No. 729,408. PATENTED MAY 26, 1903.

G. W. PICKIN.

FIREPROOF WALL OR BUILDING.

APPLICATION FILED MAR. 18, 1903.

NO MODEL.

Fig. 1.

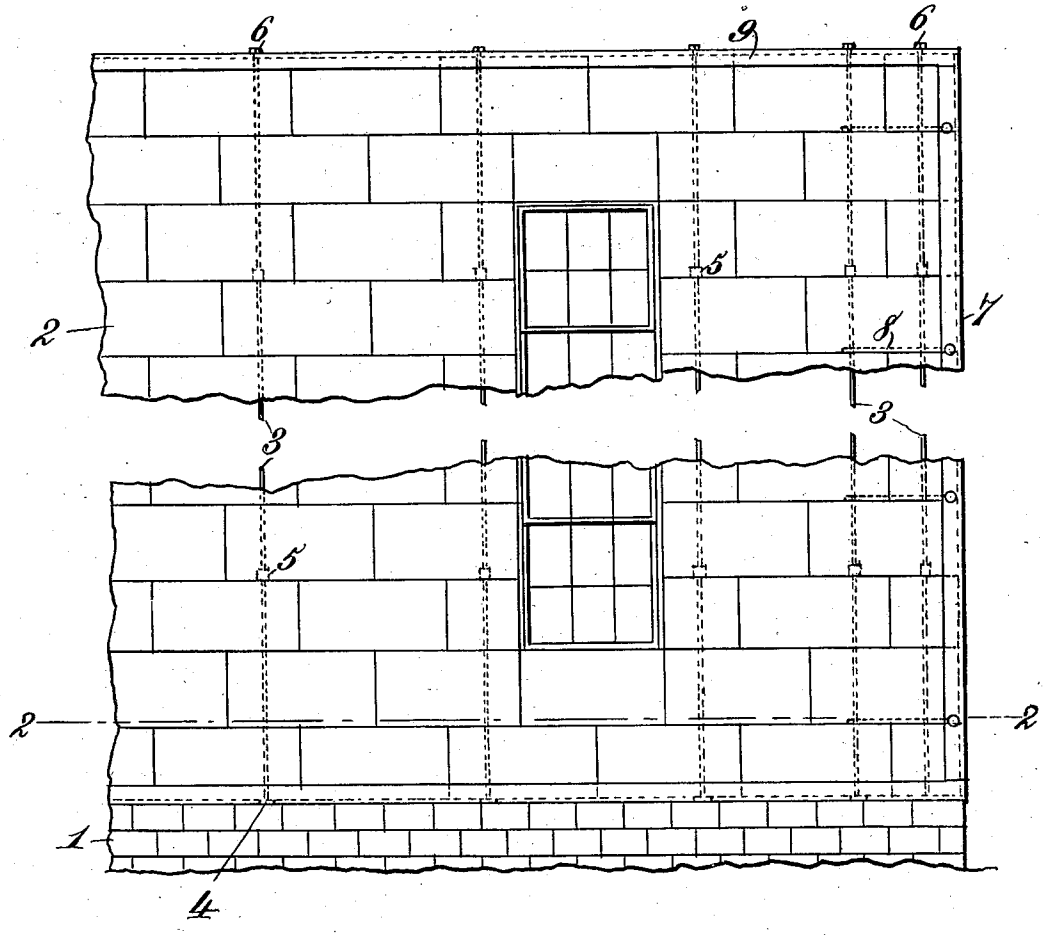
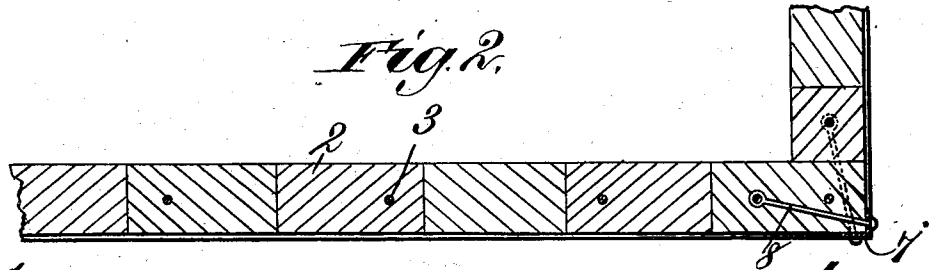


Fig. 2.



Witnesses.
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No. 729,408. Patented May 26, 1903.

UNITED STATES PATENT OFFICE.

GEORGE W. PICKIN, OF EAU CLAIRE, WISCONSIN.

FIREPROOF WALL OR BUILDING.

SPECIFICATION forming part of Letters Patent No. 729,408, dated May 26, 1903.

Application filed March 18, 1903. Serial No. 148,393. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. PICKIN, a citizen of the United States, residing at Eau Claire, in the county of Eau Claire and State of Wisconsin, have invented new and useful Improvements in Fireproof Walls and Buildings, of which the following is a specification.

This invention relates to walls and buildings constructed from blocks or bales of fire and water proof material, and has for its object to provide improved means for holding the blocks or bales firmly in position.

The invention also has for its object to provide improved means for protecting and strengthening the corners of walls or buildings constructed from waterproof material.

In constructing a wall or building according to my invention I prefer to use blocks or bales made by compressing straw, hay, cornstalks, or any other suitable dried vegetable growth or fiber. The blocks or bales are saturated or treated with fire and water proof solutions or substances before using in order to render the walls or buildings constructed therefrom impervious to water and capable of resisting fire. The blocks or bales may also be treated with a suitable solution for preventing decay of the material from which they are made.

In describing my invention reference is had to the accompanying drawings, forming a part of this specification, wherein—

Figure 1 is a view, partly in elevation, of a wall constructed according to my invention. Fig. 2 is a sectional view on the line 2 2 of Fig. 1.

The numeral 1 indicates a layer of stone or brick, which forms the foundation of the building. Upon the foundation 1 are laid the blocks 2 of fire and water proof material from which the wall or building is constructed. The blocks 2 may be cemented to one another and to the foundation 1 in the manner well known in building construction. Extending vertically through the blocks 2, of which the wall or building is composed, are rods 3, which are firmly anchored to the foundation 1 in any desired manner, as shown at 4. Each of the rods 3 is made in a plurality of sections, which are screw-threaded at their ends and connected to each other by nuts or couplings 5, as will be readily understood. At the upper end of the wall each of the rods 3 is provided with a nut and washer 6, by adjustment of which the blocks 2 may be firmly clamped to one another and to the foundation 1.

At each corner of the wall or building constructed according to my invention is provided an angle-iron 7, which effectually covers and protects said corner. The angle-irons 7 are held upon the corners of the walls or buildings by rods 8, which pass through bolt-holes in the said angle-irons and cross each other, as shown. Each of the rods 8 is firmly attached at its inner end to one of the rods 3. In order to facilitate the attachment of the rods 8 to the rods 3, each of the rods 8 may be provided at its inner end with an eye which encircles the rod 3 and in this way firmly holds the angle-iron 7 against the corner of the wall or building. The outer end of each rod 8 is headed or enlarged, as shown, to prevent said rod being drawn entirely through the bolt-hole in the angle-iron.

It will be understood that the angle-irons 7 are extended along the upper corners 9 of the walls or buildings constructed according to my invention. The angle-irons at the upper corners of walls or buildings are firmly retained in place by the vertical rods 3 and the nuts and washers 6, said vertical rods extending through the angle-iron at the upper corners of the walls or buildings, as shown.

In making the blocks or bales from which walls and buildings are constructed as above described I prefer to use straw, hay, cornstalks, or other vegetable growth or fiber in a dry condition. This dry vegetable growth or fiber is pressed into rectangular blocks or bales of any desired size. Each block or bale is saturated or treated with a fire and water proof solution or substance and also with a substance which serves to prevent decay of the material from which it is made.

A suitable fire and water proof solution, which also acts as a preventive of decay, is produced in the following manner: Half a bushel of unslaked lime is properly slaked with boiling water. The liquor obtained from the slaking operation is strained and a peck of salt previously dissolved in warm water is added thereto. Three pounds of ground rice,

one-half pound of Spanish whiting, and one pound of glue previously dissolved in water are added to the solution of lime liquor and salt-water. Five gallons of hot water are added to the mixture, which is then allowed to stand for a few days. The block or bale of building material is first dipped into a strong solution of alum-water and is then saturated with the above-described fire and water proof mixture in a heated condition.

In making the fire and water proof solution which is described I may, if desired, use a quantity of coloring-matter, so that the finished building blocks or bales will exhibit any desired color—such as, for instance, red to imitate bricks and the like or white or intermediate shades to imitate stone.

In constructing buildings from blocks or bales according to my invention the inner and outer walls of each block are trimmed or cut so as to present a smooth surface. The inner wall of the building is covered with plaster or paper, as is usual and well known in building construction, and the outer wall may, if desired, be sprayed with cement or any other suitable finishing material.

A wall or building constructed in accordance with my invention is proof against fire, water, dampness, frost, and the like. It is also healthful, inexpensive in construction, and practically indestructible.

If in constructing a wall according to my invention the bolted rods are found insufficient to hold the bales or blocks in position, long iron spikes may be driven at various angles through the bales or blocks to hold them firmly upon one another.

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

1. A wall or building comprising a foundation, a plurality of blocks or bales mounted upon said foundation, a plurality of rods connected at their lower ends to said foundation, extending through said blocks or bales, angle-irons upon the corners of the wall or building, and rods connected with said angle-irons and with said first-mentioned rods for retaining said angle-irons in position.

2. A wall or building comprising a foundation, a plurality of blocks or bales mounted on said foundation, a plurality of rods connected at their lower ends to said foundation, extending through said blocks or bales, angle-irons upon the upper corners of said wall or building, said angle-irons having apertures through which said rods extend, a nut upon the upper end of each rod, angle-irons upon the vertical corners of said wall or building, and a plurality of headed rods extending through said angle-irons, connected at their inner ends to said first-mentioned rods.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE W. PICKIN.

Witnesses:
J. F. ELLIS,
H. J. BARNES.