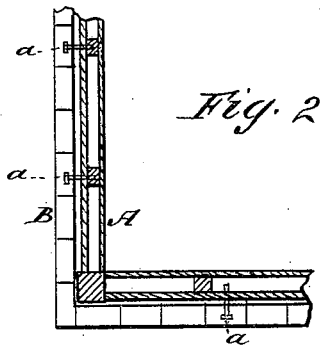
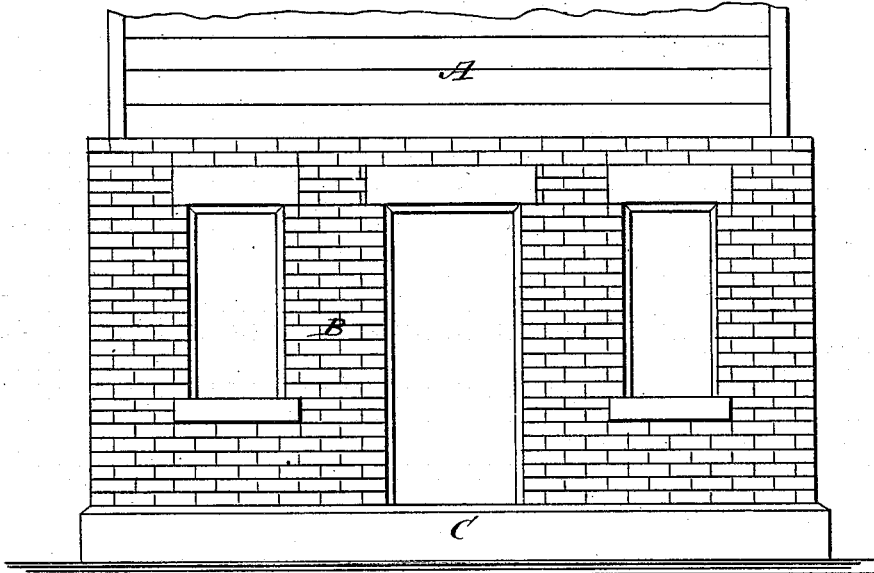


R. G. & C. G. LINDSAY.  
Construction of House.

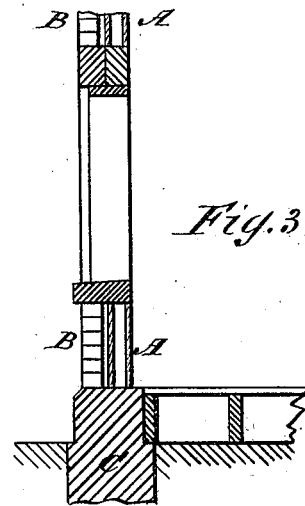
No. 199,076.

Patented Jan. 8, 1878.

*Fig. 1*



*Fig. 2*



*Fig. 3*

WITNESSES:

*E. Wolff*  
*J. H. Scarborough*

INVENTORS

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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

ROBERT G. LINDSAY AND CHRISTIAN G. LINDSAY, OF HOLLIDAYSBURG, PA.

## IMPROVEMENT IN CONSTRUCTION OF HOUSES.

Specification forming part of Letters Patent No. **199,076**, dated January 8, 1878; application filed October 6, 1877.

*To all whom it may concern:*

Be it known that we, ROBERT G. LINDSAY and CHRISTIAN G. LINDSAY, of Hollidaysburg, in the county of Blair and State of Pennsylvania, have invented a new and useful Improvement in the Construction of Houses, of which the following is a specification:

The object of the invention is to combine the qualities of non-conductivity of heat, absence of condensation of moisture on the inner wall, and economy of construction.

To this end we incase or sheath a wooden frame, and connect it with an outer brick wall or casing by means of metal ties, the two structures being completely separated by a dead-air space, as hereinafter described.

In the annexed drawings, Figure 1 shows part of a building having wooden and brick walls, mounted on a stone foundation. Figs. 2 and 3 are details in section.

Similar letters of reference indicate corresponding parts.

The walls of the wooden part A of the dwelling-house or other structure are first erected, and sheathed or incased on the outer side. The brick face-wall B is then laid, but in such relation to the wooden wall A as to leave a dead-air space between them. The two parts A B are tied together, in the process of laying the wall B, by means of long spikes or nails *a*, which are driven into the wooden wall, and project between the courses of bricks and are embedded in the mortar or cement.

This compound wood and brick wall is cheaper than a double brick wall, but equally stable and firm, and presents the same appearance both exteriorly and interiorly. It has, further, the advantage that the moisture which may permeate the outer or brick wall will not be absorbed by the wooden wall, nor even come in contact with it; nor will changes in the temperature of the outer wall, nor a difference between the temperature of the air within the building and that exterior thereto, produce condensation of moisture (commonly termed "sweat") on the inner wall. The radiation and conduction of heat are likewise cut off as effectually as practicable without increasing the thickness or adding to the cost of the structure.

What we claim is—

The combination of the incased or sheathed wooden part A, the outer part or face-wall B, formed of brick, the two being so located as to leave a clear dead-air space between them, and the nails or spikes *a*, which connect the two walls, substantially as shown and described.

ROBERT GALBRAITH LINDSAY.  
CHRISTIAN GARBEN LINDSAY.

Witnesses:

G. W. OVER,  
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