H. F. EVANS.
BUILDING-PAPER.

No. 195,593. Patented Sept. 25, 1877.

Fig. 1

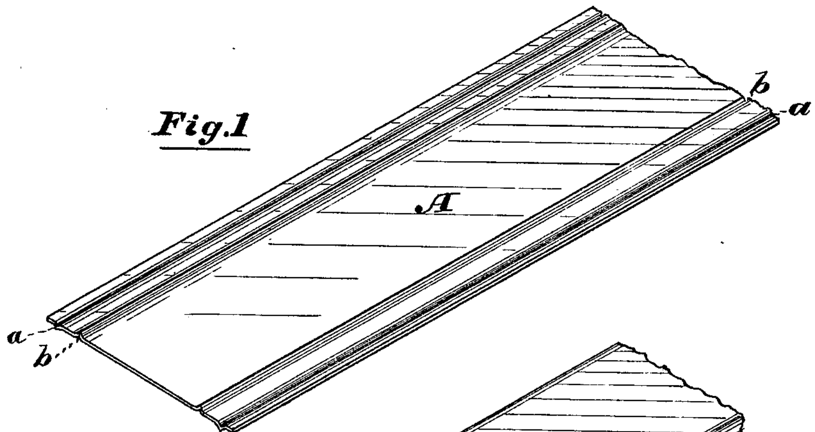
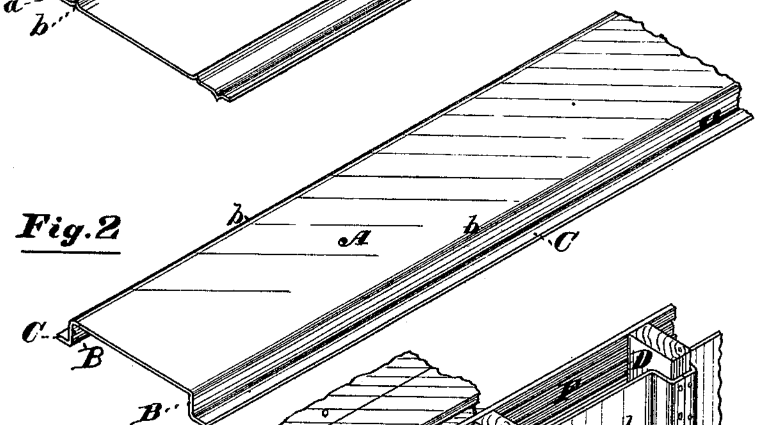


Fig. 2



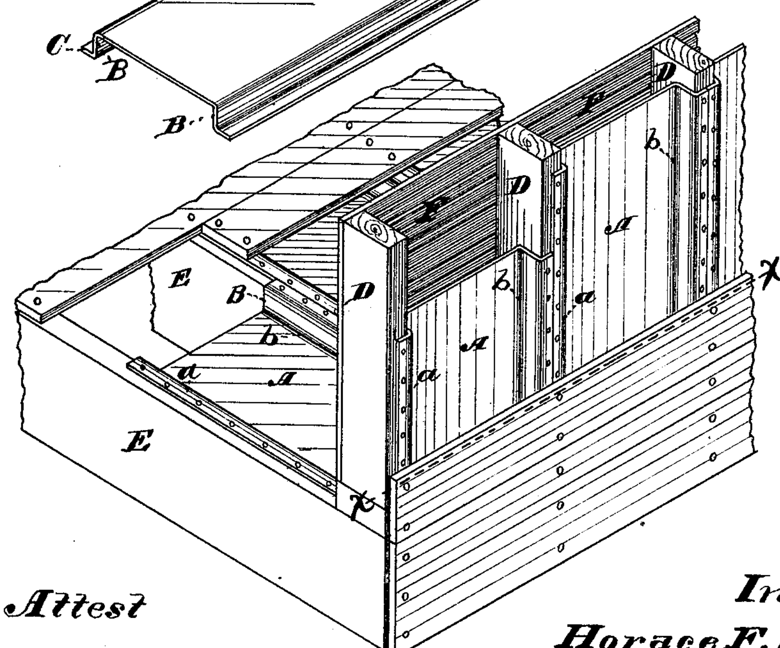


Fig. 3

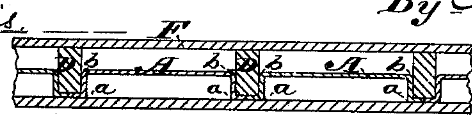


Fig. 4

Attest
W. S. Baker
L. M. Harris

Inventor
Horace F. Evans
By [signature]
Attorneys.

UNITED STATES PATENT OFFICE.

HORACE F. EVANS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN BUILDING-PAPER.

Specification forming part of Letters Patent No. **195,593**, dated September 25, 1877; application filed August 28, 1876.

To all whom it may concern:

Be it known that I, HORACE F. EVANS, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Building-Paper, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a perspective view of a portion of a strip of building-board before folding; Fig. 2, a perspective view of the same after having been folded for use; Fig. 3, a perspective view of a portion of a building, showing the method of applying the folded building-paper to the walls and floors; and Fig. 4, a sectional view taken on the line *x x*, Fig. 3.

The object of my invention is to provide a paper-board for building purposes which may be readily folded and applied to buildings, so as to secure a dead-air space in the walls or floors thereof.

The invention consists in making the paper-board with two parallel indented grooves arranged on each side of the sheet near the edges thereof, and parallel thereto, one of the grooves at each edge being in the opposite surface of the board from the other.

In the drawings, A represents a strip of paper-board suitable for building purposes. On each side of this strip, near the edge thereof, are two indented grooves, *a* and *b*, running the entire length of the strip, parallel to each other and to the edges of the strip. The two outside grooves *a* are made upon one side of the strip of board, while the two inside grooves *b* are made upon the other side of the same strip, as clearly shown in Fig. 1 of the drawings. These grooves are formed in the sheets of board in the process of manufacture by running the material between rollers having flanges suitably arranged upon their circumferences to make the grooves in the proper places, or by any other mechanism adapted to this purpose.

The long strips of building-paper made in this way, and having the general appearance represented in Fig. 1 of the drawings, are rolled up so as to form packages of convenient size to handle, in which form they are put upon the market.

The outside grooves *a* are made in the board at a distance of about one inch and a half from the outer edges of the strip, and the inner grooves *b* at about three inches and a half from the same edges, so as to leave a space of about two inches between the grooves themselves, though these distances may be varied as desired to suit special cases. The entire width of the strip is intended to be such that the space between the inside grooves *b b* will be of nearly the same width as the space usually left between the studs or joists of buildings of ordinary construction.

In using this board in the construction of buildings, strips of any desired length are cut from the rolls. Two bends are then made along each edge of the strip—one inward along the inside groove *b*, and the other outward along the outside groove *a*. This bending of the strip along the grooves *a* and *b* will bring it into the shape shown in Fig. 2 of the drawings, in which the central portion of the strip is bounded on each side by sections B, perpendicular thereto, or nearly so, while the extreme outer edges are parallel to the central portion, and form flanges C standing out along the entire length of the strips. In this shape the strips of paper-board are ready to be applied to the building, as shown in Fig. 3 of the drawings, in which D D represent the studs of a building, and E E the floor-joists.

In applying the paper-board to the building, the strips, bent as shown in Fig. 2 of the drawings, are placed between the studs D or joists E, the bent edges B C being outermost or uppermost, accordingly as the strips are applied to the walls or floors of the building. The strips are set in between the studs or joists until the projecting edges or flanges C rest upon the edges of the studs or joists on each side, in which position they are nailed to the latter, as shown in Fig. 3 of the drawings, or secured in any other suitable manner. The paper may be applied in a similar manner to the building of cars.

It is evident that, when the walls are completed by boarding up on the outside and lathing and plastering upon the inside, there will be a dead-air space between the plastering F and the paper-board A, as shown in Fig. 4 of the drawings. The result is

the same in the floors. If the distance between the studding or joists should be somewhat wider than the central portion of the strips of paper-board, the latter will yield somewhat at the bends, so that there will be no difficulty in bringing the edges C over them in proper position for nailing, and the protection will be as complete as though the fit was perfect. The ends of the strips may be bent outward slightly at the top and bottom, if desired, so as to form close joints at those places for the purpose of greater protection to the interior dead-air space.

This method of applying the paper to the construction of buildings is not herein claimed, as it will be made the subject-matter of a separate application, and the above description is given only for the purpose of showing how my improved building-paper is to be used.

My invention may be applied to building-board of any description, but I prefer an inodorous water-proof straw-board, as it will not produce the offensive odor that is made an objection to the use of ordinary building-board in the interior of dwellings.

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

As a new article of manufacture, building-paper made with two parallel indented grooves, *a* and *b*, near each edge of the strip, the outside grooves *a* and the inside grooves *b* in opposite surfaces of the paper, substantially as and for the purpose set forth.

HORACE F. EVANS.

Witnesses:
L. M. HARRIS,
E. S. LLOYD.