

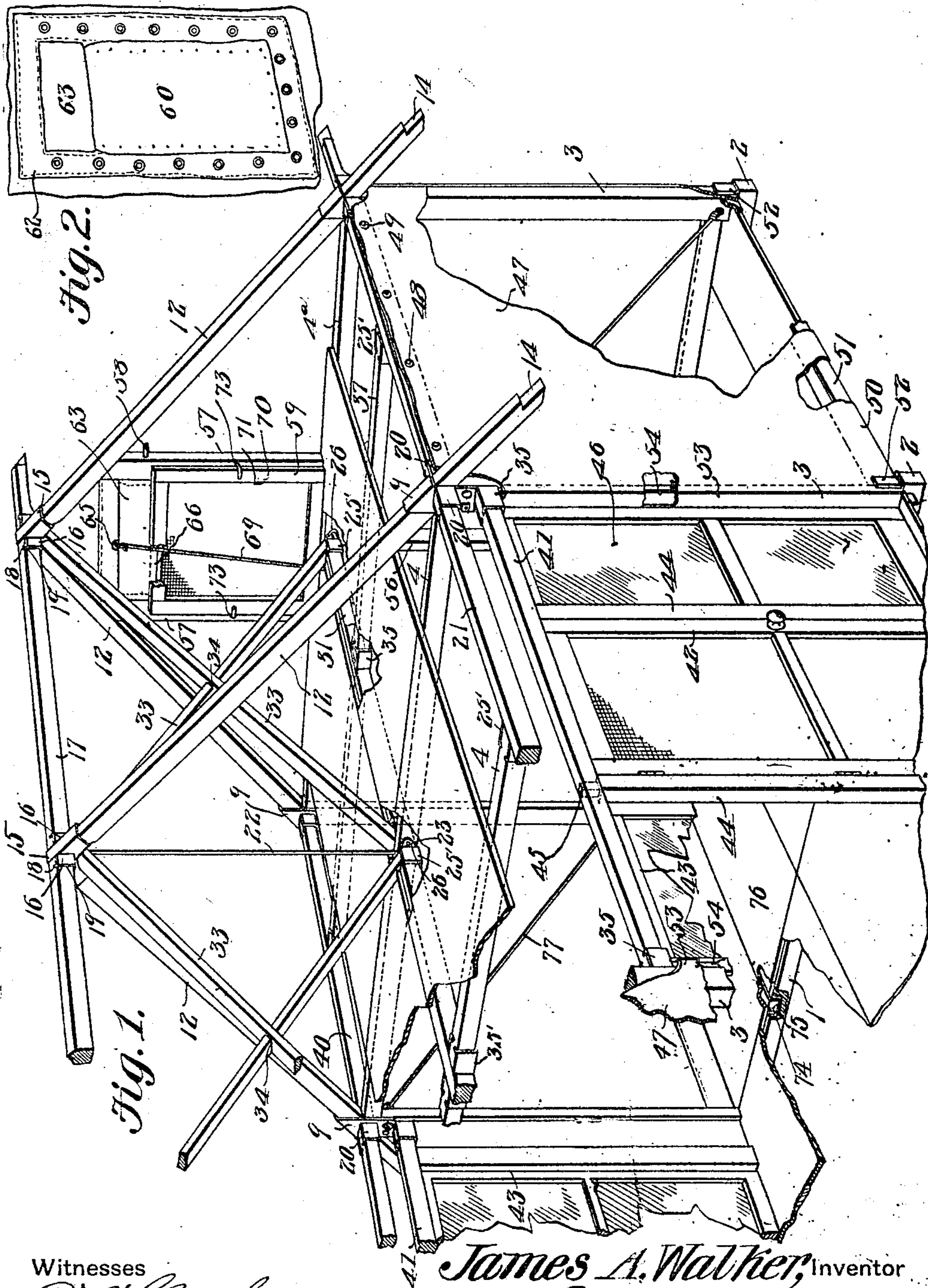
No. 831,810.

PATENTED SEPT. 25, 1906.

J. A. WALKER.
PORTABLE HOUSE.

APPLICATION FILED OCT. 13, 1905.

2 SHEETS—SHEET 1.



Witnesses

E. J. Stewart
Wm. Ragger

James A. Walker, Inventor

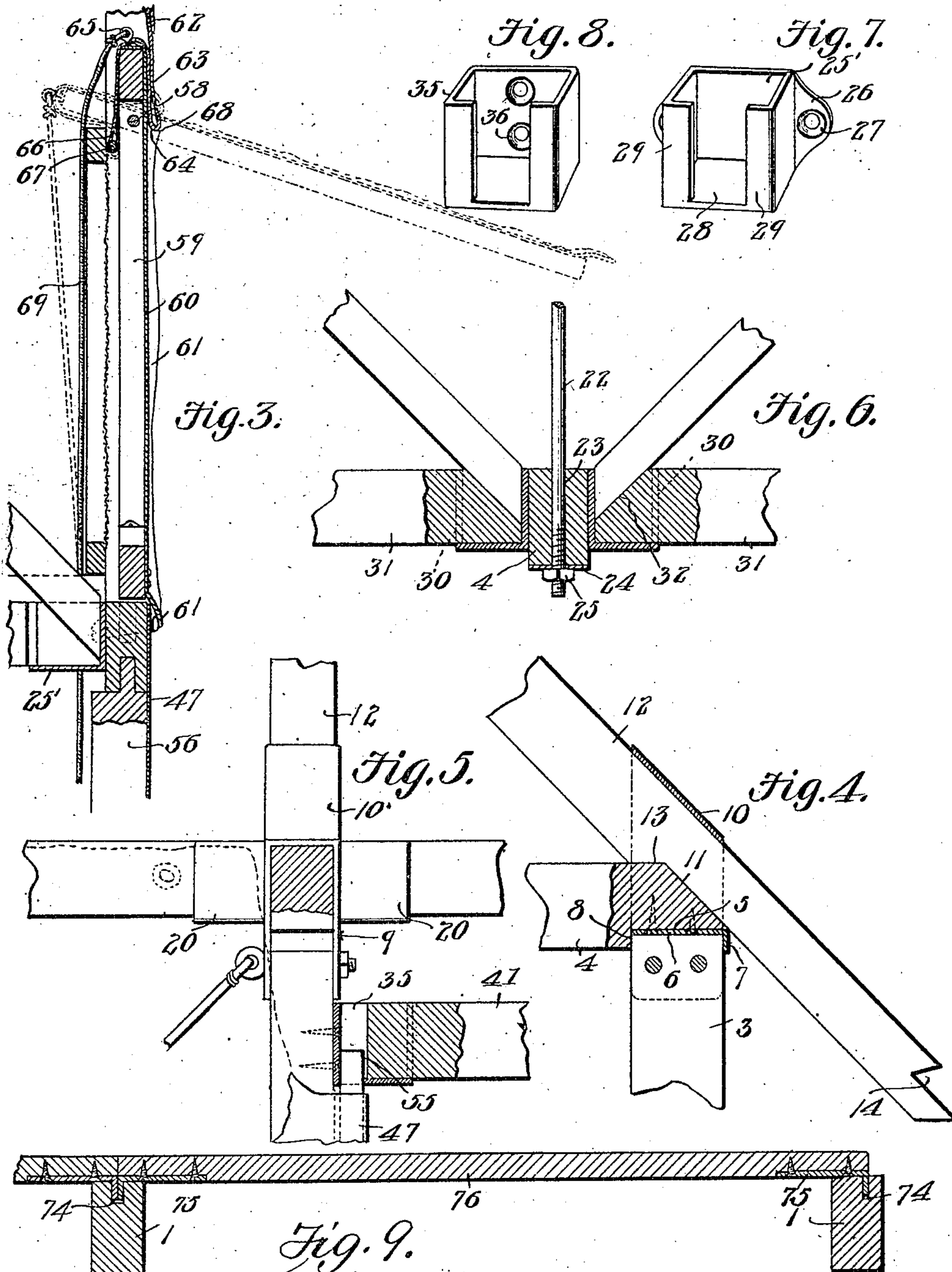
by *Cashnow & Co*
Attorneys

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UNITED STATES PATENT OFFICE.

JAMES A. WALKER, OF ROCKFORD, ILLINOIS.

PORTABLE HOUSE.

No. 831,810.

Specification of Letters Patent.

Patented Sept. 25, 1906.

Application filed October 13, 1905. Serial No. 282,672.

To all whom it may concern:

Be it known that I, JAMES A. WALKER, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Portable House, of which the following is a specification.

This invention relates to portable houses, and it may be described as being an improvement on the portable house for which Letters Patent of the United States No. 797,474 were issued to me on the 15th day of August, 1905.

The invention patented to me as aforesaid had reference mainly to the means for connecting the sills, uprights, plates, rafters, and other timbers entering in the construction of the frame and to the peculiar construction of the flexible wall and roof covering and the means for attaching the same to the skeleton frame.

The present invention relates to certain improvements in the skeleton frame.

The present invention further consists in improvements in the interior construction of the house, whereby thorough ventilation and sanitation are promoted.

The invention further consists in certain improvements in the construction of the ventilating means.

The invention further consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be resorted to when desired.

In the drawings, Figure 1 is a perspective view showing a portion of the framework and of the wall-coverings of the improved portable house looking in the direction of one end of the same. Fig. 2 is an exterior detail front view of the ventilator. Fig. 3 is a vertical sectional view, enlarged, taken through the ventilator and adjacent parts. Fig. 4 is a sectional detail view showing the contiguous ends of one of the posts or uprights, one of the cross-beams or stringers, and one of the rafters and the connecting means for said members. Fig. 5 is an elevation, partly

in section, showing one of the posts or uprights, the rafter and plates supported thereby, and a portion of a door-lintel. Fig. 6 is a sectional detail view showing portions of the stringer-beams and their supporting means, together with portions of the braces. Figs. 7 and 8 are perspective detail views of supporting-sockets used in connection with the invention. Fig. 9 is a sectional detail view taken through a part of the flooring.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The skeleton or framework of the present invention is composed of a plurality of transverse members or flooring-sills 1 1, the ends of which are provided with sockets 2, supporting the lower ends of the posts or uprights 3, supporting at their upper ends the cross-beams 4, which latter are provided with notches 5, forming shoulders that abut upon the inner sides of the posts. In said notches are secured plates, as 6, (see Fig. 4,) the other ends of which are bent downward to form hooks 7, engaging the outer sides of the posts, the upper ends of which will thus be confined between the shoulders 8 at the inner ends of the notches 5 and the hooks 7, so that they will be braced against strain in an inward as well as an outward direction.

Secured to the upper ends of the posts 3 are clips or clevis members 9, having inclined or oblique upper sides 10, said clevis members being open for the insertion of the ends of the cross-beams 4, the outer extremities of which are cut off obliquely, as shown at 11 parallel to the inclined upper sides of the clevis members. The latter are for the reception of the lower ends of the rafters 12, which are provided with cut-away ends forming shoulders 13, that abut upon the upper edges of the cross-beams 4 at the extremities of the latter, thus locking the parts securely together. The outer extremities of the rafters are provided with notches 14 for the reception of the attaching means for the roof, which, however, does not form a part of the present invention, being shown and claimed in my previous patent, to which reference has heretofore been made.

The upper ends of the rafters are fitted in angular caps 15, the sides of which are provided with laterally-extending socket members 16 for the reception of the ends of the ridge-beams 17, the sides of which are provided with notches 18 for engagement with

flanges 19, forming parts of the socket members 16, and whereby the ridge-beams will be held securely against longitudinal displacement. Similar socket members 20 are formed upon the sides of the clevis members 9 for the reception of the plates 21, which are thus firmly retained in position and which, together with the ridge-beams, serve to space apart the bents, including the bottom sills, the uprights, and the rafters, it being understood that any desired number of such bents may be included in the complete structure.

The cross-beams 4, except those of the end bents which constitute the plates and which have been specially designated 4^a, are supported from the angular caps 15 by means of vertical rods 22, extending through apertures 23 in said beams and provided with washer-plates 24 and nuts 25, whereby the parts may be tightened together. Said cross-beams 4 are provided upon the sides thereof with supporting-sockets 25, which are of rectangular shape and provided with laterally-extending ears 26, having perforations 27 for the passage of screws or other suitable fastening members. The front sides of the sockets are provided with notches 28, whereby flanges 29 are formed, said flanges being adapted for engagement with notches or kerfs 30 in the sides of longitudinal stringer-beams 31, which are supported in said sockets and which assist materially in spacing and connecting the bents. The ends of the stringers 31 are cut off obliquely, as shown at 32, (see Fig. 6,) to admit of the insertion within the socket members of diagonal braces 33 33, which intersect each other and are gained together, as will be seen at 34, the upper extremities of said braces abutting upon the cap members 15 beneath the laterally-extending sockets 16 upon said cap members.

Socket members, as 35, are secured upon the inner sides of the plates 21 and upon the proximate sides of the stringer-beams 31, said socket members being identical with the socket members 25, with the exception that instead of being provided with laterally-perforated ears the back walls of said socket members are provided with apertures 36 for the passage of screws or similar fastening members. These socket members 35 are for the accommodation of the extremities of short horizontal cross-beams 37, which are utilized not only for reinforcing the general construction, but also for the purpose of supporting a horizontal partition which constitutes a ceiling for the lower portion of the house and which may also constitute a flooring for the attic portion, the sides of which are bounded by the rafters. It is, however, to be understood that this horizontal partition may be constructed of flexible (such as textile) material, if preferred, although in the accompanying drawings it has been illustrated as being made up of sections 38 of

light planking. It will also be seen that this partition does not extend the entire width of the structure, but that it terminates at a distance from the sides or walls where openings 40 extend the entire length or for any desired portion of the length of the structure.

The posts or uprights 3 of the intermediate bents of the structure are provided upon their proximate sides near their upper ends and below the plates 21 with sockets of the species herein described and designated 35 for the reception and support of lintel-beams 41, which on one side of the building constitute part of a door-frame and on the other side part of a window-casing, (designated respectively, 42 and 43.) The door-frame includes posts 44, the upper ends of which are provided with tenons 45, engaging mortises in the lintel. The door and window casings may be of any desired construction, and windows, as 46, may be arranged adjacent to the door, as it is not desirable that the latter should be of extreme width. These details, however, are of no particular importance, the essential feature of this part of the invention residing in the disposition of the lintel at a sufficient distance below the plate to enable the door to swing clear of the eaves.

The side walls of the building are composed of textile material, as 47, the same being cut to conform to the ends of the building, including the gables, and to the sides below the eaves, the upper edges of the wall members being connected with the end rafters and with the side plates by means of buttons 48 and eye-lets 49 or in any other convenient well-known manner. The lower edges of the side portions of the flexible wall members, as in my previous patent above referred to, are provided with hems 50, within which are placed strips 51, adapted to engage recesses near the lower ends of the uprights 3, where said strips are secured by means of wedges 52 driven in the outer extremities of the sockets 2. Under the present invention, however, the ends of the wall members 47 are provided with hems 53, in which are placed strips 54, which are drawn tight adjacent to the inner sides of the posts 3, that support the lintel members 41, the sockets 35 being provided in their under sides with slots 55 for the reception of the upper ends of the strips 54, which will thus be firmly secured and serve to hold the flexible wall members tight and taut.

The end bent of the structure has a reinforcing-upright 56, and a pair of uprights 57 extend between the end plate 4^a and the rafters 12, with which said uprights are suitably connected, as by means of tenons engaging mortises in the plate and the rafters. Extending horizontally through the upright 57 is a hinge-rod 58, upon which is mounted a frame 59, which is exteriorly covered with flexible material 60, having overlapping side and bottom flaps 61, that overlap the edges of

an opening which is cut in the gable portion of the wall material, said opening being reinforced at its sides and lower edges by binding 62, as best seen in Fig. 2 of the drawings.

5 The flap or tongue 63, of material which is cut out in order to form the opening, is detached at the sides and lower edge only and remains attached at the upper edge, said flap being doubled upon itself upwardly and inwardly, as shown at 64, (see Fig. 3,) and thence passed over the upper edge of the frame 59, to which it is secured by means including a screw-eye 65. The free extremity of the flap is provided with a hem 66, in which is placed a weight-rod 67, which holds the free extremity of the flap loosely in engagement with the inner side of the frame. The side flaps 61 of the covering 60 of the frame are notched or slashed at 68 adjacent to the upper edge of the opening in the end wall, thus combining with the flap 63 to form a dust and water proof joint which permits the frame to be opened by swinging it upon the pivotal rod 58 by means of an operating rope or element 69, which has been shown as attached to the screw-eye 65.

A frame 70, covered with foraminous material, such as wire-netting 71, has been shown supported against the inner sides of the uprights 57, the latter being provided with hooks or catches 73, whereby said screen is retained in position. The weighted extremity of the flap 63 abuts upon the screen and coöperates with the latter to form an insect-proof closure when the ventilating-frame 59 is thrown open to the position shown in dotted lines in Fig. 3.

The flooring-sills 11 of the improved structure are provided with longitudinal notches or recesses 74 for the reception of the ends of hook-plates 75, which are secured upon the under sides of the flooring-sections 76, which are supported upon the flooring-sills with their ends abutting upon each other. These flooring members materially assist in spacing and connecting the lower ends of the bents, and it is desired to be understood that the lower extremities of the wall portions are to be made to abut exteriorly upon the floor.

50 Inclined brace-wires 77 have been shown as connecting the lower and upper ends of the posts or uprights of adjacent bents for the purpose of reinforcing the general construction, said brace-wires being useful not merely to brace and connect the uprights and related parts of the frame, but also to brace the flexible wall material against impact of the wind.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. By this invention there is provided a portable house or camping-lodge of very simple and inexpensive construction, which is capable of being

packed for transportation in small compass, and which may be erected by unskilled labor in a few hours time at any place where it may be desired to sojourn. A very important advantage of the present invention resides in the fact that an attic is provided above the living apartment and that ventilation of a most thorough nature may be effected through the ventilating devices, one of which it is intended to use at each gable end, although but one has been shown in the drawings, which represent only one end of the house. The horizontal partition between the living-room and the attic may, as stated, be made of flexible (such as textile) material, and the openings between the side edges of the partition and the walls of the house permit the free upward passage of foul and vitiated air, which will escape freely through the ventilating-openings. When the horizontal partition is formed of planking, the attic will form a convenient storage-place for trunks and the like.

While in the accompanying drawings no roof has been shown for the structure, it is to be understood that a roof of flexible material is to be provided, said roof being constructed on the lines laid down in my previous patent, to which reference has been made.

Having thus described the invention, what is claimed is—

1. In a portable building, a frame including a plurality of bents suitably spaced and connected, lintel-supporting sockets upon the posts of adjacent bents said sockets being provided with slots in their under sides, and a flexible wall-covering stretched upon and suitably connected with one end of the building and having terminal hems and stiffening-strips in said hems; the latter being bent around the lintel-carrying posts and the upper ends of the stiffening-strips engaging the slots in the lintel-supporting sockets.

2. A portable knockdown frame including rafters forming gable ends, in combination with a flexible wall-covering for one end and part of the sides of said frame; said frame including a pair of spaced uprights at the gable end, and a ventilator-frame hinged between said uprights; and said wall-covering having an opening with a flap attached at the upper edge thereof, and said flap doubled upon itself and extended over and attached to the ventilator-frame.

3. A frame including a pair of uprights, a rod extending transversely through said uprights, a frame pivotally engaging said rod, a wall-covering of textile material having an opening with a flap attached at its upper edge said flap being doubled upon itself and carried over the pivoted frame and provided with a hem, and a weight-rod in said hem.

4. A frame including a pair of uprights, a rod, extending through said uprights, a ventilator-frame pivoted upon said rod, a textile covering for said frame having extending

flaps at its sides and lower edge, a wall-cover-
ing having an opening registering with the
pivoted frame, an attached flap at the upper
edge of said opening having a weight at its
5 free edge said flap being doubled upon itself
and over the upper edge of the frame, and
means connecting said weighted flap with the
frame.

In testimony that I claim the foregoing as
my own I have hereto affixed my signature in
the presence of two witnesses.

JAMES A. WALKER.

Witnesses:

E. M. SWAN,
B. H. GARRETT.