

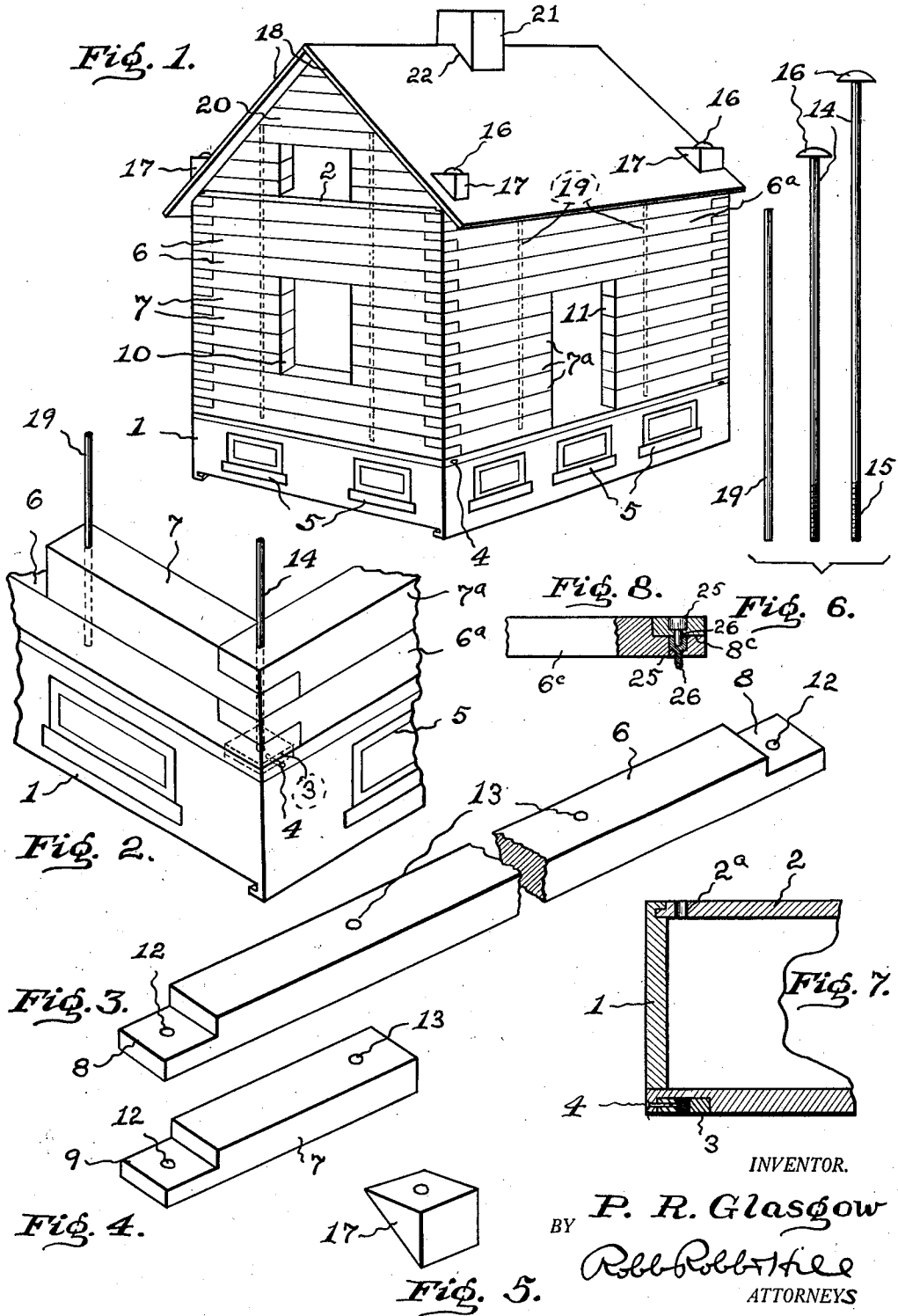
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BUILDING BLOCK

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BUILDING BLOCK.

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The present invention relates to toy building blocks of that type which are adapted to be assembled to form a structure simulating a house or building, and has for its object to provide toy blocks of this character which embody novel features of construction, whereby they can be readily assembled in different forms and held firmly in their assembled positions by means of positioning and fastening pins.

Among the objects of the invention are to provide a toy building block set which is comparatively simple and inexpensive in its construction, which can be readily assembled or taken apart, which can be packed compactly in a small amount of space when it is knocked-down, which can be put up with different door and window arrangements, and which provides means for effectively fastening the blocks together when they are set up in operative position.

One particular embodiment of the invention is shown and described in detail for illustrative purposes, although it will be understood that many modifications and changes can be made in the details of construction without departing from the spirit of the invention.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which;

Figure 1 is a perspective view of a structure simulating a gable roofed house which has been formed by assembling the different units of a toy building block set which embodies the invention.

Figure 2 is an enlarged perspective view of a fragmentary corner portion of the structure.

Figure 3 is an enlarged detail view of one of the long building blocks, a portion of the middle thereof being broken away.

Figure 4 is a similar view of one of the short building blocks.

Figure 5 is a detail view of one of the triangular prism shaped blocks which are applied to the gable roof and engage the heads of the corner fastening pins.

Figure 6 is a detail view showing a variety of the positioning and corner fastening pins which are used for holding the blocks in an assembled position.

Figure 7 is a sectional view through a portion of the box, showing the manner of securing the nut members in the bottom thereof.

Figure 8 is a detail view showing a different manner of fastening the building blocks together.

Corresponding and like parts are referred to in the following description and indicated on all of the views of the drawings by like reference characters.

Referring to the drawings, the numeral 1 designates a box or container which may receive a portion or all of the building block units, as may be desired. The box is provided with a cover 2 which may be of any suitable form, being shown in the present instance as having the conventional sliding engagement with the sides of the box so that it can be slid into and out of position from one end of the box. This is merely a conventional way of fastening the member to the box, and it will be understood that the particular manner of attaching the cover to the box is immaterial so far as the present invention is concerned. The bottom of the box has a number of nuts 3 applied thereto, said nuts being shown as embedded in corner portion of the bottom and anchored in position by means of pins 4 which are driven into an edge portion of the box bottom and engage transverse openings formed in the nuts. The exact manner of applying the nuts to the box bottom is immaterial, and for illustrative purposes they have been shown as embedded in the box bottom so that they are flush with the surface thereof and do not form projections to catch upon foreign objects or scratch a surface upon which the box is placed. There are four of these nuts and they are arranged in such a manner as to be disposed at the corners of a building block structure which is erected upon the box when the latter is inverted, as shown by Figure 1. The sides and ends of the box may have the outlines of cellar windows or the like printed or marked thereon, and the windows are pictured in an inverted position with respect to the top of the box, so that when the box is inverted preparatory to erecting a building block structure on the bottom thereof the cellar window pictures will be in an upright position. The box

1 thus provides a foundation upon which to build the block structure and is marked with the outlines of cellar windows so that it will simulate the basement portion of the toy house erected thereon.

The end of the house is formed of long blocks 6 and short blocks 7. The long blocks 6 are halved at both ends, as indicated at 8, while the short blocks 7 are halved at one end only, as indicated at 9. The long blocks 6 extend the full length of the end of the house, and the short blocks 7 are used in a desired manner to form an opening 10 which may simulate either a door or a window, depending upon the position and height of the opening. As shown on Figure 1 the opening 10 simulates a window.

The side of the house is formed in a similar manner of long blocks 6^a and short blocks 7^a. The blocks are halved at the ends in exactly the same manner as the blocks 6 and 7, and the only difference is that the blocks 6^a and 7^a are correspondingly longer, so that the house may be rectangular in form. A house which is square may be erected by using long blocks which are all of the same size. As shown on Figure 1 the short blocks 7^a are arranged in such a manner as to form a door opening 11.

The halved ends of all of the blocks are formed with centrally disposed openings 12. Similar openings 13 are formed in the short blocks toward the square ends thereof and at corresponding positions in the long blocks. The halved ends of the blocks interlock together at the corners of the building with all of the openings 12 in registry with each other. Corner locking pins 14 are inserted through these openings 12. The lower ends of the corner pins 14 are threaded at 15 for engagement with the nuts 3, while the upper ends of the said corner pins are provided with heads 16 which may engage the top of triangular prism shaped blocks 17, said blocks being applied to the roof 18. The intermediate openings 13 of the blocks also register with each other and receive positioning pins 19, the latter serving to anchor the short blocks to the long blocks and thereby hold the short blocks in proper position.

The roof 18 may be formed of two flat pieces which are applied in such a manner as to simulate an ordinary gable roof. The corner pins 14 extend through openings in the roof members and also through openings in the prism shaped blocks 17, the latter being so constructed as to provide horizontal upper surfaces for engagement with the heads of the corner pins. It will thus be obvious that when the corner pins are screwed down into the nuts 3 the building blocks will be held securely in position and firmly clamped to the bottom of the box 1. The gable portions 20 of the ends of the house may be formed of special short blocks pro-

vided for that purpose, and certain of these blocks may be provided with openings to receive the positioning pins 19.

A slight modification is shown by Figure 8 in which the halved ends 8^c of the blocks 6^c are provided upon their upper faces with sockets 25 and upon their lower faces with downwardly projecting pins 26. As indicated on Figure 8 of the drawings the socket 25 and pin 26 may be formed as one integral element and fitted in a suitable opening in the halved end of the building block. A projecting pin 26 of one block is adapted to enter the socket 25 of another block and the halved ends of the blocks are thereby fastened together in proper relation to each other. It will be understood that similar sockets and pins may be provided at other points in the length of the block if it is so desired.

A block 21 which simulates a chimney may be fitted upon the ridge portion of the roof, said block having the base thereof suitably notched at 22, so that it can be properly seated upon the roof. As indicated by Figure 6, the corner pins may be of different lengths, a short pin being used when a low building is erected and a longer pin being used when a tall building is erected. Similarly the pins 19 may be of different length. It will be understood that different arrangements of doors and windows can be provided by assembling the blocks in different ways, and after the blocks have been assembled they are adapted to be firmly fastened in position by the corner locking pins 14, although by removing these corner pins the blocks are released so that they can be readily taken apart.

As indicated on Fig. 1 of the drawing the cover 2 for the box may be utilized as an upper floor for the building which is erected upon the box. The cover may be provided with suitable openings 2^a to receive the pins 14, and when the cover is inserted between superposed rows of the blocks it will form a floor for the building. The openings in the cover may then be engaged by the pins which pass through the openings of the blocks. The blocks may be of any desired length and, if desired, two or more lengths of the blocks may be utilized in constructing the side or an end of the building, in which event the halved ends of the blocks will be utilized to form a joint between the blocks which are in alignment with each other.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is,

1. In a toy building block set, the combination with a base board having threaded openings therein, of a plurality of building blocks adapted to be superposed upon the base board, said blocks being provided with

corresponding openings, and positioning pins adapted to pass through the openings of the superposed blocks and having threaded ends which have a detachable engagement with the threaded openings of the base.

2. In a toy building block set, the combination with a base board having threaded openings therein, of a plurality of separate blocks adapted to be superposed upon each other and on the base, said blocks having corresponding openings therein, and headed pins adapted to be inserted through the openings of the superposed blocks, said headed pins having threaded ends which are adapted to detachably engage the threaded openings of the base whereby the superposed blocks are held in position between the base board and the heads of the pins.

3. A building block set including blocks adapted to be superposed upon each other, an inclined roof element, a triangular block on the roof element, and a pin extending through the triangular block and roof element and engaging the first mentioned blocks, said pin having a head which obtains a bearing on the triangular block.

4. A building block set including a base provided with nut elements, blocks adapted to be superposed on the base and provided with corresponding openings and a pin adapted to be inserted through the openings, said pin being threaded for engagement with one of the nuts of the base and serving to fasten the blocks together and secure them to the base.

5. A building block set including a base, nut elements permanently applied thereto, a plurality of blocks adapted to be assembled on the base in a superposed relation, and pins engaging the superposed blocks to hold the same together, said pins having end portions adapted to interlock with the nut elements on the base.

6. A building block set including a base, nut elements permanently applied thereto, a plurality of blocks adapted to be assembled in a superposed relation on the base, said blocks having corresponding openings therein, and pins extending through the openings of the superposed blocks to hold the blocks together, said pins having threaded ends adapted to engage the nut elements of the base.

7. A building block set including a base, nut elements permanently applied thereto, a plurality of superposed blocks adapted to be mounted upon the base and provided with corresponding openings, and headed pins adapted to be inserted through the openings to hold the superposed blocks together, the ends of the pins being constructed to detachably interlock with the nut elements of the base.

8. A building block set including a box provided with nut elements, blocks adapted

to be assembled on the box and provided with corresponding openings, and headed pins adapted to be inserted through the openings, said pins being threaded for engagement with the nuts to clamp the blocks in position on the box and the blocks being adapted to be packed in the box when not in use.

9. A building block set including a box provided with nut elements, a series of blocks adapted to be superposed on the box and provided with corresponding openings, a roof element, and pins extending through the roof element and openings of the blocks, said pins having a threaded engagement with the nuts for securing the blocks in position on the box.

10. A toy building block set including a box having a bottom member which is adapted to form the lower part of a structure when the box is inverted, the bottom of the box having openings therein, a plurality of blocks which are adapted to be assembled on the inverted bottom of the box to form the upper part of the structure, said blocks having openings therein, a cover for the box which is adapted to form a floor for the upper part of the structure, and pin members passing through the cover and openings of the superposed blocks, the lower ends of the pin members being received within the openings in the bottom of the box and having an interlocking connection therewith, the blocks being adapted to be packed in the box when not in use and the cover being then used to close the box.

11. A building block set including a box, blocks adapted to be assembled on the box, a box cover adapted to cooperate with the blocks to form the floor of a structure, the box cover and blocks being formed with corresponding openings, and pins inserted through the openings and engaging the box to secure the blocks in an assembled position, the blocks being adapted to be packed in the box when not in use and the cover being then used to close the box.

12. A building block set including a box having nuts in the bottom thereof, blocks adapted to be assembled on the bottom of the box to form a structure, a detachable box cover adapted to be set upon the blocks to form a floor member, said cover and blocks having corresponding openings, and positioning pins which are inserted through the said openings and have a threaded engagement with the nuts to clamp the blocks and cover in an assembled position on the box, the blocks being adapted to be packed in the box when not in use and the cover then closing the box.

13. A building block set including a series of blocks adapted to be assembled in a superposed relation, a box adapted to receive the blocks and provided with a detachable cover, the cover and blocks having corre-

sponding openings and the cover being adapted to be used with the blocks to form the floor of a structure formed by the blocks, and fastening elements insertable through the openings of the cover and blocks, the blocks being adapted to be packed in the box when not in use and the cover then closing the box.

14. A building block set including a box having nuts permanently applied to the bottom thereof, a removable cover adapted to close the box and having openings therein corresponding to the nuts on the bottom of the box, and a series of blocks adapted to be assembled on the bottom of the box when the latter is inverted to form a structure, said blocks having openings therein and the cover being adapted to be assembled with the blocks to form the floor element of a structure built with the blocks upon the inverted box, and positioning pins inserted through the openings of the cover and blocks and having a threaded engagement with the nuts of the box to clamp the blocks and cover in an assembled position.

15. A building block set including a box which is exteriorly marked to simulate the base of a structure, nuts permanently ap-

plied to the bottom of the box, a detachable cover adapted to close the box and having openings therein corresponding to the nuts, a series of blocks adapted to be assembled upon the bottom of the box when the latter is inverted to provide the walls of a structure of which the box simulates the base, the cover being adapted to be assembled with the blocks to form a floor element of the structure, a roof member having openings corresponding to those of the cover, and positioning pins passing through the openings of the roof member and cover, said pins also passing through the blocks and having a threaded engagement with the nuts for clamping the parts in an assembled position.

16. A building block set including a base provided with nut elements, a series of blocks adapted to be mounted upon the base in a superposed relation and provided with corresponding openings, a roof element, and pins extending through the roof element and openings of the blocks, the ends of the pins being threaded for engagement with the nut elements of the base to secure the blocks in position thereon.

In testimony whereof I affix my signature.

PAUL R. GLASGOW.