F. S. Barnum.

Portable House.

No. 1,439. Patented Dec. 21, 1839.

Fig. 2.

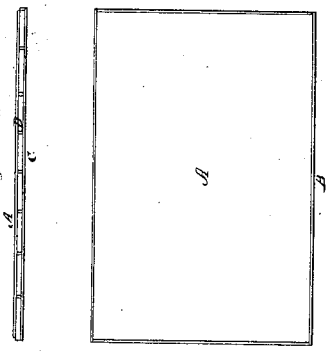


Fig. 3.

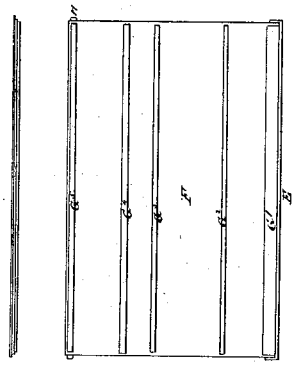


Fig. 4.

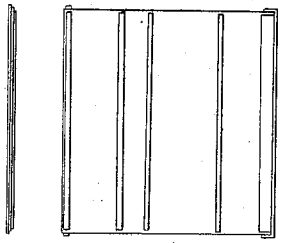


Fig. 9.

Fig. 1.

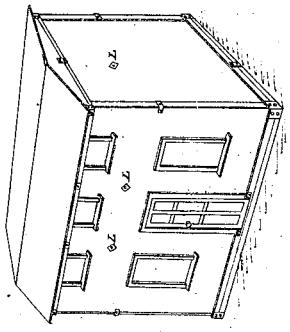


Fig. 5.

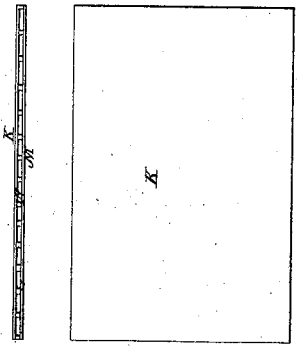


Fig. 8.

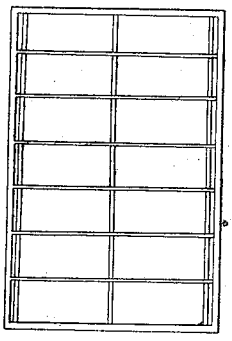
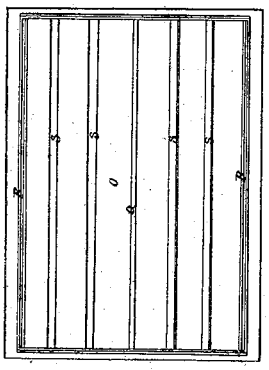


Fig. 7.

Fig. 6.



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UNITED STATES PATENT OFFICE.

FREDK. S. BARNARD, OF PHILADELPHIA, PENNSYLVANIA.

MODE OF CONSTRUCTING PORTABLE HOUSES FOR EMIGRANTS.

Specification of Letters Patent No. 1,439, dated December 21, 1839.

To all whom it may concern:

Be it known that I, FREDERICK S. BARNARD, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful improvement in constructing portable houses for transportation, which can be put up without the aid of a carpenter, called the "emigrant's portable house," which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1 is a perspective view of the house completed and put up ready for occupancy; Fig. 2, plan of the lower floor and view of the top edge; Fig. 3, inside view of one side of the building and view of the upper edge of ditto; Fig. 4, inside view of one of the ends and top view of the upper edge of ditto; Fig. 5, view of the second floor and edge view of ditto; Fig. 6, under side of the roof. Fig. 7, gable of roof; Fig. 8, frame of the lower floor; Fig. 9, the diamond shaped plate for securing the sides and ends to the floor.

Similar letters refer to similar parts in the figures.

The lower floor A is composed of a rectangular frame B the size of the building proposed to be erected say about 12x18 feet of stuff 3x4 inches mortised and tenoned together at the angles. Under the sides of this frame are secured boards C of greater width than the sides of the frame projecting inward so as to form ledges for the floor joists D to rest on which are also notched into the frame at the ends. This frame is to rest on piles, piers, or other supports in the position in which the building is to be placed or on a suitable foundation. One or more boards are secured to the under sides of the joists between and parallel to those just described. A floor A is laid and secured on these joists of a length and breadth equal to the frame less the thickness of the outside horizontal boards E which are to rest against the edge of the floor and upon the top of the frame. The side F of the house is composed of vertical parallel boards F planed on both sides and tongued and grooved and when put together form a side equal in length to the length of the floor A and secured on the inside by parallel strips G′ G″ G‴ G⁗ of less length than the side equal to twice their thickness and on the outside by two similar strips H E one above and the other below, the latter E being the strip that rests on the frame and the upper strips being placed below the upper edge of the side of the building equal to their thickness or the depth of the groove in the plate attached to the roof hereafter described. The lower inside strip G forms a washboard and is on a line with the ends of the vertical boards. The strip G above that which forms the washboard serves for the chair board. The third strip G from the bottom forms the inside casing of the doors and windows and serves as a pin strip. The fourth strip G forms the cornice of the lower room and supports the floor of the upper room and ceiling of the lower room. The fifth strip G assists in supporting the roof. These parallel horizontal strips also serve another valuable purpose—namely to connect and secure together the vertical boards. The outside strips are as much longer as the inside strips are shorter than the side of the building for the purpose of lapping and forming the joints at the angles. The opposite side of the house as well as the two ends are made in a similar manner to that just described, excepting that the length of the ends is less than the width of the floor equal to twice the thickness of the vertical boards of the sides. Openings for doors and windows are left in the sides and ends wherever required framed to suit the doors and windows made use of; the windows being of the usual construction.

The second floor K, Fig. 5, is the same size as the inside of the building and rests on the cornice G⁴ of the lower room and is secured to the sides and ends by bolts passing through the diamond plates L represented in Fig. 1. The flooring K may be of inch stuff and the ceiling M may be of ½ inch stuff. The joists N of this floor may be of stuff ½ by 4 inches and may be inclosed in a horizontal frame or the ends of the joists may be dovetailed into the cornice or let into it in any convenient manner.

The roof O is composed of a frame the size of the house consisting of two triangular gables or pediments P connected together by two parallel wall plates R, and ridge pole Q framed together, the wall plates and ridge pole being beveled on the upper sides to the same inclination of the roof and four parallel strips S likewise framed into the gables upon which and the wall plates and ridge pole the roof O is secured which consists of parallel boards

tongued and grooved together in a manner similar to the sides and ends of the building and projecting over them so as to pitch the water from the sides in an effectual manner. Strips may be placed over the joints which may also be grooved on top instead of being tongued and grooved at the sides. The undersides of the wall plates and gables or pediments are channeled so as to admit the upper edges of the sides and ends of the building upon which the roof is supported which plates and gables being thus connected with the sides and ends assists in securing them together.

The doors are made in the usual manner except the thresholds which are made of metal with flanged ends which face and are attached to the outside horizontal strip of the side of the building, thereby strengthening the side through which the openings are made for the doors. There are two holes through the threshold near the ends to admit bolts or screws for the purpose of fastening that part of the side of the building to the floor or frame when the building is put together.

The several sections of the building being thus constructed are to be painted and glazed and are then ready for transportation wherever desired and when transported to their place of destination may be put up without the aid of a regular mechanic by any one having the least acquaintance with the use of tools, there being no mechanical work requisite, the iron fastenings hereinafter mentioned being previously provided and the holes made in the sides to receive the screws and bolts for securing the parts of the building firmly together. These iron fastenings alluded to consist of rectangular plain plates and right angled corner plates lapped over the angles of the building and secured by screws connecting not only the sides and ends of the building, but also the floor and roof with them. There are also diamond shaped plates L which are secured to the upper floor by screws or bolts passing into them. Between the corner plates both above and below on the side and ends are placed other metallic plates for securing the sides and ends to the roof and floor. The building may also be furnished with window shutters or Venetian blinds and finished as desired. The roof may also be covered with a water and fireproof cement. An opening must be left in the second floor for a set of portable stairs or step ladder.

What I claim as my invention, and which I desire to secure by Letters Patent consists in—

The before described mode of constructing portable buildings—that is to say, in completing the sides, ends, floors, roof, etc., separately and completely finished to be put together as herein described without the aid of the regular mechanic.

F. S. BARNARD.

Witnesses:
EDMUND MAHER,
F. M. MATTIEE.