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PRECAST BUILDING SLAB

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FIG. 1

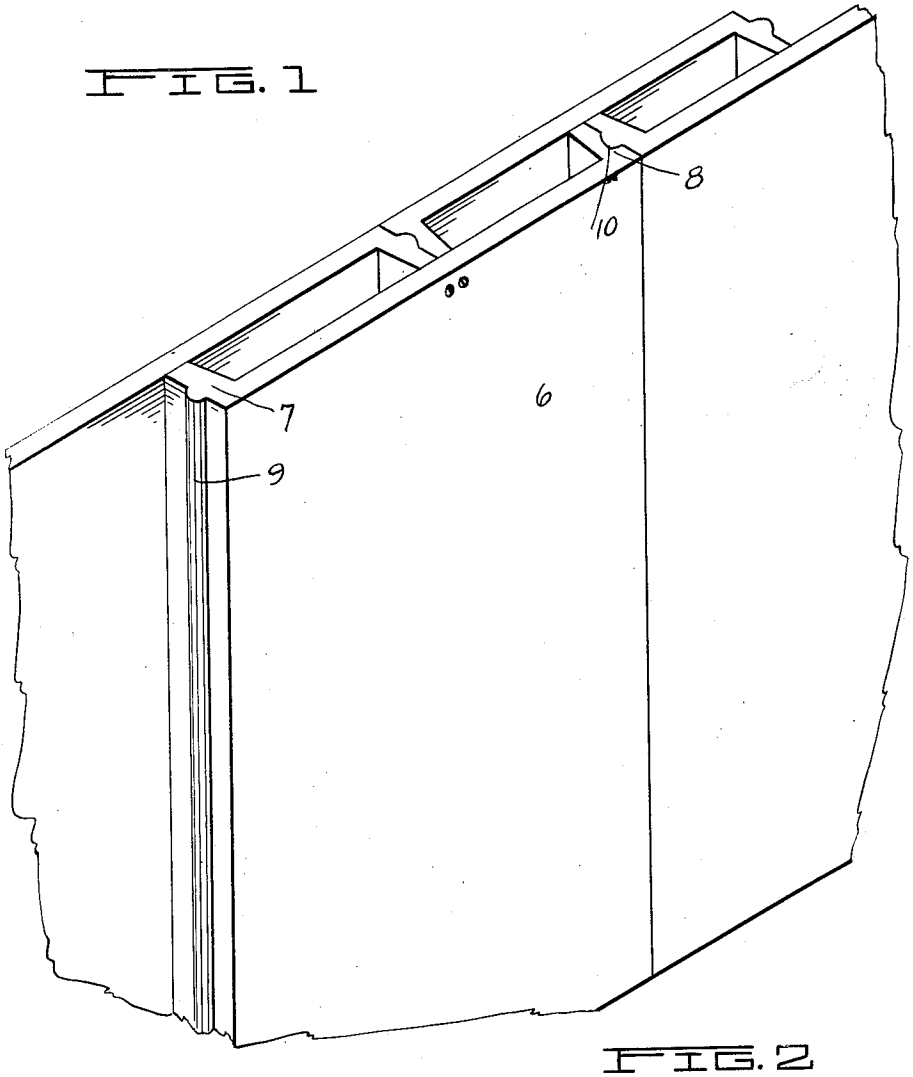
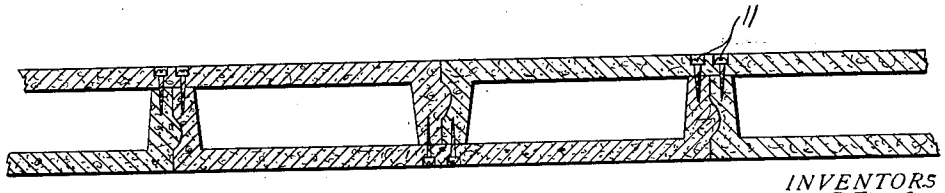


FIG. 2



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PRECAST BUILDING SLAB

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2 Claims. (Cl. 72—39)

This invention relates to precast building slabs having herein described construction and interlocking features, and which when used in normal building construction, will give a wall or partition of extraordinary rigidity and possessing fireproof features, as well as effectively serving as a substitute for a plaster base and the scratch and brown plaster coats. In simpler terms, it is a precast wall construction.

In present day building activity there is a great need for a product that can be used in building construction which will do away with the ordinary plastering work, with its consequent mess, time and labor, as well as eliminate the great quantity of water that must go into a plastered wall at the time of plastering, the greater part of which must evaporate before the building becomes habitable. This product—in addition to fulfilling the above requirements—must be of sufficient strength and rigidity to withstand ordinary job knocks and abuse, and which, after erection, must be equal, or superior in strength and permanence to any other type of wall construction. It must be of satisfactory weight and dimensions to permit efficient handling and erection. It must be fireproof. The object of this invention is a precast slab incorporating the above features and which, after the method of erection herein described, necessitates only the application of lime putty or a similar plaster of plastic coating to effectively hide all joinings and to complete the wall.

Calcined gypsum or plaster of Paris, because of its casting as well as its insulating and fireproof features, is principally used in this invention even though other cementitious materials could also be used. Water is added to the plaster of Paris until a satisfactory consistency is reached. Dry wood fibre shavings or other fibrous material may then be added for weight reduction and greater elasticity, after which the whole mass is thoroughly agitated and poured into a mould and allowed to set and harden. In case greater load-bearing or rigid qualities are desirable, it will be an optional procedure to incorporate into the slab reinforcing metal bars or mats, in conformity to standard practices. After the mass has set the cast article is removed from the mould, and after being allowed to dry, is ready for use. The moulds into which the mass is poured have incorporated into them certain features which will give a precast slab of the following description.

The slab is cast in a rectangular shape, the width being approximately 2 ft. and the length from 6 to 10 ft. The thickness (edge thickness excepted) is from ½ to 2 in., though any of the above dimensions may vary according to special demands.

The thickness will be greater along each edge, due to a reinforcing rib or projection which is cast along the back and is a part of each side of the slab. This reinforcing rib is slightly tapered to facilitate moulding. It is approximately 2 in. thick and from 4 to 6 in. in depth, according to the wishes of the trade. This precast reinforcing rib, aside from serving as a substitute for the ordinary wood and steel studding used in construction, also serves to strengthen and stiffen the whole slab, which is of particular value in facilitating its handling before and during erection.

Along the sides and running the whole length of the tile are means provided for interlocking with a male and female joint.

Fig. 1 is a perspective view of a wall made of slabs of the above description.

Fig. 2 is a horizontal section.

In the drawing, 6 indicates the slabs, and these slabs are set up back to back and spaced to form the hollow wall or partition. Each slab has at each side edge thereof the reinforcing ribs or flanges 7 and 8 which when the slabs are set up fit against each other to form a stud and to space the slabs at opposite sides to form a hollow wall. The flange 7 at one edge has a side rib 9, and the flange 8 at the opposite edge has a corresponding groove 10, and when set up these ribs and grooves interlock to hold the slabs in position. The slabs at opposite sides may further be fastened together as by nails or screws 11 extending through a slab and into the flanges of the opposite slabs.

In actual construction the top and bottom of each slab is thoroughly secured, our plan being to make these slabs of full wall length. The slabs on one side of the wall or partition are so placed that the interlocking joints effectively mesh, and the same procedure is also followed on the opposite side, except that the slabs are arranged in such a manner that the interlocking edges of the slabs on one side come to the centers or near centers of the back of the tile opposite. When the slabs are so placed, a double partition is erected, and by double partition we mean one which is suitable for a finishing decoration on either side.

The fact that in the double partition we have the joints effectively staggered gives us a wall of great strength. We have in effect a wall of gypsum tile which has been erected without the more complicated and messy procedure which must be employed in laying up regular partition tile.

Joints are cut to the minimum thus increasing the whole rigidity and greatly facilitating the decorating problem.

Additional rigidity can be obtained by tightly binding together the slabs which abut one another back to back. There are any number of practices which may be employed to bind these slabs more tightly together. Bolting, clamping or nailing practices can be followed.

We claim:

1. A double wall or partition made of precast slabs of molded material set up back to back and spaced apart, each slab having at the vertical edges thereof flanges extending lengthwise, said flanges of the adjacent slabs at each side of the wall being located in contact with each other and forming studs in contact with slabs at the opposite side of the wall or partition.

2. A wall or partition as in claim 1, the flanges of adjacent slabs on each side of the wall having interlocking ribs and grooves at their meeting faces.

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