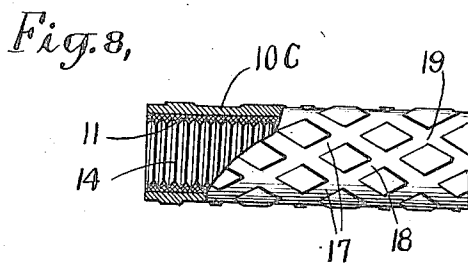
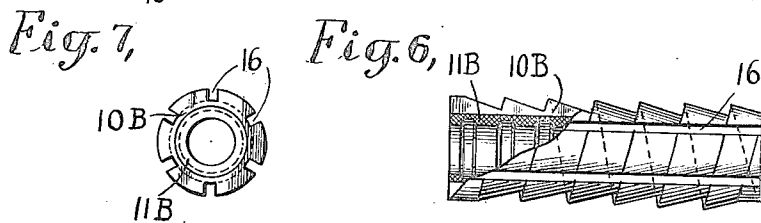
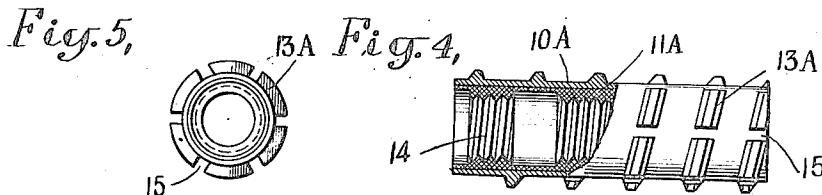
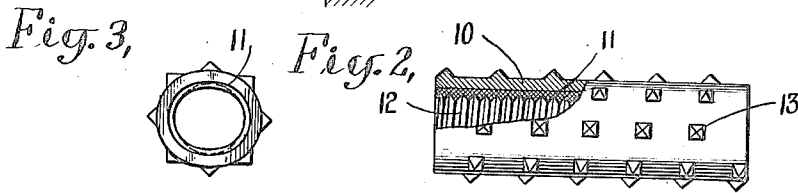
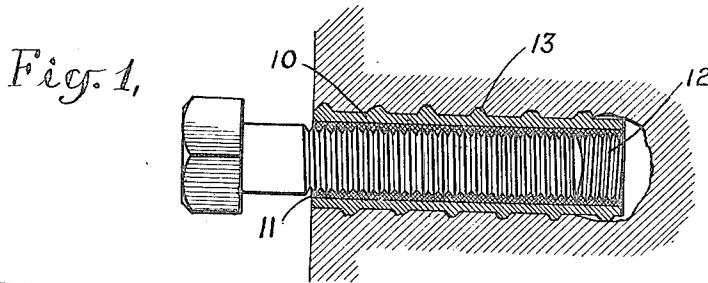


1,227,627.

Patented May 29, 1917.



WITNESSES
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F. Graves

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UNITED STATES PATENT OFFICE.

JOSEPH KENNEDY, OF NEW YORK, N. Y., ASSIGNOR TO THE CLEMENTS COMPANY, OF
NEW YORK, N. Y., A CORPORATION OF NEW YORK.

WALL-SOCKET.

1,227,627.

Specification of Letters Patent.

Patented May 29, 1917.

Application filed June 19, 1914. Serial No. 846,093.

To all whom it may concern:

Be it known that I, JOSEPH KENNEDY, a citizen of the United States of America, and a resident of New York, county and State of New York, have invented certain new and useful Improvements in Wall-Sockets, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to wall sockets or plugs such as are inserted in walls, floors, or other structures, of material which will not readily receive and hold the threads of a bolt, for the purpose of forming anchorage members for bolts or the like, and its object is to provide a simple device which will be securely held in a hole into which it is driven.

This and other objects and advantages of my invention will appear in the following specification, in which the invention will be described, and its novel features will be set forth in appended claims.

Referring to the drawings:

Figure 1 is a transverse section of a portion of a wall with a hole drilled therein and with a bolt screwed into one of my novel wall sockets within the hole.

Fig. 2 is a longitudinal elevation, partly in section, of a wall socket constructed in accordance with my invention.

Fig. 3 is an end elevation of the structure shown in Fig. 2.

In Fig. 4 a modified structure embodying my invention is shown partly in longitudinal elevation and partly in section.

Fig. 5 is an end view of the structure shown in Fig. 4.

In Fig. 6 I have illustrated another modification of this invention, this view being a longitudinal elevation with a portion of the shell broken away to show the internal construction which is illustrated in section.

Fig. 7 is an end elevation of the structure shown in Fig. 6.

Fig. 8 is a longitudinal elevation, partly in section of a still further modification of this invention.

The structure shown in Figs. 1, 2 and 3 comprises a shell 10 of hard metal which is provided with an internal lining 11 of soft metal which may be threaded as shown at 12.

The outer surface of the shell 11 is constructed with a plurality of projecting lugs

13 to provide a holding surface. These are preferably set on a helical line so that any rotation of the socket within the hole within which it is embedded, caused by the removal of a bolt, will have a tendency to move the socket farther into the hole.

It is to be noted that the bore of this device is elliptical so that when a bolt is inserted it will cut full-depth threads in the lining 11 only on two opposite sides.

Attention is called to the fact that the outside of this shell is also elliptical, which form is given to it to resist rotation of the socket in its hole.

The elliptical form of the shell is not necessary however, and in Figs. 4 and 5 I have shown a modification in which both the outer shell 10^A and its lining 11^A are circular in cross-section. In this modification the bore of the lining 11^A is not uniform but is constructed with portions of alternately larger and smaller bore, the portions of smaller diameter of bore only being threaded as shown at 14.

In this modification the projections 13^A are longer than are those shown in Figs. 2 and 3, but as in the construction first described they are set on helical lines for the same purpose.

These projections 13^A form in fact an interrupted screw-thread which is broken at intervals as at 15.

The wall socket illustrated in Figs. 6 and 7 is another simple embodiment of my invention. In this case the shell 10^B of hard metal is provided with an inner lining 11^B of soft metal, the outer surface of the shell 10^B is constructed in the form of a plurality of truncated cones having their apexes on a helical line. Longitudinal grooves 16 pass part way through the outer surfaces of the bases of these cones so that they form in effect an interrupted screw-thread.

The lining 11^B in this case is constructed with portions of alternately greater and less diameter and are not threaded, but in this case when a bolt is inserted it cuts threads for itself in the portions of the lining of a smaller diameter.

In the form of my invention which is shown in Fig. 8, the outer shell 10^C of hard metal is provided with projections 17 which are helically disposed in two lines of opposite pitch. This therefore makes the

grooves between projections cross one another so that they are joined at the points of intersection at 19.

In this form of the invention the inner lining 11 is threaded as at 14.

In using wall sockets such as those described herein a hole is drilled in a wall of concrete, for example of a diameter to make a driving fit for the socket. The socket may be driven into such a hole and it becomes securely embedded therein so that it cannot be readily removed. The threaded shank of a bolt or other object is then screwed into the interior of such a socket, the soft metallic lining forming means for receiving the threads of such a bolt or other object. The bolt will remain securely in place as long as desired and may be removed by means of a wrench, for example, without disturbing the wall socket. The helical projections of the wall socket will, as has been pointed out, prevent its rotation in the wall and any tendency for it to rotate during the removal of the bolt will only tend to drive it farther into the wall.

Several modifications of this invention have been illustrated to show that it is not limited to any specific form or construction and I intend no limitations other than those imposed by the appended claims.

This application is a continuation in part of an application for patent filed by me on the 14th day of August, 1913, and given Serial No. 784,672, and which I have assigned to The Clements Company, a corporation of the State of New York.

What I claim is:

1. A wall socket comprising a hollow circumferentially continuous sleeve, and means within said sleeve for receiving the threads of a bolt, and external projections spaced about the outer surface of said sleeve on a

helical line, the pitch of said helical line being opposite in direction to the pitch of the bolt threads.

2. A bolt anchor comprising a hollow shell, means within said shell for receiving the threads of a bolt, and a plurality of holding members projecting from the outer surface of the shell and lying in lines diagonal to the axis of the shell in a direction opposite to the pitch lines of the bolt threads.

3. A bolt anchor comprising a hollow shell, means within said shell for receiving the threads of a bolt, a plurality of parallel holding members projecting from the outer surface of the shell and lying in spiral lines with the axis of the shell as the axis of the spiral, the pitch of the spiral being opposite to the bolt threads.

4. A bolt anchor comprising a hollow shell, means within said shell for receiving the threads of a bolt of one pitch direction, a plurality of parallel holding members projecting from the outer surface of the shell and lying in spiral lines having a pitch direction opposite to the bolt threads, whereby a backing out or unscrewing movement of the bolt tends to screw the anchor inwardly.

5. A bolt anchor comprising a hollow shell internally threaded with a pitch of one direction to receive the threads of a bolt and provided with external means adapted to constitute screw threads having a pitch of opposite direction, whereby a backing out or unscrewing movement of the bolt tends to screw the anchor inwardly.

In witness whereof, I have hereunto set my hand in the presence of two subscribing witnesses, this 11th day of June, 1914.

JOSEPH KENNEDY.

Witnesses:

I. B. MOORE,
I. MULCAY.