No. 724,462. PATENTED APR. 7, 1903.

F. W. GARRETTSON.

CONSTRUCTION OF CONCRETE BUILDINGS.

APPLICATION FILED SEPT. 2, 1902.

NO MODEL.

Fig. 1.

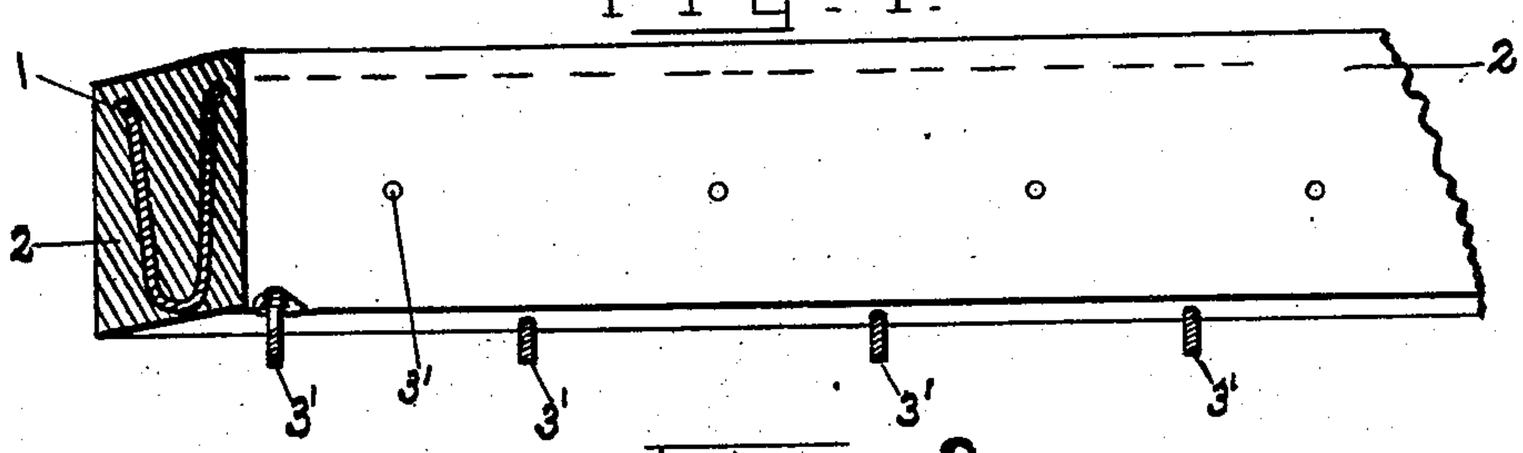

Fig. 2

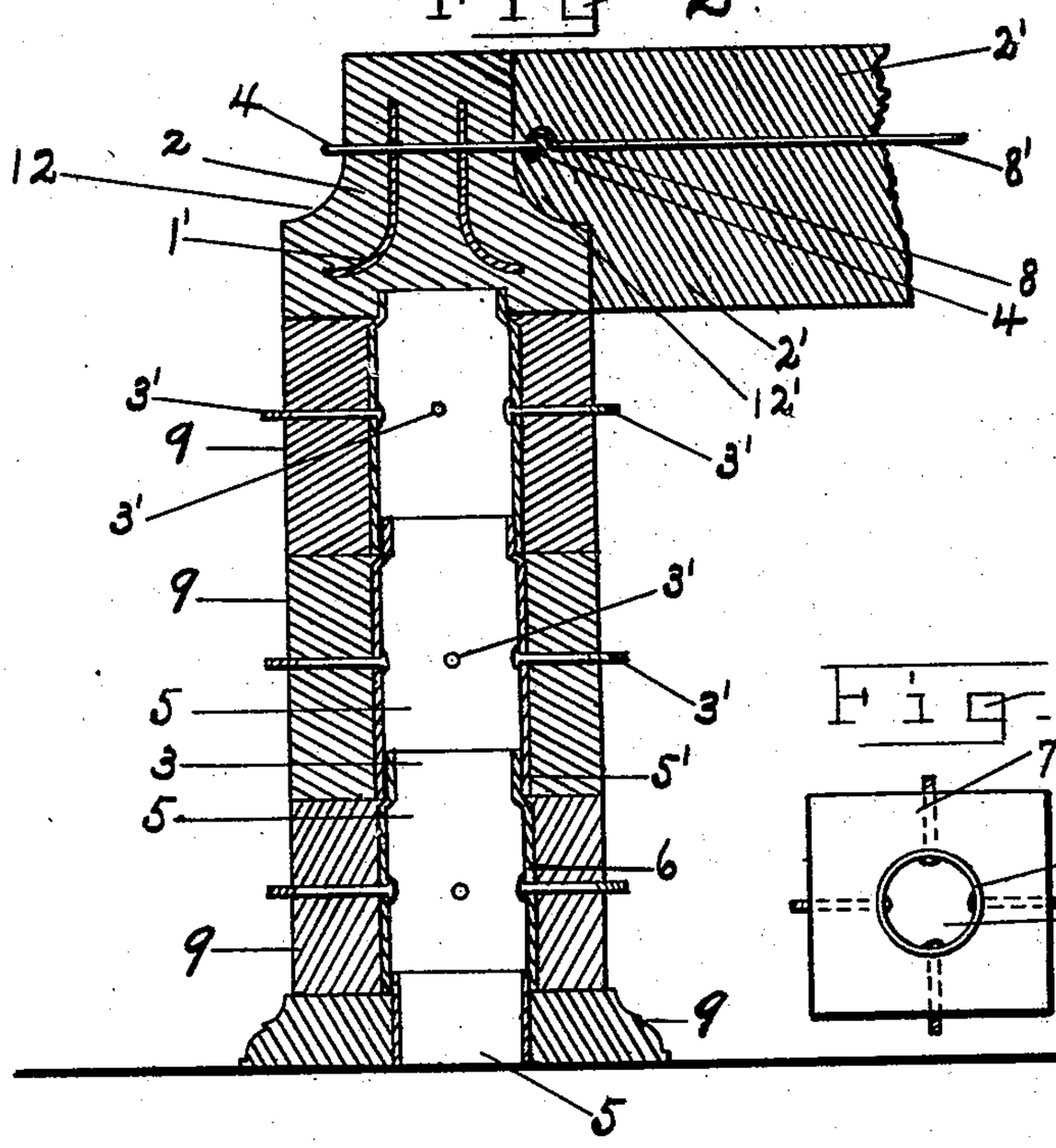

Fig. 3

Witnesses,
J. Stewart Hall
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UNITED STATES PATENT OFFICE.

FRANKLIN W. GARRETTSON, OF BALTIMORE, MARYLAND.

CONSTRUCTION OF CONCRETE BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 724,462, dated April 7, 1903.

Application filed September 2, 1902. Serial No. 121,831. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN W. GARRETTSON, a citizen of the United States of America, and a resident of Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Construction of Concrete Buildings, of which the following is a specification.

The use of strengthened concrete in the construction of buildings is becoming more general, and to give greater resistance to tension and flection strains is one of the objects of my invention.

Heretofore no means has been provided for securing to the concrete the partitions, studding, lathing, or trimmings which may be used in the various buildings. Hence I make this one of the objects of my invention. Also I provide a means for securing the sections of flooring to the girders. These objects I attain by the construction shown in the accompanying drawings, in which—

Figure 1 is a sectional view of my improved girder. Fig. 2 is a sectional view of my column with girder and floor-section in position. Fig. 3 is a plan view of a section of a column.

My concrete joist 2 or girder is preferably strengthened with a longitudinally-inserted U-shaped sheet of metal 1; but I do not care to limit myself to the particular construction shown in Fig. 1, therefore have shown in Fig. 2 the said sheet of metal 1′ in the shape of an inverted U with the base left off, making practically two sheets of metal inserted in said concrete joist or girder.

3′ represents the bolts, which are a means for securing the partitions, &c., to the girders or flooring, and the said bolts 3′ are preferably inserted through the strengthening-iron 1, which is perforated to receive the said bolts 3′. The threaded portions of the bolts 3′ project through the concrete 2.

4 is a rod passing through the strengthening-iron 1 and through the concrete girder 2 and having an eye at each end, to which may be secured the core 8′ of the section of the floor 2′; 8 being a hook on the said core 8′. This section of floor 2′ may be of the usual form of strengthened concrete, but is preferably made with its sides 12′ to match and fit the shape of the sides 12 of the girder, which forms a support for the said floor-section.

My columns are preferably built in sections 9 and may be formed with a centrally-inserted metal tube 6, having a projecting male end 3, said male end 3 fitting the tube 5 in the next section at point marked 5′.

Now it is obvious that in the construction of concrete buildings the readiness with which the columns made after my plan can be assembled will result in a great saving of time, since the said sections 9 can be manufactured and kept on hand ready for use, whereas in other methods the columns are formed in the building and the girders cannot be put in place until the columns are dry.

I do not wish to limit myself to the particular design or construction shown, and

Having described my invention, what I claim is—

1. A concrete girder or the like, having metal reinforce embedded therein, perforations in said reinforce and means inserted through said perforations and extending outside of said concrete, for securing studding, partitions, stringers, &c., to said girder, substantially as described.

2. A concrete girder or the like having metal reinforce embedded therein, and means secured to said reinforce and extending through the concrete for securing studding, partitions, stringers, &c., substantially as described.

Signed by me at Baltimore city, State of Maryland, this 30th day of August, 1902.

FRANKLIN W. GARRETTSON.

Witnesses:

J. A. HILLEARY, Jr.,

J. STEWART HALL.