H. J. LAFONTAINE.

WALL CONSTRUCTION.

APPLICATION FILED SEPT. 27, 1919.

1,367,785. Patented Feb. 8, 1921.

Fig 1

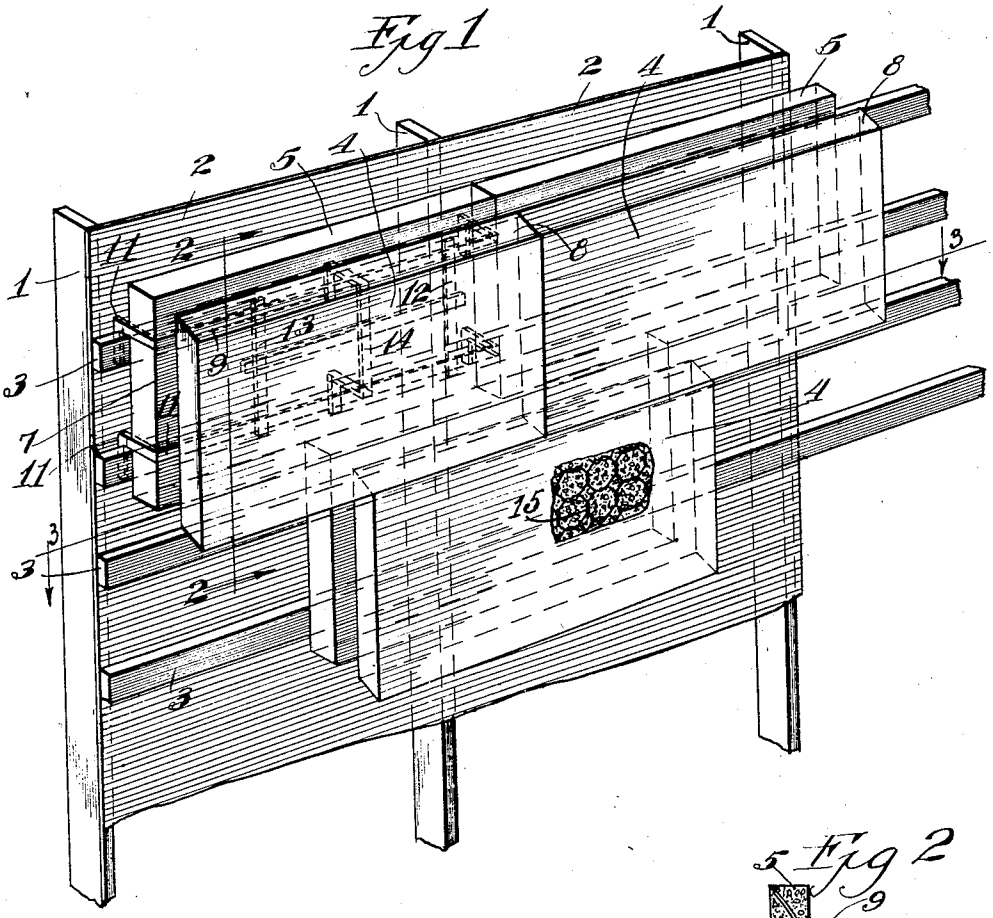


Fig 2

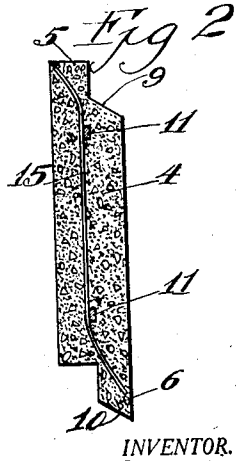
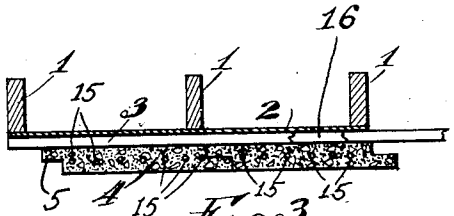


Fig 3



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WALL CONSTRUCTION.

1,367,785. Specification of Letters Patent. Patented Feb. 8, 1921.

Application filed September 27, 1919. Serial No. 326,785.

To all whom it may concern:

Be it known that I, HECTOR J. LAFONTAINE, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Wall Construction, of which the following is a full, clear, and exact description.

My invention relates to improvements in wall construction, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide a wall construction which is made up of hardened slabs of plastic material, these slabs being secured to suitable supports, so as to form a wall of relatively low cost.

A further object of my invention is to provide a wall construction in which the slabs are overlapped in such a manner as to prevent the passage of moisture between the joints of adjacent slabs.

A further object of my invention is to provide a wall construction having slabs of hardened plastic material in which there are metal reinforcing bars or strips which are also used for fastening the slabs to supports.

A further object of my invention is to provide a wall construction in which the slabs may be readily secured to supports without any necessity of boring the slabs, as, for instance, to provide screw holes.

Other object and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings, forming part of this application, in which—

Figure 1 is a perspective view showing a portion of a wall constructed according to my invention,

Fig. 2 is a sectional view of a portion of the device along the line 2—2 of Fig. 1.

Fig. 3 is a reduced sectional view along the line 3—3 of Fig. 1.

In carrying out my invention, I provide the usual vertical studs, such as those shown at 1 in the drawing. In the preferred form, I nail or otherwise secure paper, such as building paper 2, to the studs, as clearly shown in Fig. 1. The paper may be held in position by the same nails or securing means which hold a series of horizontally disposed strips 3.

The slabs may be of any suitable dimensions, but are preferably oblong. Each slab consists of a body portion 4 having an upper flange 5 and a lower flange 6. Each slab is also provided with an end flange 7 which is joined to the top flange 5, and an end flange 8 which is joined to the bottom flange 6. This leaves projecting upper and lower flanges and projecting end flanges which permit the slabs to overlap in the manner clearly shown in Fig. 1.

Referring to Fig. 2, it will be seen that there is an inclined surface 9 extending from the bottom of the flange 5 to the outer face of the slab, while the lower flange 6 has an inclined bottom 10 arranged to engage the inclined surface 9 of the slab underneath it.

Each slab is provided with a plurality of metal reinforcing devices, such as metal bars. Certain of these bars, as, for instance, bars 11, which extend longitudinally with respect to the slab, pass out at the ends thereof, being countersunk in the flange 7 so as to bring the surface of the bar flush with the end of the flange, and are then bent downwardly over the horizontal strips 3, thus suspending the slab on the horizontal supporting strips. Within the interior of the slab may be placed other reinforcing rods, such as those shown at 12, 13 and 14. The latter are preferably extended through the rear of the slab, as shown, and then may be bent downwardly to form an attaching member for the slab, being secured to the supporting strip 3, as shown.

The ends of the slabs overlap, as stated, and the horizontal joints are overlapped so that any water running down the face of the wall would be prevented from passing into the interior, because of the overlapping, and, furthermore, because of the fact that the lower edge of each slab, *i. e.*, the lower edge of the flange 6, is inclined downwardly. The slabs are staggered or are arranged to break joints.

For further strengthening the slab, I prefer to provide a wire reinforcement 15. As will be seen from Fig. 2, the wire 15 extends from the upper flange 5 down through the body 4 of the slab, and thus into the lower flange 6. This makes a strong construction without unduly adding to the weight.

In making up the slabs, the latter are molded from any suitable plastic material which

will harden. This material may be a plastic mixture of cement and sand in which the reinforcing and attaching means is placed prior to the setting of the cement. A wall constructed according to my invention is of relatively low cost. The use of hardened slabs of plastic material secured to the supports 3 provides an air space 16 between the rear face of the slab and the paper layer 2, while an air space is also provided between the paper layer and the inside wall (not shown) on the opposite sides of the studs. Slabs of this type are generally poor conductors of heat or cold and, consequently, the wall construction is desirable for buildings which are to be warmed, since they keep out the cold.

The slabs may be quickly placed in position, and do not require to be cemented at the joints; that is to say, no mortar is required either at the ends of adjacent slabs, or between any slab and the one below it.

This wall construction is designed to be used in lieu of brick, stone, wood, stucco, or other constructions where a finished outside wall surface is desired.

I am aware that other forms of the device based on the same general plan may be made, but I consider as my own any modifications which fall within the spirit and the scope of the invention as set forth in the foregoing disclosure and particularly pointed out in the appended claims.

I claim:

1. A wall construction comprising a plurality of vertically disposed supports, a plurality of horizontal strips secured to said vertical supports, slabs made of hardened plastic material, wire reinforcing means extending through the body of each slab, auxiliary combined reinforcing and fastening means extending through the inner portions of said slabs and having end portions hooked over said strips to secure said slabs to said strips.

2. A wall construction comprising a plurality of vertically disposed supports, a plurality of horizontal strips secured to said vertical supports, slabs made of hardened plastic material, combined reinforcing and fastening means extending through the inner portions of said slabs and having end portions hooked over said strips to secure said slabs to said strips.

HECTOR J. LAFONTAINE.