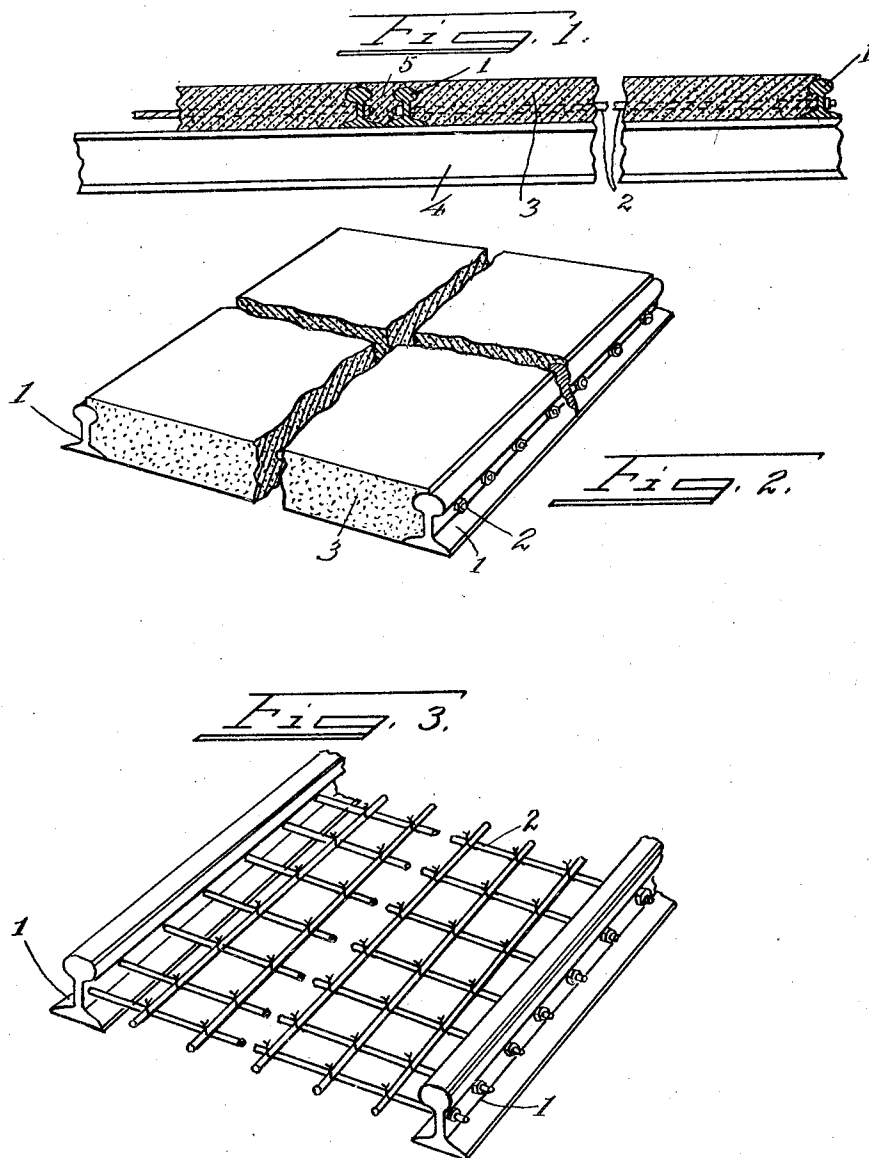


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PRECAST ROOF SLAB
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PRECAST ROOF SLAB.

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My invention relates to slabs which are cast of gypsum or cement composition for use in laying roofs, floors, partitions, side walls, sidewalks, driveways, and like structures, particularly roofs and floors. Such pre-cast slabs are used in place of monolithic construction, formed on the job by erecting forms, and pouring the plaster cement, gypsum or the like.

The practice at the present time in pre-cast blocks for roofs and floors, is to provide a metal reinforced plaster block with unprotected edges. This not only results in the block chipping while being transported, but also falls short of providing ample strength, so that only comparatively small sizes are practical to the end that the structure on which the blocks are laid, will take the large loads, and so that the units themselves will possess sufficient strength of themselves due to the short distance to points of support from any point of application of load to the individual block.

It is my object to provide a block which can be used in any transportable and manipulatable size, in which the edges are protected and proper anchorage provided for reinforcing rods or mesh.

This object and other advantages to be noted I accomplish by that certain construction and arrangement of parts to be hereinafter more specifically pointed out and claimed.

In the drawings:

Figure 1 is a section taken along one of the I-beams, forming the framework of a building structure.

Figure 2 is a perspective of one of the pre-cast slabs.

Figure 3 is a perspective view of the metallic parts of one form of the pre-cast slab.

In making up the slab, I first make a form, and place therein along the sides thereof, a pair of rails 1, or they may be I-beams, channels or other accepted forms of metallic building material. I prefer rails because of their rounded top surfaces, and the fact that their bases extend beyond the vertical planes of the outer edges of the tops, thereby permitting me to abut two blocks against each other, with provision for a form between the two blocks into which plaster may be poured.

I also place reinforcing rods, or mesh into the form, and preferably tie them or it, into the rails. Thus in the example shown, the

rods 2 are set through holes in the webs of the rails, and bolted in place.

The rails, or beams 1, should be of sufficient strength to transmit the live and dead loads which the block will be called upon to sustain, to the supporting structure of the building, floor, roof, or the like.

When the metal work is in place, I pour cementitious material 3 into the form, letting it come either flush or a desired amount above the tops of the rails.

The block will then be ready for use when hard, and will have sides formed by exposed sides of the beams or rails 1, and extending throughout the reinforcing rods or mesh, which not only gives strength to the plaster or cement material, but ties the rails together.

The blocks may be made of any convenient size, as the reinforcements and rails or beams may be regulated in strength to suit the given purpose and size.

In laying the blocks on a structure of beams 4 the rail portions are set onto the top of the beams, extending across the span between beams. The plaster edges of the blocks will then extend along the beams.

By butting the blocks against each other, a space is left in the preferred form, this space defined by the abutting edges of the bases of the rails, and the webs, and tops of the rails, into which spaces plaster or cement is poured as at 5. This plaster will key the blocks together against any tendency to tilt, as will be evident from examination of Figure 1.

Any cracks left between the edges of the blocks where they lie along the beams can be also filled with plaster or cement, and any desired coat applied to the whole floor, roof, or other structure that has been so built.

In shipment the rails protect the blocks from chipping, and in use the rails transmit the load to the supporting structure. A maximum economy in construction cost and service, together with protection during shipping at crucial points, is provided by my invention.

I wish it understood that I have illustrated but one acceptable form of my invention, and that I wish to state in the claims that follow the points therein which I consider to be invention.

Having thus described my invention, what

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

A pre-cast cementitious construction slab comprising a body of cementitious material, at least one set of opposite edges of said material formed of metallic pieces, reinforcing bars extending through the cementitious material, and holes in the metallic pieces through which the bars extend, retaining

means securing the bars to the metallic pieces, said retaining means adapted to be tightened after the cementitious material has set, and the outer sides of the metallic pieces of irregular shape for firmly holding cementitious material disposed between similarly cast slabs. 10

JAY C. LATHROP.