J. KENNEDY.

WALL SOCKET.

APPLICATION FILED AUG. 14, 1913.

1,234,176. Patented July 24, 1917.

Fig. 1.

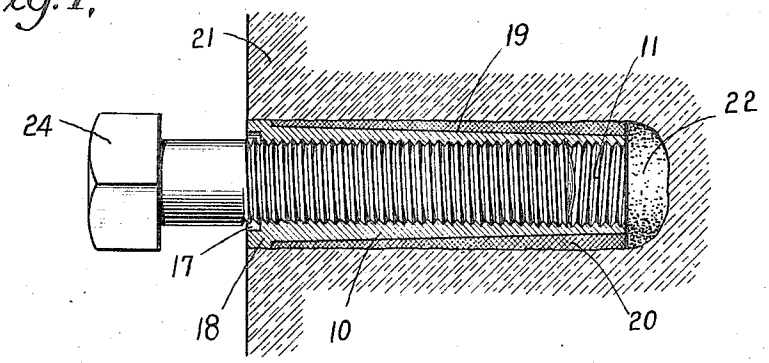


Fig. 2.

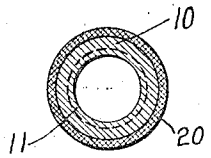


Fig. 3.

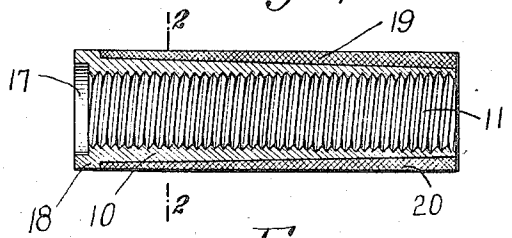


Fig. 4.

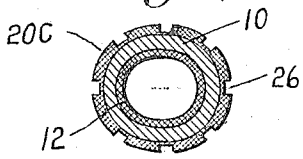
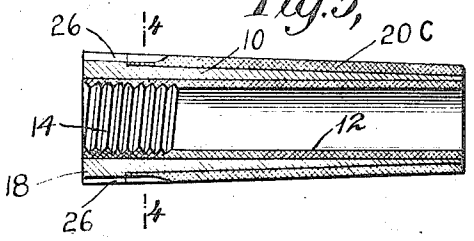


Fig. 5.



WITNESSES:

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WALL-SOCKET.

1,234,176. Specification of Letters Patent. Patented July 24, 1917.

Application filed August 14, 1913. Serial No. 784,672.

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 wall with a hole drilled therein with a bolt screwed into one of my novel wall sockets within the hole.

Fig. 2 is a transverse section of a wall socket embodying my invention which is shown in longitudinal section in Fig. 3, the section in Fig. 2 being taken on the line 2—2 of Fig. 3.

A modified form of my improved socket is shown in Figs. 4 and 5 in transverse and longitudinal sections respectively, the section in Fig. 4 being taken on the line 4—4 of Fig. 5.

In Fig. 7A, a portion of the device of Figs. 6 and 7 is shown in section, with the construction of the inner sleeve thereof slightly modified.

The inner and outer sleeves of my improved wall socket are shown in modified forms in Figs. 8 and 9 which are respectively an end view and a longitudinal elevation thereof.

Like characters of reference designate corresponding parts in all the figures.

In all the modifications of the present invention the wall socket comprises a hollow shell 10 which is shown as circumferentially continuous, the inside of which is provided with some means for receiving the threads of a bolt or other threaded device. For this purpose it may be internally threaded as shown at 11 in some of the figures, or provided with a lining of soft metal into which the bolt may cut its own threads. Such a lining is shown at 12 in Figs. 4 and 5. Figs. 4 and 5 show the inside as well as the outside cross-section of the shell and its lining elliptical. In the latter figures the lining is threaded a part of its length from the outer end of the shell, as shown at 14.

Referring now to Figs. 1, 2 and 3 I will describe the particular form of my invention therein shown and will show how it is used. In this case the shell 10 is of hard metal, internally threaded as at 12. At its outer end it is counterbored as shown at 17, and is provided with an external annular end flange 18. The rest of the body 19 of the shell is tapered inwardly. Over the tapered part of the shell 10 is fitted a tubular sleeve 20 of soft metal, the outer surface of which is preferably of the same diameter throughout its length.

21 is a wall of concrete for example, in which is drilled a hole 22 slightly deeper than the length of the socket and of a diameter to make a driving fit for the socket. The socket may be driven into the hole and the recess formed by the counterbore 17 prevents injury to the threads 11 from the blows of the hammer. The soft metallic cover sleeve 20 has a tendency to slip on the tapered part 19 of the shell as the device is being driven into the hole and thereby becomes jammed between the shell and the surface of the hole 22 and the flange 18 assists in this part of the operation as it prevents the sleeve moving off from the shell. When thus in place the socket forms a secure anchorage for a bolt 24 or other threaded device.

The form of my invention which is shown in Figs. 4 and 5 is also a shell of elliptical cross-section provided with a soft metallic lining 12. In this case the outside of the shell is longitudinally tapered and its soft metallic cover sleeve 20C is of uniform thickness. This shell is provided with the end flange 18 but through it are cut grooves 26 which extend part way into the cover sleeve. These are provided so that after the socket is embedded in the wall, it may be further secured thereto by driving nails or wedges into these grooves between the outer end of the socket and the surface of the hole.

The elliptical exterior prevents rotation of the socket in its hole.

Many other modifications of structure may be made within the spirit of this invention and within the scope of the appended claims. I have however illustrated and described a sufficient number of sockets of different patterns and designs to show that I do not limit myself to any specific form or construction.

What I claim is:

1. A wall socket comprising a hollow circumferentially continuous shell of hard metal with its exterior constructed to form a wedge-like surface tapered toward its inner end, surrounded by a similar sleeve of soft metal, the outer surface of said soft metal sleeve being adapted to engage the rough surface of a hole into which the socket is to be driven and to be retarded by said engagement so that the metal thereof will be extruded into the hole by the tapered portion of the hard metal shell, an integral flange extending from the outer end of the hard metal shell, adapted to close the outer end of such a hole to retain the extruded soft metal within the hole, and means within said hard metal shell for receiving the threads of a bolt.

2. A wall socket comprising a hollow circumferentially continuous shell of hard metal with its exterior constructed to form a wedge-like surface tapered toward its inner end, the cross-section of said shell being a curved plane of non-uniform diameter, surrounded by a similar sleeve of soft metal, the outer surface of said soft metal sleeve being adapted to engage the rough surface of a hole into which the socket is to be driven and to be retarded by said engagement so that the metal thereof will be extruded into the hole by the hard metal shell, an integral flange extending from the outer end of the hard metal shell, adapted to substantially close the outer end of such hole to retain the extruded soft metal within the hole, and means within the sleeve of hard metal for receiving the threads of a bolt.

3. A wall socket comprising a hollow circumferentially continuous shell of hard metal, the cross-section of which is a curved plane of non-uniform diameter, the exterior of said sleeve being provided with longitudinally disposed grooves, surrounded by a similar sleeve of soft metal, the outer surface of said soft metal sleeve being adapted to engage the rough surface of a hole into which the socket is to be driven and to be retarded by said engagement so that the metal thereof will be extruded by the hard metal shell, and means within the sleeve of hard metal for receiving the threads of a bolt.

In testimony whereof I have hereunto set my hand this 13th day of August, 1913, in the presence of two subscribing witnesses.

JOSEPH KENNEDY.

Witnesses:

EDNA ZINMAN,

I. B. MOORE.