

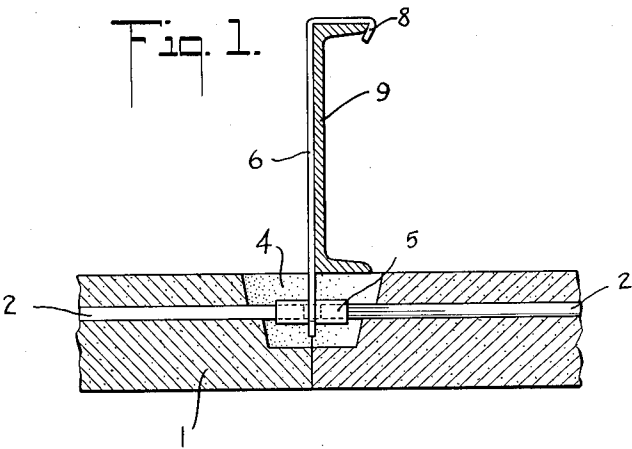
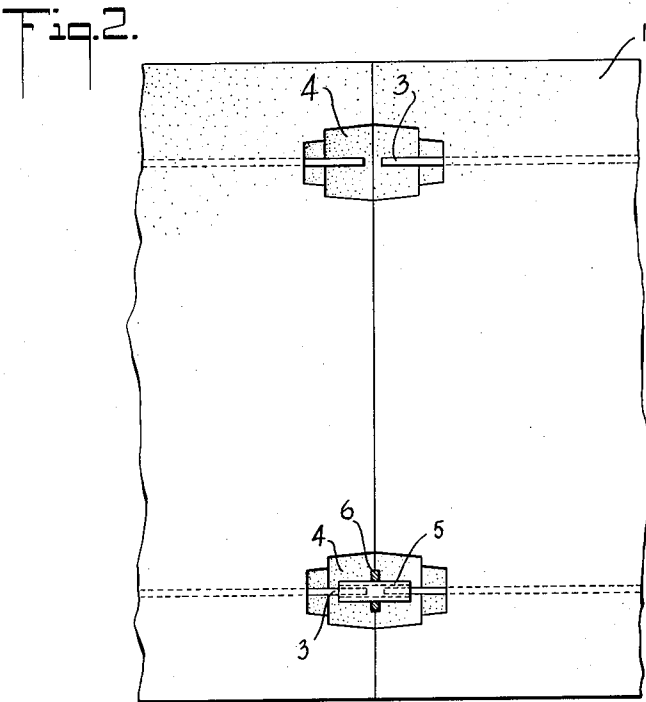
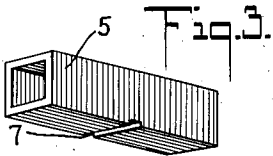
June 6, 1933.

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1,912,920

SLAB CONSTRUCTION

Filed Nov. 29, 1929



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SLAB CONSTRUCTION

Application filed November 29, 1929. Serial No. 410,415.

The present invention relates to a building construction in which precast slabs of set plastic material such as gypsum, cement or the like are suspended from beams, girders or other structural elements.

The principal object of the invention is to improve upon the construction disclosed in the patent to Rowan No. 1,632,453, dated June 14, 1927. There is disclosed in that patent a building construction using precast slabs having metallic reinforcements embedded therein. These reinforcements project from the ends of the slabs and are adapted to overlap when slab ends are placed adjacent each other. Each slab is provided with a recess to accommodate the end of the reinforcement in the adjacent slab. In erecting a ceiling from slabs of the Rowan construction, it is necessary to offset one slab with relation to its opposing neighbor the thickness of a reinforcing rod, due to the fact that the ends of the rods must overlap. If this offset is continued uniformly no difficulties arise but it frequently occurs that a workman will offset a slab in one row to the right and the slab to the left, opposite, in an adjacent row, with the result that there is a space or gap between the sides of adjacent slabs equal to twice the thickness of a reinforcing rod, and this is undesirable.

To this end the invention contemplates the use of a precast slab having a reinforcement embedded therein, which reinforcement shall terminate short of the end of the slab and extend within a recess in the slab so as to expose a portion thereof. Adjacent slabs are erected in directly opposed position and the gap between the ends of opposed reinforcements in adjacent slabs is bridged by a sleeve or other joining means. A hanger connected in any desired manner to the beam engages this sleeve or connecting element and the two slabs are thus suspended below the beam.

The invention further consists in the novel arrangement, construction and combination of parts more fully hereinafter described and shown in the accompanying drawing.

In the drawing—

Fig. 1 is a sectional elevation of a building

construction showing an embodiment of the invention,

Fig. 2 is a plan view, partly in section, of the adjacent ends of two slabs, and

Fig. 3 is a perspective view of a connecting element.

Referring now to the embodiment illustrated I have shown two precast slabs 1, formed of gypsum or the like, carrying embedded therein reinforcing rods 2. The ends 3 of these rods terminate short of the end of the slabs within which they are embedded, and are exposed within a recess or cavity 4.

A connecting element is provided which may consist of a tubular section or sleeve 5, which in this particular instance conforms to the cross-sectional shape of a reinforcing rod. Obviously, this is not necessary as it may be desirable to simply use a section of round tubing. The sleeve 5 is adapted to be slipped over the ends of the rods in adjacent slabs as shown in Fig. 2, so that the rods are made continuous and are directly opposed to each other making unnecessary the offsetting of the slabs.

A hanger shown at 6 is provided with an aperture near the bottom thereof through which the sleeve 5 is slipped, a notch 7 at the bottom of the sleeve is engaged by the lower part of the hanger and insures the proper positioning of the hanger, preventing undue movement thereof during erection. The hanger shown, is adapted to be bent as at 8, over the top of the beam or girder, 9.

After erection it will be found desirable to fill the cavities in which the joint between hanger and connecting element is made, with grouting, so that the slabs constitute substantially a monolithic structure and the said joint is thoroughly protected with fireproofing material.

From the above it will be seen that the difficulty due to offsetting slabs in the wrong direction is entirely obviated due to the fact that the reinforcements terminate short of the ends of the slabs, yet by inserting the ends in the sleeve or connecting element a substantially continuous reinforcement is made from end to end of the series of slabs.

In addition to the above advantage it will

be apparent that the present form of slab adapts itself more readily to shipment than the Rowan slab above referred to, inasmuch as stacks or piles of the slabs may be packed
70 closely together without any projection on one slab mutilating or interfering with its neighboring slab.

It will be perfectly apparent that it may be desirable in some instances to construct
75 the hanger and the connecting sleeve as a single element rather than as independent elements such as is shown.

While the invention has been shown with particular reference to a specific form of slab connecting element and hanger, yet obviously
80 I do not wish to be limited strictly thereto as the invention is to be construed only by the scope of the claims appended hereto.

What I claim is:

85 1. In a building construction, a beam, precast slabs suspended below the same, each slab having a reinforcement embedded therein, a portion of the reinforcement being exposed, the reinforcement in adjacent slabs
90 being in alignment, a sleeve joining the reinforcements in adjacent slabs, and a hanger for suspending the slabs below the beam.

2. In a building construction, a beam, precast slabs suspended below the same, each
95 slab having a reinforcement embedded therein, a portion of the reinforcement being exposed, the reinforcement in adjacent slabs being in alignment, a sleeve joining the reinforcements in adjacent slabs, and a hanger
100 engaging the sleeve and the beam.

3. In a building construction, a beam, precast slabs suspended below the same, each
105 slab having a reinforcement embedded therein, the reinforcement terminating short of the end of the slab and being exposed therein, the reinforcement in adjacent slabs being in alignment, a sleeve joining the ends of the
110 reinforcements in adjacent slabs, and a hanger engaging the sleeve and the beam.

4. In a building construction, a beam, precast slabs suspended below the same, each
115 slab having a reinforcement embedded therein, the reinforcement terminating short of the end of the slab and being exposed, means joining the aligned opposed ends of adjacent
120 reinforcements, and a hanger engaging the joining means and the beam.

5. In a building construction, a beam, precast slabs suspended below the same, each
125 slab having a reinforcement embedded therein, the reinforcement terminating short of the end of the slab and being exposed, means joining the aligned opposed ends of adjacent reinforcements, and a hanger engaging the
130 joining means and the beam, the joining means being provided with means to prevent accidental displacement of the hanger.

6. In a building construction, a ceiling supporting element, precast slabs suspended
therefrom and below the same, each slab hav-

ing a reinforcement embedded therein, a joining element connecting the reinforcements in adjacent slabs, and a hanger engaging the ceiling supporting element and the joining element.

7. In a building construction, a ceiling supporting element, precast slabs suspended therefrom and below the same, each slab having a reinforcement embedded therein and in line with the reinforcement in the adjacent slab, joining means connecting the ends of the reinforcements in adjacent slabs, and a hanger engaging the ceiling supporting element and the joining element.

8. In a building construction, a ceiling supporting element, precast slabs suspended therefrom and below the same, each slab having a reinforcement embedded therein, a joining element telescopically connecting the reinforcements in adjacent slabs, and a hanger engaging the ceiling supporting element and the joining element.

9. In a building construction, a ceiling supporting member, precast slabs suspended below the same, each slab having a metallic member embedded therein, an end portion of a metallic member in adjacent slabs being exposed, a joining element connecting the exposed end portions of the metallic members, and a hanger engaging the joining element and the ceiling supporting element.

In testimony whereof, I have hereunto subscribed my name this 22nd day of November 1929.

EDWARD R. SAUNDERS.