. 11, each clip includes prongs 21—21 to be forced into said eaves, the latter being preferably made of a soft wood. Each eaves strip is provided along its inner top corner with a rabbet 22, and each eaves strip is also provided along its inner surface with one or more angle clips 23 to engage upon the top edges of the various wall parts to support the roof or eaves strip frame in position upon said walls.

In connection with the frame made up by the eaves strips, I provide a rafter and ridge strip structure for securing roofing material in operative relation with respect to the eaves strip frame. In Fig. 7 I have illustrated one convenient form of structure for this purpose comprising a pair of edgewise disposed metallic strips 24—24, each bent to provide an intermediate ridge portion 25 and end corner rafter portions 26—26. In assembling said strips together, the intermediate portions 25 of the two strips 24 are placed back to back and are secured together preferably by bending over punched out tongues 27 in one portion through registering openings 28 in the other portion. When these strips are thus assembled, there will be formed a substantial structure comprising a longitudinal ridge and four outwardly and downwardly diverging rafters adapted to rest at their ends upon the corners of the eaves frame. In this respect each rafter portion is beveled off at its ends as at 29 to rest upon the eaves frame and each ridge and rafter portion has oppositely disposed punched out tongues 30—30. Roof sections 31 of proper shape and area and preferably made of composition roofing, are provided in the kit which are then laid in place with their parallel edges resting in the rabbet of the eaves strips and on the tongues of the ridge portions 25—25 and with their converging edges disposed on the tongues of the corner rafter members 26—26. Thereafter adhesive strips 32 are disposed over the top edges of the ridge and rafter portions and overlap and adhere to adjacent margins of the roofing sections. These strips extend at their extreme ends, down upon the corners of the ridge strip frame. The roof thus assembled is applied to the building walls to

engage thereon through the agency of the clips 23 before mentioned.

To remove the excess cementitious material extruded from between the several brick elements, there is included in the kit or set a device 33 best shown in Fig. 8 which is formed at one end to provide a scraper 34 and at the other end to provide a brush 35. By running the scraper over the seams between the brick elements, most of the excess may thus be removed and the retained particles may then be brushed off. To tuck point the seams the paddle 11 is thinned off at one end as at 11^a to provide a tool edge by which the cementitious material in the seams may be smoothed off.

With the kit or set as above described, which reaches the purchaser neatly packed in a box provided for the same, several toy buildings may be assembled. In this respect it is pointed out that the cementitious material mentioned is of such a character that while it sets hard enough to hold the elements together, it does not set so hard as to prevent the disassembly thereof when so desired because the elements may be broken apart and the adhering material may be removed therefrom by use of the device 33 and restored to that condition practical for reuse in assembling other structures delineated upon the base.

The toy buildings thus assembled may be well used in connection with the electrical miniature railway sets, now so popular as children's toys, to provide more background for such sets by the building up of miniature villages and the like.

The structure is constructively educational and may be utilized for its intended purpose without the aid of such tools as would produce noise objectionable to grownups.

While in describing my invention, I have referred in detail to the form, and arrangement as well as the assembly of the several parts thereof, the same is to be considered merely as illustrative of one phase of the invention so that I do not wish to be limited thereto except as may be pointed out in the appended claim.

I claim as my invention:

50 A toy building structure comprising a base and a plurality of wall elements, said base having delineated thereon suitable markings defining the plan of a building and outline of the wall elements to be placed thereon, to guide the arrangement of said elements into desired wall form upon said base, which elements are adapted to be operatively secured together and to the base by means of a cementitious material and a roof structure supported upon said wall form.

In testimony whereof, I have hereunto set my hand, this 13th day of February, 1929.

NORMAN H. HEFTER.