Oct. 7, 1947. R. H. KESTON 2,428,628

DOLL HOUSE

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Fig. 1

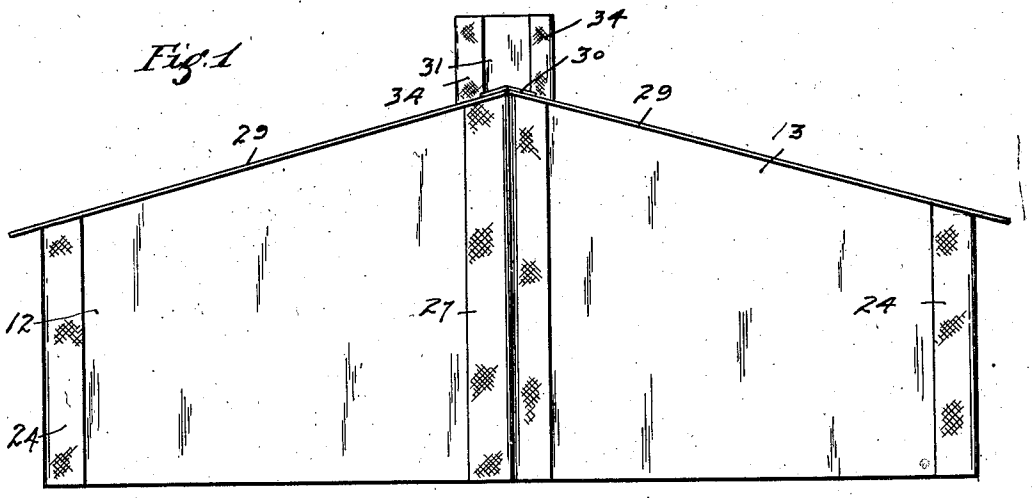


Fig. 2

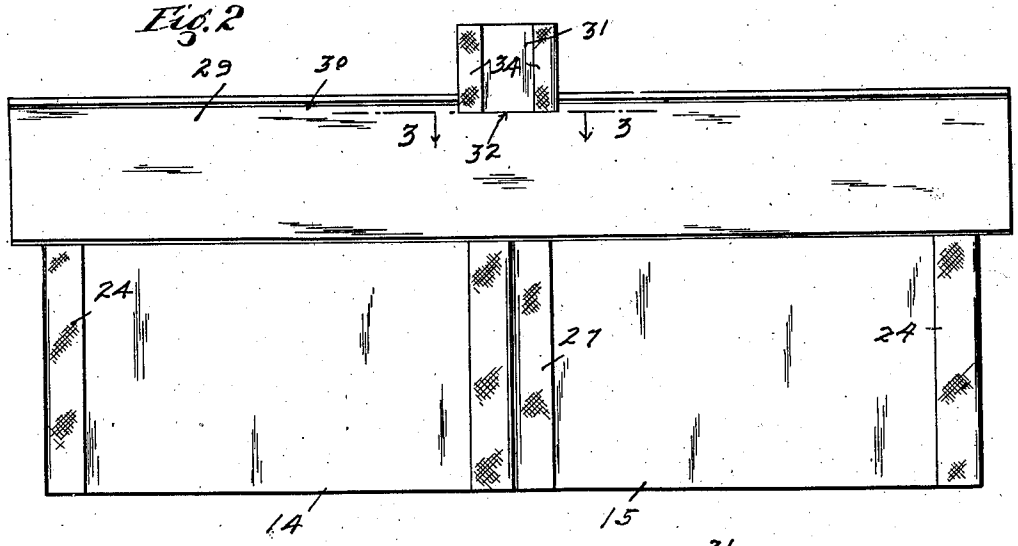


Fig. 3

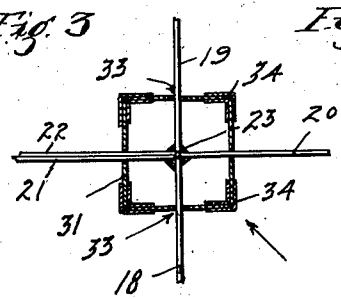
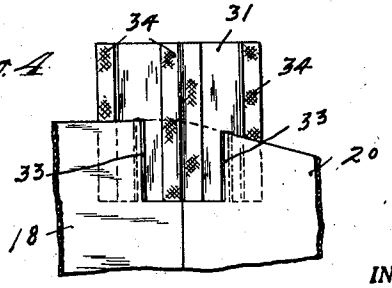


Fig. 4



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DOLL HOUSE

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Fig. 5

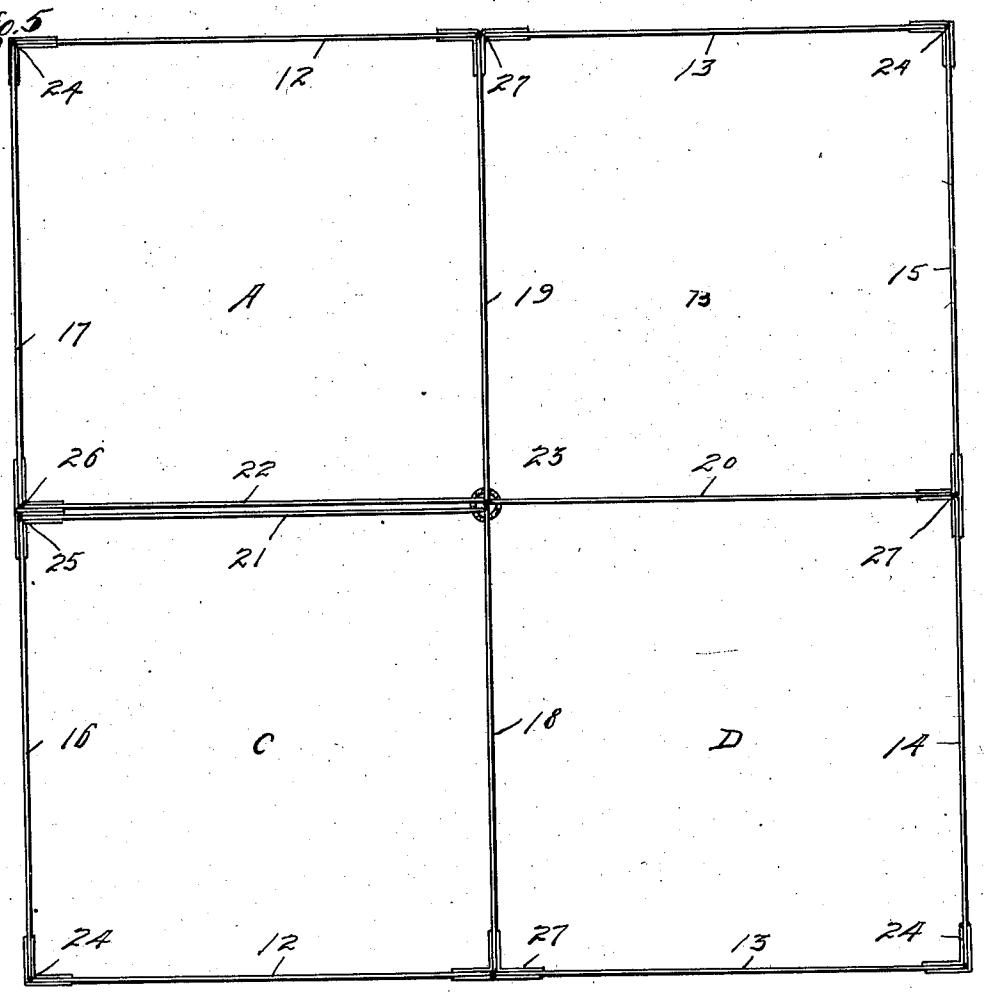


Fig. 6

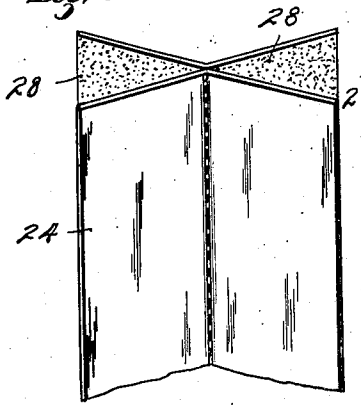


Fig. 7

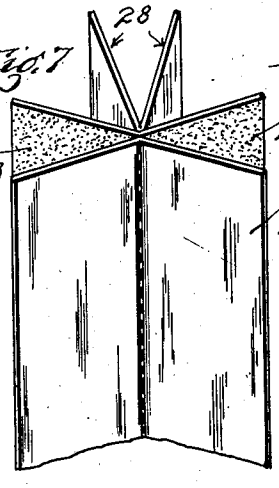
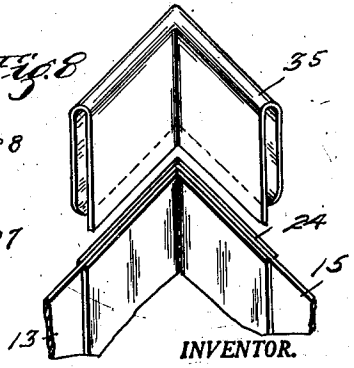


Fig. 8



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Fig. 9

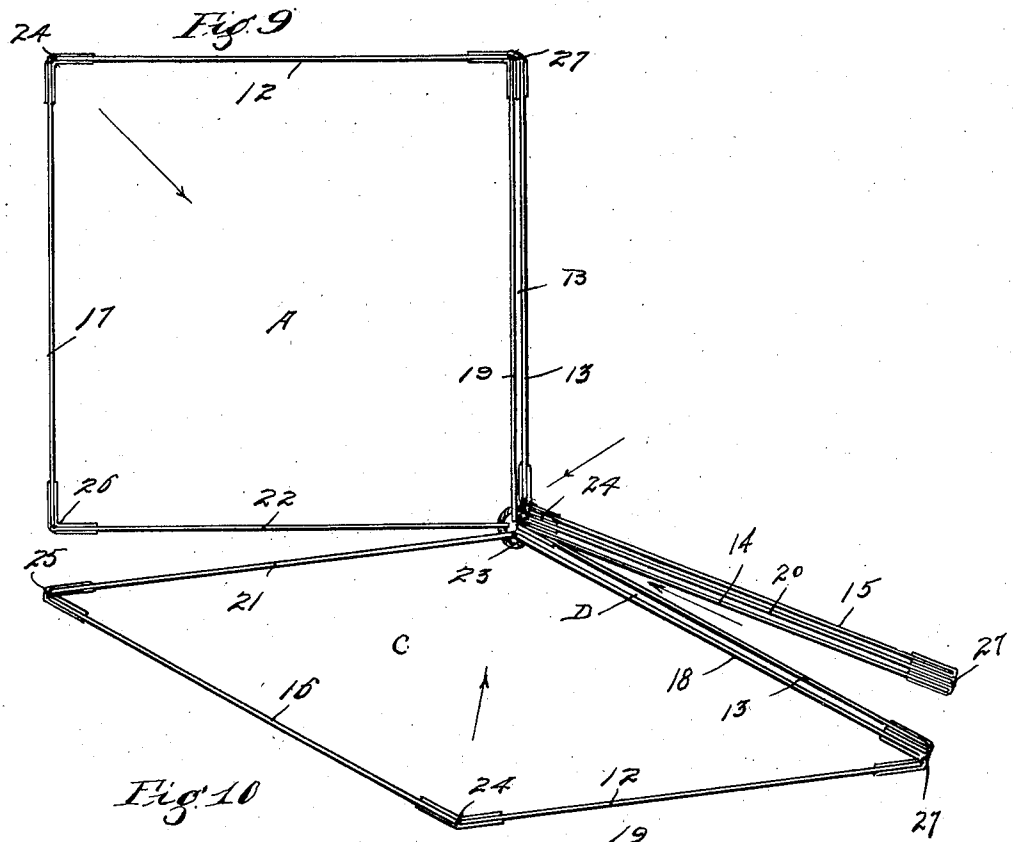


Fig. 10

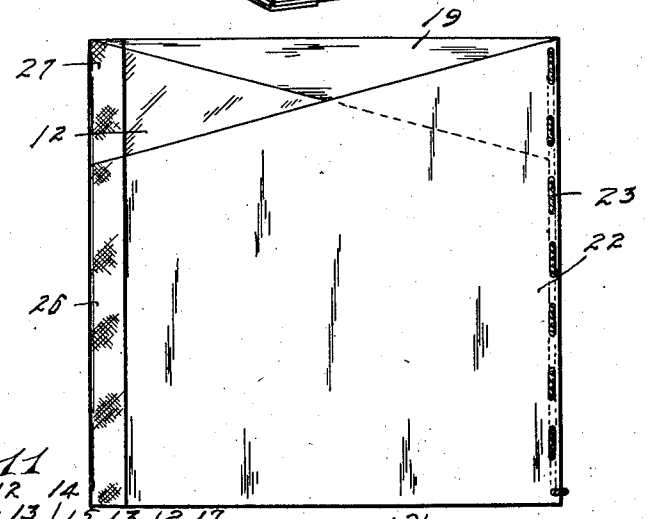
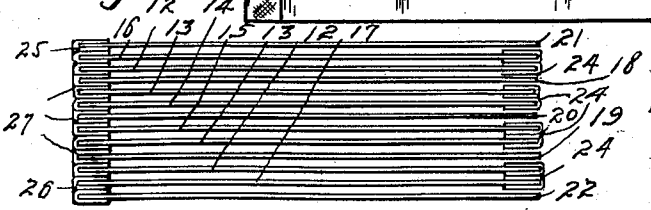


Fig. 11



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Patented Oct. 7, 1947

2,428,628

UNITED STATES PATENT OFFICE

2,428,628

DOLL HOUSE

Reva Harris Keston, Minneapolis, Minn.

Application March 1, 1946, Serial No. 651,222

6 Claims. (Cl. 46—21)

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My invention relates to improvements in doll houses and more particularly to one that is foldable.

The object of this invention is to provide a foldable doll house that can be quickly set up or folded into a very compact space to facilitate packaging and storing when not in use.

To the above end the invention consists of the novel construction and arrangement hereinafter described and defined in the claims.

In the accompanying drawing, which illustrates the invention, like characters indicate like parts throughout the several views.

Referring to the drawings;

Fig. 1 is an end elevation of the improved doll house;

Fig. 2 is a side elevation of the same;

Fig. 3 is a fragmentary detail view, partly in plan and partly in section, taken substantially on the line 3—3 of Fig. 2;

Fig. 4 is a view looking at the parts shown in Fig. 3 in the direction of the arrow shown in Fig. 3;

Fig. 5 is a top view of the doll house with the roof and chimney removed;

Figs. 6 and 7 are fragmentary isometric views on an enlarged scale of the double and treble hinges respectively used in connecting the walls and partitions of the doll house;

Fig. 8 is a fragmentary isometric view of one of a plurality of clips applicable to the corners of the doll house to prevent folding thereof.

Fig. 9 is a view corresponding to Fig. 5 showing the body of the doll house partly folded;

Fig. 10, is an elevational view showing the body of the doll house completely folded; and

Fig. 11 is an edge elevation view of the folded body of the doll house.

The end walls of the doll house each comprises two sections 12 and 13, one of the side walls comprises two sections 14 and 15 and the other side wall comprises two sections 16 and 17. The wall sections of each pair 12—13, 14—15 and 16—17 are duplicate and horizontally spaced.

A longitudinal partition extends completely through the doll house from one end thereof to the other and midway between the side walls thereof. This partition comprises duplicate horizontally endwise spaced sections 18 and 19. A transverse partition extends completely through the doll house at the longitudinal center thereof. This transverse partition comprises a section 20 that extends from the joint between the two side wall sections 14 and 15 to the joint between the partition sections 18 and 19, and two laterally spaced sections 21 and 22 that extend from said joint between the partition sections 18 and 19 and the joint between the said side wall sections 16 and 17. The partition sections 20, 21 and 22 are duplicates. All of the partition sections 18, 19, 20, 21 and 22 are hingedly connected at their inner ends by a lacing 23 for folding movement into parallel planes. The partitions 18, 19, 20, 21 and 22 divide the doll house into four rooms, A, B, C, and D of equal dimensions.

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The end and side wall sections at the four corners of the doll house are connected by double hinges 24. The side wall section 16 and the partition section 21 are connected at their adjacent ends by a double hinge 25 and the side wall section 17 and the partition section 22 are connected at their adjacent ends by a double hinge 26.

Obviously, the double partition sections 21 and 22 permits separate endwise movement of the side wall sections 16 and 17. This structure lends itself to the folding of the doll house as will hereinafter appear.

Triple hinges 27 connect the sections 12, 13 and 18—12, 13, and 19 and 14, 15 and 20, at their adjacent ends. One of the double hinges 24 is fragmentarily shown in Fig. 6, on an enlarged scale. Likewise, one of the triple hinges 27 is fragmentarily shown in Fig. 7. Each leaf of each hinge 24, 25, 26 and 27 is double and the opposing faces thereof are coated with an adhesive 28, as indicated in Figs. 6 and 7. The members of the leaves of the several hinges are each formed of a strip of fabric.

To apply the hinges to the several sections of the doll house the adhesive surfaces thereof 28 are first moistened, said sections inserted between the members of the leaves of the hinges, and said leaves pressed thereon. It will be noted that the hinges 24, 25, 26 and 27 extend the full height of the sections of the doll house to which they are applied.

The doll house has a gable roof comprising two duplicate sections 29 connected at the ridge of the roof by a fabric hinge 30 that extends the full length of the roof. The upper edge portions of the sections 12, 13, 20, 21 and 22 are reversely outwardly and downwardly inclined from the ridge of the roof to give the roof the desired pitch. The roof removably rests on the upper edges of the body of the doll house and the partitions therein and either section 29 of the roof may be lifted to afford access to the inner lying rooms A, B, C, and D.

The doll house is provided with a removable chimney 31 that extends through an aperture 32

in the roof sections 29. In the sides of the chimney 31, at the bottom portion thereof, are deep kerfs 33 into which the partition sections 18, 19, 20, 21 and 22 extend. These kerfs 33 not only hold the chimney 31 in position on the doll house but further tend to keep the partition sections 18, 19, 20, 21 and 22 in right angle arrangement. The chimney 31 also holds the roof sections 29 in position on the doll house. The sides of the chimney 31 are connected by fabric hinges 34 similar to the hinges 24 and extend the full length of said chimney. These hinges 34 permit the chimney 31 to be folded flat when removed from the doll house.

If found desirable or necessary, the body of the doll house may be held from folding and the ends and sides thereof kept in rectangular arrangement by clips 35, one of which is shown in Fig. 8 on an enlarged scale. The clip 35 is insertable over the end and side sections of the doll house at the top of its corners.

To fold the doll house, the chimney 31 is first removed and folded flat. Next, the roof is removed and the sections 29 thereof folded, the one upon the other. If clips 35 are applied to the doll house, at the top of the corners thereof, they of course must also be removed.

It may be here stated that, as is evident, the side section 16 and the connected partition section 21 and the side section 17 and the connected partition section 22 are free for separate and independent bodily movements toward and from each other about the center of the doll house body. This construction is necessary to permit distortion of the doll house body out of square in order to successively fold the sections forming each room A, B, C, and D.

To fold the doll house body, the four corners of said body are successively moved toward the center of said body. Or in other words, the corners of the doll house body are successively moved diagonally into the rooms A, B, C, and D as indicated by directional arrows on Fig. 9.

Fig. 9 shows the doll house body partially folded and during the folding thereof the end and side sections of each room are brought into parallel arrangement with the partition sections to which they are hingedly connected. Each end or side section and the hingedly connected partition section is free to swing laterally about the center of the doll house body, whereby said end and side sections and the connected partition sections are free for folding movement the one upon the other as shown in Figs. 10 and 11.

In actual production of the doll house, the same will be provided with or have illustrated thereon, doors and windows and the body of the doll house colored and decorated to give a finished and pleasing effect.

From what has been said, it will be understood that the doll house described is capable of modifications as to details of construction and arrangement within the scope of the invention herein disclosed and claimed.

What I claim is:

1. A foldable doll house, the outer walls of which form a rectangle hingedly connected at the corners, each wall comprising two horizontally endwise spaced sections, partitions extending one from each of the joints between the sections of three of the walls to the center of the doll house, the sections of each of said three walls and one end of each respective partition being all hingedly connected together, and two other partitions extending one from the inner edge of each of the sections of the fourth wall and hingedly connected thereto, all of said partitions being hingedly connected at their inner ends.

2. A foldable square doll house the walls of which are hingedly connected at the corners, each wall comprising two duplicate horizontally endwise spaced sections, two duplicate partitions extending from the joints between the sections of two opposite walls to the center of the doll house, a third partition perpendicular to the first noted partitions and extending from the joint between the sections of one of the other walls to the center of the doll house, each of said partitions and the inner ends of the respective wall sections all being hingedly connected together, and two other partitions hingedly connected one to each of the inner ends of the sections of the fourth wall, said third partition and the last noted two partitions being duplicates, all of the partitions being hingedly connected at their inner ends.

3. The structure defined in claim 1, further including a removable roof for the doll house comprising sections hingedly connected together.

4. The structure defined in claim 2 further including a removable gable roof for the doll house comprising two duplicate sections hingedly connected to each other at the ridge of the roof, the edges of two of the opposite walls of the doll house and the partitions that are parallel thereto being outwardly and downwardly inclined from the ridge of the roof to support said roof at the desired pitch.

5. The structure defined in claim 2 further including a foldable chimney extending through an aperture in the roof and having in its lower end portion, kerfs into which the partitions extend.

6. The structure defined in claim 1 further including clips applicable to the walls of the doll house at the corners thereof for holding the walls in rectangular arrangement.

REVA HARRIS KESTON.