

No. 849,144.

PATENTED APR. 2, 1907.

M. W. LAUER.
REINFORCED PARTITION.
APPLICATION FILED SEPT. 15, 1904.

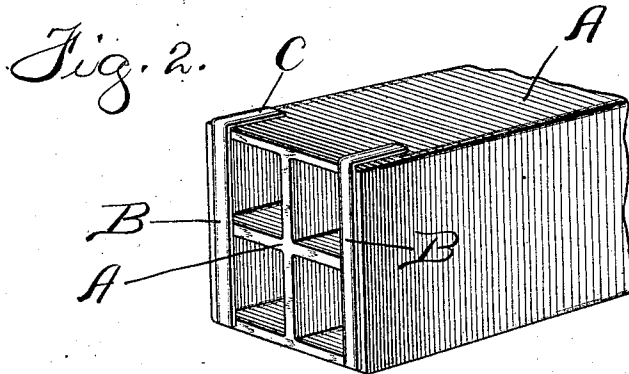
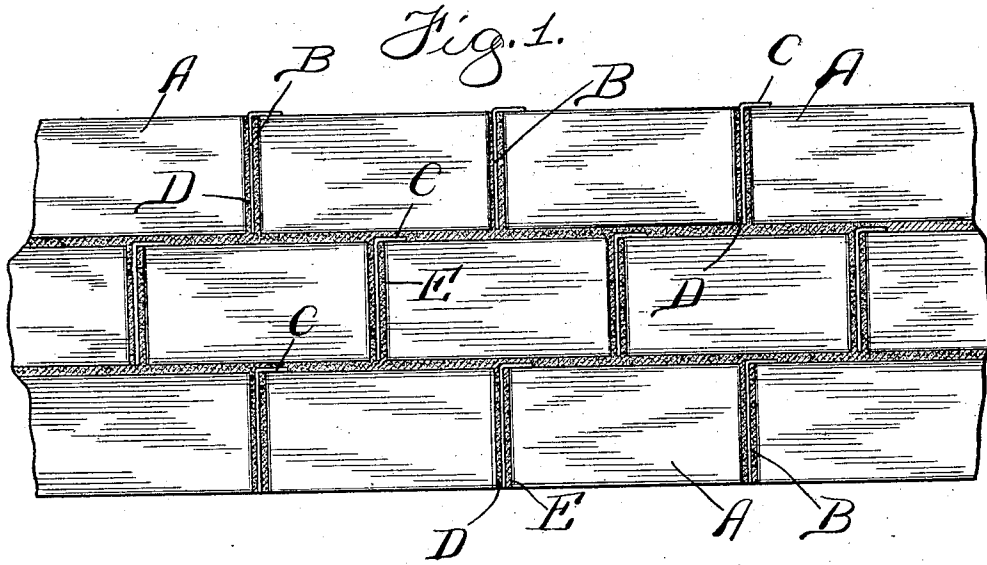


Fig. 3.

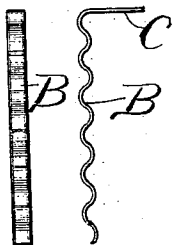


Fig. 4.

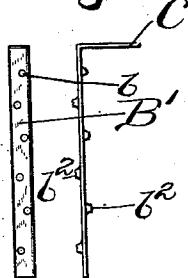
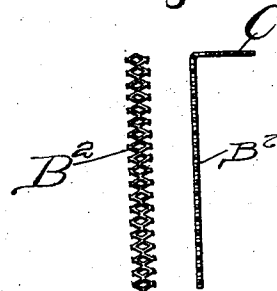


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

MARTIN W. LAUER, OF WILMETTE, ILLINOIS.

REINFORCED PARTITION.

No. 849,144.

Specification of Letters Patent.

Patented April 2, 1907.

Application filed September 15, 1904. Serial No. 224,613.

To all whom it may concern:

Be it known that I, MARTIN W. LAUER, a citizen of the United States, residing at Wilmette, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Reinforced Partitions, of which the following is a specification.

This invention is an improvement in the walls employed in the construction of buildings, and relates more especially to means for firmly uniting the vertical faces of adjacent tiles or units.

In this invention I endeavor to provide means for increasing the strength and efficiency of the mortar or cement joint between adjacent units, and in the attainment of this end a strip of metal or other material of suitable size is inserted between each adjacent pair of units.

A further object of my invention is to prevent the mortar or cement used in the bond from falling out of the joints, thus leaving unsightly holes and necessitating constant pointing of the joints in order to preserve the appearance and integrity of the structure.

These and such other objects as may be attained by my invention are set forth in the accompanying drawings, in which—

Figure 1 represents a sectional view of one form of my improved wall. Fig. 2 represents an end view of one unit of construction, showing a metallic bond in place. Fig. 3 represents an elevation and sectional view of a metallic strip used in the construction of my partition. Fig. 4 represents an elevation and sectional view of another form of metallic strip, and Fig. 5 represents an elevation and sectional view of still another form of my metallic strip.

Like letters of reference indicate the same parts in the several figures of the drawings.

In Fig. 1, A A represent the separate units of construction, with my improved bond B B, surrounded by mortar or cement D D, completely filling the joints E E between adjacent units. C represents a shoulder with which the bond may be provided, but which is not a necessary element of my invention.

In Fig. 3 the bond B B is made of corrugated metal. In Fig. 4 the bond B' B' is made of sheet metal in which holes *b b* are punched in opposite directions through the metal forming projecting tangs *b² b²*. In Fig. 5 the bond B² B² is formed of expanded metal.

In constructing my improved wall the separate units are put in place, mortar or cement is applied to the vertical faces, and the bond pressed into place in the mortar. Mortar is then placed on the opposite face of the adjacent unit, and the two units are pressed together. After one course of units is in place mortar is put on the top of the units and another layer laid in the same manner as described above. The use of this bond greatly strengthens the joint and prevents the mortar or cement from falling out. While I have illustrated or described this bond or insert as being metallic, it is obvious that many other materials may be used to accomplish the desired result—such, for instance, as thin strips of prepared wood, pressed and prepared paper, or strawboard. Owing to the cheapness of the material and its peculiar adaptability, I attain the best results by the use of expanded metal.

My invention is especially adapted to hollow-block construction, as by the use of the insert the joint is greatly strengthened.

A joint constructed by my method conserves the mortar, and thereby tends to preserve intact the hollow spaces within the blocks, which are often clogged with surplus plastic material or even completely closed in making a solid joint. This clogging of the spaces is very undesirable, as it defeats one of the principal objects to be attained by the use of hollow blocks.

It is understood that while I have illustrated several forms of bond I do not limit myself to their use, but may use other forms constructed of any suitable material, with or without shoulders, without departing from the spirit of my invention.

I claim—

1. In a wall construction, the combination of a series of hollow units, a plastic element and metallic elements arranged vertically and securing said units together, each of said metallic elements comprising strips of metal with a bent-over end adapted to rest upon a tile, said strips of such a width and so located as not to obstruct the spaces within the units.

2. In a wall construction, the combination of a series of hollow units, a plastic element and metallic elements arranged vertically and securing said units together, said metallic elements comprising strips of metal of a length greater than the distance between courses and of such a width and so located as

not to obstruct the spaces within the units, and having each an end bent so as to form a shoulder adapted to extend horizontally between the courses.

5 3. In a wall construction, the combination of a series of tiles having passages extending longitudinally therethrough, and placed end to end so as to form a continuous passage
10 through said series, a metallic strip interposed between the meeting ends of two of said tiles, said strip being limited in width so as not to obstruct the passage, said strip being somewhat longer than the vertical distance between courses and having an end
15 bent over upon one of the tiles.

4. In a wall construction, the combination of a series of tiles having passages extending longitudinally therethrough and placed end to end so as to form a continuous passage
20 through said series, a plastic bond between the meeting ends of two of said tiles, a metallic strip arranged between the ends of the

tiles and embedded in the plastic bond, said metallic strip extending vertically the height of a single series of tiles and being of such a width and so placed as not to obstruct the passage through the series of tiles. 25

5. In a wall construction, the combination of a series of tiles having passages extending longitudinally therethrough and placed end to end so as to form a continuous passage
30 through said series, a metallic strip arranged vertically between the meeting ends of two of the tiles and extending vertically the height of a single series of tiles, and a plastic
35 bond adapted to secure the tiles and strips together, said strip and plastic bond being so arranged as not to obstruct the passage through the tiles.

MARTIN W. LAUER.

Witnesses:

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