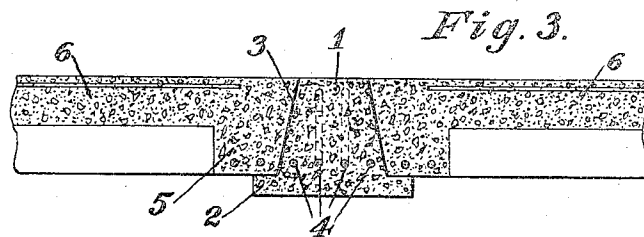
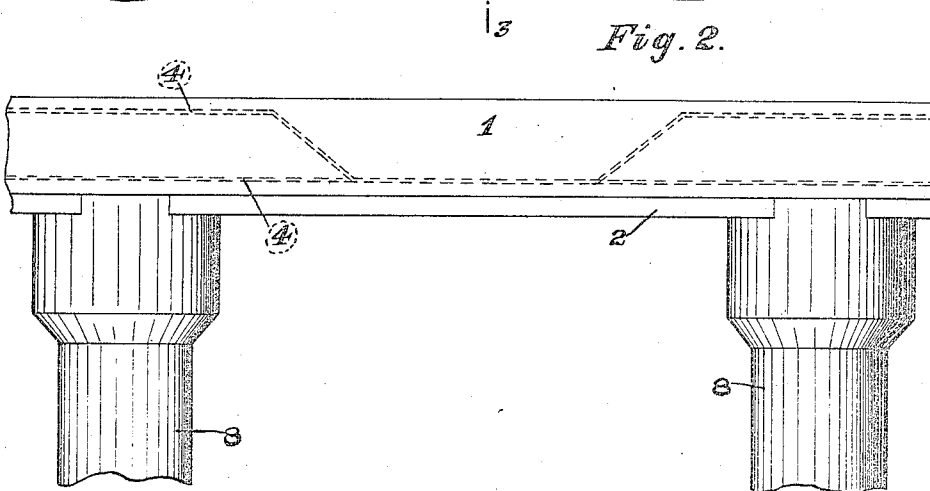
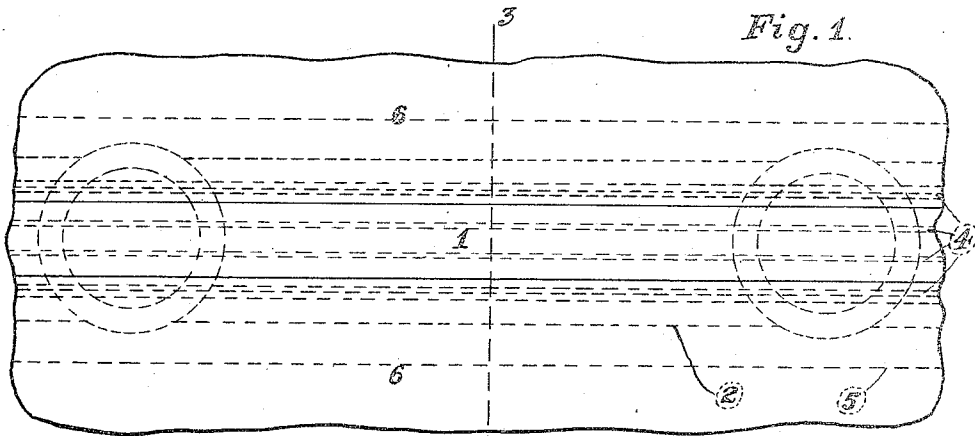


J. E. CONZELMAN.
 CONCRETE CONSTRUCTION.
 APPLICATION FILED APR. 29, 1909.

961,683.

Patented June 14, 1910.



Witnesses:
 Edna J. Lockel.
 George G. Anderson.

Inventor:
 John E. Conzelman,
 By Hugh K. Wagner,
 His Attorney.

UNITED STATES PATENT OFFICE.

JOHN E. CONZELMAN, OF ST. LOUIS, MISSOURI, ASSIGNOR, BY MESNE ASSIGNMENTS,
TO UNIT CONSTRUCTION COMPANY, A CORPORATION OF DELAWARE.

CONCRETE CONSTRUCTION.

961,683.

Specification of Letters Patent. Patented June 14, 1910.

Original application filed January 9, 1909, Serial No. 471,431. Divided and this application filed April 29, 1909. Serial No. 492,865.

To all whom it may concern:

Be it known that I, JOHN E. CONZELMAN, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Concrete Construction, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to concrete building structures and has particular reference to a structure in which concrete slabs and intermediate beams are used as ceiling and floor members, and are supported at their
15 corners or intermediate points and ends by uprights or columns.

In the construction of concrete buildings it is essential that proper unions be effected between the columns and the horizontal
20 members of the structure.

It is the object therefore, of this invention to provide a structure of concrete building elements which cooperate and are interengaged to form a rigid, secure and lasting
25 jointure of said elements.

It is also an object to provide a concrete building structure in which the general construction of the cooperating uprights and horizontal elements be generally improved
30 to present a neat appearance as well as to prove of strong and durable nature.

The invention about to be described, consists of a structure analogous to that shown and forming the subject matter in my co-
35 pending application for patent, Serial No. 471,431, filed Jan. 9, 1909, of which the present application is a division.

In the drawings, which form a part of this specification and in which like numbers of reference denote like parts, Figure 1 is a
40 plan view of a concrete beam supported by two columns, Fig. 2 is an elevation of the same, and Fig. 3 is a sectional view taken on line 3—3 of Fig. 1, showing two adjacent
45 concrete slabs and the beam formed therebetween.

Referring more particularly to said drawings, 6 indicates horizontally disposed slabs which form the floor or ceiling members, as

the case may be, of a building and are supported by columns 8. Said slabs are provided with downwardly extending flanges 5 which form the supporting members of said slabs, by seating on the upper ends of said columns 8, and have their opposing
55 faces 3 inwardly inclined to form a wedge-shaped space 4. Said space is inclosed by suitable molding apparatus, and filled in with plastic concrete, which upon hardening, forms the beam 1. Said beam 1 extends continuously and centrally across the pillars 8 forming a line of supports, and, as shown in Fig. 3, is wedge-shaped and is provided at its lower end with horizontally extended
65 flanges 2 which underlie and support said flanges 5 of slabs 6. Reinforcing rods or bars 4 are embedded in the lower part of said beam, and, adjacent the ends thereof, turn upwardly and thence run longitudinally near the upper part of said beam.
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This invention is not restricted to concrete beams continuous over supports, but may be employed in the construction of any class of concrete beams having a cross section depicted as shown in Fig. 3.
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Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, is:

1. A concrete construction, comprising, in combination, alined rows of supporting columns, preformed slabs extending between and resting directly on the columns of adjacent rows and maintained in spaced relation, a filling conforming to the space therebetween and constituting a beam extending continuously over a row of supporting columns, and laterally extended flanges formed on said continuously extending beam and underlying the lower edges of said slabs to continuously support the latter.
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2. A concrete construction, comprising, in combination, alined rows of supporting columns, preformed slabs extending between and resting directly on the columns of adjacent rows and maintained in spaced relation, the opposing faces of said slabs being upwardly and inwardly beveled to form a wedge-shaped space, a filling conforming to
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the space between said slabs and constitut-
ing a beam extending continuously over a
row of supporting columns, and assuming
said wedge-shaped form, and longitudinal
5 flanges extended laterally from the lower
edges of said beam and underlying said
slabs.

In testimony whereof I have affixed
signature in presence of two witnesses.

JOHN E. CONZELMAN.

Witnesses:

GEO. G. ANDERSON,
GLADYS WALTON.