

D. S. Whittemhall.

Portable House.

No 76,019.

Patented Mar. 24. 1868.

Fig. 4.

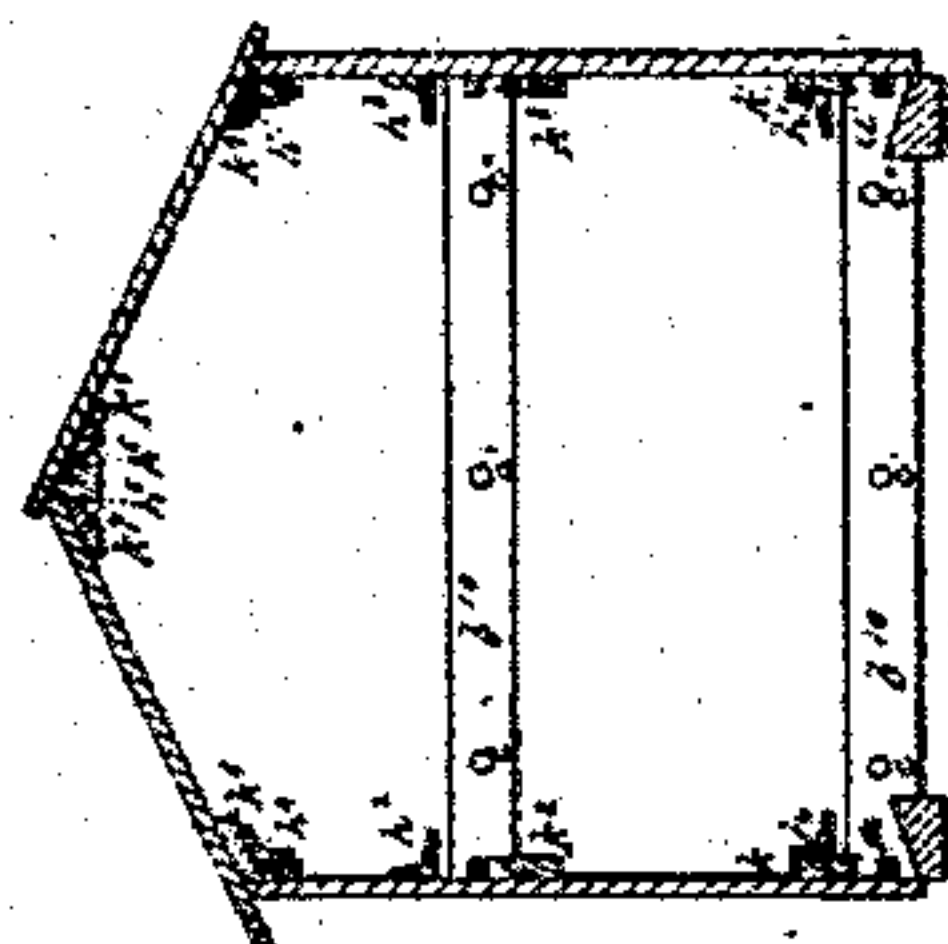


Fig. 7.

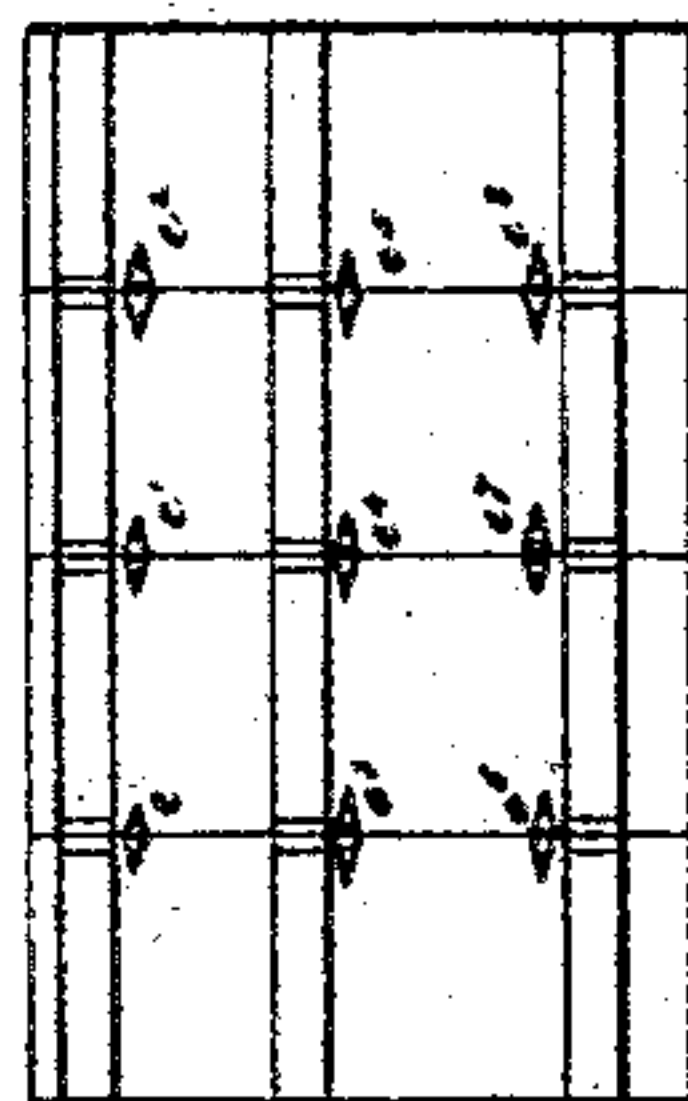


Fig. 8.

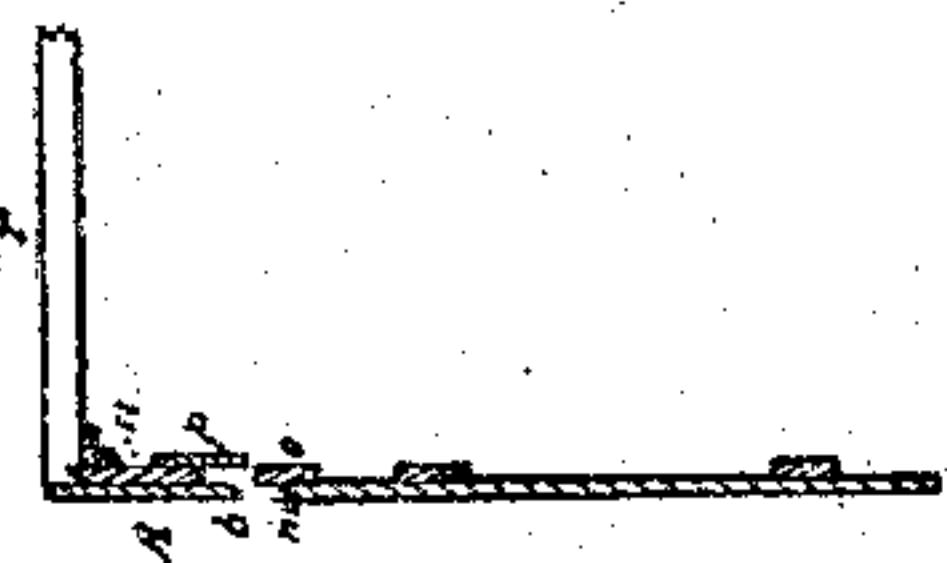


Fig. 1.

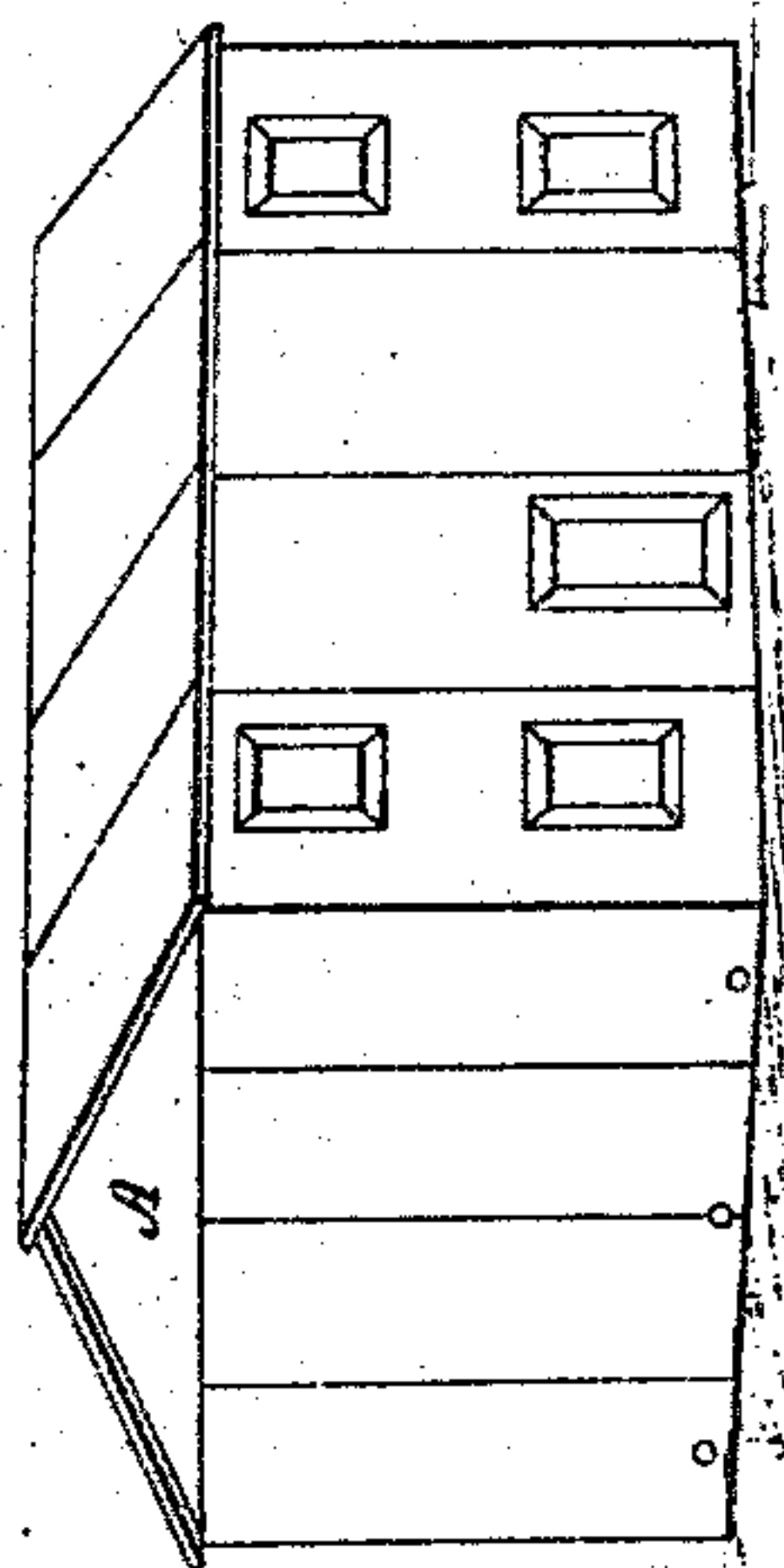


Fig. 2.

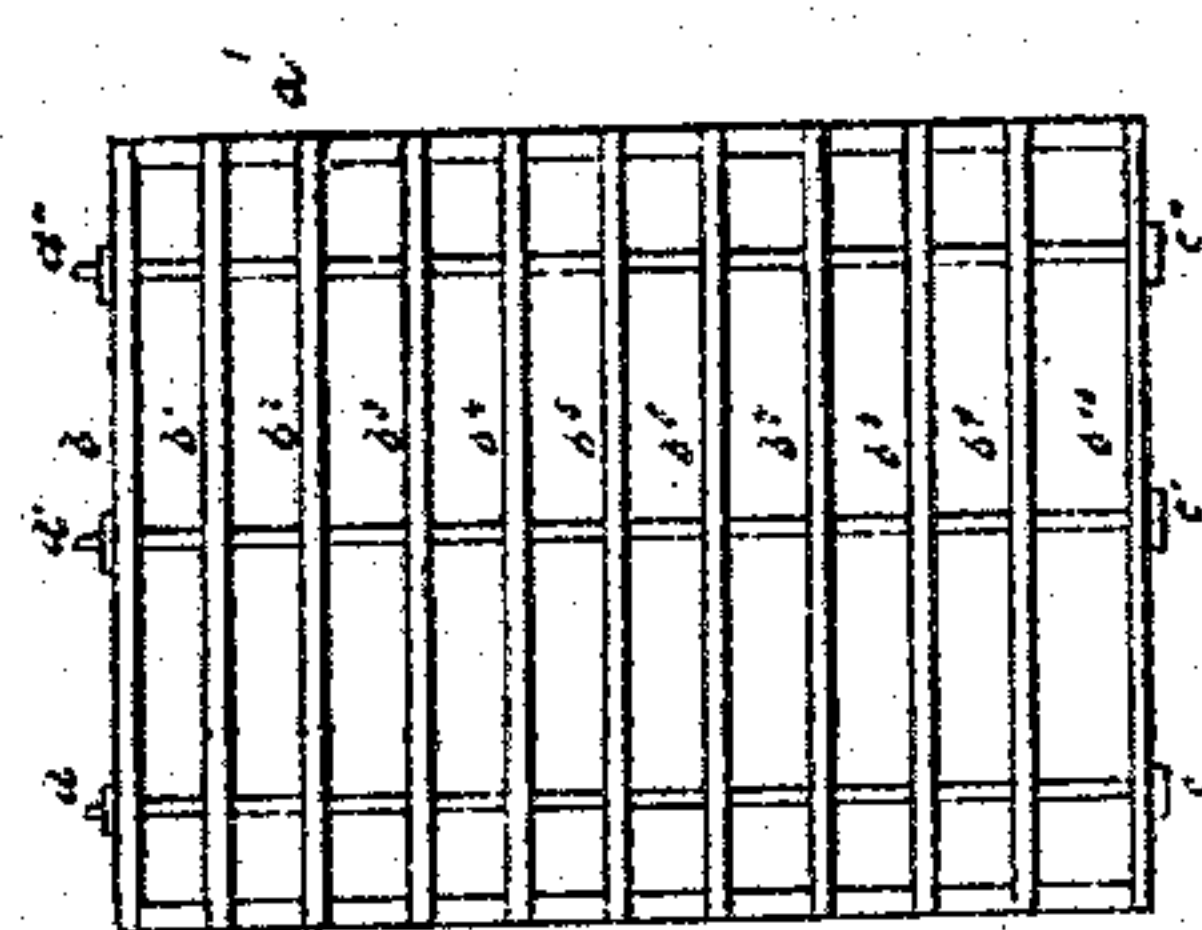


Fig. 3.



Fig. 5.

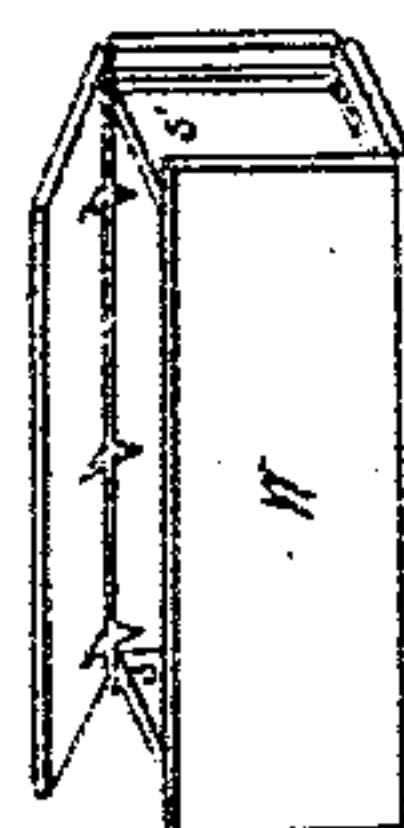


Fig. 6.



Witnesses:
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DANIEL S. WHITTENHALL, OF ST. LOUIS, MISSOURI

Letters Patent No. 76,019, dated March 24, 1868.

IMPROVEMENT IN PORTABLE BUILDINGS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, DANIEL S. WHITTENHALL, of St. Louis, county of St. Louis, and State of Missouri, have invented a new and useful Improvement in Permanent and Portable Buildings, of which the following is a full, clear, and exact description, reference being had to the annexed drawing, making a part of this specification, in which—

Figure 1 represents a perspective elevation of my invention.

Figure 2 represents a plan of the floor-frame.

Figure 3 represents an end view of the floor-frame.

Figure 4 represents a transverse sectional elevation of my invention.

Figure 5 represents one of my boxes, hereinafter described.

Figure 6 represents one of the sides, ends, floors, or part of the roof of my building folded up.

Figure 7 represents an inside view of one of the sides, ends, floors, or portion of the roof of my building.

Figure 8 represents a sectional elevation of the gable-end of my invention.

Similar letters indicate like parts.

My invention contemplates a permanent or portable building, so constructed as to be easily transported and readily put together or taken apart.

I take two joists, $a a'$, figs. 2, 3, and 4, the inside length of the building desired to be erected, and into these I mortise by a plain mortise as many cross-joists $b b' b^2 b^3$, &c., fig. 2, b^{10} , figs. 3 and 4, as may be necessary to give sufficient strength to the floor. I then run through these iron rods $c c' c''$, figs. 2, 3, and 4, having heads, while the points are provided with nuts $d d' d''$, fig. 2, by means of which the whole may be made rigid. This makes the floor-frame for either floor, both being constructed precisely alike, the lower frame resting upon two sills running the whole length of the house. I then make the floor of common dressed and matched flooring, running lengthwise of the building, in two or more sections, each section being divided, as shown in fig. 7, and united by strong strap-hinges $e e' e^2$, &c., placed on the under side, as shown. Battens pass across the floors, as seen in fig. 7, they being so disposed as to fall between the joists of the floor-frame. The sides and ends of the house, and also the roof, are made in the same manner, in sections, each section being divided, and the parts united by hinges and strengthened by battens, as already described. In one side suitable openings are left for the windows and doors, as seen in fig. 1. The gable A , fig. 1, is made separate, and from one piece by itself. Having arranged the flooring on the frame, the rods are then tightened, and one section of the side being raised, is fastened to it by means of angle-irons $h h'$, fig. 4, one end of the iron being screwed to the floor and the other to a batten, $k k'$, fig. 4, attached to the side and resting on the floor-frame. If the house has a second story, the floor-frame of same will rest on battens $k^2 k^3$, fastened to the sides of the building, and these sides will in turn be united to this floor by angle-irons $h^2 h^3$. Then the gable A , the ends and other side of the building having been raised and fastened in the manner described, is put in place. This gable has its lower edge bevelled, as seen at l , fig. 8, to correspond with the bevelling m on the end of the house. It also has battening n running around its entire inner edge, in such a manner that the same will rest on the batten o , projecting a little above the end of the house, and form a close joint throughout its entire length, effectually excluding air and water. The gable is then secured by straps p , fastened to both battens. The ridge-pole r , fig. 8, is then placed on the gables, its tenons resting in suitable mortises in the battens of the gables, and secured by angle-irons. The roof, having battens $k^4 k^5 k^6 k^7$ along its edges, so bevelled as to fit snugly against the sides of the building, and also against the ridge-pole, is then put on and secured by angle-irons $h^4 h^5 h^6 h^7$, fig. 4, the battens $k^8 k^9$, on the edge of the roof, resting on the battens $k^4 k^5$, on sides of the building. The inside casings of the doors and windows are of the same thickness as the sash and doors, and being hung with loose-joint wrought-iron butts, may be easily taken off when the building is to be transported.

If the building is to be permanent, the various parts may be fastened together by nails, and the hinges and nearly all the angle-irons may be dispensed with, but otherwise, screws or keys of precisely the same size and shape will be used, and all the irons will be exactly alike. When it is desired to move the building from one place to another, the angle-irons, straps, and floor-rods being removed, the floor-frame, by reason of being put

together with plain mortises, may easily be knocked apart and made into a compact bundle, while the sections of the sides, ends, flooring, and roof may either be folded up, as shown in fig. 6, or made into boxes, W, fig. 5.

In order to form these boxes, I have square pieces of wood, *s s'*, fig. 5, to form the ends, these being secured by hooks and staples on the inside, assisted by the battens of the section against which they press. In order to make the building perfectly tight, it may be battened on the outside in the usual manner.

The advantages of this mode of construction are obvious, since by it a building can be transported at very small cost, all the parts being so completely packed, through the peculiar arrangement of hinges, &c. It can also be put together without the assistance of a mechanic, as all the irons, screws, &c., being exactly alike, no mistake can arise in their use, and, when put together, it is, by reason of the combination of irons, mortising, &c., much more durable, and stronger than one constructed in the usual way.

Its cheapness is a most important feature, since, by this method, all the parts being made by machinery, a building can be constructed at less than two-thirds the cost of the old way of building.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the rods *c c' c''*, angle-irons *h h' h''*, &c., straps *p*, hinges *e e' e''*, &c., with the sections and battens of a portable house, as and for the purpose specified.
2. The construction of a portable or permanent building, substantially as shown and specified.

D. S. WHITTENHALL.

Witnesses:

SAM'L S. BOYD,
HENRY T. CARTER.