No. 638,493. Patented Dec. 5, 1899.

A. W. BLAZO & H. W. BELL.

PLASTER BOARD.

(Application filed May 25, 1899.)

(No Model.)

Fig. 1.

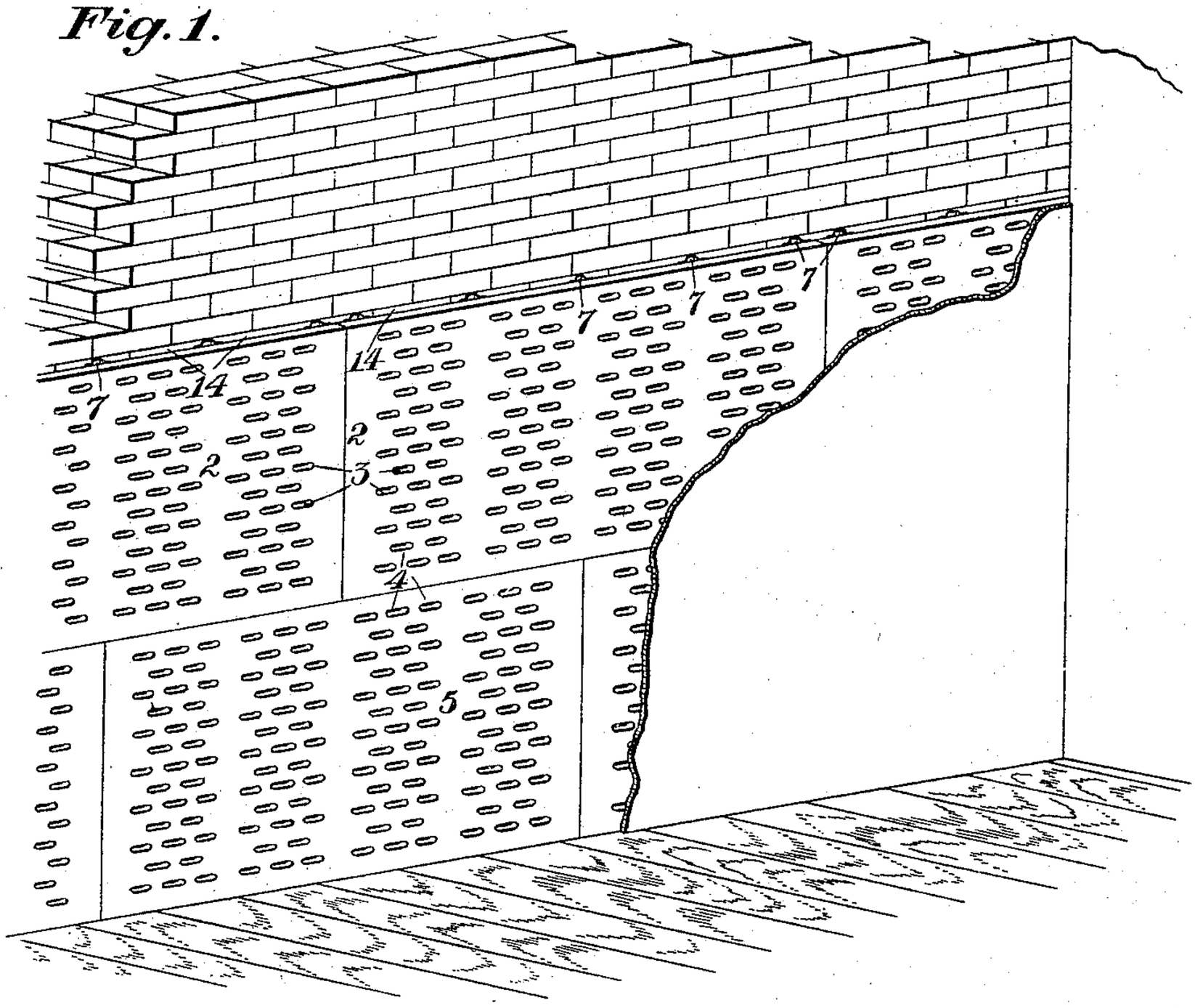


Fig. 2.

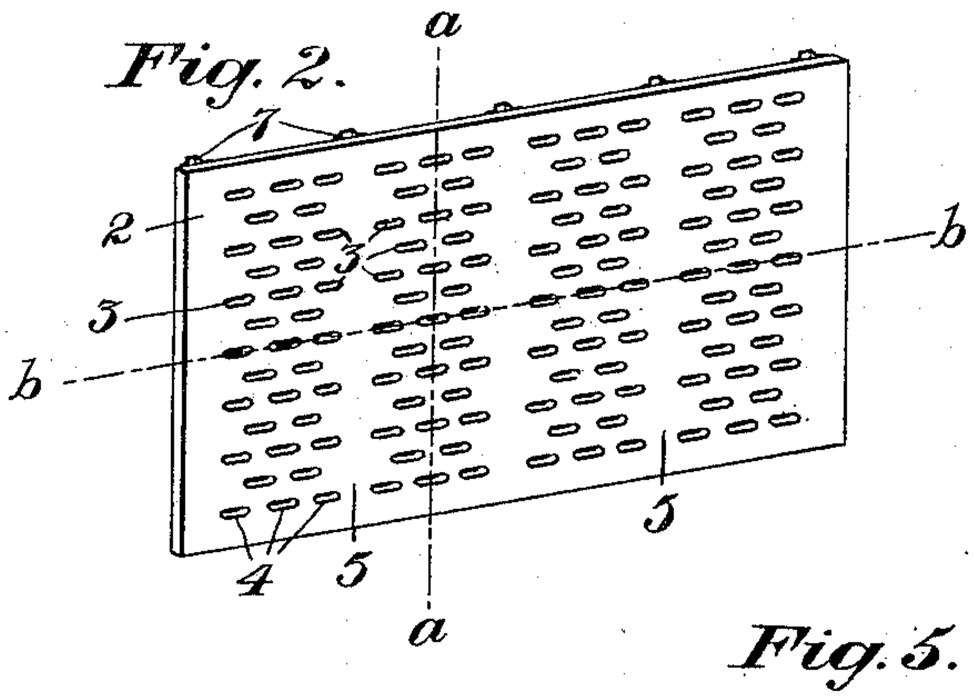


Fig. 3.

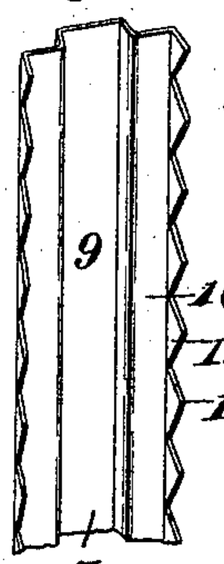


Fig. 4.

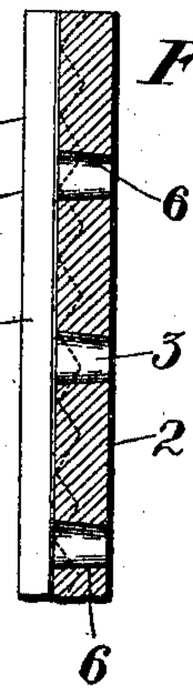


Fig. 5.

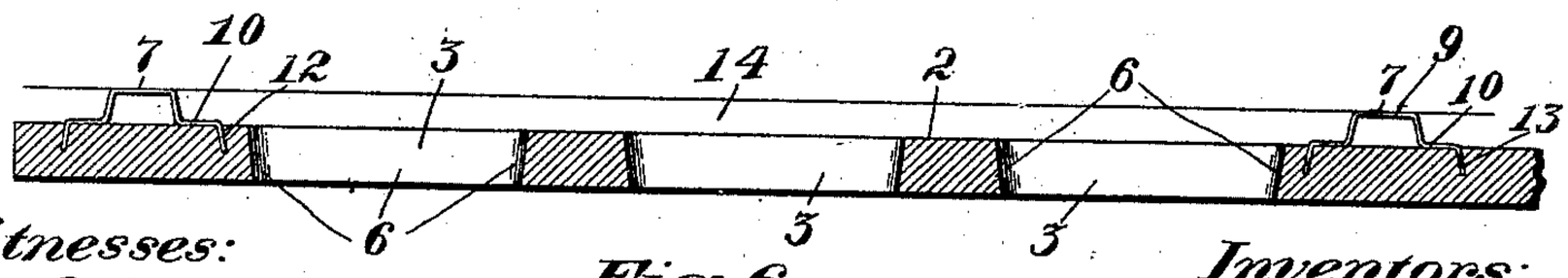
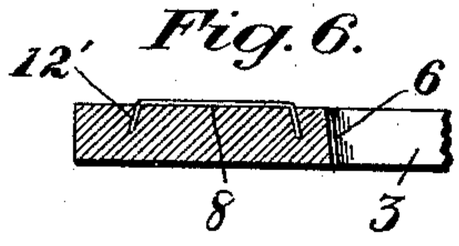


Fig. 6.



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UNITED STATES PATENT OFFICE.

AUGUSTUS W. BLAZO AND HARRY W. BELL, OF NEW YORK, N. Y.

PLASTER-BOARD.

SPECIFICATION forming part of Letters Patent No. 638,493, dated December 5, 1899.

Application filed May 25, 1899. Serial No. 718,272. (No model.)

To all whom it may concern:

Be it known that we, AUGUSTUS W. BLAZO and HARRY W. BELL, citizens of the United States, residing in the city of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Plaster-Boards, of which the following is a specification.

This invention relates to plaster-boards; and the object of the invention is to provide an improved fireproof plaster-board so constructed that the plaster will be prevented from separation therefrom, while at the same time moisture will be prevented from penetrating through the board and its plaster.

A further object of the invention is to provide an improved plaster-backing and an improved furring-strip adapted to be assembled one with another and when assembled constituting an improved plaster-board which when assembled with its companion boards will form an improved backing for the reception of plaster which will be maintained in position thereon against separation therefrom, while the furring-strips will form an air-space intermediate said backing and the adjacent wall, and thereby prevent the penetration of moisture through said board and plaster.

In the drawings accompanying and forming part of this specification, Figure 1 is a perspective view of a series of these improved plaster-boards assembled in position adjacent to a wall with a part of the plaster broken away. Fig. 2 is a perspective view of this improved plaster-board detached. Fig. 3 is a perspective view of one form of furring-strip detached from the board. Fig. 4 is a transverse sectional view, on an enlarged scale, taken in line *a a*, Fig. 2. Fig. 5 is a transverse sectional view, on an enlarged scale, taken in line *b b*, Fig. 2; and Fig 6 is a sectional view of one portion of the board, showing another form of furring or stiffening strip secured thereto.

Similar characters of reference designate like parts in all the figures of the drawings.

In fireproof construction it is now the practice to use in place of lathing plaster-boards formed of fireproof material. In the use of these plaster-boards, which are usually of relatively large area, it is essential that they be so constructed and placed in position that moisture will not penetrate through the same to the plaster. It is also essential that the board be so constructed that the plaster will adhere thereto against separation therefrom. Neither of these necessary features, so far as we are aware, have been accomplished in an economical and durable manner, it frequently happening that in the use of plaster-boards with which we are familiar the plaster readily separates therefrom after the building has been completed.

To accomplish one of the foregoing objects in an economical and durable manner, we provide an improved plaster-board 2 of the desired size and material, having a series of plaster-receiving apertures or openings 3. In the form shown these apertures or openings 3, which may be of any size and shape adapted for the purpose, but shown herein as oblong, are disposed in sections or rows 4, each row alternating with a solid section 5 of said board, such solid sections facilitating the attachment of the furring-strips, hereinafter described, and also constitutes a means of permitting the fastening of the board in position, the fastening means usually extending through the solid sections and also the furring-strips, thereby constituting not only a means of securing the plaster-board in position, but also an additional means of securing the furring-strips rigidly in place. These apertures are shown having inclined walls 6, whereby the openings are of tapered formation, with the area thereof at one side of said board greater than the area thereof at the opposite side. In the present instance the openings may taper from the rear to the front face of said board, so that the area of the aperture at the rear side of the board is greater than the area at the front side thereof. By this formation not only can the boards be easily removed from the molds after they are formed, but the plaster when placed upon the board will penetrate said openings and that portion thereof at the rear side of the board, owing to the increased area of the openings, will be prevented from pulling from the board, owing to the decreased area at the front side of said openings, the hardened plaster and the inclined walls of the openings acting as opposing wedges. Each of these boards is in practice provided with a plurality of furring-strips 7, formed of any

suitable material, preferably of metal, and of some suitable shape adapted for the purpose. In practice these furring-strips may be formed more particularly as stiffening-strips, whereby only a small air-space will be formed intermediate the plaster-board and the wall. In one form thereof, however, the furring-strips are so formed that not only will an air-space be formed intermediate the board and the wall, but also intermediate the furring-strip and the plaster-board. In one construction thereof this furring-strip is shown comprising a longitudinally-extending hollow projection or rib 9, having a pair of lateral wings or projections 10, provided with inturned edges 12, shown herein provided with teeth 13. These inturned edges are adapted to penetrate into the board while the same is in a plastic condition, so that when the board becomes set the furring-strip will be firmly embedded therein. In another form thereof this furring-strip, (see Fig. 6,) which in this case is more in the nature of a stiffening-strip 8, is merely provided with two bent edges 12′, which may be of toothed formation or not, as desired. These furring-strips are disposed in position while the board is in a plastic condition in the mold, a strip being disposed alternately with each row of apertures, whereby it is embedded in a solid section of the board, so that when the board becomes set it can be removed from the mold in a completed condition and in readiness to be disposed in position. The boards are assembled to break joint with each other, the furring-strips engaging the wall and forming an air-space 14 intermediate the wall and the plaster-board to prevent the moisture from penetrating through the board. The boards may be secured in position in any desired manner, as by nails or otherwise, which, as hereinbefore set forth, usually pass through the solid sections of said board, and thus through the furring-strips. The boards are then plastered in the usual manner, whereupon the plaster entering through the openings or apertures clenches at the rear side of the board and effectively prevents the separation of the plaster therefrom. This permanent anchoring or locking of the plaster to the board is also materially assisted owing to the particular formation of the openings or apertures, whereby they are of greater area at the rear side than at the front side of said board, so that the plaster which projects through said apertures becomes set with inclined walls and being of greater area at the rear side than at the front side of said board prevents the separation of the plaster from the board in the manner hereinbefore set forth, and which will be readily understood without a further description thereof. It has been found in practice that the use of the furring-strip also acts as a stiffening means to reinforce the board, whereby it is of superior strength and durability.

Having described our invention, we claim—

1. A plaster-board having a series of sections of plaster-receiving apertures or openings extending therethrough, each section of said openings alternating with a solid section of said board thereby to facilitate the attachment of furring-strips and the board in position.

2. A plaster-board having a series of independent sections of plaster-receiving apertures or openings therein, each of said sections alternating with a solid section of said board thereby to facilitate the attachment of furring-strips and the board in position, and each of said apertures or openings having inclined walls and having greater area at the rear side of said board than at the front side thereof.

3. The herein-described plaster-board having a series of rows of plaster-receiving apertures therein, each of said rows alternating with a solid section of said board, and each of said apertures having inclined walls whereby it is of greater area at the rear side than at the front side of said board; and a furring-strip embedded in said plaster-board intermediate each pair of rows of apertures and comprising a longitudinally-extending hollow rib and a pair of lateral wings or projections provided with inturned edges having teeth.

4. A plaster-board having a plurality of rows of plaster-receiving apertures therein, each row alternating with a solid section of said board, and each of said apertures having greater area at one side of said board than at the other side thereof, and a furring-strip embedded in each solid section intermediate each pair of rows of apertures and comprising a member having a pair of edges adapted to enter said board.

5. A plaster-board having a plurality of rows of plaster-receiving apertures alternating with solid sections of said board, and a furring-strip disposed intermediate each pair of rows of said apertures.

6. A plaster-board having a series of plaster-receiving apertures therein, and a plurality of furring-strips secured thereto.

7. A plaster-board having a series of plaster-receiving apertures therein, and a plurality of furring-strips embedded in said plaster-board at the rear side thereof, said apertures being disposed in rows and alternating with said furring-strips.

8. A plaster-board having a metallic furring-strip embedded in one side thereof.

9. A plaster-board having a furring-strip embedded in the rear side thereof and comprising a metallic member having two longitudinally-extending edges adapted to project into said plaster-board.

10. A plaster-board having a furring-strip embedded therein and comprising a member having its two edges provided with teeth adapted to project into said board.

11. A plaster-board having a furring-strip

embedded therein and comprising a member having a hollow rib provided with a pair of edges adapted to extend into said board.

12. A plaster-board having a furring-strip comprising a member having a hollow rib provided with two sets of teeth adapted to extend into said board.

13. A plaster-backing comprising a plurality of plaster-boards assembled to break joint with each other and each having a series of plaster-receiving apertures therein and provided with a plurality of furring-strips embedded therein and adapted to engage a wall to form an air-space intermediate said board and said wall.

14. A plaster-backing comprising a plurality of plaster-boards assembled to break joint with each other, each of said boards having a series of plaster-receiving apertures therein disposed in rows, each row alternating with a solid section of said board, and a plurality of furring-strips embedded in the solid sections of said board, one intermediate each pair of rows at the rear side thereof and adapted to engage a wall and thereby form an air-space intermediate said wall and said board.

15. A plaster-backing comprising a series of plaster-boards assembled to break joint one with another, and each provided with a series of apertures having inclined walls, whereby each is of greater area at the rear side of said board than at the front side thereof, said apertures being located in rows alternating with solid sections of said board; and a plurality of furring-strips embedded in the solid sections of said board at the rear side thereof, and each comprising a hollow rib having a pair of toothed projections and adapted to engage a wall to form an air-space intermediate said plaster-board, and each of said furring-strips also having an air-space intermediate said plaster-board and said strip.

16. A plaster-board having a furring-strip embedded in its rear side and provided with an air-space intermediate said strip and said board.

17. A plaster-board having a plurality of plaster-receiving apertures therein, and a furring-strip secured thereto and constructed to form an air-space intermediate said strip and said board and an air-space intermediate said board and an adjacent wall.

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