J. BOYD.

Portable Houses.

No. 198,926. Patented Jan. 8, 1878.

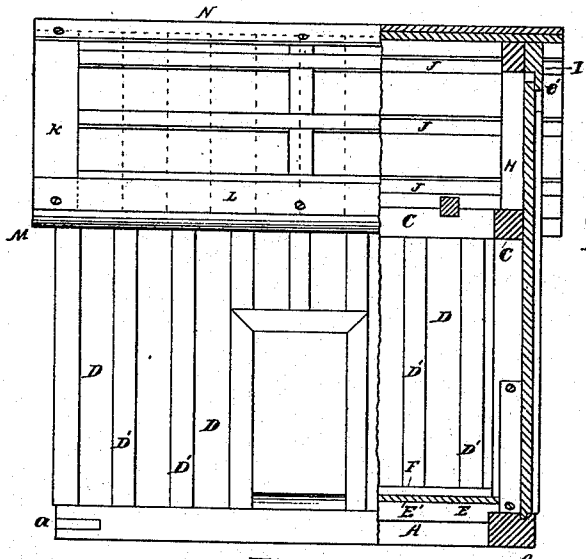


Fig. 1

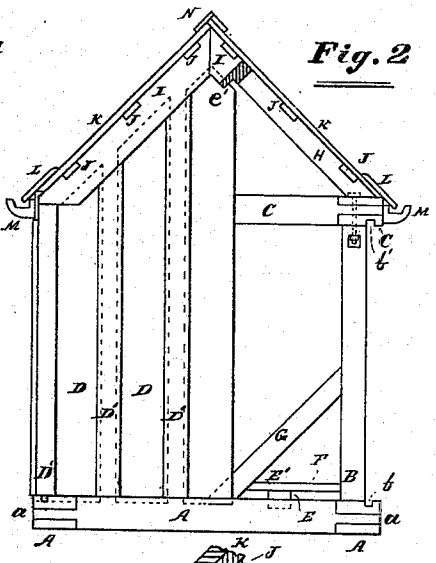


Fig. 2

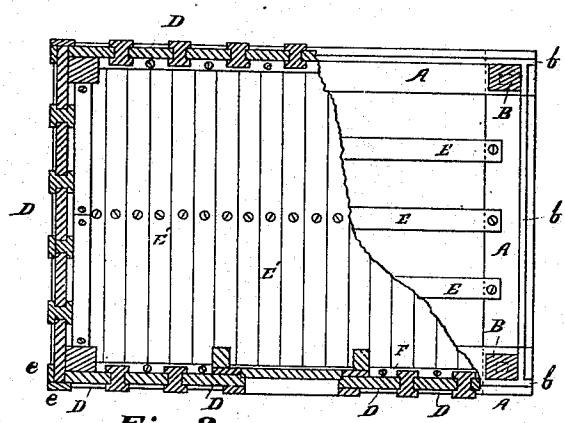


Fig. 3

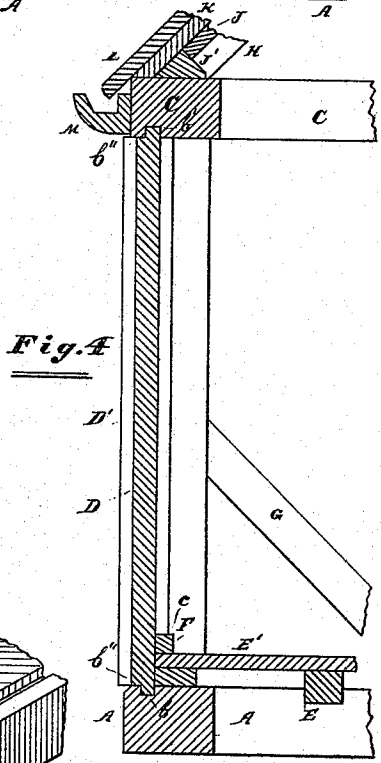


Fig. 4

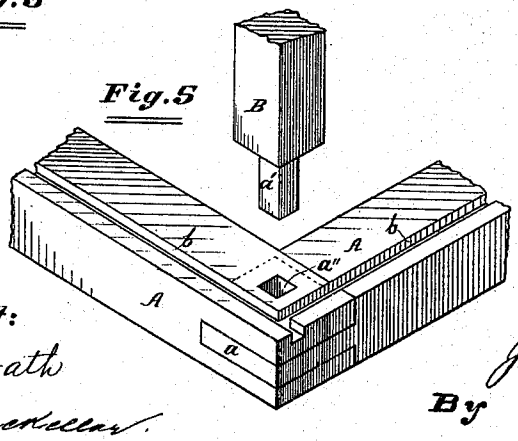


Fig. 5

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UNITED STATES PATENT OFFICE.

JOHN BOYD, OF GALVESTON, TEXAS.

IMPROVEMENT IN PORTABLE HOUSES.

Specification forming part of Letters Patent No. **198,926**, dated January 8, 1878; application filed June 16, 1877.

To all whom it may concern:

Be it known that I, JOHN BOYD, of the city of Galveston, in the State of Texas, have invented certain new and useful Improvements in Portable Wooden Houses; and do hereby declare the following to be a full, clear, and exact description of the same, and which will enable others skilled in the art to which my invention appertains to make and use the said improvements, reference being had to the accompanying drawing, forming a part hereof, and in which—

Figure 1 is a side elevation of a house embodying my invention, and shown partly in section; Fig. 2, an end elevation of the same; Fig. 3, a horizontal section; Fig. 4, a vertical section, and Fig. 5 a perspective representation of two of the sills and a corner-post.

Like letters of reference indicate like parts.

In the drawing, A A represent the sills of the building, and B B are the corner-posts. The sills are united at the corners by means of the horizontal tenons or tongues *a a*, projecting from the ends of one pair of sills into corresponding grooves or mortises in the ends of the other pair. I secure these parts firmly together at the corners by means of vertical tenons *a' a'* on the lower ends of the corner-posts, and vertical mortises *a'' a''*, arranged to receive the tenons *a' a'*, and extending through, or nearly through, both sills, as represented in Fig. 5. Into the upper faces of the sills are sunken the longitudinal grooves *b b*.

C C are the wall-plates. The wall-plates and corner-posts may be connected to each other at the corners in the same manner that the sills and corner-posts are connected, or by means of pins, bolts, and nuts, or other suitable fastening devices. Grooves *b' b'* are made in the lower faces of the side wall-plates, and extend longitudinally along said plates, as shown, and for the purposes hereinafter set forth. D D represent the siding, and D' D' are the studs. The siding consists of separate boards of suitable thickness, which are arranged in the grooves *b* and *b'*. I deem it preferable, in order to protect from the weather the horizontal or upper and lower joints formed by the junction of the siding with the sills and wall-plates, especially the lower joints so formed, to shoulder the siding, as shown at *b''*. The studding are preferably tongued sufficiently on each end to sit into the grooves *b* and *b'*, and are also vertically grooved on each side, as is clearly represented in Fig. 3, to receive the vertical edges of the siding. E E are the floor-joists, and E' E' are floor-boards. F F are cleats arranged to lap the ends of the boards E' E'. The studs D' D' are shouldered at *c c*, to lap the upper sides of the cleats F F. The door and window frames may be made in the usual manner. The spaces formed by the outside and inside casing will receive the siding, and may be filled or packed in any suitable way, if not filled by the siding. The joints formed by the meeting of the siding, at the outside corners of the building, may be protected by battens, as shown at *e e*. G G are braces. H H are rafters. I I are gable-boards applied to the outer faces of the cable-rafters. The boards I I are shouldered or rabbeted, as shown at *e' e'*. J J are purlin. The lower purlin rests on a beveled piece, J', applied to the upper face of the wall-plates. K K is the sheeting, consisting of vertically-arranged boards. L L are strips or sheets, arranged horizontally over the lower ends of the sheets K K. The lower edges of the cross-sheets L L extend over the gutters or eaves-troughs M M, as shown. N is the saddle. Ceiling-joists, braces, and tie-beams may also be employed.

It will be perceived from the foregoing description that my invention relates chiefly to what are commonly known as "box-houses." It will also be perceived that the construction is such that no nails need be used, screws being deemed preferable, and that only a comparatively small number will be required. The building is simple in construction, weather-proof, and capable of being transported and erected with facility. It may also be taken down easily and without injury to any of the parts, all being left in a complete state for being again erected. All the parts may be made wherever lumber is found in sufficient quantities to be cheap. They may then be transported compactly to other localities, and erected without the aid of skilled builders, as will more fully appear from the following directions for erecting the building.

After constructing and arranging together the parts forming the frame-work the flooring

may be laid. The floor-boards should be arranged across the joists E E, the latter of which extend from end to end of building. The cleats F F may then be applied, being arranged over the ends of the floor-boards, and secured by several screws. One row of screws along the longitudinal center of the flooring, together with the studding D′ D′, resting on the cleats F F, as shown, will serve to keep the flooring in place. The siding D D and the studs D′ D′ should be arranged alternately in the grooves in the sills and wall-plates on the sides of the building. The studs not only serve as such, but also as battens, covering both sides of the joints between the boards which constitute the siding, and also keeping these boards from being warped. The gable siding and studding are arranged in the grooves *b b* in the end sills, and are held in place by the gable wall-plates and shoulders *c′ e′*, the shortest boards and studs being first arranged in the central part of the grooves, and then pushed toward the corners of the building. The corner-boards in the gable-ends of the building will lap the outer edges of the corner-boards in the sides of the building, thus keying or locking the latter in place. The central gable-board D should be short enough to be lifted into the groove *b* after the other gable-boards are arranged therein, and the tongue *e′* should be long enough to lap the central gable-board after the latter is allowed to drop into the groove; or, the central part of the rib lying outside of the groove *b* may be cut away sufficiently to receive the central board, and a small cleat, rib, or plate may afterward be attached to the sill to retain the lower end of the said board in its place.

In applying the sheeting to the roof, I first arrange on each end of the building the end boards of the series K K. Over the lower ends of these boards K K, I then arrange the longitudinal strips L L. A space is thus left between the under face of the strips L L and the lower purlin or pieces J′ J′, into which space the remaining part of the sheeting may be inserted. After all the sheeting is thus arranged, the saddle and the tin or other roofing may be applied.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a portable house, of the longitudinal strips L L, the vertical sheeting K K, and the purlin J J, all arranged substantially as shown and described with relation to each other and the saddle N, for the purposes set forth.

2. The combination, in a portable house, of the flooring E′, the cleats F F, the studs D′ D′, having thereon the shoulders *c c*, arranged as shown with relation to the cleats F F, all substantially as and for the purposes specified.

3. The combination, in a portable house, of the sills A A, having in their upper faces the grooves *b b*, the side wall-plates C C, similarly grooved in their lower faces, the gable-boards I I, shouldered at *e′ e′*, the removable siding D D, the removable studs D′ D′, grooved in their vertical edges and shouldered at *c c*, the cleats F F, and the flooring, substantially as and for the purposes specified.

JOHN BOYD.

Witnesses:
SAML. EDW. BOYD,
GEO. ALFRED HILL.