

F. BURCHARTZ.
BUILDING CONSTRUCTION.
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982,030.

Patented Jan. 17, 1911.

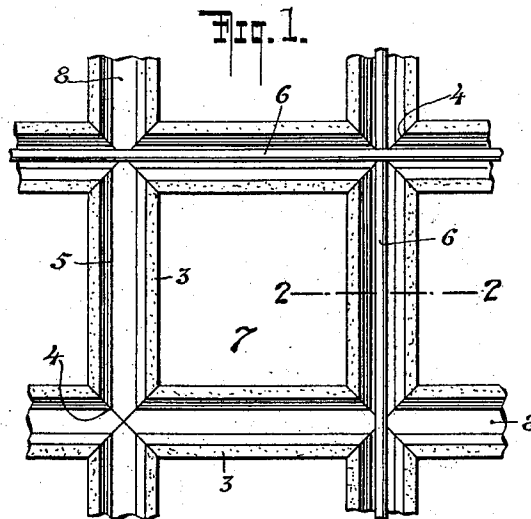
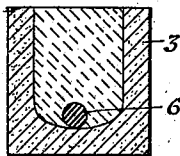


Fig. 3.

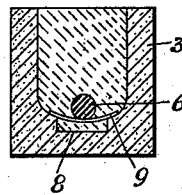


WITNESSES:

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Fig. 2.



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BUILDING CONSTRUCTION.

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To all whom it may concern:

Be it known that I, FERDINAND BURCHARTZ, a citizen of the United States, and resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Building Construction, of which the following is a specification.

My invention relates to improvements in building construction and more particularly to the construction of cement floors or ceilings or the like and has for its object to construct floors or ceilings of this description of individual sections which may be set together and intermeshed to form a grid structure or foundation for the cement or other binder necessary to the complete floor or ceiling. The sections constructed according to my invention and forming said grid structure are easily and cheaply manufactured, are readily handled and shipped, and may be closely packed during shipment so as to take up a minimum amount of space.

Heretofore sections of the kind forming the subject matter of the present application have been heavy and owing to their formation could not be compactly stored for shipping or other purposes and further have been fragile and easily broken during transit.

My invention is designed to overcome these defects and to provide sections for use in the construction of floors or ceilings, which are light without sacrificing strength, which can be easily and compactly stored so as not to be easily broken and which, when set up, form a grid structure, the spaces of which may be wholly or partly filled with cement to meet varying requirements.

My invention will be fully described hereinafter and the features of novelty will be pointed out in the appended claim.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a plan view of a portion of the floor or ceiling constructed according to my invention; Fig. 2 is an enlarged cross section of one of the sections thereof on the line 2—2 of Fig. 1; and Fig. 3 is a similar view of another form of section.

Referring more particularly to Figs. 1 and 2, the complete floor or ceiling construction comprises sections 3, each having its opposite ends beveled as indicated at 4 and being provided with a channel 5 which extends lengthwise of each section 3. Each section 3

is thus substantially U-shaped in cross section. In this form of my invention the one bevel of each section end is adapted to engage the corresponding bevel of the section which extends at an angle thereto, each of said sections forming the wall of two adjacent spaces 7 as clearly shown in Fig. 1. The sections 3 are further provided with a channel 8 which extends lengthwise thereof at the bottom of the recesses 5. In the present construction tie-rods 6 extend throughout the recess 5 and are supported therein by spaced supports 9 which extend over the channels 8 at intervals and serve to maintain said tie rods 6 above said channels 8. Thus as a cement or other binder is introduced into the recesses 5 in this form of my improved floor or ceiling section, the said cement or other binder will also find its way into the channels 8 so that the said rods 6 are completely embedded in the binder in the finished floor or ceiling. In the construction shown in Fig. 3 the channels 8 are omitted and the tie rods 6 in this instance are laid in the bottom of the recesses 5 as shown, which recesses are then similarly filled with cement or other binder.

In using both forms of my invention the sections 3 are first supported on a temporary scaffolding in parallel intersecting rows with the beveled ends 4 of adjacent sections in engagement with each other to form a grid construction or foundation as clearly shown in Fig. 1. After the sections have been thus set up the tie rods 6 are laid in the recesses 5 to extend lengthwise thereof and properly supported in operative position after which a cement or other binder is introduced into said recesses 5. This binder is also introduced into the spaces 7 formed by the sections 3 to complete the floor or ceiling structure. If desired the spaces 7 may first be partly or entirely filled with a temporary filling such as saw dust, sand, or cinders so that the cement cannot reach the scaffolding and in this instance would not reach the lower portion of said spaces 7. After the cement has become set the scaffolding is removed thus permitting the temporary filling to fall out and providing an arched floor or ceiling construction of very great strength, stability and rigidity. As the sections are made of fire proof material such as terra cotta, cement, or the like, the floor is also fire proof.

Owing to the fact that in both forms of

my invention the floor or ceiling is made of sections which are readily assembled and the adjacent ends of which intermesh in such a manner as to prevent them from becoming accidentally displaced, no particular skill is required in the preliminary setting up thereof. A further advantage of this sectional construction lies in the fact that the said sections owing to their symmetrical shape may be securely and compactly arranged for the purpose of shipment so that an economy of space is secured and a larger quantity can be shipped at one time than in the present case of ordinary hollow blocks. The compact packing possible in the case of the present sections also does away with the danger of breakage from shocks or jars during transportation. It will also be noted that some of the cement or other binder will find its way into the crevices between the points of engagement of adjacent sections so that in the complete floor or ceiling the said sections will be firmly bound together and will form a floor or ceiling as solid and complete as if originally constructed in one piece.

It will be understood that changes in the specific construction shown and described may be made within the scope of the claim without departing from the spirit of my invention. It is also to be understood that

although I have described my invention as used in connection with the construction of floors or ceilings, the same may be used for any other purposes to which it may be adapted.

I claim as my invention:

A floor construction or the like comprising separate sections having the ends fitted closely together and arranged in parallel intersecting rows to form a grid construction, each of said sections being provided with a longitudinal recess, the recesses of the sections in each row being arranged in axial alinement to form substantially continuous recesses intersecting each other, each section being further provided with a channel extending lengthwise thereof at the bottom of each recess, rods extending throughout the recesses of each row above the channels so as to intersect and a binder in said recess and said channels completely surrounding said rods and also in the spaces formed by adjacent sections.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

FERDINAND BURCHARTZ.

Witnesses:

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