W. L. CHURCH.

APPARATUS FOR CONSTRUCTING CONCRETE FLOORS.

APPLICATION FILED MAR. 7, 1918.

1,289,660.

Patented Dec. 31, 1918.

2 SHEETS—SHEET 1.

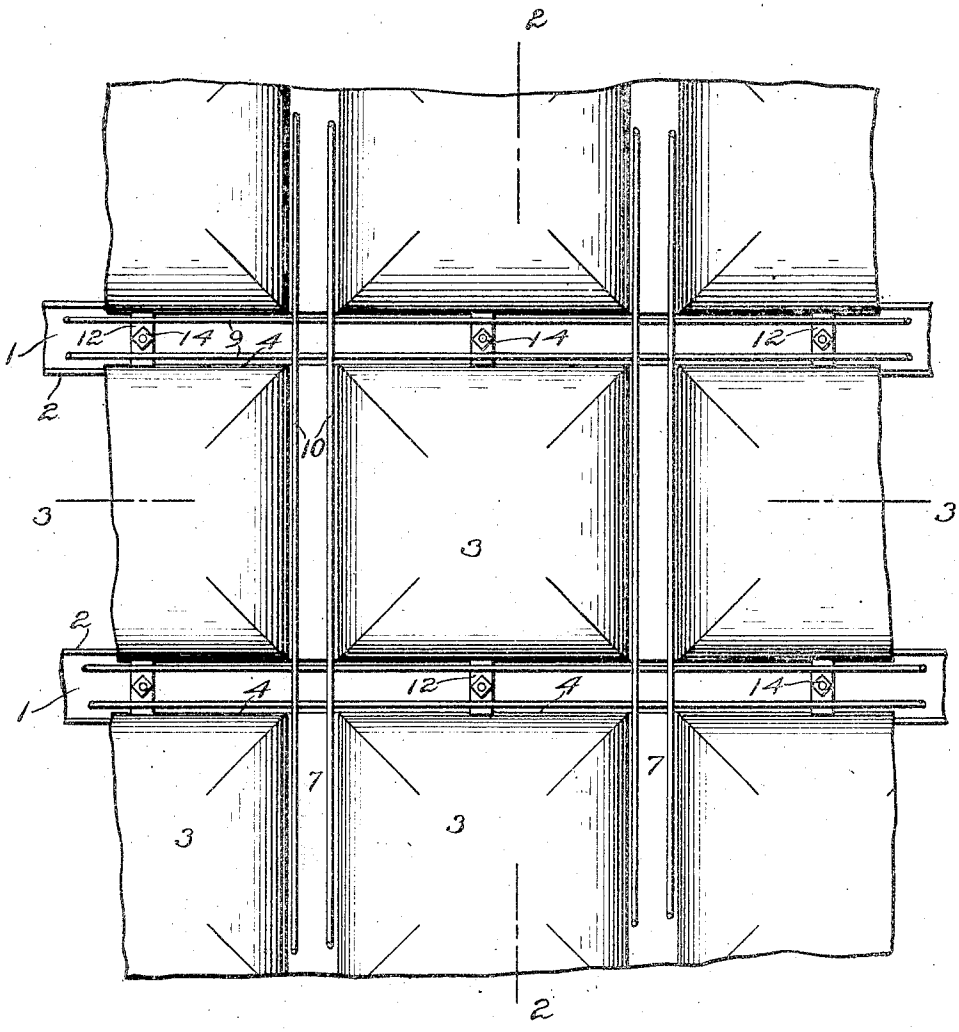


Fig. 1.

Inventor:
William L. Church
by Geo. K. Woodworth
Atty.

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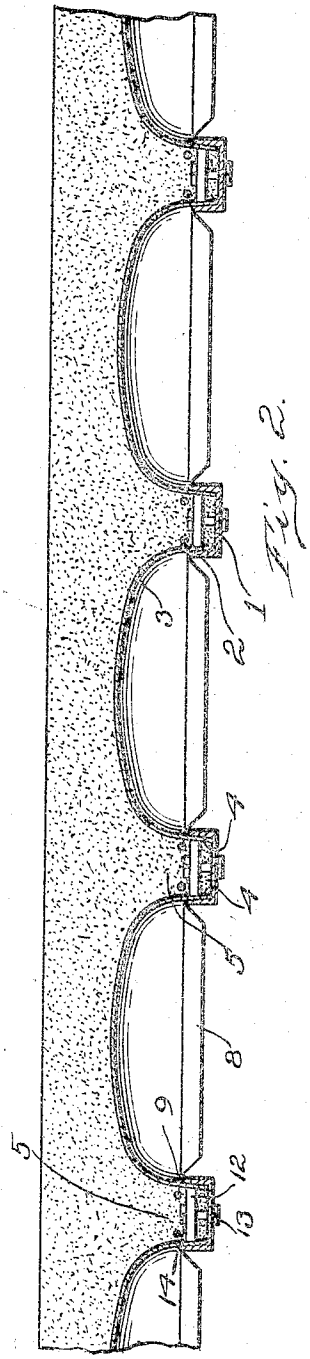


Fig. 2.

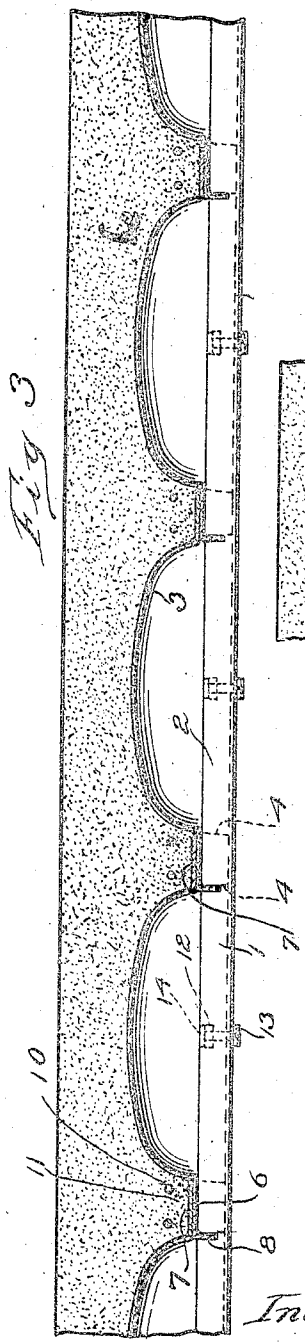


Fig. 3.

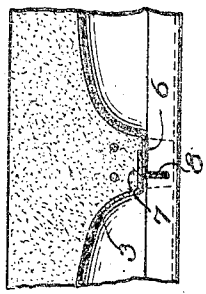


Fig. 4.

Inventor:
William L. Church
By Geo. Kilgoodworth,
Att'y.

UNITED STATES PATENT OFFICE.

WILLIAM L. CHURCH, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO THE UNI-FORM COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

APPARATUS FOR CONSTRUCTING CONCRETE FLOORS.

1,289,660. Specification of Letters Patent. Patented Dec. 31, 1918.

Application filed March 7, 1913. Serial No. 230,998.

To all whom it may concern:

Be it known that I, WILLIAM L. CHURCH, a citizen of the United States, and a resident of Newton, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Apparatus for Constructing Concrete Floors, of which the following is a specification.

My invention relates to apparatus for constructing concrete floors and its object is to provide means whereby dome-shaped forms may be arranged on their supporting-members for longitudinal adjustment so that the end beam-boxes of a panel may be located over the supporting columns without requiring the use of forms of different sizes as more fully set forth in the application of N. F. Ambursen, Serial No. 210,605 filed January 7, 1918.

To this end my invention comprises laterally-spaced concrete-form support-members, preferably channels of the type described in the patent to Ambursen 1,216,644, February 20, 1917, and dome-shaped forms, preferably of sheet-metal arranged to have the lower edges of two opposite sides rest on a pair of channels to bridge the space between the same, and means for clamping or otherwise securing the adjacent lower edges of each pair of forms to a channel, the lower edges of the other two sides of each form extending horizontally outwardly and one only of such horizontal extensions terminating in a down-turned lip and supporting but not secured to the horizontal extension of the adjacent form.

My invention will be more fully described in connection with the drawings which accompany and form a part of this application and in which—

Figure 1 is a plan view showing the forms in position before the concrete has been poured. Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1. Fig. 3 is a longitudinal section taken on the line 3—3 of Fig. 1, and Fig. 4 is a fragmentary longitudinal section showing the forms slightly separated in the direction of the longitudinal beam-boxes.

In the drawings which I have selected for more fully disclosing my invention, 1, 1 represent light channel irons having flanges 2, 2 and supported by false work of any suitable construction. Spanning the space between each pair of channels are dome-shaped concrete forms 3 preferably of sheet-metal, the lower edges 4 of the opposite sides of each dome resting upon the webs of two adjacent channels, and lying against one of the flanges of each said channel, to form the longitudinal beam-boxes 5.

The lower edges of the other two sides of each dome extend horizontally outwardly as shown at 6, 7 and one only of such extensions terminates in a down-turned lip 8 and supports but is not secured to the horizontal extension 7 of the adjacent form. As shown in Fig. 3 the extensions 6, 7 rest on the upper edges of the flange 2.

As shown in Fig. 2 the ends of the lips 8 are beveled so that the domes may more readily be placed in position on their supporting members.

Reinforcing members such as the rods 9 preferably are placed in the longitudinal beam-boxes 5 and reinforcing members such as the rods 10 may be used in the transverse beam-boxes 11.

The forms are secured to their supporting-members in the present instance by clamps 12 arranged transversely of the channels and located between the flanges thereof to force the lower edges 4 of the domes against said flanges, bolts 13 passing through the channels and clamps and having the nuts 14 threaded to their ends for this purpose.

As will be obvious the form members may be adjustably spaced longitudinally, or in the direction of the longitudinal beam-boxes 5 as indicated in Fig. 4 so as to insure the proper position of the transverse beam-box at the end of the panel with respect to the supporting columns and the necessary strength is given to the transverse beam-boxes, the elements of which being adjustable are not secured together, by the down-turned lip 8 which acts as a stiffening member.

It will be understood that various modifications may be made in the particular apparatus above specifically described and therefore having disclosed an illustrative embodiment of my invention without however limiting the same thereto what I claim and desire to secure by Letters Patent is:

1. Apparatus for constructing concrete floors comprising in combination, laterally-spaced concrete-form support-members, integral sheet metal, dome-shaped concrete

forms, each having the lower edges of two opposite sides resting on a pair of adjacent support-members, and means for securing the adjacent lower edges of each pair of forms to a support-member, the lower edges of the other two sides of each form extending horizontally outwardly and one only of such horizontal extensions terminating in a down-turned stiffening member and supporting but not secured to the horizontal extension of the form adjacent thereto.

2. Apparatus for constructing concrete floors comprising in combination laterally-spaced channels, dome-shaped concrete forms each having the lower edges of two opposite sides resting on a pair of adjacent channels, and means for clamping the adjacent lower edges of each pair of forms to the flanges of a channel, the lower edges of the other two sides of each form extending horizontally outwardly and one only of such horizontal extensions terminating in a down-turned lip and supporting but not secured to the horizontal extension of the form adjacent thereto.

3. In an apparatus for constructing concrete floors, a form consisting of a four-sided integral, sheet metal dome having two straight sides constructed and arranged to rest on a supporting-member and having the lower edges of the other two sides extending horizontally outwardly and one only of such horizontal extensions terminating in a down-turned lip.

In testimony whereof, I have hereunto subscribed my name this 25th day of February, 1918.

WILLIAM L. CHURCH.