

J. KENNEDY.
CONCRETE INSERT.
APPLICATION FILED APR. 30, 1912.

1,052,149.

Patented Feb. 4, 1913.

Fig. 1

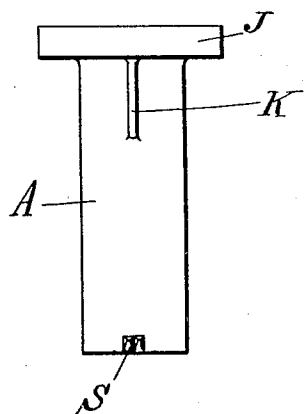


Fig. 2

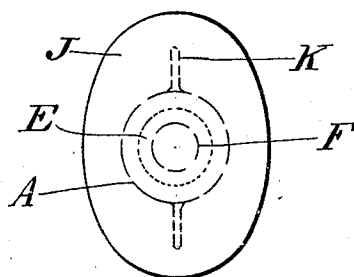
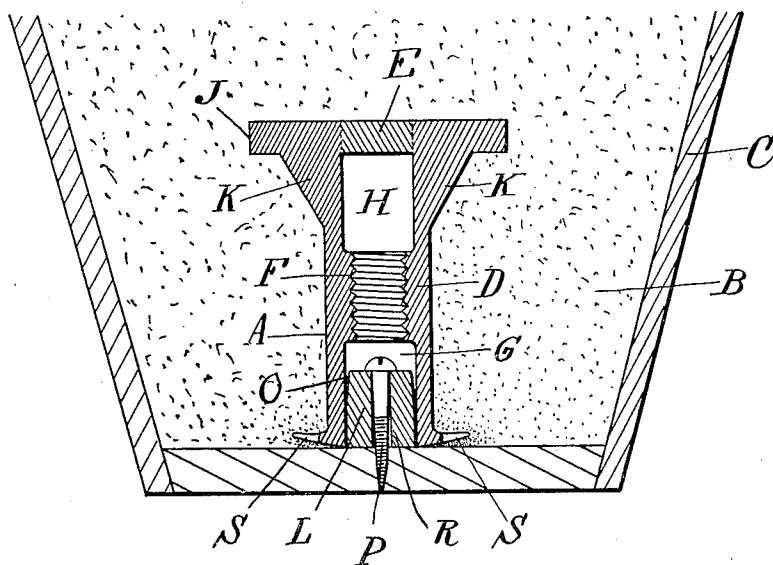


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

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CONCRETE-INSERT.

1,052,149.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH KENNEDY, a citizen of the United States, and a resident of the borough of Bronx, city, county, and State of New York, have invented certain new and useful Improvements in Concrete-Inserts, of which the following is a specification, accompanied by drawings.

This invention relates to concrete inserts adapted to be secured to the mold board of a form of mold into which the concrete or other cementitious material is poured, and thus become embedded in the material, so that the insert remains after the mold boards are removed, and forms a socket or anchorage in the concrete for attaching various objects.

Difficulty has been experienced in suitably and conveniently fastening the insert to a mold board in such manner that the insert is held in proper position and alinement during pouring, and moreover the ordinary means, such as nails or screws for fastening the insert to the mold board, remain embedded in the concrete, and are objectionable and may be unsightly.

My improved insert is capable of being fastened or centered in position in the mold preparatory to pouring, by means which come away with the mold board, thus leaving no nails, screws or other fastening devices in the concrete, to be afterward cut off or bent backward.

My preferred method of procedure is to fasten a supporting plug, as for instance of wood, to the mold board of the form and support the insert upon the plug, then fill the mold with concrete, and finally remove the mold board and the plug, thereby leaving the insert embedded in the concrete.

The insert in one of its preferred forms is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of an insert embodying the invention; Fig. 2 is a top plan view; and Fig. 3 is a longitudinal sectional view showing the insert in position in the form or mold.

Referring to the drawings, A represents an insert embodying the invention, adapted to be embedded in the cementitious material B formed in the mold C. The insert comprises the shell D, preferably cylindrical in form, and preferably closed at one end E, by forming the inclosing portion of the shell integrally with the body of the shell,

or by inserting a plug indicated by the dotted lines.

The shell D may be cast, preferably in one piece, or otherwise suitably formed and is interiorly threaded at F for a portion of its length, in this instance the threaded portion being shown substantially midway of the length of the bore, while the remaining end portions G and H of the bore have smooth surfaces and are of greater diameter than the threaded portion. The open throat G of the device, having a smooth guiding surface should be elongated and of substantial depth as compared with the length of the central threaded portion of the shell and affords means for centering a bolt or other fastening device, as it is forced into the insert, and thereby directs the bolt, so that it will more readily engage the threads F. The enlarged blank or smooth portions G and H of the shell are preferably of substantially the same diameter and also afford certain manufacturing advantages, because if the insert is made from a casting, the enlarged core has a tendency to make that portion of the casting which is to be threaded free from blow holes, and in tapping the portion to be threaded, a taper tap may go through said portion without requiring a seconding or bottoming tap to follow. The smooth throat portion G also has a particular function in enabling me to carry out my improvement as will hereinafter appear.

The exterior of the shell B is provided with anchoring projections of any suitable form, in this instance the upper portion of the insert being provided with a flange J and webs K extending between the flange and the body portion of the shell. The flange J and webs K prevent both longitudinal and torsional movement of the insert, but I am not to be understood as limiting my invention to any particular anchoring projections on the exterior of the device.

In carrying out my invention I provide a plug L of wood or other suitable material, which is adapted to enter the smooth throat portion G of the insert and be maintained in said end portion by frictional engagement with the smooth interior surface of the bore. This plug L is preferably slightly tapered, as shown as O, to permit the plug to readily enter the insert. The plug L is also preferably provided with a longitudinal aperture R to receive the screw or other

fastening device P. The plug is preferably first screwed to the mold board and then the insert is supported over the plug, as shown in the drawing. After the concrete has been poured and has sufficiently set, the mold boards are removed and with them the plug or plugs, thereby leaving the insert embedded in the concrete.

The insert may be provided with the lugs S at its base, if desired, adapted to receive nails or screws to aid in holding the insert upon the mold board, although I prefer to omit the holding lugs S. If such lugs are used, they should be bent backwardly away from the plane of the base of the insert, so that the insert rests upon the mold board along a narrow line of contact, thereby more nearly insuring a tight joint between the insert and the mold board and preventing water from entering the insert. The concrete may also be tamped into the spaces between the lugs and the mold boards, so that after the mold boards are removed, no part of the insert shows, except a narrow ring at the base of the insert.

I claim and desire to obtain by Letters Patent the following:

1. A concrete insert comprising a hollow shell or casing having its parts integrally formed from a single piece of metal, anchoring means on the exterior of the shell, said shell having a cylindrical bore open at one end and closed at the other end, the open end of the shell being adapted to bear flush against a mold board or other support, the central portion of the bore being provided with engaging means for a fastening device, the integral end portions of the shell having smooth interior cylindrical surfaces, and a removable plug adapted to be inserted in the smooth bored end portion at the open end of the shell and be maintained in said end portion by frictional engagement with the smooth interior surface of the bore, and

means for securing said plug to a mold board or other support, whereby the insert is maintained in position during pouring and the plug comes away from the insert with the mold board or other support.

2. A concrete insert comprising a hollow cylindrical shell or casing having its parts integrally formed from a single piece of metal, anchoring means on the exterior of the shell, said shell having a cylindrical bore open at one end and closed at the other end, the open end of the shell being adapted to bear flush against a mold board or other support, the central portion of the bore being of smaller diameter than the remaining integral end portions and threaded to receive a fastening device, the said end portions of the bore being of substantially the same diameter and having smooth interior cylindrical surfaces, the smooth bored end portion at the open end of the shell being elongated and of substantial depth as compared with the length of the central threaded portion of the shell and forming a smooth throat for guiding the fastening device into the said threaded portion, and a removable plug adapted to be inserted in the smooth bored open end of the shell and be maintained in said end portion by frictional engagement with the smooth interior surface of the bore, and means for securing said plug to a mold board or other support, whereby the insert is maintained in position during pouring and the plug comes away from the insert with the mold board or other support.

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

JOSEPH KENNEDY.

Witnesses:

I. B. MOORE,
ELIZABETH ALEXANDER.