(No Model.)

P. A. DESLAURIERS.

FIREPROOF BUILDING WALL.

No. 520,137. Patented May 22, 1894.

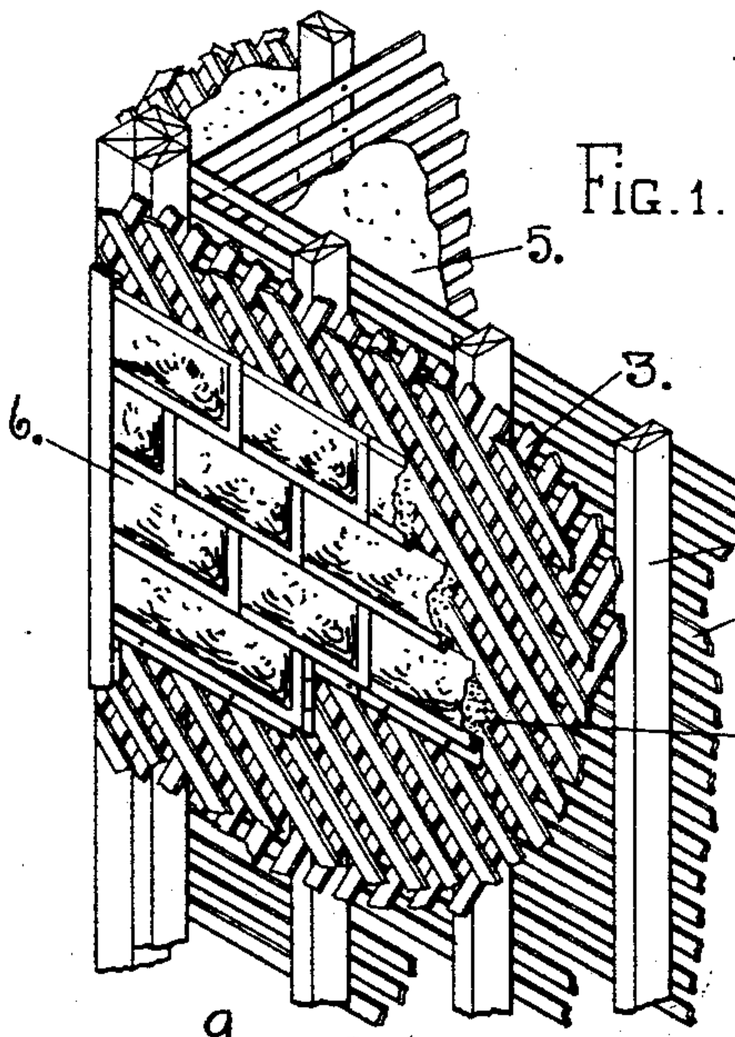

FIG. 1.

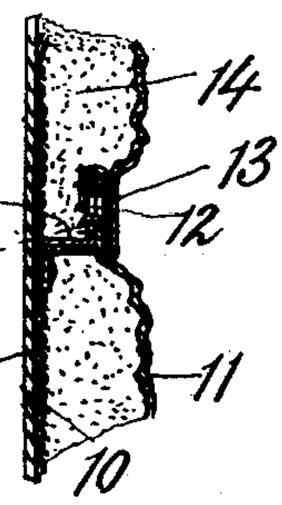

Fig. 3.

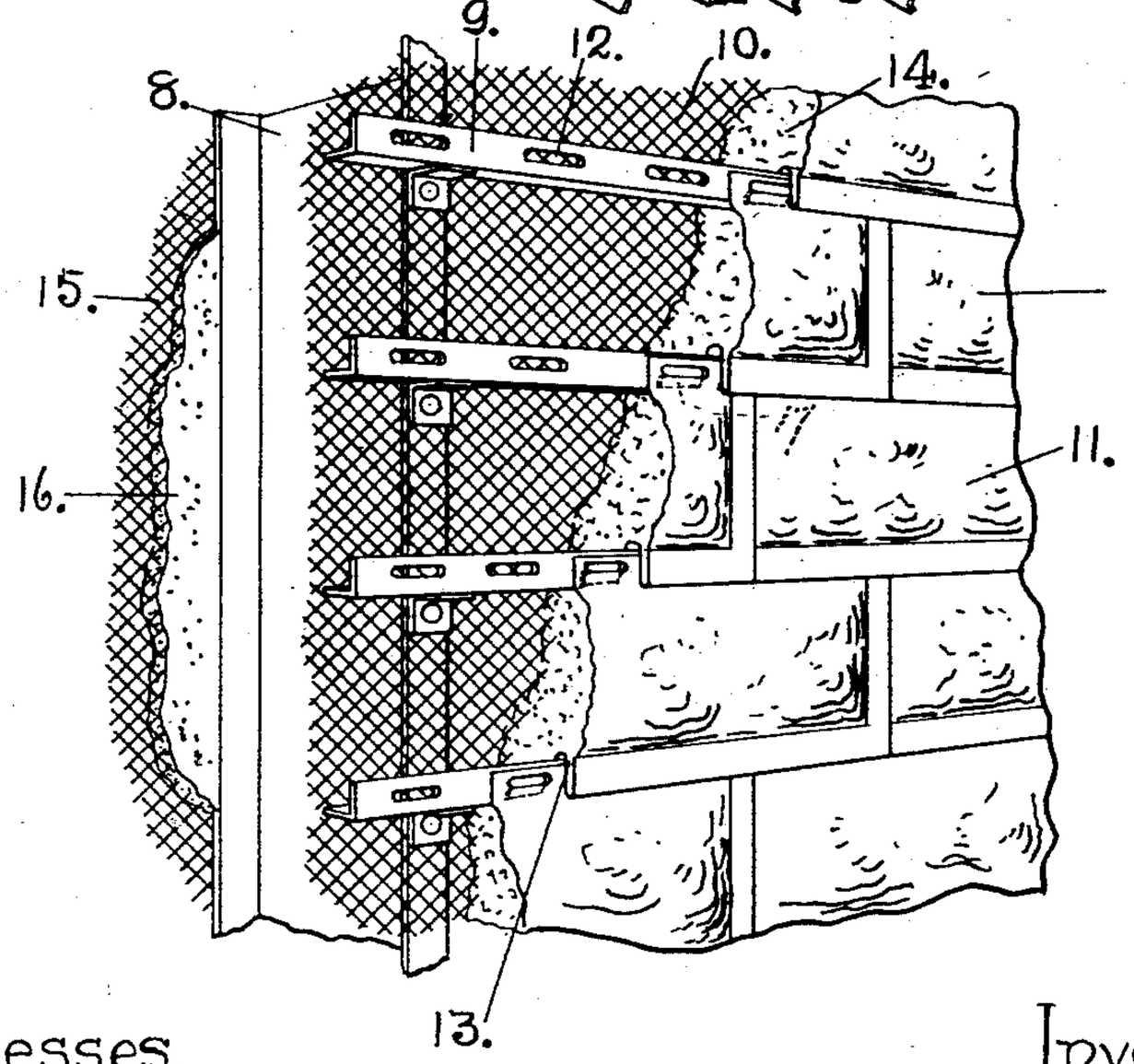

FIG. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

PHILIP A. DESLAURIERS, OF ST. PAUL, MINNESOTA.

FIREPROOF BUILDING-WALL.

SPECIFICATION forming part of Letters Patent No. 520,137, dated May 22, 1894.

Original application filed July 13, 1892, Serial No. 439,473. Divided and this application filed August 3, 1893. Serial No. 482,250. (No model.)

To all whom it may concern:

Be it known that I, PHILIP A. DESLAURIERS, of St. Paul, Ramsey county, Minnesota, have invented certain Improvements in Fireproof Building-Walls, of which the following is a specification.

My invention relates to improvements in the construction of fire proof and slow burning building walls with sheet metal covering, and consists in the features of construction hereinafter more particularly described and claimed, the same being a division of my pending application, Serial No. 439,473, filed July 13, 1892.

In the accompanying drawings forming part of this specification, Figure 1 is a sectional perspective view of a building wall of the slow burning type, and Fig. 2 a similar view of a fire proof wall. Fig. 3 is an enlarged detail sectional view, showing the connection between the plates 11 and the bars 9.

In the drawings 2 represents the building stud, upon the outer face of which are nailed the crossed laths 3, having open spaces between for the holding of mortar or cement. Upon the inner face of the studs are nailed the laths 4 to receive the wall coating 5. Upon the outside of the laths 3 are nailed the siding plates 6, so formed as to leave open spaces between them and the laths, in which is filled the cement or mortar 7, which is applied to the inner faces of the laths 3, and forced through the spaces between the same so as to completely fill the open spaces, thus supporting the siding plates and making a fire proof exterior to the wall.

In the fire proof construction the metallic studs 8, made preferably of channeled iron, are employed, and connected by means of the horizontal angle bars 9, thus making an open metallic framework. Upon the outer face of the studs 8, and underneath the bars 9, is arranged wire lath 10, or an equivalent perforate metallic partition. The siding plates 11 have their top edges secured to the bars 9 by means of lips 17, as shown in detail by Fig. 3, which are inturned and bent through the slotted openings 12 in the vertical web of the bars, the bottom edge of the plates being formed with a fold 13 to hook over the bar at the bottom and overlap the plates beneath.

Between the plates and the lath 10, mortar or cement 14 is filled in by being applied to the inner surface of the lath, in the same manner as in the other structure, thus making a solid fire proof wall. To the inner faces of the studs 8 similar wire lath 15 may be secured and a coating of mortar or cement 16 applied thereto.

I claim—

1. A building wall, comprising in combination, the frame, the lath secured to the outer face thereof, sheet metal siding plates secured on the outside of said lath leaving an intermediate space, and a fire proof filling upon the inner face of the lath, and extended through the openings therein and filling the space between the lath and plates, substantially as described.

2. A building wall, comprising in combination, the frame, the lath secured upon the outer face thereof, to form practically a continuous open covering therefor, the interlocking sheet metal siding plates secured outside said lath, and the cement or similar material filled into the open space between the siding plates and lath, and the openings between the lath, substantially as described.

3. In a building wall, the combination with the frame, of the open work or perforate wall secured thereto, the ornamentally finished siding plates secured outside said wall, and the non combustible material upon the inner surface of said wall, and extending through the openings of the wall and filling the space between it and said siding plates, substantially as described.

4. The method of forming a building wall consisting in securing metal siding plates in front of a lathing to form a space between the plates and lathing, and then applying a plastic binding and stiffening material to the inside facing of the laths and forcing it through the spaces between the lathing into the space between the lathing and the metallic plate so as to bind the parts together and impart stiffness to the wall by the plastic material forced through the spaces between the lathing into the space beween the metal plate and lathing, substantially as and for the purposes described.

5. The building wall, composed of the frame,

the laths or open work covering applied to the outside and also to the inside of the frame, the sheet metal siding plate, secured outside of the frame with a space between the siding plate and the outer open work covering, the plastic material passing through the outer open work covering and lying on opposite sides thereof with a portion in the space between the covering and the siding plate, and the plastic material applied to the face of the inner open work covering, substantially as and for the purposes described.

In testimony whereof I have hereunto set my hand this 11th day of July, 1893.

PHILIP A. DESLAURIERS.

Witnesses:
H. S. JOHNSON,
T. D. MERWIN.