

J. KENNEDY.
 SOCKET.

APPLICATION FILED AUG. 14, 1913.

1,207,413.

Patented Dec. 5, 1916.

Fig. 1,

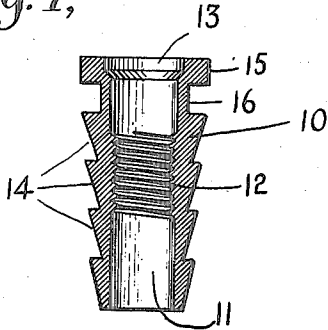


Fig. 3,

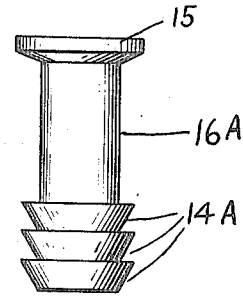


Fig. 2,

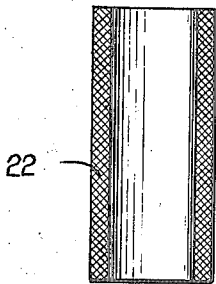


Fig. 4,

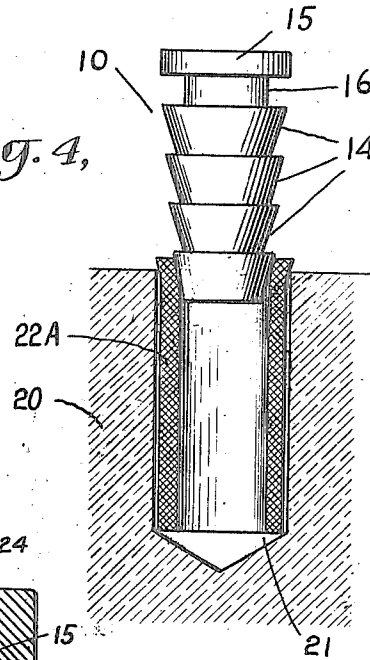
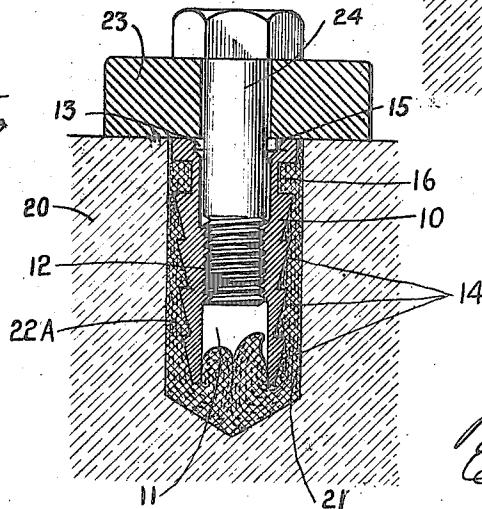


Fig. 5,



WITNESSES:

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UNITED STATES PATENT OFFICE.

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SOCKET.

1,207,413.

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 New York city, county of New York, State of New York, have invented certain new and useful Improvements in Sockets, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to sockets such as are used as anchorage members and its object is to provide a simple and inexpensive device which may be inserted in a floor or other structure and which will receive a screw or bolt by means of which a desired article may be secured to the floor or structure.

It is believed that my improved socket has many points of advantage over such devices as have been known heretofore, which will appear in the following specification in which I will describe my invention and the novel features of which I will set forth in appended claims.

Referring to the drawings, Figure 1 is a sectional elevation of a wall socket made according to my invention. Fig. 2 is a sectional elevation of a sleeve of soft metal which may be used in conjunction with such a socket. In Fig. 3 I have shown another form of socket which also embodies my invention. Fig. 4 is a section of a floor with the soft metallic sleeve therein and with the socket in position to be driven in. Fig. 5 shows in section, the socket in use with a bolt therein securing an external object to the floor.

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

The socket shown in Figs. 1, 4 and 5 is designated by 10. It comprises a solid shell having a substantially cylindrical bore 11, except that for a portion of its length intermediate its ends it has a threaded part 12 of less diameter than that of the rest of the bore, and at its upper or outer end it is drilled out on a larger diameter for a short distance as is shown at 13. The outside of the shell is of irregular conformation. Throughout the greater part of its length, it is constructed to form a series of truncated cones tapering toward the inner end of the device, progressively increasing in transverse size toward the outer end, with the base of each overlapping the minor base

of the next adjacent cone. The outer end of the socket forms an annular head or flange 15 between which and the base of the nearest cone is a restricted neck-like portion 16.

In the modified construction shown in Fig. 3, there are but three truncated cones 14^A and these are alike in size and are all near the inner end of the device. The inside of this device is similar to that of the one already described and it too is provided with the end flange 15. The neck-like portion 16^A is however much longer than the corresponding part of the sleeve of Fig. 1.

Referring now to Fig. 4, I will describe the manner in which this device is used. In this figure, 20 designates the structure to which it is desired to affix something such for example as a chair. We will assume that the structure 20 is a concrete floor. In this floor is drilled a hole 21 of a diameter of sufficient size to clear the end flange 15 and of a depth a little greater than the length of the socket. A sleeve 22 of soft metal, preferably lead, is then inserted in this hole after which the socket is driven in until the upper surface of its flange 15 is even with the floor level. When the socket is thus driven in the lead will be forced into the spaces between the outside of the socket sleeve and the inside of the hole 21 and owing to its ductility will be caused to fill these spaces so completely as to form an effective binder.

In Fig. 5 the part 23 is the foot of an iron chair-leg which is secured to the floor by means of a bolt 24 passing through it and into the threaded portion 12 of the socket. If the floor is of softer material such as wood, the socket may be driven into a clearance hole in it without the use of the lead sleeve. While it is desirable to have the socket when used with a soft metal sleeve, of hard metal, it is not necessary and it is well within the scope of my invention to make the socket of more or less soft material so that its projecting edges may collapse to a certain extent when it is driven into a hole.

This device has been used effectively for the purpose of securing chairs to the concrete floors of fireproof theaters and it is obvious that the chairs may be removed and replaced at will without disturbing the sockets. This is cited as an example of one

of the many advantageous uses of this invention. It may obviously be used in ceilings, walls and other structures and other variations of construction than those illustrated may be made within the spirit of the invention and the scope of the claims.

What I claim is:

1. A socket comprising an annularly continuous integral shell of hard metal, means within the shell for receiving the threads of a bolt, the outer surface of said shell being so constructed to form a series of truncated cones of progressively larger diameter in axial alinement with one another, the sizes thereof increasing toward the outer end of the socket, with the major bases of all but one of the cones coincident with and overlapping the minor base of the adjacent cone, an annular flange at the end of the shell toward which the major bases of the cones lie, and a restricted neck-like portion between said annular flange and the base of the largest cone, combined with a separate hollow cylindrical sleeve of soft metal into which said socket may be driven with a cumulative wedging effect to force a part of soft metal into said restricted neck-like portion.

2. A socket comprising an annularly con-

tinuous integral shell of hard metal having an internal bore extending inwardly from either end and an intermediate threaded portion of smaller bore, the outer surface of said shell being constructed to form a series of truncated cones of progressively larger diameter in axial alinement with one another, the sizes thereof increasing toward the outer end of the socket, with the major bases of all but one of the cones coincident with and overlapping the minor base of the adjacent cone, an annular flange at the end of the shell toward which the major bases of the cones lie, and a cylindrical neck-like portion between said annular flange and the base of the largest cone of smaller outside diameter than that of any other part of the socket, combined with a separate hollow cylindrical sleeve of soft metal into which said socket may be driven with a cumulative wedging effect to force a part of said soft metal into said restricted neck-like portion.

In witness whereof, I have hereunto set my hand this 7th day of August, 1913.

JOSEPH KENNEDY.

Witnesses:

I. B. MOORE,

EDNA ZINMAN.