No. 701,588. Patented June 3, 1902.

G. LIEBAU.

WALL OR FENCE.

(Application filed Apr. 8, 1901.)

(No Model.)

Fig. 1.

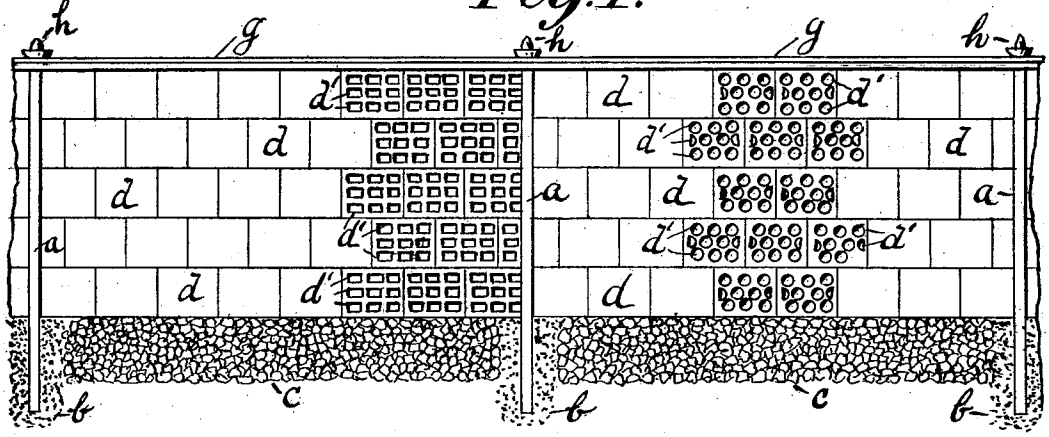


Fig. 2

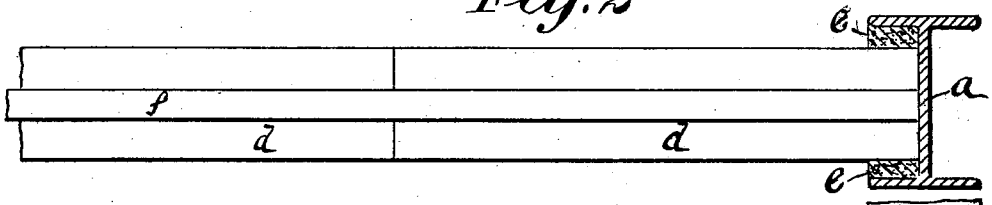


Fig. 3.

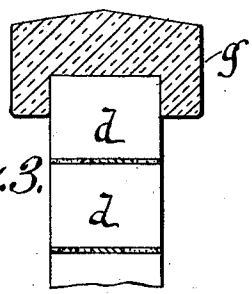


Fig. 4.

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UNITED STATES PATENT OFFICE.

GUSTAV LIEBAU, OF MAURER, NEW JERSEY.

WALL OR FENCE.

SPECIFICATION forming part of Letters Patent No. 701,588, dated June 3, 1902.

Application filed April 8, 1901. Serial No. 54,782. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV LIEBAU, a citizen of the United States, and a resident of Maurer, in the county of Middlesex and State of New Jersey, have invented certain new and useful Improvements in Walls or Fences, of which the following is a specification.

This invention relates to certain new and useful improvements in walls, fences, and analogous structures, and particularly to that class constructed of brick, tiles, and the like, having for its object the production of a wall or fence of comparatively extreme thinness, which will be ornamental in appearance, strong and durable in use, and rapid and economical in construction.

To these ends, therefore, my said invention consists in a wall or fence composed of a single thickness of tiles or bricks, laid on edge between channeled posts and having embedded in the mortar between the courses strips of band-metal, as well as in the details of construction and the arrangement and combination of the parts, all as hereinafter more fully specified, and pointed out in the claims.

Referring to the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is a face view of two sections of a wall or fence embodying my invention and showing two different styles or patterns of perforations of the constituent tiles. Fig. 2 is a top view of one of the courses, showing one of the supporting-posts in section. Fig. 3 is an end view showing in section an ornamental cap or coping, and Fig. 4 is an enlarged fragmentary face view of one of the posts with two courses of tiles in place.

a represents metal posts, substantially I-shaped in cross-section, the lower ends of which are embedded in cement or mortar *b*, filling the usual post-holes. Owing to the peculiar strength of my finished structure, these posts may for walls or fences of ordinary height be placed at intervals of about twenty feet, a narrow trench being dug between them and filled with the usual rubble or broken stone *c*.

For the wall or fence itself I prefer to use terra-cotta or fire-clay tiles *d*, having perforations *d'* of any desired contour and arrangement, which perforations make the structure less heavy and permit the free passage of light and wind, thus eliminating the danger of the structure being blown over by a heavy wind and warranting the use of thinner tiles and permitting a greater space between the posts than when solid tiles or blocks are used; but obviously such solid blocks and even ordinary bricks may be used, if preferred. Said tiles *d* are of comparatively extreme thinness, two inches being amply thick for a wall of ordinary height, and are laid with mortar longitudinally on edge between the posts *a* and in bond, the end tiles of each course entering the channels in the I-posts. Where such channels are wider than the tiles used, the intervening spaces may be filled with mortar *e*, as in Fig. 2, although I-posts in which the tile ends will just fit may also be used and will conduce to neatness in the appearance of the completed structure. Between each or any desired number of courses I embed in the mortar longitudinal strips of band-metal *f*. These strips have no engagement with the tiles or the posts, but owing to the adhesive and cohesive qualities of the mortar, which sets about them, produce a structure of very great strength and rigidity and enable me to use the thin tiles and the comparative great spacing of the posts.

Along the top of the wall or fence may be placed a cap or coping *g*, of terra-cotta or other suitable material, preferably formed, as shown in Fig. 3, with a lower longitudinal recess or groove, in which fits the top course of the tiles, &c., and above each of the posts *a* a metallic, terra-cotta, or other ornament *h* may be affixed.

Where a wall or fence of greater height is desired, the tiles *d* may be proportionately increased in thickness, and from the foregoing it will be obvious that a structure of the class described may be rapidly and economically constructed, that it may be appropriately painted or stained, that there is no part to rot or require replacing, that the structure will be light and strong, and that by reason of the perforations when used permitting the passage of sunlight and air the growth of vegetation on either side of the fence will not be prevented or interfered with.

I am aware that interior partitions have heretofore been devised in which fireproof blocks are confined between opposite verti-

cal channel-irons and held in place by horizontal I-bars between each course which enter the opposite channel-irons and form a mechanical union therewith, the fireproof blocks merely filling the interstices of the metallic structure thus built up, and such construction is not within the scope and purview of this invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. A wall, fence or analogous structure, composed of a single thickness of tiles or bricks, laid in mortar between appropriate supports, and longitudinal strips of band-metal wholly embedded in the mortar between the courses and not united to said supports, substantially as described.

2. A wall, fence, &c., composed of thin tiles laid on edge between suitable supports, in mortar; and strips of band-metal wholly embedded in the mortar between the courses and not united to said supports, substantially as described.

3. A structure composed of a single thickness of laterally-perforated tiles or blocks, laid in mortar between appropriate supports, and longitudinal strips of band-metal embedded in the mortar between the courses and not united to said supports, substantially as described.

4. A series of supporting-posts, substantially I-shaped in section; a structure of thin tiles or bricks laid in mortar between such supports, the end tiles of each course entering the channels therein; and strips of band-metal embedded in the mortar between the courses, substantially as described.

5. A series of supporting-posts substantially I-shaped in cross-section; a structure of thin, perforated tiles laid in mortar between such supports, the end tiles of each course entering the channels therein; and strips of band-metal embedded in the mortar between the courses and an appropriate cap or coping topping the structure, substantially as described.

Signed at Perth Amboy, in the county of Middlesex and State of New Jersey, this 29th day of March, A. D. 1901.

GUSTAV LIEBAU.

Witnesses:
WM. A. SPENCER,
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