W. CONOLLY.

Mansard-Roofs.

No. 157,274. Patented Dec. 1, 1874.

FIG. 1.

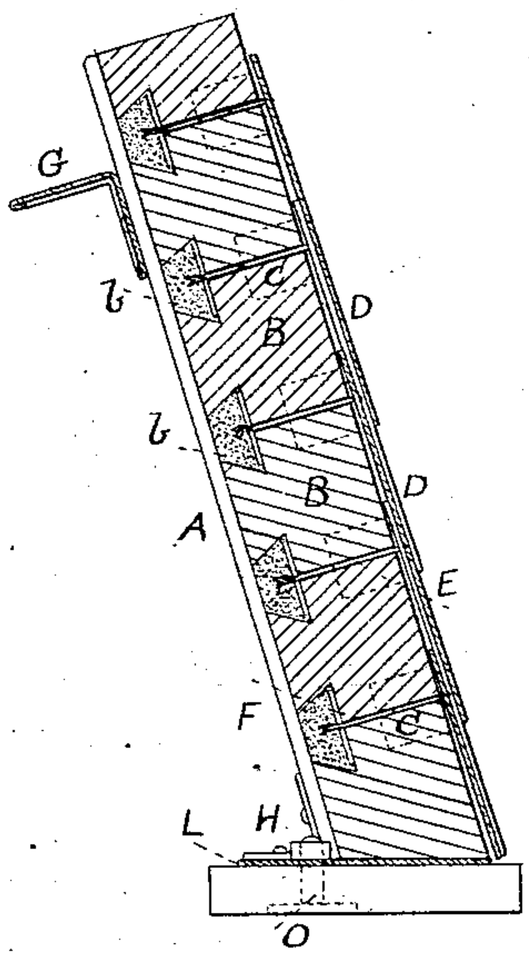


FIG. 2.

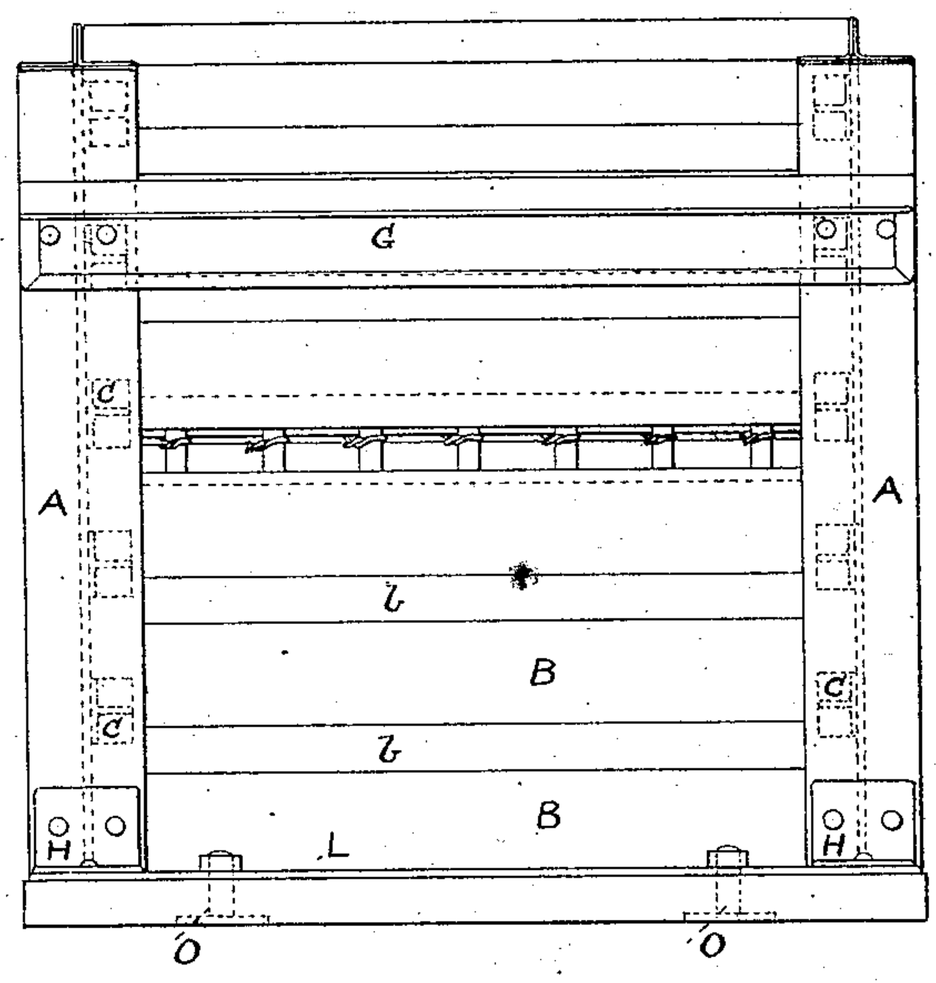


FIG. 3.

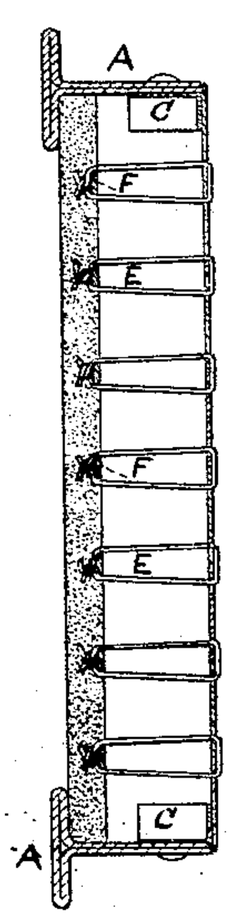
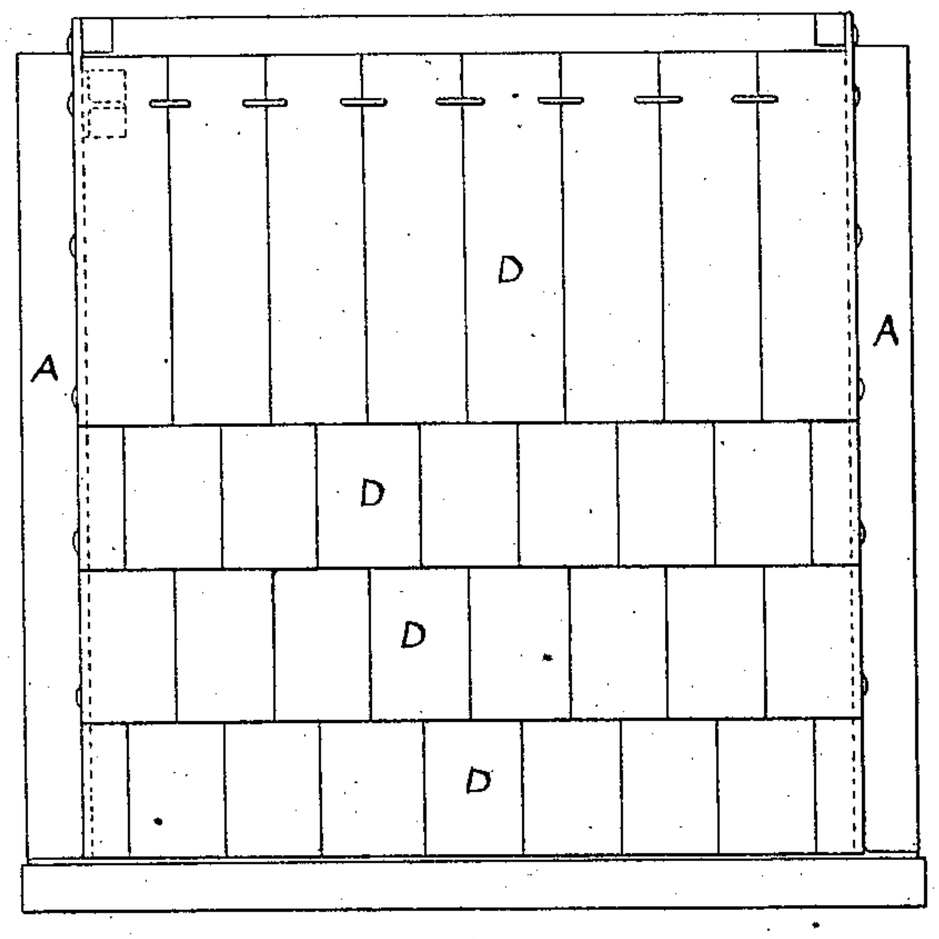


FIG. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM CONOLLY, OF NEW YORK, N. Y.

IMPROVEMENT IN MANSARD ROOFS.

Specification forming part of Letters Patent No. **157,274**, dated December 1, 1874; application filed October 3, 1874.

To all whom it may concern:

Be it known that I, WILLIAM CONOLLY, of the city, county, and State of New York, have invented, made, and applied to use Improvements in the Construction of Mansard Roofs, of which the following is a specification, reference being had to the accompanying drawing making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a vertical section of my improved Mansard roof. Fig. 2 is an elevation from the interior of the same. Fig. 3 is a horizontal section through the joint of bricks used. Fig. 4 is an elevation from the front side of the roof.

In the drawing like parts of the invention are designated by the same letters of reference.

The nature of the present invention consists in the construction, as more fully hereinafter set forth, of an improved Mansard roof for buildings; the object of the invention being the construction of a roof which shall be fire-proof, and one which can be easily repaired, at a low cost, when repairs are necessary.

To enable those skilled in the arts to make and use my invention, I will describe the same.

A is a frame-work, formed of wrought-iron or any suitable material, intended to receive and support a series of fire-bricks, B. C shows a series of knees riveted to the front ends of the frame A, and having a bearing upon the bricks B, and employed to hold the same in position. The bricks B are made of the proper length to fill the space between the ends of the frame A, and a dovetailed groove, *b*, is formed at the back of each brick, for the purpose hereinafter stated. D is a series of slates placed upon the front of the roof, directly in advance of, and laid upon, the bricks B, and held in this position by a series of wires, E, passed through openings in the slates, and also passed through the joints of the bricks B, and fastened around a series of iron pins, F, properly placed in position, and resting upon the bricks B for this purpose. G shows an angle-iron secured to the frame A, near its upper edge, to support the beams of the roof; and H are knees secured to the lower ends of the frame A, and connecting it to a wall-plate, L, by which the frame is attached to the front wall of the building by means of anchors O. The frame A is bolted to the wall-plate L, attached to the front wall of the building, and the angle-iron G is now attached to the frame A. The bricks B are then placed in position within the frame A, being laid in cement, and held in position by the back of the frame A and the knees C, secured upon the front of the frame. The slates D are now placed upon the front of the roof over the bricks B, and are fastened securely in position by the wires E passed through openings in the slates, through the joints between the bricks, and fastened around the pins F placed upon the back of the bricks. The joints between the bricks are then closed by cement, the dovetailed portion of the bricks causing the cement to adhere more closely and thoroughly.

The advantages of constructing a Mansard roof as set forth are, that a roof so constructed is fire-proof; that if at any time necessary to repair the slates used, if broken or cracked, easy access may be had to the same by cutting away the cement, loosening the wires by which the slates are held, and removing the damaged slates and putting on the new ones; and that this operation can be expeditiously performed.

Having now set forth my invention, what I claim as new is—

1. The combination of the frame A, bricks B, and knees C, as and for the purpose specified.

2. The combination of the frame A, bricks B, knees C, slates D, wires E, and pins F, as and for the purposes set forth.

WILLIAM CONOLLY.

In presence of—
JOSEPH H. TOONE,
CHAS. H. QUAIL.