F. M. WEST & A. R. SMALLEY.

PORTABLE HOUSE.

No. 180,975. Patented Aug. 8, 1876.

Fig. 1.

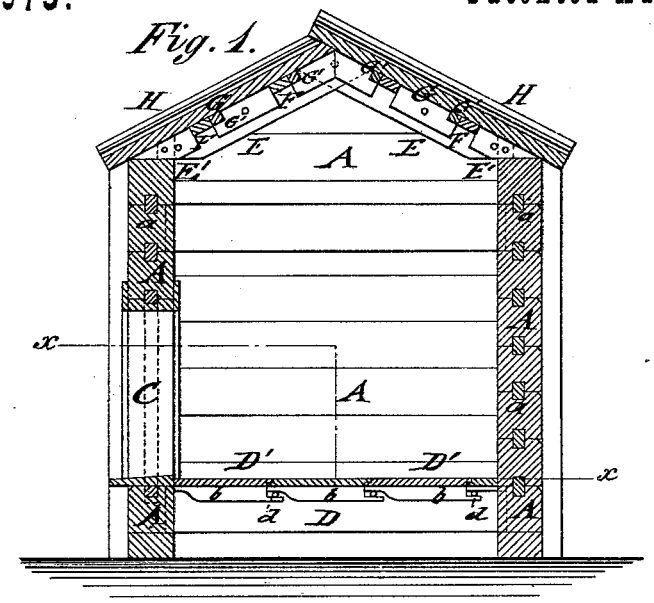


Fig. 2.

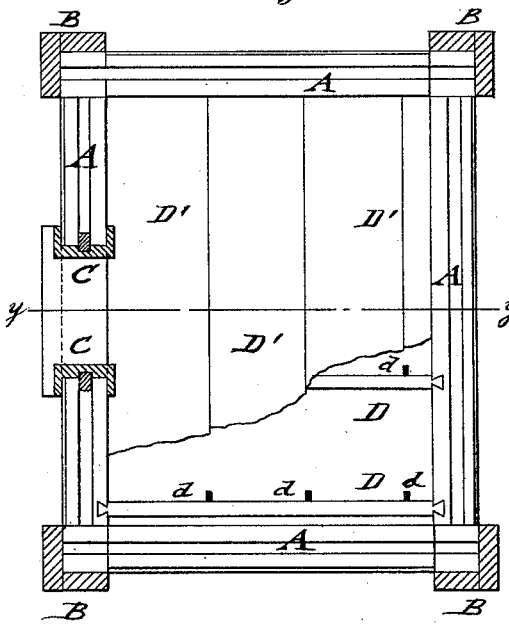
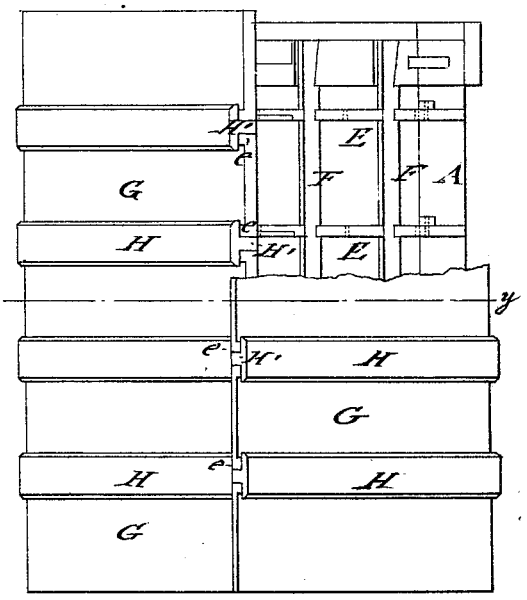


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANCIS M. WEST, OF DES MOINES, AND ADDISON R. SMALLEY, OF SNYDER, IOWA.

IMPROVEMENT IN PORTABLE HOUSES.

Specification forming part of Letters Patent No. **180,975**, dated August 8, 1876; application filed July 11, 1876.

To all whom it may concern:

Be it known that we, FRANCIS M. WEST, of Des Moines, in the county of Polk and State of Iowa, and ADDISON R. SMALLEY, of Snyder, in the county of Dallas and State of Iowa, have invented a new and Improved Portable Building, of which the following is a specification.

In the accompanying drawing, Figure 1 represents a vertical transverse section of our improved portable house on line *y y*, Figs. 2 and 3. Fig. 2 is a horizontal section of the same on line *x x*, Fig. 1; and Fig. 3, a top view of the same, with roof partly taken off to show rafters below.

Similar letters of reference indicate corresponding parts.

Our invention has reference to a portable house that may be readily shipped and set up, and taken to pieces in case of fire, or for moving, the construction being cheap, strong, and durable, while at the same time neat in appearance.

The invention consists of walls made of grooved and tongue-locked logs, with detachable door and window casings applied in similar manner. The floor is connected to the joints by pins and recessed locking-strips, while the roof-sections are supported on dovetailed rafters by lateral bearing-strips and top battens, the parts being interlocked in rigid and strong manner.

In the drawing, A represents the logs, which form the walls of our improved portable building. The logs A may be made of any suitable width and thickness, according to size and quality of the house. They are dressed to an even thickness and width, and grooved on the top and bottom, to receive tongues *a*, which are larger when wood is used, and smaller when iron is used, for the same. These logs are placed horizontally one above the other, and dovetailed at the corners, so as to prevent their moving in any direction, the tongues being placed in the grooves to form the connections of the logs. The outside of the logs may be dressed and painted in any suitable style to imitate rustic work or stone, or other material. The door and window casings C are connected to the logs by vertical and horizontal grooves and locking-tongues, in the same manner as the logs, the jambs being tenoned at top and bottom, and set into corresponding mortises of the logs. The casings may, in addition thereto, be secured by nails and cross-bolts, and finished with suitable moldings. The corners of the building are covered by boards B, fastened with suitable wood-screws, that admit the ready detaching in case of taking down the house. The joists D are dovetailed into the logs, and held rigidly by the logs above and below bearing thereon. The floor is made in sections D′, of suitable width, of matched flooring, which sections are locked by bottom strips *b*, with recessed ends, to wooden pins *d* of the joists, as shown in Fig. 1. The sections are placed in position on the joists and locked by the strips and pins, the last section being secured by suitable fastening-screws. The ceiling is made in sections and applied in the same manner as the floor. The rafters E are cut to rest upon the top log of the building, the upper ends of the rafters being halved and connected by pins. The foot of each rafter E is applied by a cross-pin to a shoe, E′, of hard wood or metal, a pin serving also to fasten the foot of the rafter. The end rafters E are of the same thickness as the logs of the gables, set by suitable tenons into mortises of the gable logs, and doweled together. Recessed slats F are run across the rafters, flush with the top of the same, and dovetailed at the ends, to be kept from slipping. The rafter and cross-slats form the frame-work for the roof, and are perfectly solid and immovable, although each piece can be lifted and removed instantly. The roof G is made of matched boards, clamped together, and nailed to lateral supporting-strips G′, which are so placed as to come just above the cross-slats of the rafters, and forming sections equal in width to the space between the rafters. The strips G′ of the outer sections are beveled to fit a dovetailed recess of the outer rafters. The roof-sections are provided along the edges with longitudinal strips *e*, to prevent the water from entering below the sections. The sections are held down by battens H, having central strips H′ at right angles thereto, which are securely pinned to the rafters. The strips

H′ pass down between the roof-sections, so that the battens bear on the top of the sections and hold them down on the rafters, thus fastening the whole roof, and making it water-tight by suitable covering.

Whenever a different construction, as a square or open front, is desired, the construction is modified without changing the connection of the parts.

Houses built on this plan may be readily taken down, for being moved in sections, together with the cornices, frieze, &c., which are dovetailed or otherwise applied to the proper parts.

When the building is not to be removed, it may be strengthened by dowel-bolts run through three or four logs, and so on to the top, so as to obtain solid and strong walls.

The cracks between the logs may be closed in any suitable manner, and also ventilation provided, so that a warm and comfortable structure is fully obtained.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A portable house, constructed of sectional tongue-locked log walls, with detachable door and window casings, detachable joists and floor-sections, and of dovetailed rafters, with pinned roof-sections, substantially in the manner and for the purpose set forth.

2. In portable structures, the combination of a sectional log wall, connected by tongue-and-groove joints, with the door and window casings locked by tongues and grooves and fastening-bolts, substantially as set forth.

3. The combination of the floor-joists, dovetailed into the log walls, and having projecting pins, with the floor-sections, provided with recessed bottom strips, substantially as described.

4. The combination of the rafters, secured to shoes of the log walls, and transverse bearing-slats, with the roof-sections and fastening-battens, having central lock-strips, substantially as specified.

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Witnesses:
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