(No Model.) 2 Sheets—Sheet 1.

E. L. PEASE.

PORTABLE HOUSE.

No. 602,194. Patented Apr. 12, 1898.

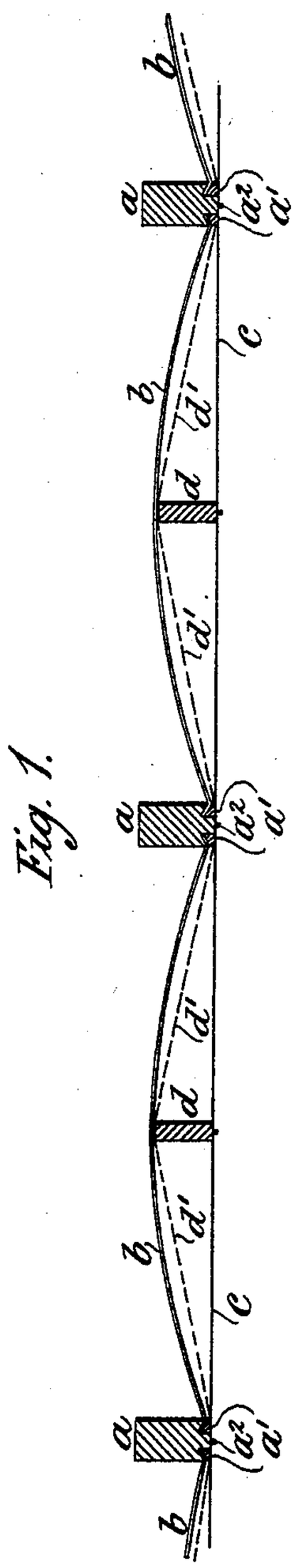

Fig. 1.

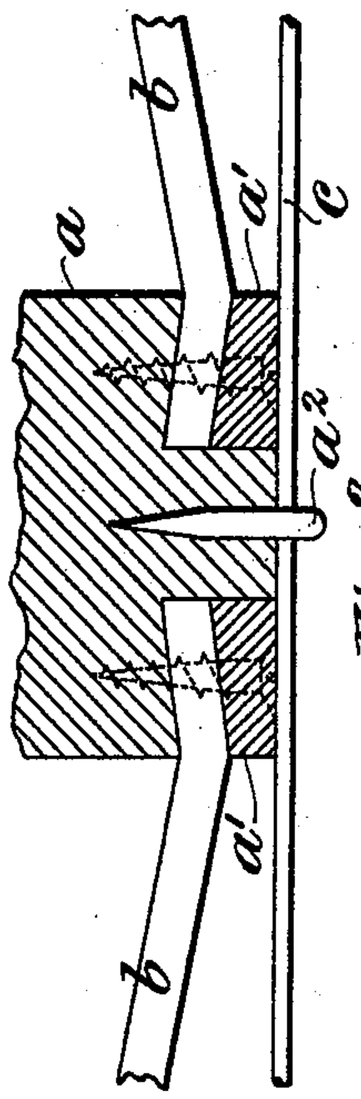

Fig. 2.

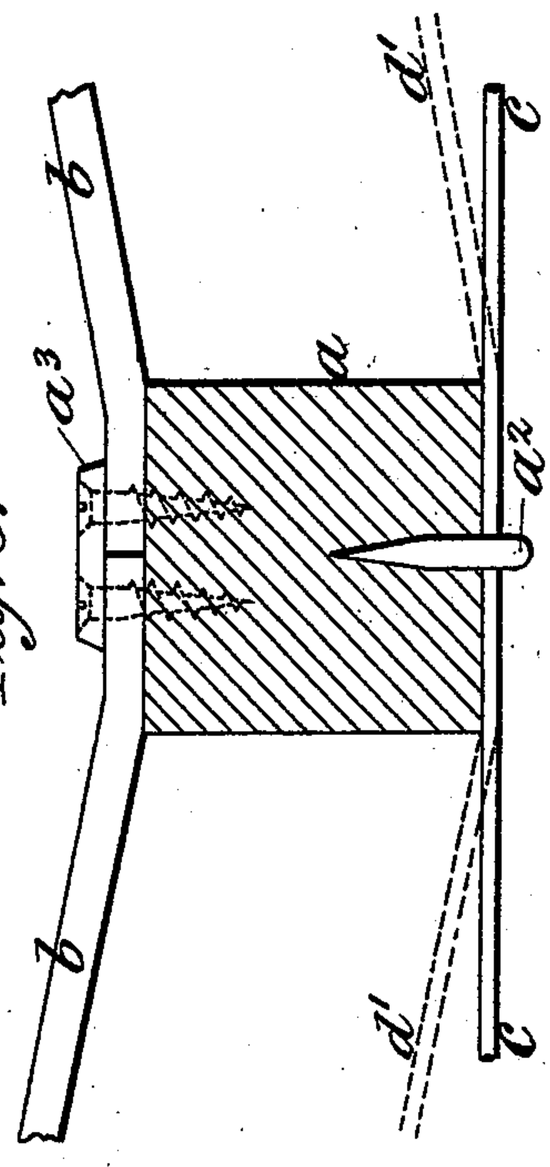

Fig. 3.

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(No Model.) 2 Sheets—Sheet 2.

E. L. PEASE.

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Fig. 4.

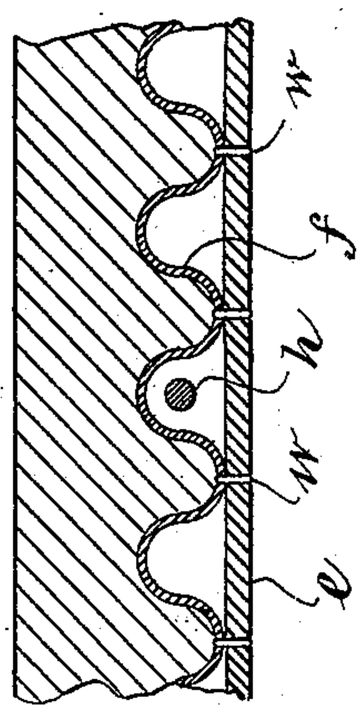


Fig. 1.

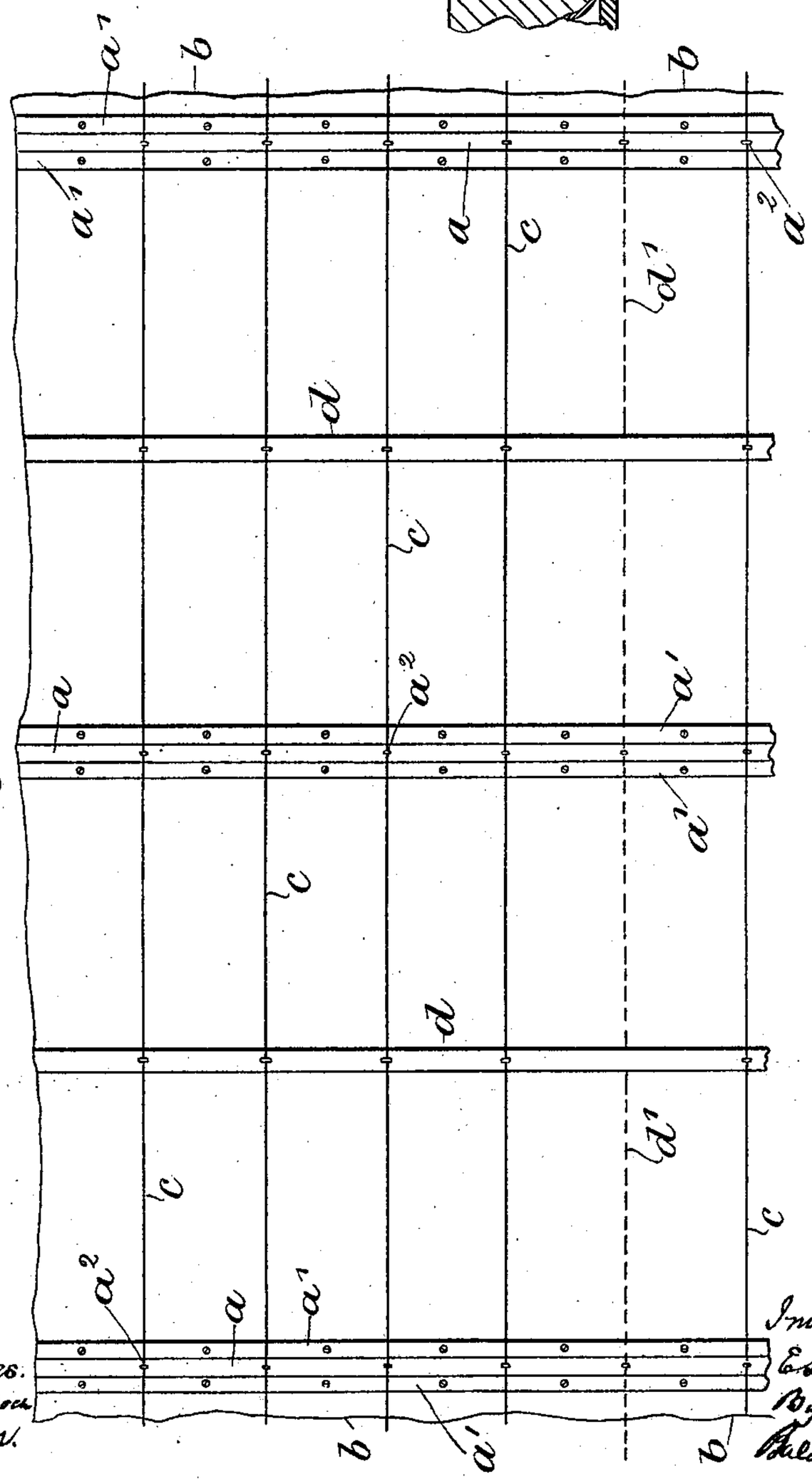
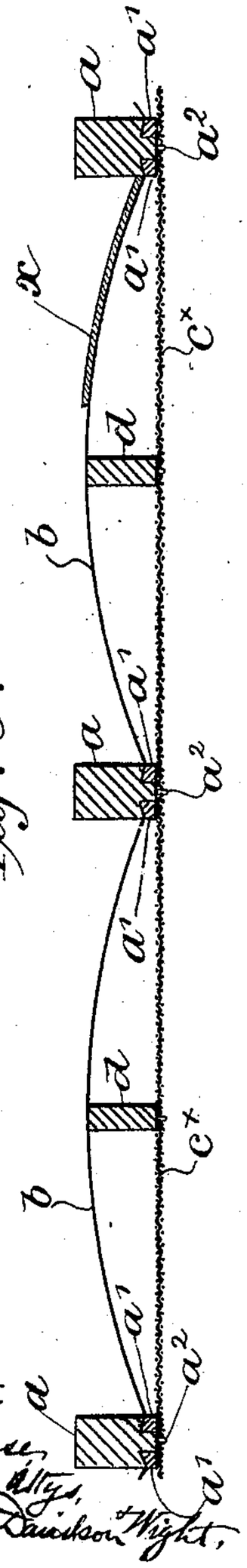


Fig. 5.



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UNITED STATES PATENT OFFICE.

EDWARD LLOYD PEASE, OF DARLINGTON, ENGLAND.

PORTABLE HOUSE.

SPECIFICATION forming part of Letters Patent No. 602,194, dated April 12, 1898.

Application filed January 3, 1898. Serial No. 665,449. (No model.)

To all whom it may concern:

Be it known that I, EDWARD LLOYD PEASE, engineer, a subject of the Queen of Great Britain, residing at Hurworth Moor, Darlington, in the county of Durham, England, have invented certain new and useful Improvements in Portable Houses, of which the following is a specification.

In the construction of portable houses I employ materials which are easy of transport, and I prepare them so that they may readily be put together without skilled labor. For the framework I employ wooden spars, and the intervals between the spars I close with sheets of pulpboard or strawboard or such like material, bent to a curved or arched form. These boards are fixed by their edges to the wooden spars, and the structure is stiffened by means of wires extending along the spars and fixed to each spar. These wires are at short distances apart, and wooden planks, on edge, are introduced between the wires and the arched boards, midway between the wooden spars. This method of construction is applicable to the walls and roof of the house. The floors I also construct with pulpboard or strawboard. I employ two boards in the thickness of the floor. The under board is flat, while the upper is corrugated and firmly attached to the lower, and cement is spread on the upper surface of the corrugated board, thereby forming a level surface and strengthening the structure.

In the drawings annexed, Figure 1 represents a plan of a wall-section constructed according to my invention, or it may be an end view of a roof-panel. Fig. 1ª is an interior elevation or under side view of the same. Fig. 2 shows a portion thereof to a larger scale. Fig. 3 shows a modification of the wall or roofing structure, and Fig. 4 an end view of the floor-section. Fig. 5 shows a modification in which wire-netting is employed to connect the spars.

In Fig. 1, *a a* are the wooden spars. *b b* are arched pulpboards. *c c* are the wires, and *d d* are the planks on edge. They are inserted between the wires and the arched boards midway between the wooden spars.

Pulpboards or strawboards are readily obtainable in lengths up to ten feet and of breadth two feet six inches and thickness a quarter of an inch. These dimensions are suitable. The materials are prepared for export or transport to the forms shown.

In erecting the house a framework is in the first place constructed, with the wooden spars *a* at the proper distances apart, and the intervals between the spars are then closed by inserting the arched boards *b*, the edges of these boards being inserted into the recesses provided to receive them. The fillets *a'* are then laid over the edges, and the whole is secured by means of screws passed through the fillets and the edges of the arched boards into the wooden spars *a*. The wires *c* are then threaded through staples a^2 a^2, inserted into the spars *a*. These wires run the whole length of the structure parallel the one to the other and at a few inches apart. The wires are made fast at their ends. The planks *d* are then inserted and are turned on edge to the position shown by the figure, thereby further straining the wires and providing an efficient support to the arched boards to preserve the curvature of the arch. Certain of the wires, however, (indicated by dotted lines *d' d'*,) I prefer should be led over the edges of the planks, where they abut upon the arched boards. Every fifth or sixth wire may take this course. These wires are not made fast at their ends until some of the planks *d* have been inserted, and the final tightening up of the wires is effected by the insertion of the remaining planks. When all have been properly adjusted, the staples a^2 a^2 are driven home into the wooden spars, and the wires are thus firmly secured at each of these points.

The structure may be rendered waterproof by well painting it on the exterior, or the materials may be previously saturated with a waterproofing material, or in many cases it is advantageous to apply a waterproofing cover, as felt, or to spread a thin layer of cement upon the exterior of the walls and roof. This covering is indicated in Fig. 5 at *x*. Instead of parallel wires at *c c* wire-netting may be employed, as shown at $c^{\times}$ in Fig. 5.

The arched form of the boards *b b* is an important feature. It provides for local expansion and contraction.

The cement known as "petrifite" is very well suited to the purpose.

In the modification shown by Fig. 3 the

arched boards are fixed to the outer sides of the spars by fillets a^3, covering their edges and secured by screws. In other respects the structure is as in Fig. 1.

In Fig. 4, which represents a floor-section, e is a flat sheet of pulpboard or strawboard. f is a corrugated sheet of the same material. It is firmly attached to the sheet e by sewing with wire, as at w, or by other suitable means. When these slabs have been laid in the position required, a layer of cement g is laid over them to fill the corrugations. The beforementioned cement will be found very suitable. The thickness of the cement layer should be such as the span requires to provide the necessary strength. In some cases for additional security wires h may be passed through the hollows formed by the corrugations and firmly fixed at their ends to the framework of the building.

I claim—

1. A wall or roof section consisting of spars a a, and arched boards b b secured by their edges to the spars a a, wire connections between the spars and filling the intervals between the spars.

2. A wall or roof section consisting of spars a a, arched boards b b, in the intervals between the spars, wires c, tying the spars one to the other and planks d, supporting the arched boards from the wires in the intervals between the spars.

3. A wall or roof section consisting of spars a a, arched boards b b, the edges of which enter recesses in the spars, fillets a' covering and securing the edges of the boards, wires c c passed through staples a^2 a^2 and fixed by them to the spars and planks d d inserted between the wires and the arched boards.

4. A flooring-section consisting of a flat board e, a corrugated board f fixed thereon, and a layer of cement g, spread over the corrugated board and filling the corrugations on the upper surface thereof.

EDWARD LLOYD PEASE.

Witnesses:
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