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WALL SLAB

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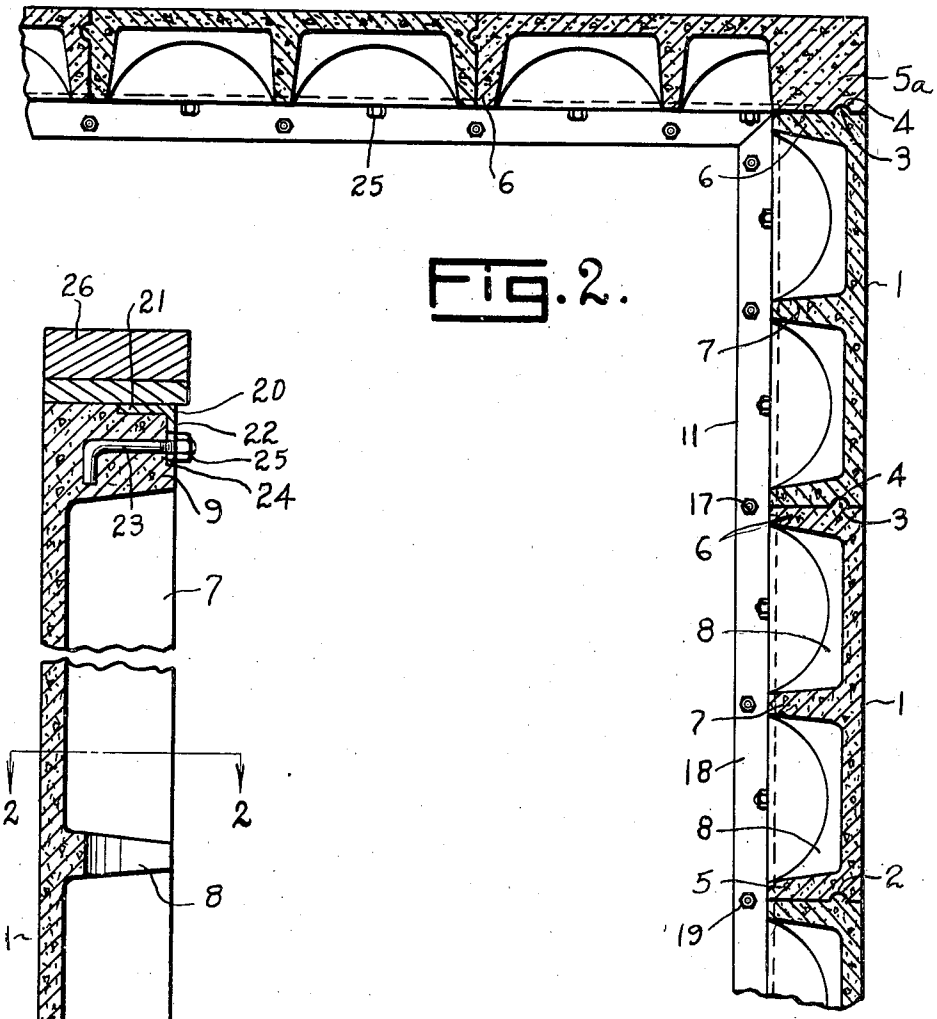


Fig. 2.

Fig. 1.

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WALL SLAB

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2 Claims. (Cl. 72—39)

This invention relates to a wall slab and more particularly to a wall slab formed of concretious material and specially adapted for use in the erection of buildings.

An object of the invention is to provide a wall slab, of such shape that a plurality of the slabs may be readily assembled into a complete wall with waterproof joints between the slabs, each slab having a vertical marginal rib at each margin and a vertical intermediate rib between the marginal ribs, said ribs extending inwardly and forming means for the attachment of the inside lathing, or other inside wall support thereto, thus providing, in effect, a hollow wall structure.

It is another object of the invention to provide a wall slab having transverse webs between the marginal ribs and the intermediate rib to lend additional strength to the slab.

The invention also comprehends a novel means for securing the upper and lower ends of the slabs to the structural framework.

With the above and other objects in view, the invention has particular relation to certain novel features of construction, arrangement of parts and use, an example of which is given in this specification and illustrated in the accompanying drawing, wherein:

Figure 1 shows a fragmentary vertical sectional view of a building structure, showing one of the wall slabs in section, and

Figure 2 shows a cross sectional view taken on the line 2—2 of Figure 1.

Referring now more particularly to the drawing wherein like numerals of reference designate the same parts in each of the figures, the numeral 1 designates a wall slab as a whole which is approximately rectangular in elevational view. Each slab has a vertical groove 2 in one margin and a vertical rib 3 on its other margin, the rib of one slab being positioned to fit into the groove of the adjacent slab as more clearly shown in Figure 2. The grooves 2 may be filled with a plastic of corking material, as 4, during the progress of the work to form water tight joints between the slabs.

Each slab has the inside vertical marginal ribs or flanges as 5, 6. These flanges taper slightly inwardly and extend from top to bottom of the slab. The marginal flanges on each slab fit closely against the opposing marginal flanges of adjacent slabs as also shown in Figure 2. One of the corner slabs has its vertical marginal rib 5a thickened as shown in Figure 2 so that it will be of approximately the same thickness as the width of the abutting flange 6 of the adjacent slab and the inner face of this thickened flange is provided with the groove 4 to receive the adjacent rib 3 of the adjacent slab.

Each slab has also an intermediate vertical rib, or flange, 7 arranged approximately midway between the marginal flanges and between the marginal flanges 5, 6 and the intermediate flange of each slab are the transverse webs 8, whose inner margins are arcuate as shown. The upper and lower ends of the slabs are inwardly thickened forming the transverse upper and lower end ribs 9. It is to be noted that the side rib 3, the marginal and intermediate flanges 5, 6, 7, the transverse webs 8 and the upper and lower transverse ribs 9, 10, are formed integrally with the corresponding slab, thus forming a single unit. The flanges 5, 6, 7 of the respective slabs extend inwardly the same distance, so that the inner margins of the flanges of a wall will lie in a common plane and these flanges form means for the attachment of wall lathing thereto to receive a plastered inside wall or any other selected type of inside wall may be secured thereto.

The numeral 11 designates a foundation into which the lower ends of the wall slabs may be counter-sunk as clearly shown in Figure 1. As a preferred form of securing the wall slabs to the foundation, an inside angle angle iron as 12 may be provided, extending all the way around the structure and being countersunk into the foundation and into the transverse ribs 10.

Suitable anchor bolts 12 may be embedded in the material of the transverse ribs 10 and whose outer ends extend through vertical slots 14 of the vertical leg 15 of said angle iron and nuts 16 may be screwed onto the outer ends of said anchor bolts. Anchor bolts 17 may also be embedded in the foundation 11 and extend upwardly through the horizontal leg 18 of said angle iron with their upper ends threaded to receive the securing nuts 19, whereby the lower ends of the slabs will be secured to the foundation.

Across the upper margins of the wall slab is an angle iron 20 whose upper horizontal leg 21 overlies the upper ends of the slabs and whose vertical leg 22 fits against the inner margins of the transverse ribs 9, said angle iron being countersunk into the material of said rib 9.

Anchor bolts 23 may be embedded in the material of the ribs 9 with their outer ends extending through vertical slots 24 of the leg 22 and being threaded to receive the nuts 25 thereon. The framework 26 above may be supported on

the upper ends of the wall slabs as shown in Figure 1. A very strong hollow wall structure may be thus provided. The wall slabs will be strong, durable, light and easily handled, thus facilitating the erection of a building.

The outer faces of said slabs will lie approximately flush so as to give a smooth exterior finish while the inner sides of the slabs are provided for the support of the inner finishing wall as hereinabove explained.

What I claim is:

1. A wall slab approximately rectangular in general contour having a plane outer surface, inwardly extending marginal side flanges and an inwardly extending intermediate flange parallel with said marginal flanges, a rib on the outer face of one of said marginal flanges and a groove on the outer face of the other of said marginal flanges, transverse webs between the marginal flanges and the intermediate flange, one of said marginal flanges being thicker than the other of said marginal flanges; a reinforcing angle iron counter sunk into the outer corner of said thicker flange adapted to receive a framework of a building, an anchor bolt embedded in the material of said flange and adapted to hold said angle iron in position.

2. A wall slab approximately rectangular in general contour having a plane outer surface, inwardly extending marginal side flanges and an inwardly extending intermediate flange parallel with said marginal flanges, a rib on the outer face of one of said marginal flanges and a groove on the outer face of the other of said marginal flanges, upper and lower transverse ribs between the marginal flanges and the intermediate flanges, an intermediate transverse web between and parallel to the transverse ribs, the upper and lower of said transverse ribs being thicker than the web and the flanges and having removed portions adapted to receive legs of steel beams, bolts imbedded in said transverse ribs and extending outwardly approximately perpendicular to the plane of the wall slab whereby said structural beams may be connected to the wall slab.

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