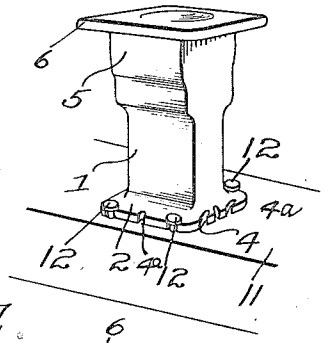
A. W. SCHRAMM.

HANGER.

APPLICATION FILED FEB. 13, 1914.

1,206,601. Patented Nov. 28, 1916.

Fig. 1.



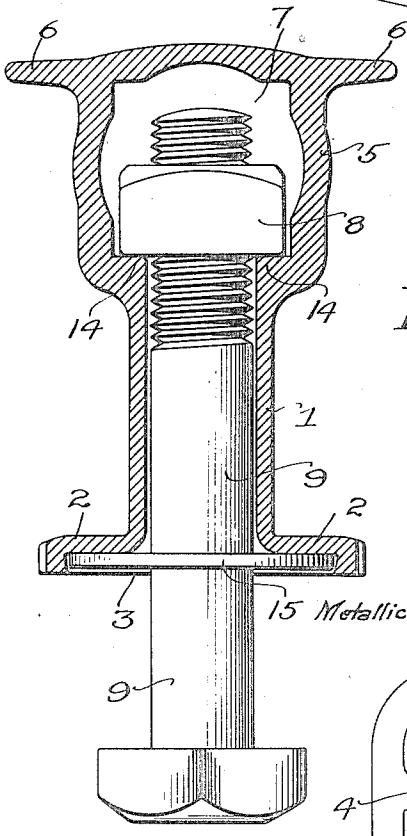


Fig. 2.

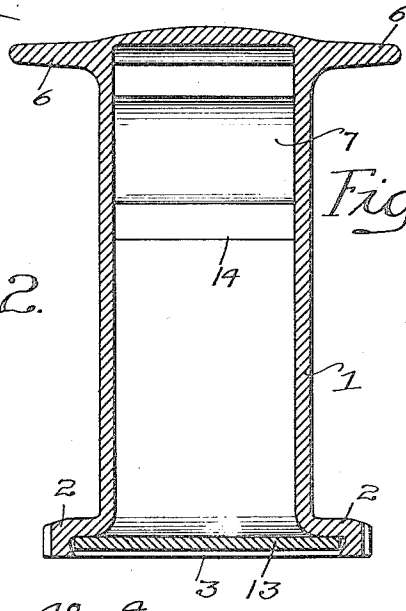


Fig. 3.

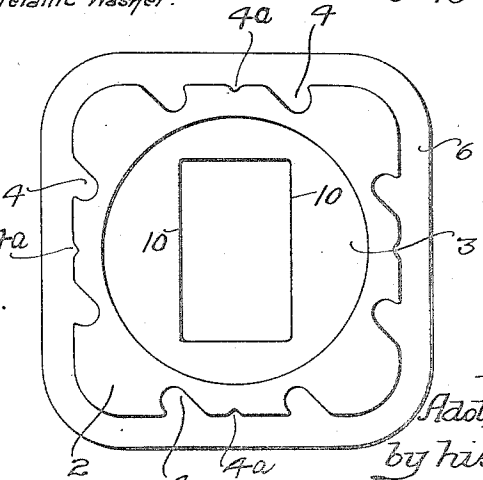


Fig. 4.

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HANGER.

1,206,601. Specification of Letters Patent. Patented Nov. 28, 1916.

Application filed February 13, 1914. Serial No. 818,558.

To all whom it may concern:

Be it known that I, ADOLPH W. SCHRAMM, a citizen of the United States, residing in Riverton, Burlington county, New Jersey, have invented certain Improvements in Hangers, of which the following is a specification.

One object of my invention is to provide a novel form of bolt receiving socket, particularly designed for use in concrete structures, which, in addition to being relatively simple and substantial in construction, shall have its various parts so arranged as to permit of the convenient insertion or removal of a nut after said socket has been embedded in the concrete.

Another object of the invention is to provide a socket or hanger having the above noted characteristics whose base shall be so made as to insure its upright position, as well as its solid fastening to a form in accurate alinement,—the construction being such that while considerable play or movement of the inserted bolt is possible while it is being introduced, according to my invention means is provided whereby said bolt may be held rigidly central in the socket after its insertion.

My invention further contemplates a construction of socket or hanger such that either before or after its introduction into the concrete, its opening may be temporarily closed by a cardboard or other suitable disk, until such time as it is desired to use the device.

These objects and other advantageous ends I secure as hereinafter set forth, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view, illustrating a socket constructed according to my invention and nailed to a portion of a concrete form; Fig. 2 is a central vertical section of the socket shown in Fig. 1, illustrating the bolt with its nut and washer in their operative positions; Fig. 3 is a vertical section taken at right angles to the section of Fig. 2, and illustrating a temporary socket-closing disk in place; and Fig. 4 is an inverted plan of the hanger or socket.

From the above drawings, it will be seen that the socket forming part of my invention consists of a casting in the form of an elongated tubular body 1, which in this instance is substantially rectangular in section and at its lower end is provided with an outwardly extending flange 2. The lower or open face of this flange is provided with a circular undercut recess 3, whose center line is coincident with that of the tubular body 1. While this flanged end may have any desired outline, in the present instance I have shown it as substantially square and provided on each of its four sides with notches 4, of which those on opposite sides are preferably inclined in opposite directions as shown in Fig. 4. In addition the center of each side of the flange 2 has a notch 4^a for use in placing the socket in position in a form.

The top or upper portion of the socket casting is expanded to form a hollow head 5, whose top edge is provided with a projecting flange 6, in the present instance of substantially rectangular outline, while the chamber 7 of said head communicates with the tubular body 1. It is noted that the passage through said body is oblong in section, its width being slightly greater than the thickness of a nut 8 belonging to a bolt 9 with which the socket is designed to be used, and its breadth being slightly greater than the length of one side of such nut.

While the chamber 7 may be of any desired or suitable interior form, I have shown it as substantially cubical although its top and two of its opposite sides are preferably concaved to permit of the free movement of the nut 8 while this is being inserted and properly positioned as hereafter explained. It may be noted that these two concavities are both on the same side of the socket as are the wide sides 10 of the passage through the body portion 1, it being noted that between these concaved sides and those of said passage there are formed flat shoulders which lie in a plane at right angles to the longitudinal center line of the socket casting.

As will be understood by those skilled in the art, the socket above described is designed to be embedded in a concrete structure, such as the ceiling or wall of a room, so that parts of machinery or any other objects, may be supported or hung therefrom, and for this purpose the socket is rigidly mounted in the desired position upon one of the forms 11 in which the concrete is to

be cast, by nails 12 passed through its inclined notches 4, its position being readily determined by placing it with its centering notches 4ª immediately over center lines previously drawn on the form. When so held its overturning or displacement while the concrete is being placed in the form is a practical impossibility.

After the forms have been removed, the socket is obviously completely embedded in the concrete with the lower face of its flanged end 2 flush with the surface of the ceiling or wall. If, for any reason, there is no requirement for the immediate use of the socket, a pasteboard or other disk 13 of slightly greater diameter than the entrance into the recess 3 may be sprung into the same, so that the exposed face of the socket does not present an objectionable appearance, especially if it and the disk 13 be painted.

When it is desired to utilize the socket or hanger to receive a bolt whereby any desired structure is to be carried or supported, the disk 13 is removed and a nut 8 of the proper size required by the particular dimensions of the socket, is inserted in the tubular body 1, it being obvious that for this purpose said nut is turned edgewise with the line of its threaded perforation substantially horizontal. When said nut has been pushed through the tubular body 1 and caused to enter the chamber 7, it may be easily caused to assume a horizontal position in which the line of its threaded perforation is vertical. Owing to the square contour of the bottom of said chamber the nut naturally rests upon the shoulders 14 thereof, but cannot rotate on a vertical axis. A metallic washer 15 may now be placed over the end of a bolt 9 of suitable dimensions and the latter, after being passed through the tubular body of the socket may be screwed into the nut 8, it being obvious that the nut may be tried on the bolt with which it is to be used before it is inserted in the socket, in order to ascertain if it properly fits the threads thereof. Obviously, while being screwed into the nut, the bolt is free to move laterally in the tubular body of the hanger, but is rigidly held from such movement as soon as the washer 15 is introduced into the recess 3 in the flange 2. By this means the bolt is held central of the socket and is also steadied or braced, since the washer engages it adjacent its lower end, while its upper end is held from turning and lateral movement by reason of its engagement with the nut.

It will be noted that the lower flanged face of the socket provides a flat bolting surface for the reception of a fixture having a small foot, and, as above noted, also provides a recess for the bolt steadying washer. The pasteboard or other disk 13 may be inserted in the recess 3 before the socket is mounted on the form, as to effectually prevent the entrance of mortar or grout while the concrete is being cast. It is further to be noted that the design of the socket is such that it has an anchorage in the concrete which permits the suspension from it of a maximum weight, while its construction is such that at any time the bolt may be removed and thereafter the nut may be moved from its horizontal to its vertical position and likewise be withdrawn through the tubular body.

I claim:—

1. The combination of a socket having a hollow head and a tubular body; a nut in said head; a bolt extending through the body into engagement with said nut; with means engaging said bolt adjacent the open end of the body and also engaging said body adjacent said end for preventing lateral movement of the bolt.

2. The combination of a socket having a hollow head and a tubular body; a nut in said head; a bolt extending through the body into engagement with said nut; with a washer engaging the bolt adjacent the open end of the body and held by the latter to prevent lateral movement of the bolt.

3. The combination of a socket having a hollow head and a tubular body; a flange adjacent the open end of said body; a nut in the hollow head; a bolt passing through the hollow body and engaging said nut; with a member held by said flange and engaging the portion of the bolt adjacent thereto for preventing lateral movement of said bolt.

4. The combination of a socket having a hollow body; a chambered head connected to one end of said body; a flange at the other end of the body provided with an annular recess in its face; a nut in the head; a washer seated in the recess of said flange; and a bolt passing through the washer into engagement with the nut.

5. As a new article of manufacture, a socket consisting of a body having a passage therethrough of substantially rectangular section, one of whose transverse dimensions is slightly greater than the thickness of the nut for which the socket is designed and its other transverse dimension is slightly greater than the width of said nut; and a head for the body having a cavity providing a seat for holding said nut from rotation and lateral movement, there being a washer-receiving recess adjacent the open end of the tubular body.

6. As a new article of manufacture, a socket consisting of a body having a passage therethrough of substantially rectangular section, one of whose transverse dimensions is slightly greater than the thickness of the nut for which the socket is designed and its other transverse dimension is slightly greater than the width of said nut; a head for the

body having a cavity providing a seat for holding said nut from rotation and lateral movement; with a flange adjacent the open end of the body and provided with a washer-receiving recess substantially concentric with the center line of the body.

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

ADOLPH W. SCHRAMM.

Witnesses:
WILLIAM E. BRADLEY,
WM. A. BARR.