Aug. 8, 1950 L. T. COLLINS 2,517,979

ANCHOR INSERT FOR ALL PURPOSES

Filed March 25, 1946 2 Sheets-Sheet 1

Fig. 1.

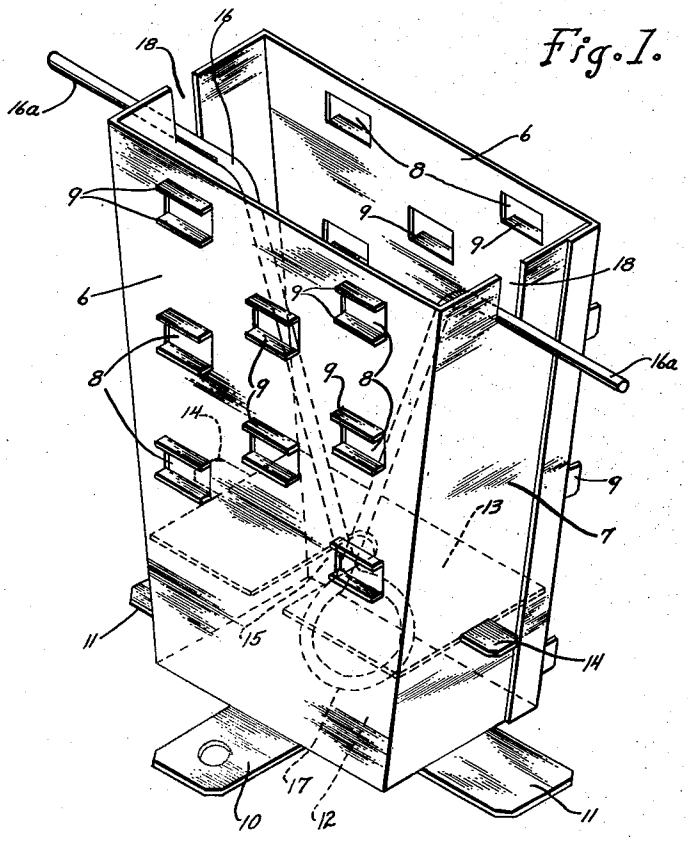
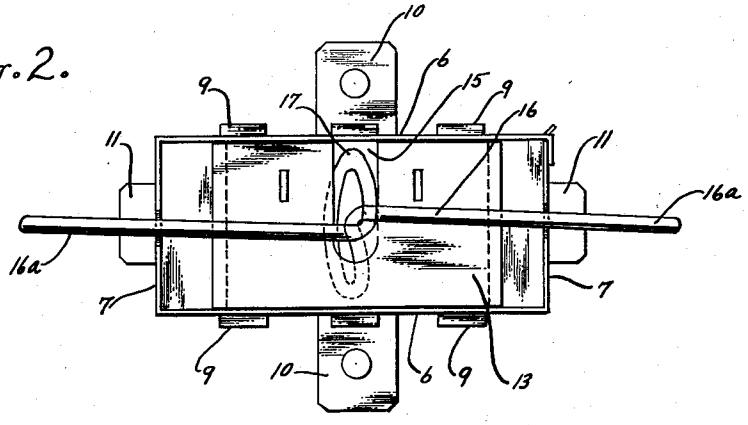


Fig. 2.



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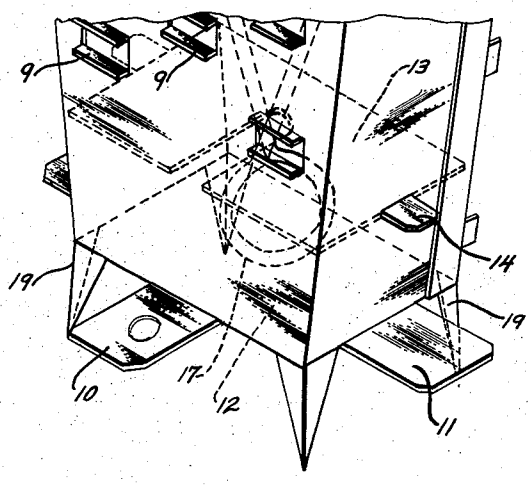
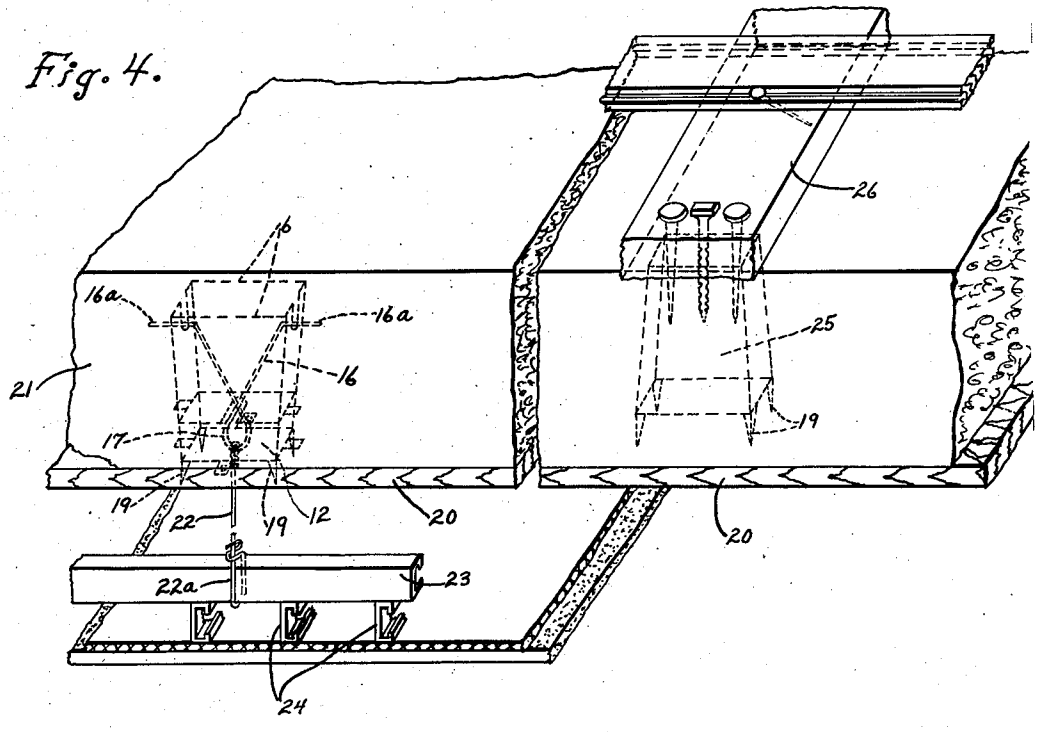


Fig. 3.

Fig. 5.

Fig. 4.



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ANCHOR INSERT FOR ALL PURPOSES

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4 Claims. (Cl. 72—105)

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This invention relates to an anchor insert adapted for embedding in concrete ceilings, or floors, or walls or any concrete base and designed for having articles or any member attached or anchored thereto.

In its broadest aspects, the invention consists of a metal shell which may be of any suitable shape or design, but which preferably tapers from one end to the other to produce a wedging reaction when embedded in concrete and which shell carries some anchoring means to which attachments may be made. In addition, the shell may be provided with stabilizing means for maintaining the same in proper position when the concrete is poured and with anchoring provisions in its walls for forming a bonded relation with the concrete after it has been poured and set.

The invention comprises the novel structure and combination of parts hereinafter described and more particularly pointed out and defined in the appended claims.

In the accompanying drawing which illustrates a preferred form of this invention and in which similar reference numerals refer to similar features in the different views:

Fig. 1 is a perspective view of an anchor insert involving this invention;

Fig. 2 is a top plan view of the same;

Fig. 3 is a fragmentary perspective view illustrating certain modified features;

Fig. 4 is a part sectional and part elevational view of an application of this invention to a concrete floor; and

Fig. 5 is a view similar to Fig. 4 illustrating a modification of this invention and an application thereof.

In referring now to the drawing, there is shown an exemplification of this invention comprising a metal anchor insert having side walls 6 and walls 7. The width of each side wall tapers toward its lower end forming a truncated pyramid. The side walls are punched out at spaced points to provide openings 8 with outwardly directed flanges 9 at the upper and lower ends. The fluid concrete will pass through these openings between the flanges and form a bond that further serves to anchor the inserts in the concrete. The lower end of the insert may be provided with apertured tabs 10 which may be fastened to a concrete form and also lateral tongues 11 which serve as supports. The tabs 10 preferably extend from the sides of the insert anchor and the tongues 11 extend from the ends.

At the bottom of the insert, there is an open work chamber 12 which is formed by a partition

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plate 13 having end tongues 14 extending through slots in the end walls and positioned a suitable distance above the bottom of the insert. This plate is provided with a slot 15 best seen in Fig. 2 through which a bent anchor wire 16 extends and which is provided with a coil or eye 17 at its intermediate portion below the partition plate. From this coil, the two branches of the wire diverge upwardly with the end portions 16a bent at angles and extending through opposite slots 18 in the end walls and a distance therebeyond, where they are adapted to be embedded in the concrete.

If desirable, the lower edge of the anchor insert may be provided with tangs 19 as shown in Fig. 3 for piercing wood forms or the wood deck 20 in buildings or the like as shown in Fig. 4 for stabilizing the anchor insert. This may be especially desirable when concrete forms are not convenient for attachment to the lugs 10.

An application of the invention is shown in Fig. 4 in connection with a concrete floor 21 of a building with the wood decking 20 at the bottom thereof. In this application of the invention, the tangs 19 are used and they are shown driven into the wood decking. The insert anchor is shown embedded in the concrete with the wire coil or eye 17 in the work chamber 12 which is substantially free of concrete. A suspension member 22 which should be of suitable design for supporting whatever article desired can be fastened to the eye 17 for supporting any object. In Fig. 4, the suspension member is shown in the form of a wire hook hitched to the eye and with an anchor hook 22a at its lower end carrying a bar or beam 23 to which the furring bars 24 for a ceiling are attached. Metal lath for plaster are adapted to fasten to the furring bars 24. Of course, it will be understood that a large number of anchor inserts may be necessary and used for accomplishing the desired purpose. In the present instance, only one has been shown.

While the anchor insert has been illustrated as supporting a ceiling, it will be understood that it may support pipes, lamps or any other article.

In Fig. 5, there is shown a modified form of the invention in which the metal anchor eliminates the wire anchor 16 and a block of wood 25 is substituted therefor. The top of the insert here is flush with the top of the concrete floor or wall and serves as a nailing medium for floor beams 26 or the like or as a nailing medium for any other purpose.

When a concrete floor or wall is made, such anchor inserts will be located at the desired points

and secured in proper stabilized positions before the concrete is poured around them so that they will become properly embedded therein.

From the foregoing, it will be apparent that a novel anchor insert has been provided that is adapted for all general purposes; that can readily be embedded in concrete ceilings, walls, concrete bases or the like to provide suitable anchors for different objects.

I am aware that many changes may be made and various details of construction may be modified without departing from the principles of this invention, so I do not propose limiting the patent granted otherwise than necessitated by the appended claims.

I claim as my invention:

1. An anchor insert for embedding in concrete comprising an open ended metal shell having slots in opposed walls adjacent the upper end thereof, and a transverse partition plate spaced from the ends, and an anchor member comprising a wire having an eye located below said partition and diverging arms extending from said eye thru said partition, said arms terminating in angular portions extending thru said slots for embedding in concrete beyond said shell.

2. An anchor insert for embedding in concrete comprising a truncated tapering shell having slots in opposite walls at the end of greatest dimension, a partition spaced from the other end, and an anchor member within said shell having means at one end extending thru said slots for embedding in concrete beyond said shell and having means at the other end extending thru and beyond said partition for anchoring an object thereto.

3. An anchor insert for embedding in concrete comprising a metal shell having a partition plate spaced inwardly from one end, an anchor member within said shell having laterally extending parts extending thru opposite walls of said shell adjacent the end remote from said partition plate, said anchor member extending thru said partition plate and having fastening means in the space beyond said partition plate.

4. An anchor insert adapted for embedding in concrete comprising a metal shell open at both ends and having a partition spaced inwardly from one end, and an anchor member within said shell having anchoring means extending beyond the wall of said shell and anchor fastening means extending thru said partition adapted for attachment to an object to be anchored.

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