

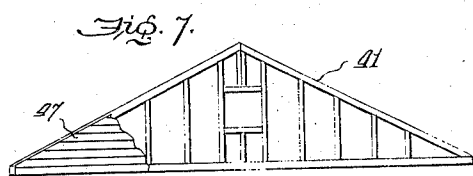
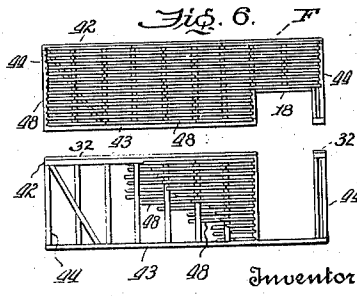
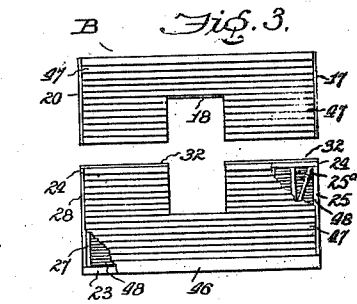
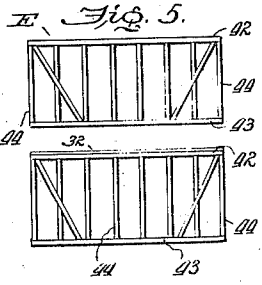
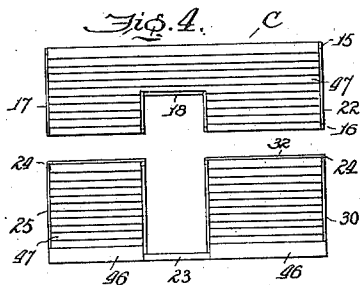
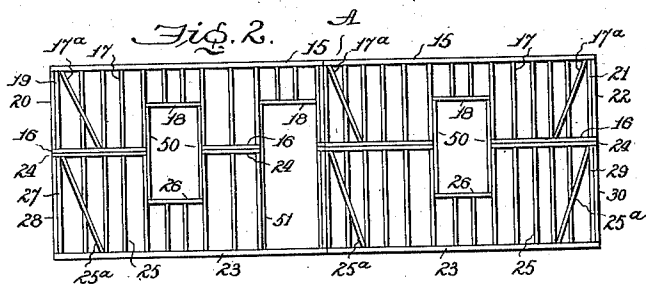
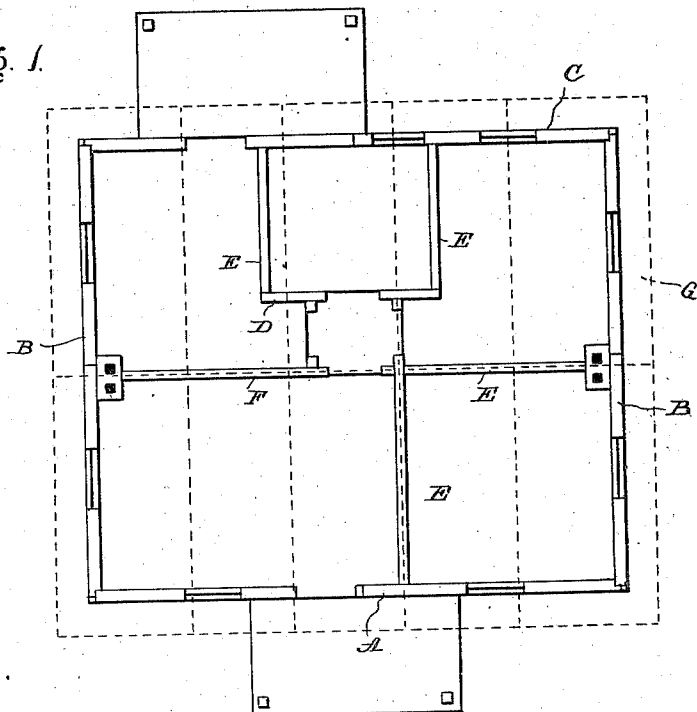
1,315,142.

H. MASON.
FRAME HOUSE CONSTRUCTION.
APPLICATION FILED JULY 8, 1919.

Patented Sept. 2, 1919.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 8.

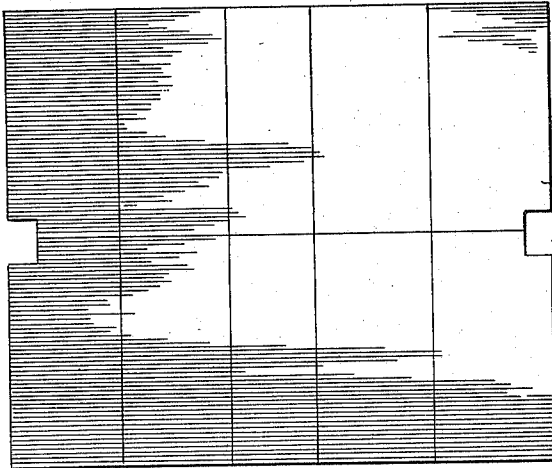


Fig. 11.

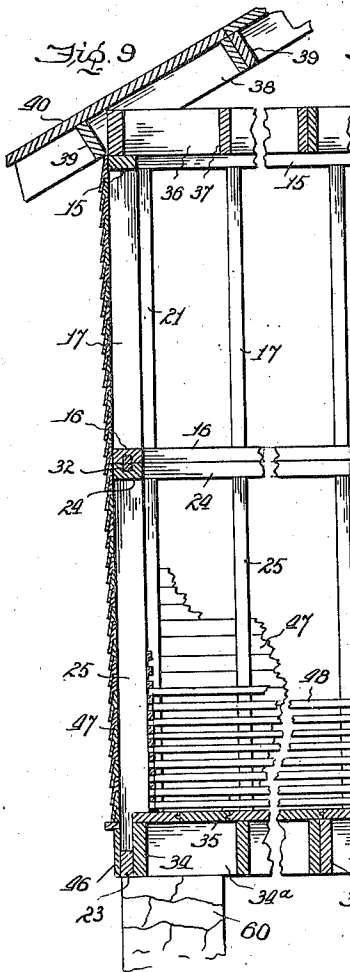
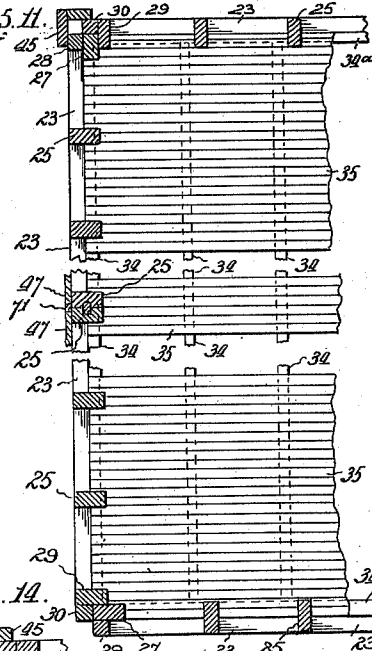


Fig. 10.

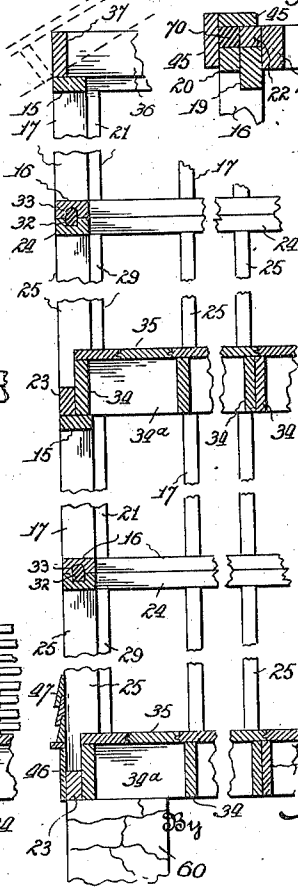


Fig. 14.

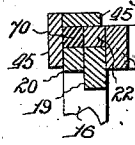


Fig. 12.

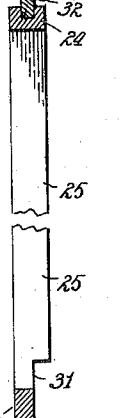


Fig. 13.

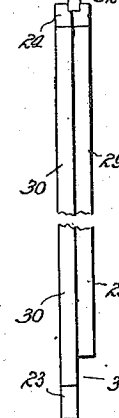
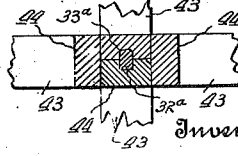


Fig. 15.



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FRAME-HOUSE CONSTRUCTION.

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Specification of Letters Patent.

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Application filed July 8, 1919. Serial No. 309,308.

To all whom it may concern:

Be it known that I, HOGGE MASON, a citizen of the United States, residing at Bluefield, in the county of Mercer and State of West Virginia, have invented certain Improvements in Frame-House Construction, of which the following is a specification.

My invention relates to that particular class of frame houses in which the main parts of the structure, such as the walls, floors, &c., are made up in suitable sections at the mill or factory so as to effect a saving in labor and material and provide for the erection of the building in an expeditious manner and with the employment of unskilled labor, requiring only that the sections be set up and properly fastened together.

The primary object of my invention is to provide a system of frame house construction by which the builder is furnished with made-up strongly-built sections or units for the walls, partitions, floors, &c., which are fitted together in constructing the same at the mill or factory so as to provide true joints between the sections comprising a wall, partition, etc., and thereby insure a proper fitting of said sections in the erection of the building and the required stability of the complete structure; the sections for the walls and partitions in the present instance being constructed in longitudinally disposed pairs constituting the upper and lower portions of a story of the building, with registering openings in said sections to provide the doors and windows, and with peculiar means for fastening each pair of sections together and to the adjoining sections.

The particular construction of the made-up sections or units also provides in the present instance for readily and conveniently planning houses of different designs and of various plans in the arrangement of rooms, &c., and also permits a house of any particular plan or design to be increased in size or modified in general design by adding other sections or re-arranging the sections constituting the original plan.

With the foregoing principal objects in view my invention consists more especially in producing at the lumber mill or factory frame house sections of substantial construction and longitudinally disposed in pairs to form the outside walls of a one or two story house with the required window and door openings and which cooperate with the combined sections forming the partitions, floors,

&c., in building a frame house which is as strong as those built in the conventional manner and possess features of construction of peculiar advantage; all as hereinafter fully described and specifically set forth in the appended claims.

In the accompanying drawings:

Figure 1 is a view showing the floor plan of a house of conventional design that may be constructed of sections made up at the factory in accordance with my invention.

Fig. 2 is an elevation showing the framing of the sections for the walls of the front of the house according to the plan in Fig. 1.

Fig. 3 is a view showing made-up companion sections for a part of a side of the house, with a window opening.

Fig. 4 is a similar view showing companion sections with a door opening.

Figs. 5 and 6 are elevations showing the frame-work of sections to provide inside partitions.

Fig. 7 is the frame-work of a gable-end section.

Fig. 8 is a plan of the flooring sections combined to provide the floor of the house.

Figs. 9 and 10 are enlarged vertical sectional views showing sections assembled and connected to form one and two story houses, respectively.

Fig. 11 is a transverse sectional view showing the arrangement of the wall sections with respect to the flooring.

Figs. 12 and 13 are detail views of one of the framing sections of the wall construction.

Fig. 14 is an enlarged detail sectional view of the corner structure of the house, and

Fig. 15 is a sectional view of a detail hereinafter referred to.

In carrying out my invention it is my purpose to so construct the different made-up sections that they will be of a size or sizes convenient to handle for transportation and may be readily placed in position and secured together in building the house; each outside wall of a one-story house of ordinary size and plan requiring in the present instance but two pairs of longitudinal sections which are provided with door and window openings and with interlocking joints and reinforcing pieces adapted to increase the rigidity of the structure when completed.

Referring to the drawings illustrating the application of my invention in the construc-

tion of an ordinary square house I have, in Fig. 1, shown one design of floor plan, in which A designates the front wall, B, B the side walls, C the rear wall, D, E and F inside partitions, and G the roof, the latter being indicated in dotted lines.

At the outset it will be borne in mind that the sections for the outside walls and partitions are constructed in pairs longitudinally disposed, each pair of sections forming a part of the wall or partition. The upper section of each pair of wall sections comprises a wall plate 15, lower horizontal rails 16, 16 on a line with each other, and vertical connecting pieces or studding 17, the latter being spaced a suitable distance apart to give the required stability and provide for nailing the siding and laths thereto; the framework being more thoroughly braced by diagonal pieces 17^a at the outer ends of the section, and in the present instance the said section is completed at the mill or factory by attaching the siding 47 at one side, with interposed sheathing if desired, and lathing 48 at the other side. In making the section to provide for a window or door opening in the wall two or more of the connecting pieces or studding are reduced in length from the wall plate and a cross-piece 18 attached, as shown, the siding and lathing of course being stopped at the opening; and to provide a substantial corner-post construction for the building the studding, as 19, (Fig. 14) at the outer end of said section is turned and disposed parallel with the length of the top and bottom pieces of the framing and disposed flush with the inner edges thereof, and a half studding 20 attached to the outer side of the aforesaid studding at the outer edge thereof. The studding and half studding of this front wall section coöperate with a studding 21 and companion half-studding 22 on the adjoining upper section of the side wall of the building to form a corner-post structure which is reinforced by a filling piece 70 and corner facing boards 45; said filling piece and facing boards however not being applied until the house is erected. As will be noted the disposition of the studding 21 and half-studding 22 at the outer end of the side wall section is such as to form a rabbet to receive the studding 19 of the front wall section, and therefore in this instance the aforesaid studding 21 is disposed transversely at the ends of the top and bottom pieces of the section and the half-studding attached at the outer corner.

The companion lower section of each outside wall section is made up in like manner to the upper section hereinbefore described, but in this instance the lower ends of the studding 25 are notched at their inner sides, for the purpose hereinafter explained, and the bottom piece 23, forming the sill plate,

is disposed on edge at the lower ends of said notched studding. The lower part of the window or door opening in this lower section is located with respect to the upper part of the door or window opening in the companion upper section, and is formed by reducing the length of two or more stud-dings, in the case of a window-opening, with an attached cross-piece 26, the long stud-dings being connected at their upper ends by rails 24, 24. This section is likewise braced by diagonal pieces 25^a at the outer corners, and has the siding and lathing attached to the outer and inner sides thereof, respectively, and, furthermore, is provided with a construction for the corner-post at its outer end to correspond with that on the companion upper section, the studding 27 and half-studding 28 (Fig. 11) being arranged similar to the studding 19 and half-studding 20, and of course the adjoining lower section of the side wall is provided with a studding 29 and half-studding 30 on a line with the studding 21 and half-studding 22 of its companion section.

Each pair of sections hereinbefore described form a portion of a one-story wall, and together extend the full height of said wall, and in order to lock said sections together in erecting the house the meeting rails of the two sections are provided respectively with a strip 32 and recess 33, the strip or strips being on the rails of the lower section and rounded at their upper edges so as to more easily slip into the recesses when the upper section is placed in position on the lower section. To further reinforce the connection of the pairs of wall sections in the erection of the house strips 50 are attached at the sides of the window and door openings to extend the full length of said openings, and facing strips 71 (see Fig. 11) the full height of the story are attached wherever one pair of wall sections meet another pair of wall sections between the corners of the house; and, of course, the corner facing boards 45, hereinbefore referred to, in connection with the filling pieces 70, which latter also extend the full height of the one-story wall, serve to further brace the walls of the building. In making up the coöperating pairs of outside wall sections the window and door openings are located at any point or points, according to the particular plan of house desired, and in making the sections at the factory it is preferable to fit and clamp the framework of all the sections constituting a wall together on a large bench so that they will be properly joined and will readily fit together when disassembled and shipped to the place where the house is to be erected.

For convenience in the building of the house the floor is also made up of sections,

as indicated in the plan Fig. 8, each section consisting of joists 34 and flooring boards 35, the joists being arranged parallel to each other, as usual, and connected at the ends by cross-joists 34^a adapted to rest on the foundation wall, as 60, at right angles to the joists at the other two sides of the floor. The joints for the floor sections are formed by extending the floor boards at one side, as shown in Figs. 9 and 10, to overlap the joists of the adjoining section, the several sections being fastened together by nailing. It will be especially noted that the joists around the edges of the floor, that is at both the sides and ends thereof, cooperate with the construction at the lower ends of the lower sections of the side walls, in that said floor structure fits in the notched lower ends of the studding 25 against the sill pieces 23 to which the joists are nailed or spiked, and in connection with the lower facing board 46 seals the base of the house around the foundation walls to prevent cold air from going up within the walls and to also keep out rats, mice, &c.

The framing for the ceilings of the several rooms, including the joists and lathing to receive the plastering is also made in sections, each comprising parallel joists 37 and connecting end pieces or joists 36, with lathing at the underside; the roof sections being similarly constructed of parallel rafters 39 with connecting end pieces or rafters 38 covered by sheathing 40 to receive shingles, tin, or other roofing material.

The sections to provide the partitions or inside walls of the house are also made up in pairs to be placed one on top of the other, the cooperating pairs having suitably located door openings. Each longitudinal section, upper and lower, consists of upper and lower rails, 42 and 43 respectively, with suitably spaced studding 44, with lathing attached to both sides to receive the plastering after the sections have been placed in position in the house; and in this instance, also, the companion partition sections are provided with tongues and grooves at their meeting edges.

In Fig. 7 I have shown the framing for the gable-ends of the house, this framing, 41, being covered on its outer side by weatherboarding or shingles, as desired, and it will be understood, of course, that the term "siding" applied to the outer covering for the wall sections includes weatherboarding, shingles, &c.

In erecting a house from sections made up or constructed as hereinbefore described, the floor sections 35 are first fitted together on the foundation walls 60 and spiked together; the lower sections of the outside walls are then set up and securely spiked to the joists at the sides and ends of the

floor; the companion upper sections of the walls are then fitted on top of said lower sections and in addition to being nailed together where they meet the sections are braced in upright position by the strips 50 attached to the sides of the door and window openings and by the filling pieces 70, facing boards 45, and joint covering strips 71. The sections forming the partitions or inside walls are put in proper positions to rise from the floor at locations according to the plan of the house; the ceiling sections then placed on top of the walls and partitions, the gable-end sections placed on the walls at the ends of the building, and finally the roof sections are set in position and nailed or spiked together. It will be understood, of course, that the chimney and foundation walls are built before erecting the house with the made-up sections, and that the floor, ceiling, and roof sections are provided with openings to accommodate the chimney.

It is very clear that the work of erecting a house from made-up sections constructed as described can be accomplished very quickly, and that when the different parts of the house are assembled and nailed together a house having the required strength will be produced; the joints all around the sections of the outside walls being properly covered to exclude air and tied together to increase the stability of the structure.

When the sections comprising the floor, side walls, partitions, ceiling, gable-ends, and roof are all put in place and secured together the house may then be finished by putting on the roof, placing the window and door frames, plastering the inside walls, and finishing with the trim, hardware, &c.

In building a two-story house of the general plan illustrated in Fig. 1 it is necessary only to duplicate the flooring sections to provide the second floor, erect outside wall sections corresponding with those comprising the first story, set up partitions where desired, put the ceiling sections in place as used in a one-story house and put on the gable-ends and roof sections. In this instance also the different parts of the structure are strongly tied or fastened together, and as will be noted in Fig. 10 illustrating a two-story building the sill piece 23 and end joists at the bottom of the upper story are spiked to the wall plate 15 at the top of the lower story, and the joint further braced by the siding 47 covering said joint. In this manner the structure forming the second story of the house rests securely on the wall structure forming the first story and the rigidity is further strengthened by the partitions of both the first and second floors.

In the modification, Fig. 15, I have shown the manner of connecting partition sections at their ends by tongue 32^a and groove 33^a,

fitting one within the other to provide a tight joint, and of course the connection at this point is still further reinforced when other partitions extend therefrom at right angles.

I claim:

1. In a construction for frame houses, the combination of a pair of longitudinally disposed sections one superimposed on the other to form a wall of the house to extend the height of a story of said house, each section comprising a frame having top and bottom pieces or rails and connecting studding with some of the studding and one of the rails partly cut away and reinforced by a cross-piece to form one portion of an opening registering with the other portion of the opening in the companion wall-section; together with siding attached to one side of the wall sections and laths attached to the other side thereof, substantially as shown and described.

2. In a construction for frame houses, the combination with a flooring having joists at its ends, of a pair of longitudinally disposed sections one superimposed on the other to form the upper and lower portions of a one story wall of the house, said sections comprising frames having top and bottom pieces or rails and connecting studding with the meeting rails and some of the studding partly cut away to provide an opening in the wall, the bottom rail or sill piece of the lower section being placed edgewise at the outer edges of the studding and the inner lower ends of said studding notched on a line with the inner edge of the sill piece to receive the flooring and floor-joist; together with siding attached to one side of the wall-sections and laths attached to the other side thereof, substantially as shown and described.

3. In a construction for frame houses, the combination with a flooring having joists at its ends, of a pair of longitudinally disposed sections coöperating to form the upper and lower portions of a one-story wall of the house, said sections comprising frames having top and bottom pieces or rails and connecting studding with the meeting rails and some of the studding partly cut away and reinforced by cross-pieces to

provide an opening in the wall, the bottom rail or sill piece of the lower wall section being placed edgewise at the outer edges of the studding and the adjacent inner edges of the studding notched on a line with the inner edge of said sill piece to receive the flooring and floor joist, a tongue on the meeting rail of one section coöperating with a groove in the meeting rail of the companion section, siding attached to one side of the wall sections, and laths attached to the other side of said wall sections; together with strips attached to the sides of the opening in the wall to brace the sections together and vertical facing strips attached to the ends of the joined wall sections to reinforce the wall structure, substantially as shown and described.

4. In a wall structure for portable frame houses, the combination of longitudinal sections coöperating in pairs to form the upper and lower portions of one story of the house, each section comprising top and bottom pieces or rails and connecting studding with the meeting rails and some of the studding partly cut away to provide an opening in the wall, the studding at the outer end of one pair of sections at a corner of the house being arranged with a full width studding disposed parallel with and at the inner edges of the top and bottom rails of the sections with half studding attached to the outer side of said full width studding at the outer corner thereof and flush with the ends of the top and bottom rails, and the studding at the outer end of the pair of wall sections forming the other part of the corner of the house being arranged with full width studding disposed transversely between the ends of the top and bottom rails and half studding at the outer side and outer edge of said full width studding, whereby the full width and half width studding at the outer ends of the two pairs of wall sections interlock; together with reinforcing pieces for the corner structure extending the full height of the story and attached to the aforementioned full width and half width studding of the wall sections, substantially as shown and described.

HOGGE MASON.