F. CHATFIELD. ANCHOR FOR CONCRETE CONSTRUCTION. APPLICATION FILED MAY 5, 1910.

1,022,826. Patented Apr. 9, 1912. 2 12 5 10 4 6 5 13 Fig 1. 11 -10  ${\mathcal B}$ 5 -6 8 - -X ((7 Tg2 8 10 8 8 -10 11 10 9 Fig 3. x-x

WITNESSES WMWabstern us

INVENTOR RANNLIN CHATFIELD BY ATTORNEY

## UNITED STATES PATENT OFFICE.

FRANKLIN CHATFIELD, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-FOURTH TO E. J. COUPER, ONE-FOURTH TO F. M. STOWELL, AND ONE-FOURTH TO C. L. PILLS-BURY. ALL OF MINNEAPOLIS, MINNESOTA.

## ANCHOR FOR CONCRETE CONSTRUCTION.

1,022,826.

Specification of Letters Patent.

Application filed May 5, 1910. Serial No. 559,643.

## To all whom it may concern:

Be it known that I. FRANKLIN CHAT-FIELD, of Minneapolis, Hennepin county, Minnesota, have invented certain new and 5 useful Improvements in Anchors for Concrete Construction, of which the following is a specification.

My invention relates to an anchoring means for supporting hangers, rods and the 10 like in a concrete structure.

- The object of my invention is to provide a compact construction suitable to be embedded in the concrete at frequent intervals and capable of supporting in a substantial
- 15 manner the hangers of shafting or the pipes of a sprinkling system, or for any other analogous uses.

A further object is to provide an anchoring device which will be invisible and hence 20 a large number of them can be placed in the wall or ceiling when molded to provide for future contingencies without marring the finished appearance of the wall.

My invention consists generally in an 25 anchor adapted to be embedded in plastic material and comprising a hub having legs adapted to rest upon the false work when the concrete is poured, said hub being supported out of contact with the false work and adapted to support a hanger provided 30 with a socket to recive a plug, the lower end of which is flush with the surface when the false work is removed.

In the accompanying drawing forming part of this specification, Figure 1 is a sec-35 tional view through a portion of a concrete ceiling, showing the manner of arranging my invention therein, Fig. 2 is a top view of the anchor, Fig. 3 is a sectional view on the 40 line x - x of Fig. 2.

In the drawing, 2 represents a concrete ceiling, 3 the metal reinforcing rods embedied therein and 4 the wooden frame or false work upon which the concrete is poured in the erection of the building. 45

5 is a hub having a tapered socket 6 in its upper end terminating in an interiorly threaded opening 7 in its lower end. A series of legs 8, preferably three in number, 50 radiate from the upper end of the hub and are downwardly turned and have feet 9 which rest upon the false work and are pro-

vided with horizontal flanges 10 having recesses 11 between them to receive the shanks | of the plugs projecting beyond the surface

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of nails by which the anchor is held in 55 place on the false work during the opera-tion of pouring the cement. Suitable ma-terial, such as cotton waste 12, is placed in the socket 6 to prevent the concrete from filling up the threaded hole and a wooden 60 plug 13 is inserted into the threaded hole and extends down to the false work. This plug forms a core and is flush with the concrete surface when the false work is re-65 moved.

**Patented Apr. 9, 1912.** 

To use the anchor, the plug is bored out, exposing the threaded hole 7, so that the threaded end of a bolt or hanger can be inserted therein and securely and permanently supported from the concrete surface. The 70 anchors will be inserted among the rein-forcing rods so that a considerable portion of the strain on the anchors will be sustained by these rods and in the erection of a building I propose to arrange these anchors at 75 suitable intervals so that whenever desired they may be utilized as a support for a shafting hanger. They also may be used for supporting the pipes of a sprinkler system.

The lower ends of the plugs, being flush with the surface of the concrete, will present a smooth, finished surface, the anchor sccket being entirely concealed until such time as it is desired to use it for supporting 85 purposes. The plug will then be removed by any suitable means, as by boring, and the bolt or hanger may then be inserted into the exposed socket.

I prefer to provide three legs in connec- 90 tion with each anchor to give a three-point bearing, but in some instances this number may be varied, according to the location of the anchor.

I may also use the anchor in a side wall 95 or in a column to perform the same functions as in a ceiling, the essential feature of the invention being a means embedded in the concrete for attaching a supporting means thereto.

I regard this arrangement of the hub in the plastic body so that the plug in the lower. end thereof will be flush with the surface of the concrete, as an important feature of my invention, as it allows the use of a great 105 number of these anchors in a ceiling or side wall, if preferred, without the necessity

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of the plastic body and presenting an unsightly and objectionable appearance.

I claim as my invention:-

As a new article of manufacture, an an-5 chor adapted to be embedded in a plastic material and comprising a hub having legs radiating therefrom and adapted to rest upon the false work when the concrete is poured, the lower end of said hub being 10 supported by said legs out of contact with the false mark and hub results the false work with

the false work and having a socket therein adapted to receive a hanger, and a removable plug fitting within said socket, the lower

end of said plug extending into the plane of the outer extremities of the legs whereby 15 the outer end of the plug will lie flush with the molded surface of plastic material upon the removal of the false work, and will normally conceal said hub socket.

In witness whereof, I have hereunto set 20 my hand this 2d day of May 1910.

## FRANKLIN CHATFIELD.

Witnesses:

RICHARD PAUL, J. A. BYRNES.