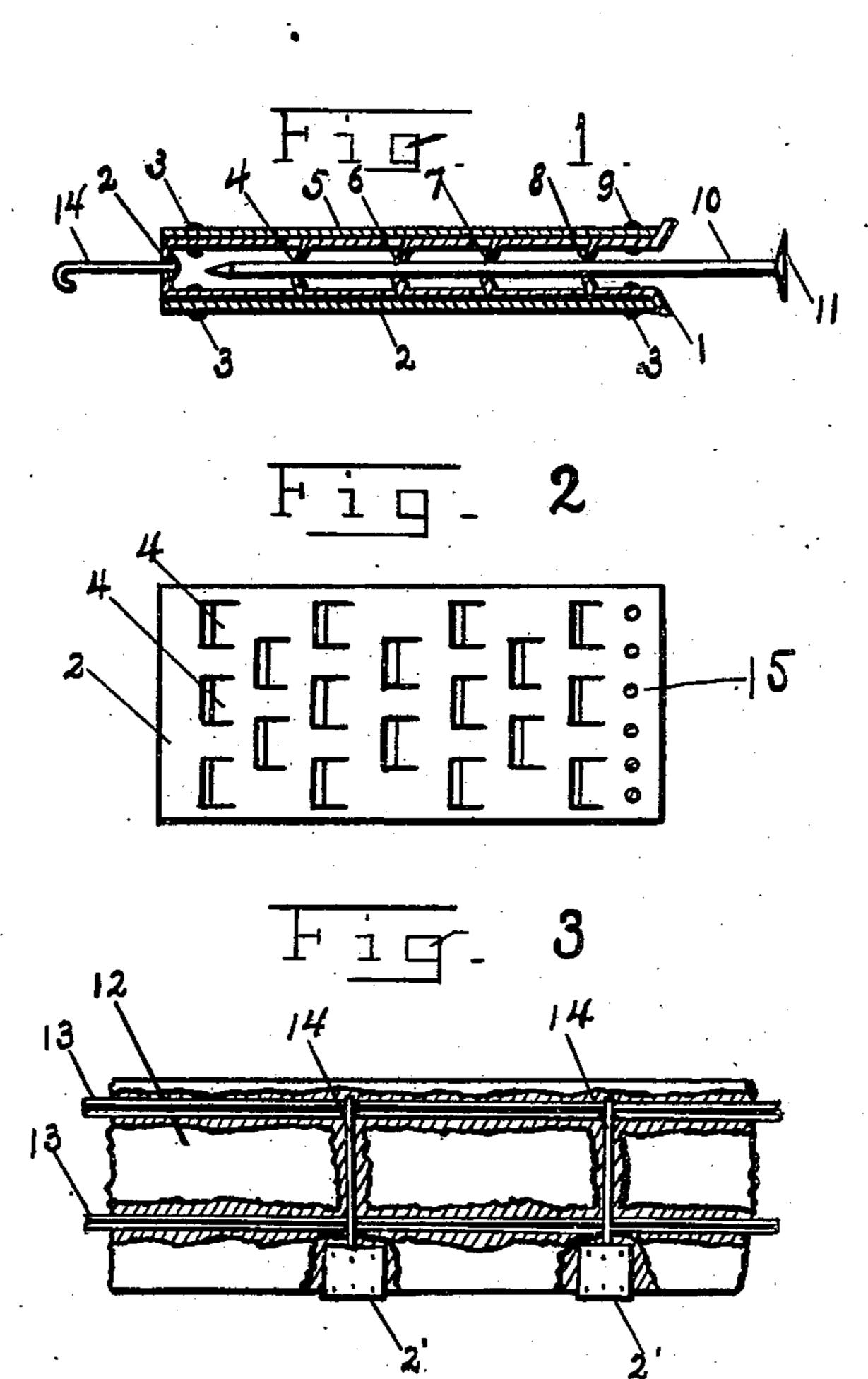
## F, W. GARRETTSON.

CONSTRUCTION OF CONCRETE BUILDINGS AND NAIL PLUG THEREFOR.

APPLICATION FILED SEPT. 2, 1902.

NO MODEL.



WITNESSES.

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Tranklin M. Garrettson

BY William B. Kevy
his ATTORNEY.

## United States Patent Office.

FRANKLIN W. GARRETTSON, OF BALTIMORE, MARYLAND.

CONSTRUCTION OF CONCRETE BUILDINGS AND NAIL-PLUG THEREFOR.

SPECIFICATION forming part of Letters Patent No. 724,461, dated April 7, 1903.

Application filed September 2, 1902. Serial No. 121,830. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN W. GARRETT-SON, 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 and Nail-Plugs, of which the

following is a specification.

My invention has for its object to provide means for attaching furring-strips and lathing or other material to joists, flooring, columns, or walls made of concrete whereby the driving of nails into such means will not tend to crack the concrete; secondly, to provide a shield to cover the openings in the attaching device; third, to provide means for securing the attaching device into the concrete or to the strengthening metal in said concrete.

Referring to the drawings, Figure 1 is a sectional view of my improved attaching device, showing an ordinary wire spike driven into the plug. Fig. 2 is a plan view of the plug with the shield removed. Fig. 3 is a section of concrete girder or flooring, showing the strengthening metal and plugs in position.

1 is the flaring edge of a tubular piece of metal 2, having depressions 4 6 7 8 or teeth stamped into same, which when these teeth are formed would leave perforations in the metal tube 2, and to cover these perforations a shield 5 is placed over the top and bottom of the tube 2 to prevent the concrete getting into the said tube 2. This shield 5 may be secured by rivets 3 and 9 to the plug or tube 2.

14 is a means for securing the tube or plug 2 into the concrete 12 and may be secured to the plug 2 by being made integral with the tube or plug 2 or inserted through an open-

ing in said plug. This hook 14 may be em- 40 bedded in the concrete or may be caught over the strengthening metal 13.

15 is a series of holes near the exposed edge of the plug 2, by which metal lathing

may be secured to the said plug 2.

The nail 10 may be roughened or smooth, and when driven into the plug 2 will be gripped by the teeth 4 6 7 8, &c., said teeth being placed on such angle that any tendency to withdraw the nails would result in 50 the teeth getting a stronger bite onto the nail. These teeth may be sharp or dull at the biting edge, the grip being regulated by the angle at which the teeth are set. This nail-plug 2 is preferably made of spring metal, 55 so that when the teeth 4 6 7 8 are formed they will tend to remain in the position in which they are stamped.

Having described my invention, what I claim is—

1. A wall-plug having perforations and a shield adapted to cover the perforations, substantially as described.

2. The combination with a joist-girder or floor made of strengthened concrete of a nail- 65 plug adapted to be inserted in said concrete and secured to the strengthening metal, substantially as described.

3. The combination with a nail-plug of a series of holes in said plug near the outer or 70 exposed edge of said plug, 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.