Oct. 10, 1933. J. LINER 1,930,102

METHOD OF MAKING A SOCKETED WALL

Original Filed Dec. 18, 1930 2 Sheets-Sheet 1

Fig. 1

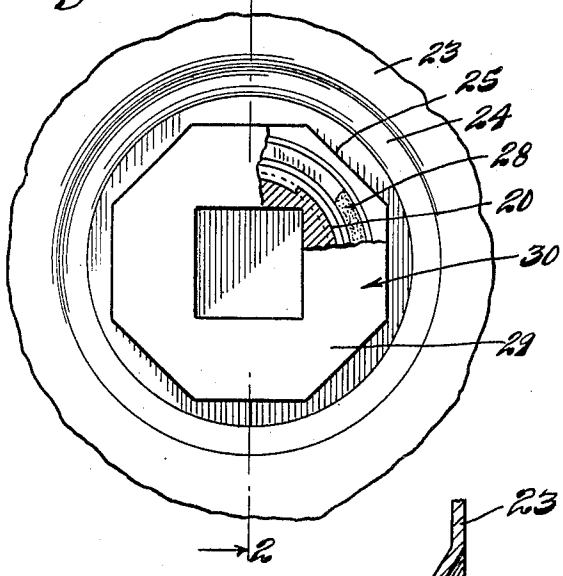


Fig. 2

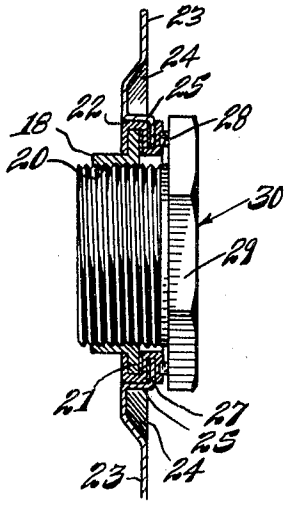
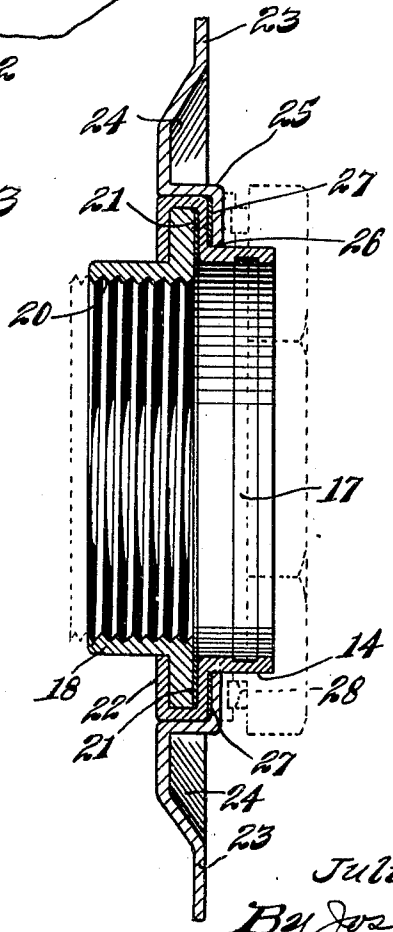


Fig. 3



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Fig. 4

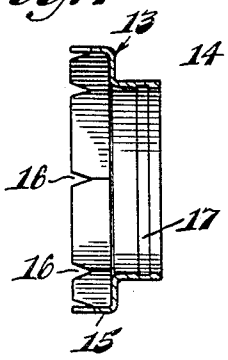


Fig. 5

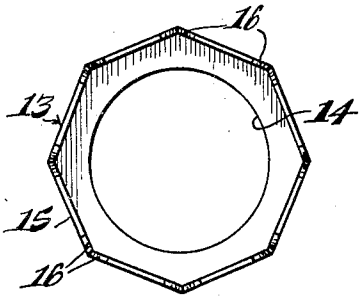


Fig. 6

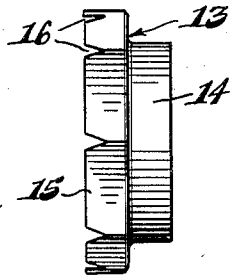


Fig. 7

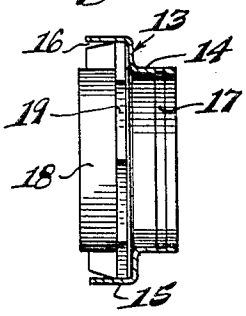


Fig. 8

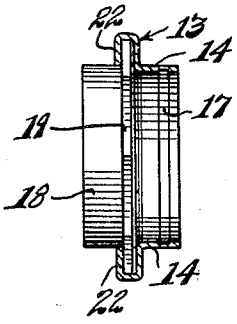


Fig. 9

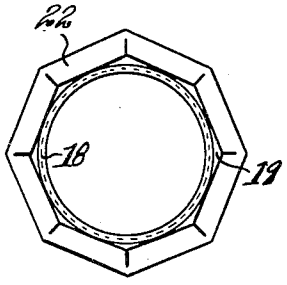


Fig. 10

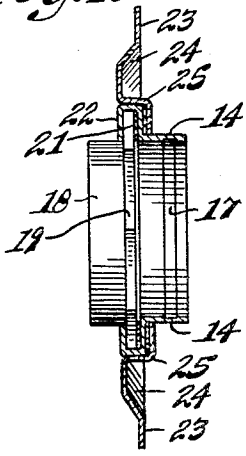


Fig. 11

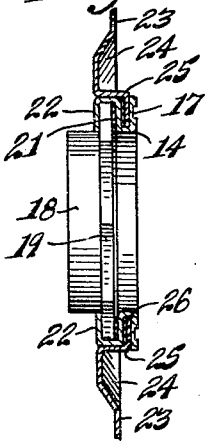
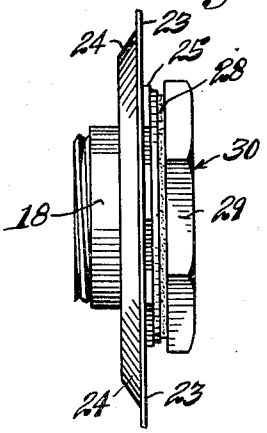


Fig. 12



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Patented Oct. 10, 1933

1,930,102

UNITED STATES PATENT OFFICE

1,930,102

METHOD OF MAKING A SOCKETED WALL

Julius Liner, Chicago, Ill., assignor of one-half to Joshua R. H. Potts, Chicago, Ill.

Original application December 18, 1930, Serial No. 503,184. Divided and this application October 23, 1931. Serial No. 570,611

7 Claims. (Cl. 29—148.2)

The subject matter of this invention has been divided from an application filed by me on December 18, 1930, and given Serial No. 503,184, entitled "Socketed wall and method of making the same."

This invention relates to a method of making a socketed wall, and an object of the invention is the provision of a method whereby a wall may be provided with a socket for the reception of a detachable member.

Another object is the provision of a method which is highly efficient, inexpensive, and which will produce a socketed wall having many additional advantages over the ones now in existence. A further object is the provision of a method which will provide a socketed wall in which the socket will be maintained strongly in the opening and will engage the wall more tightly after it has been used a number of times.

The product of my method may be used where it is desired to contain fluids in a sheet metal container and provide an outlet which may be sealed during shipment, handling, or storage of the container of fluid.

Another object of the invention is the provision of an economical method of manufacture by which the socket may be held firmly in the desired position and not be permitted to turn when a detachable plug is turned tightly into the threaded socket member.

Other objects will appear hereinafter.

The invention consists in the steps and operations and arrangements of parts hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings, forming a part of this specification, and in which:

Fig. 1 is a top view, with parts broken away, showing a container wall with a plug inserted therein, the portion broken away exposing an annular groove which provides a seat for a gasket which may be inserted under the cap or plug;

Fig. 2 is a sectional view, taken substantially on the line 2—2 of Fig. 1;

Fig. 3 is a sectional view, showing the relation of parts of the product after some steps of my method have been taken;

Fig. 4 is a sectional view, showing my anchoring device which is used in one of the first steps of the provision of the socketed wall;

Fig. 5 is a bottom plan view of the anchoring device shown in Fig. 4;

Fig. 6 is a side elevational view of the anchoring device;

Fig. 7 is a sectional view of the anchoring device after what is commonly known in the art as a flange has been inserted; hereinafter the flange will be called a socket, and, as shown in Fig. 7, the flange of the socket is polygonal in outline;

Fig. 8 is a sectional view of the anchoring device, with polygonal portions of the anchoring device bent over the polygonal flange portions of the socket member;

Fig. 9 is a bottom plan view of the socket, with polygonal portions of the anchoring device bent over the flange portions of the socket;

Fig. 10 is a sectional view of the parts shown in Fig. 8 after they have been inserted into an appropriately formed container wall;

Fig. 11 is a sectional view of the parts shown in Fig. 10, after the upper portion of the anchoring device has been pressed down over the perimeter of the opening in the container wall; and

Fig. 12 is a side elevational view showing the complete socketed wall provided with a gasket and plug member.

The preferred embodiment of the steps of my invention illustrated in the accompanying drawings comprises using an anchoring device 13 having at one end thereof a cylindrical portion 14 and at the other end thereof a polygonal portion 15 of greater perimeter than the perimeter of the cylindrical portion 14, cutouts or notches 16 in the polygonal portion of anchoring device or tube 13. Gasket groove 17 is provided in the cylindrical end 14 of the tube. A socket 18 having a polygonal flange 19 and internally threaded portion 20 may be inserted in the polygonally formed portion 15 of anchoring device 13, after suitable gasket material 21 has been inserted in the polygonal end of the anchoring device. The extreme end portions 22 of the polygonal portion 15 may then be pressed down over flange 19 of socket member 18. Cutouts or notches 16, being of proper shape and size, will permit of a smooth fit of the portions 22, as illustrated more clearly in Fig. 9.

Container wall 23 may be provided with a depressed portion 24, and a shoulder 25 having a polygonal form in cross section. Opening 26 may be formed in the wall and may be circular in cross-section.

The cylindrical end of anchoring device 13 may be inserted in the circular opening 26 of the wall 22, after suitable gasket material 27 has been inserted within the polygonal shoulder 25 of wall 23, and then the cylindrical end of an-

choring device 13 may be pressed or peened over the perimeter of circular opening 26. It can be seen that gasket groove 17 will then be in proper position to receive the gasket 28 beneath the polygonal flange 29 of a plug 30.

It may be seen that my method produces a socketed wall in which the flange of the socket member will be held in tight engagement with the socketed wall, be held securely against rotational movement relative to the socketed wall, and in which the insertion and tightening of the plug 29 will cause a more secure engagement of the wall by the anchoring device. It can also be seen that the socket will be retained rigidly within the opening even when plug 30 is subjected to heavy blows while a container is in transit or storage. The flange 29 will be pressed more tightly against the peened end 14 of anchoring device 13, and consequently will grip wall 23 more tightly, and at the same time absorb the force of the blow and prevent it from forcing out the peened or pressed ends of portion 15 of the anchoring device.

While I have illustrated and described my preferred method of constructing the socketed wall, it can be seen that certain variations and modifications may be made without departing from the spirit of my invention, and hence I do not wish to be limited to the details as set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. The method of providing a sheet metal wall having an opening, with a socket having a flange, comprising pressing a shoulder around said opening, anchoring said socket to said shoulder by pressing one end of a piece of metal tubing to embrace the flange of said socket, inserting the other end of said tubing into said opening until the flange covered by the metal tubing is pressed against the shoulder surrounding said opening, then pressing the other end of said tubing down over the perimeter of said opening.

2. The method of anchoring a flanged socket into an opening of a sheet metal wall, comprising pressing a shoulder around said opening, pressing one end of a sheet metal tube to embrace the flange of said socket, inserting the other end of said tube into said opening, and pressing the tubing down over the perimeter of said opening.

3. The method of anchoring a flanged socket to a wall provided with an opening, comprising formation of a member one end of which is adapted to embrace the flange of the socket, passing the free end of said member through the opening of said wall, and pressing the end over the perimeter of said opening.

4. The method of providing a sheet metal wall having an opening, with a socket, comprising embracing a portion of a socket member by one end of a metal tube, inserting the other end of said tube through said opening in said wall, and pressing the protruding portion of said tube over the perimeter of said opening.

5. The method of providing a sheet metal wall having an opening, with a socket, comprising the protrusion through said opening of one end of a member, the other end of which embraces said socket, and pressing the protruding portion of said member over the perimeter of said opening.

6. The method of anchoring a socket having a polygonal flange into an opening of a sheet metal wall, comprising pressing a polygonal shoulder around said opening, pressing the polygonal end of a tube to embrace the polygonal flange of said socket, the insertion of the other end of said tube into the opening of said wall in such a manner as to cause the polygonal shoulder surrounding said opening to embrace the polygonal portion of said tube embracing the polygonal flange of said socket, and pressing the free end of said tube over the perimeter of said opening.

7. The method of attaching a socket member to a wall opening, comprising the protruding of one end of a tubular member through said opening, pressing the protruding end over the perimeter of said opening, and embracing said socket member by the other end of said tubular member.

JULIUS LINER.