W. D. BANES.

HANGER SOCKET FOR CONCRETE WORK.

APPLICATION FILED MAR. 28, 1914.

1,201,540. Patented Oct. 17, 1916.

Fig. 1.

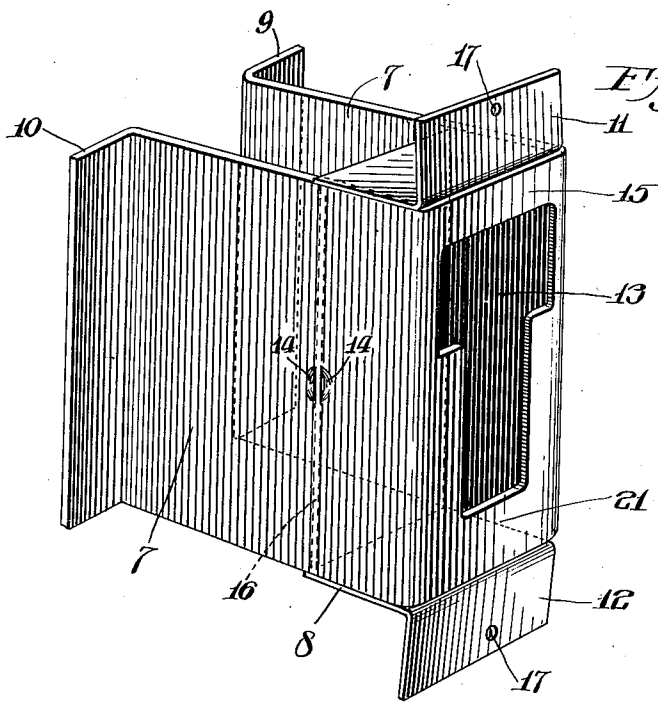


Fig. 4.

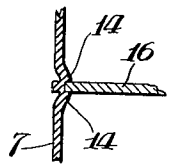


Fig. 2.

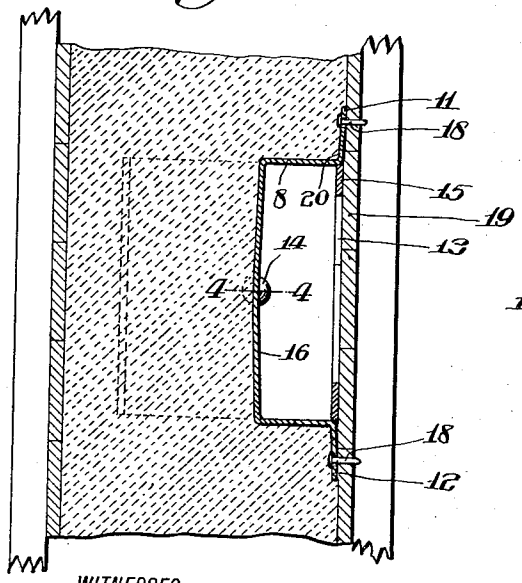
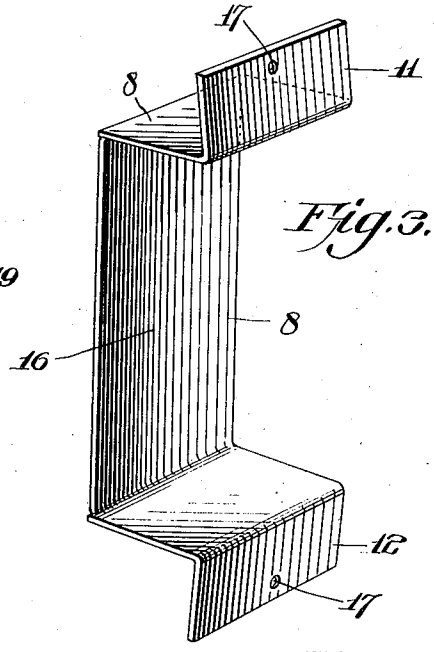


Fig. 3.



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HANGER-SOCKET FOR CONCRETE WORK.

1,201,540. Specification of Letters Patent. Patented Oct. 17, 1916.

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To all whom it may concern:

Be it known that I, WALTER D. BANES, a citizen of the United States, residing at Germantown, in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Hanger-Socket for Concrete Work, of which the following is a specification.

My invention relates to improvements in sockets for bolts or other hangers in connection with concrete structures.

The object is to provide an extremely simple, inexpensive and efficient socket structure adapted for use in connection with concrete work.

Referring to the drawings, which illustrate merely by way of example, suitable means for the embodiment of my invention, Figure 1 is a view in perspective of a socket structure embodying my invention. Fig. 2 is a vertical section of such structure on a slightly reduced scale and shown embedded in the concrete. Fig. 3 is a perspective view of one element of the socket structure. Fig. 4 is a fragmentary section on line 4—4 of Fig. 2.

Similar numerals refer to similar parts throughout the several views.

The socket structure is composed of two elements 7 and 8 made of pressed sheet metal. The element 7 is U-shaped and provided with the flanges 9 and 10. The element 8 is U-shaped and provided with the flanges 11 and 12. The bridge part 15 of element 7 is provided with the key-slot or other suitable opening 13. The bridge part 16 of element 8 is adapted to fit between the two parallel walls of element 7 and forms one wall of the socket into which the key-slot 13 opens. Elements 7 and 8 are locked together by means of the lips 14 which are pressed over the margins of the bridge portion 16 of element 8 as shown in Fig. 4. In this way the two elements 7 and 8 are firmly locked together and form a substantially tight box or receptacle between the bridge wall 16 and two adjacent parallel walls of element 8, and the bridge wall 15 of the adjacent and parallel walls of element 7. The flanges 11 and 12 are provided with the apertures 17 for receiving the nails 18 as will be described. It will thus be seen that the entire structure may be made with great economy from elements struck and pressed from sheet metal. Preferably the metal of element 8 is spring metal.

In operation the socket structure is placed with the end provided with the T-slot 13 and flanges 11 and 12 against the form 19 and the nails 18 are then driven into the form bringing the flanges in close contact therewith. It will be noted that the line of bend or angle between the flange 11 or 12, and the adjacent wall of element 8 is slightly removed from the front surface or face of the bridge part 15 of element 7. It is also to be noted that the only points of locking engagement between the elements 7 and 8 are the points where the bridge part 16 of element 8, are engaged between the lips 14 of element 7, so that the element 8 might be said to be suspended from the middle portion thereof where the same is engaged between said lips 14. When the flange portions 11 and 12 are brought down tight against the form 19 the tendency is to bend the bridge portion 16 and also the flanges 11 and 12. Since as above pointed out, the angle as at 20 between flange 11 and the main body of member 8 does not extend down to the front face of element 7. This places the entire extension of member 8 between the nails 18 and the locking lips 14 under a spring tension, which spring tension is communicated through the lips 14 to the element 7 and results in maintaining the face 21 of member 7 firmly pressed against the surface of the form 19. As there is a certain amount of play between the two elements, it follows that the face 21 will accommodate itself to the surface of the form 19 and maintain a sufficiently tight joint therewith to prevent the entrance of concrete into the socket while the same is being placed around the body thereof.

When the concrete becomes set the flanges 9 and 10 of member 7 efficiently anchor the structure in the concrete, and when the form is removed the surface 21 of the socket appears flush with the surrounding surface or wall of concrete. Element 8 serves to cover that portion of the space between the walls of element 7 which is utilized as the socket space to prevent the entrance thereof of concrete and also to maintain the elements against the form while the concrete is being filled in. Element 8 may be made of much lighter sheet metal than that used for pro-

ducing element 7, since after the concrete has set, the element 8 has practically no further work to perform. For these several reasons an extremely economical structure is formed by two pressed metal elements each made of such weight and strength as to meet its respective requirements. As the blanks are rectangular in formation, and as the bends are straight bends, it also follows that the structure is one of extreme simplicity and economy both in material used and the operations required in forming the same. The structure is such also as to enable one to secure the maximum strength exactly where such maximum strength is required.

What I claim:

1. A hanger socket comprising oppositely disposed U-shaped elements, the parallel walls of one element overlapping vertical edges of the second element, and the parallel walls of the second element overlapping horizontal edges of the first element.

2. A hanger socket comprising oppositely disposed U-shaped elements, the bridge of one element secured to the adjacent parallel side walls of the second element and parallel walls of each element overlapping the oppositely disposed edges of the walls of the other element.

3. A hanger socket comprising oppositely disposed U-shaped elements, the bridge of one element secured to the adjacent side walls of the other element by upsetting embracing lips from said adjacent side walls.

4. A hanger socket comprising oppositely disposed U-shaped elements, one element having its edges connected to the embracing side walls of the second element by upsetting, and provided with securing flanges flanking the bridge extension of said second element whereby resilient tension is exerted between said flanges and said points of connection.

5. A hanger socket comprising oppositely disposed U-shaped elements, each embracing a part of the other, one element having a slotted bridge, the other element formed of resilient sheet metal having its bridge secured at points midway its extension to the adjacent side walls of the first element and having securing flanges embracing the bridge extension of said first element and adapted to extend near the plane of said slotted bridge so that said slotted bridge is held with resilient tension against the surface to which the securing flanges are attached.

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Witnesses:
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