

(No Model.)

C. E. SMITH.
SINK PLUG.

No. 537,864.

Patented Apr. 23, 1895.

Fig. 1.

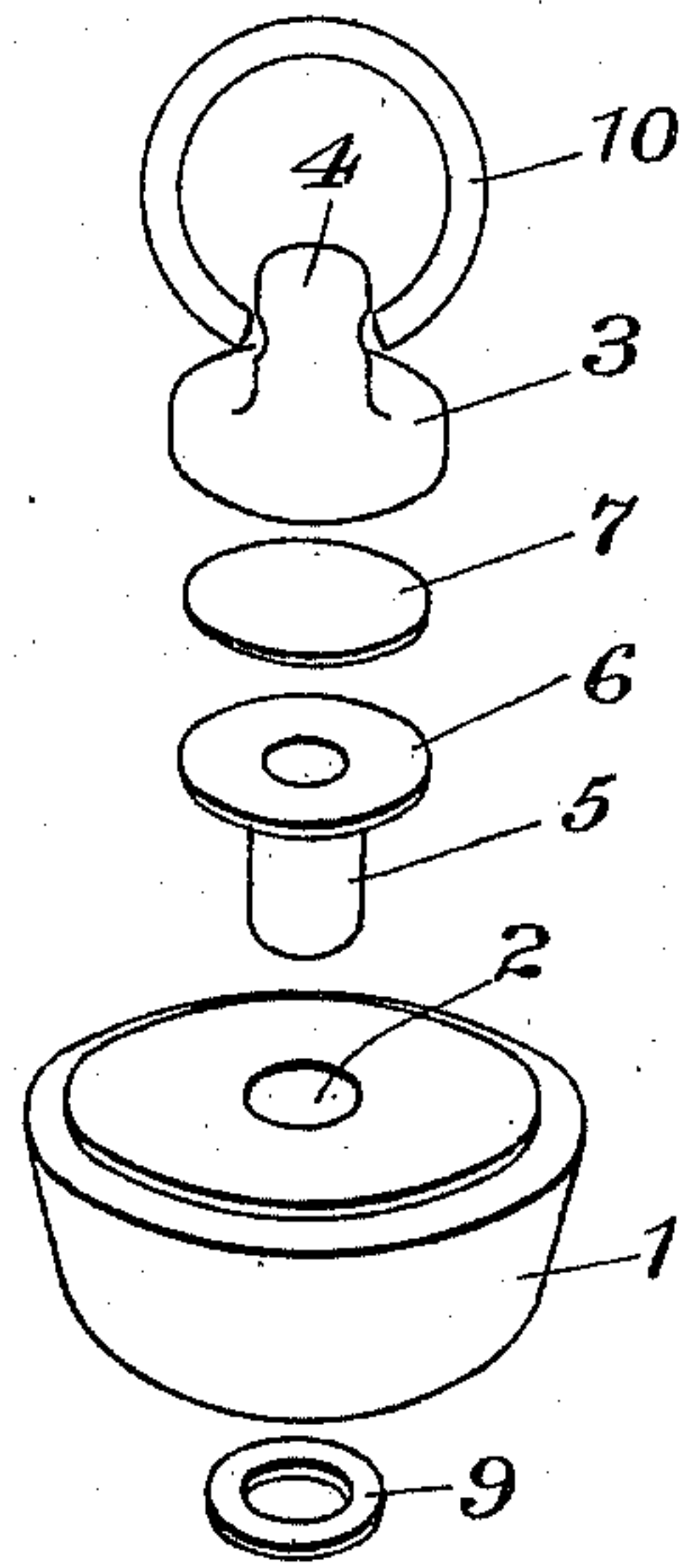


Fig. 2.

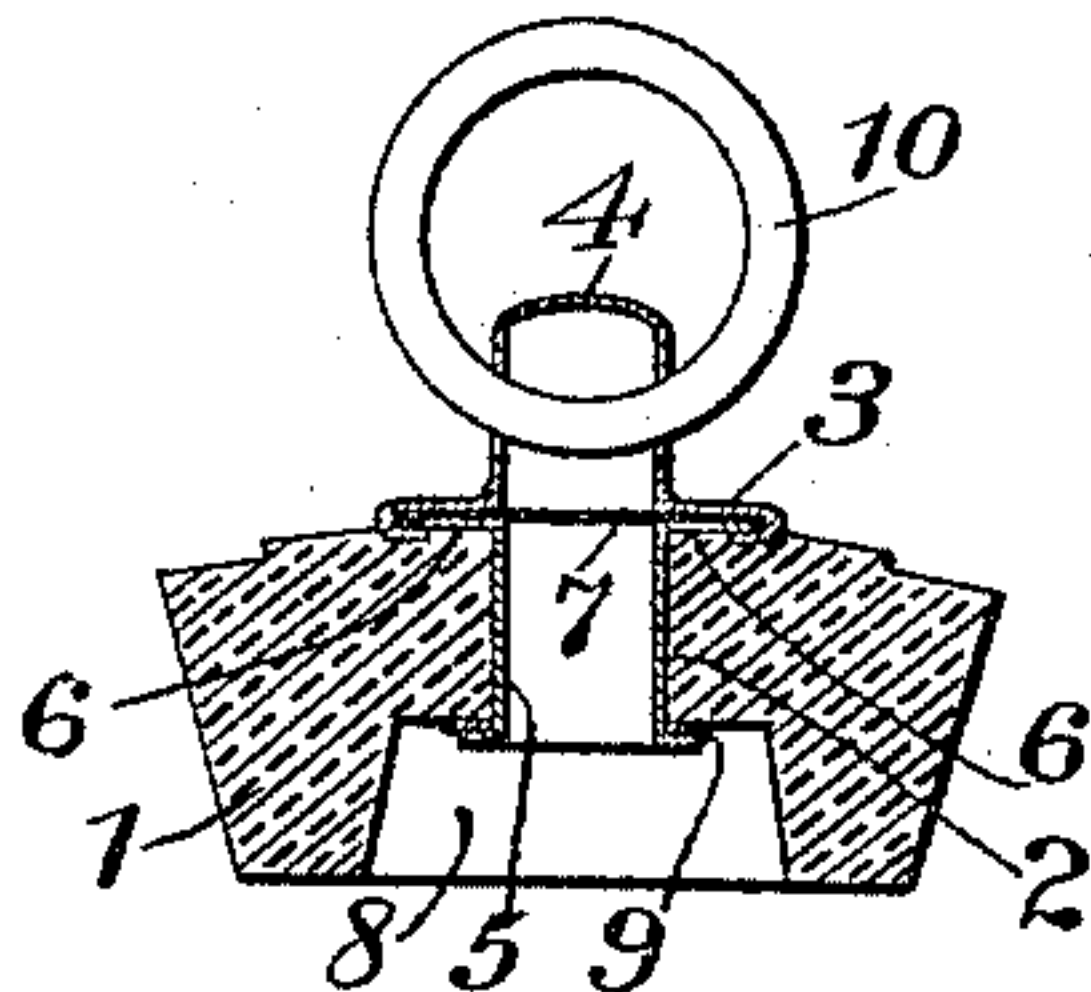


Fig. 3.

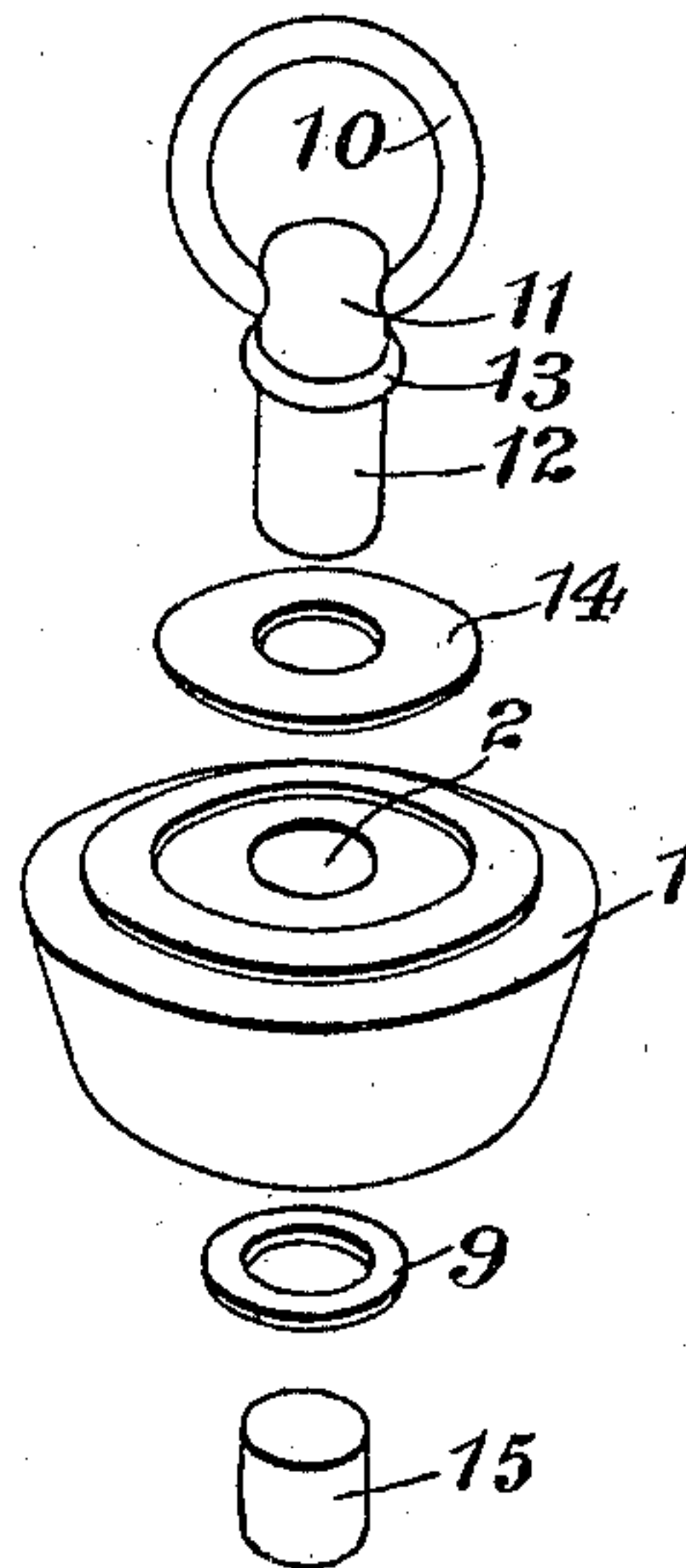


Fig. 4.

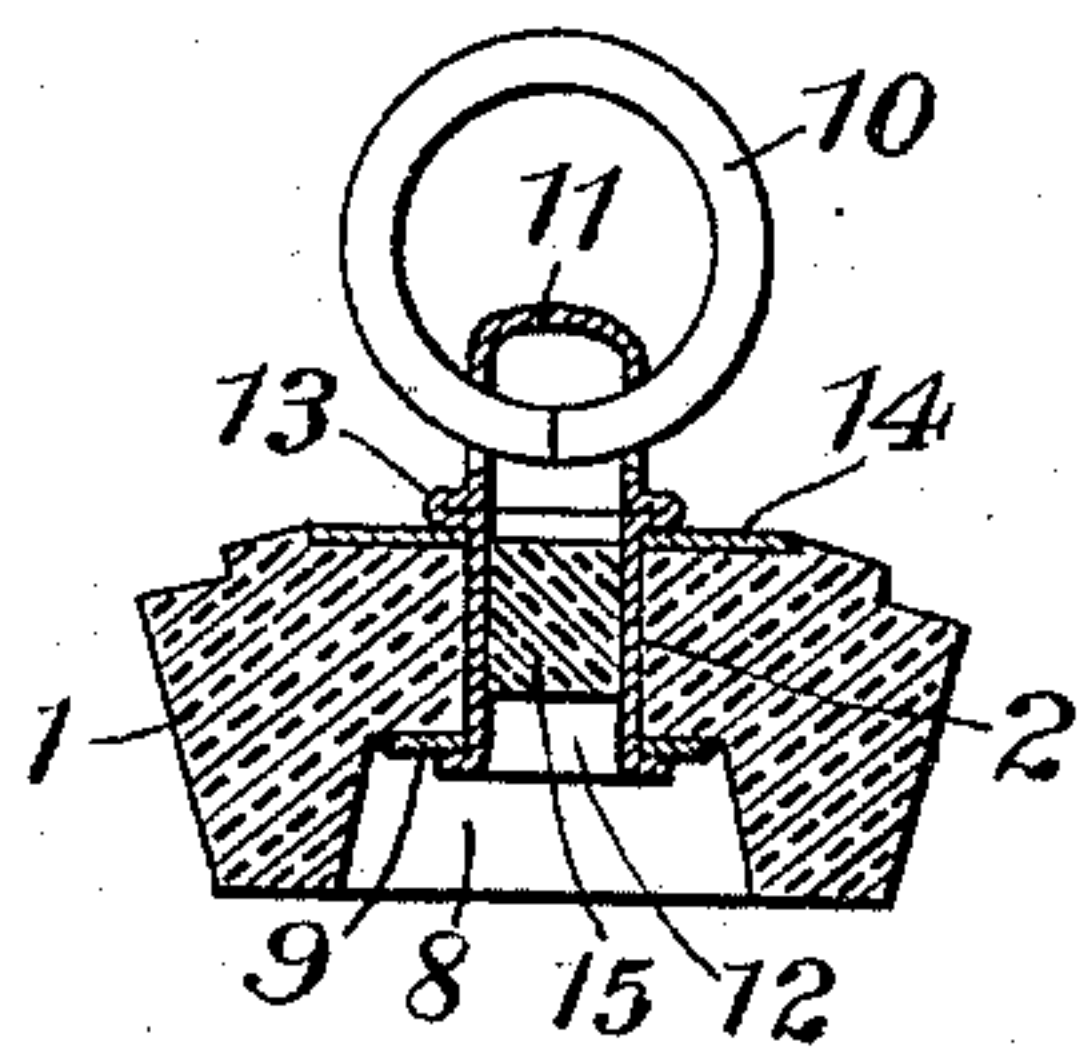
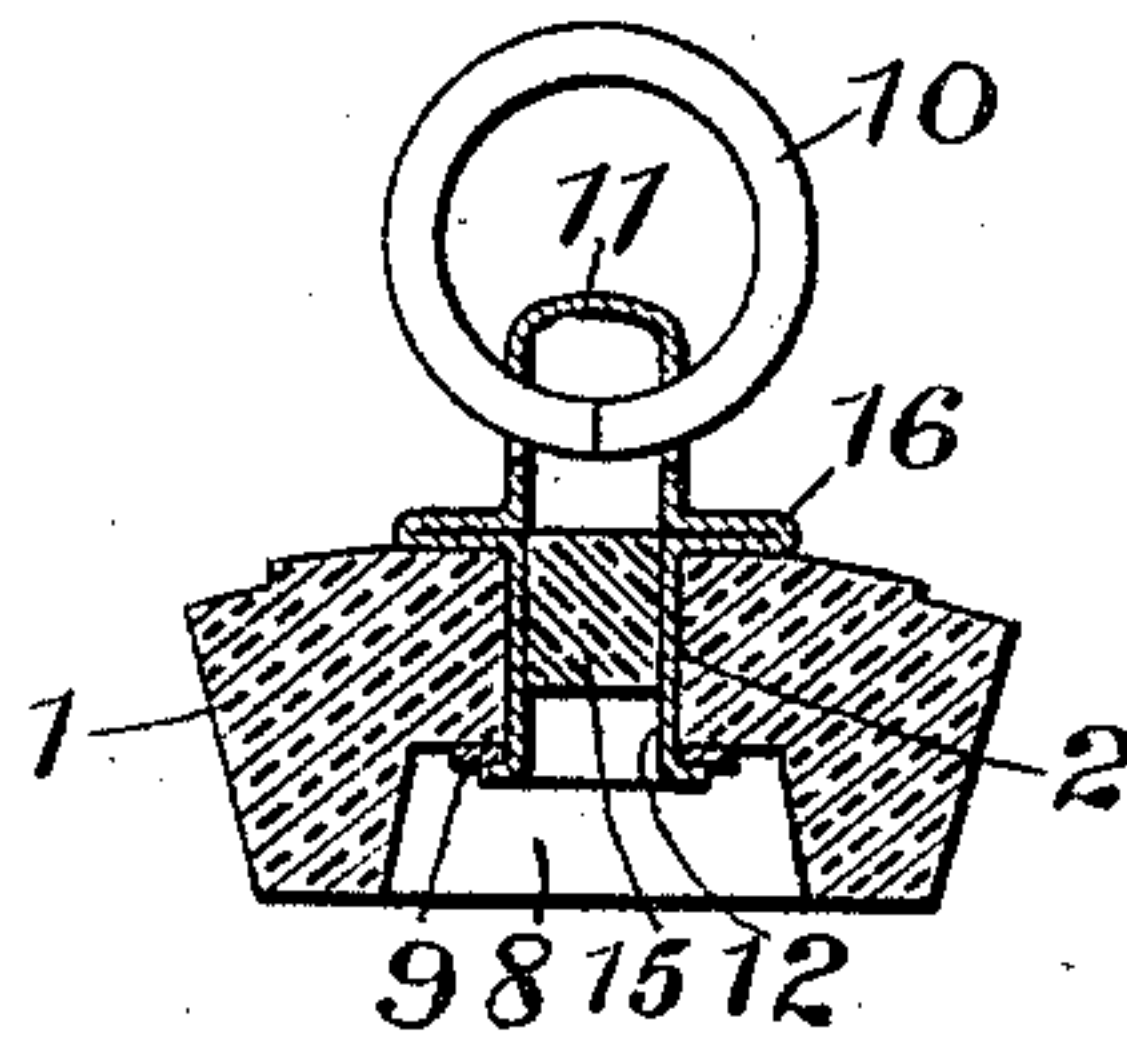


Fig. 5.



WITNESSES:

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SINK-PLUG.

SPECIFICATION forming part of Letters Patent No. 537,864, dated April 23, 1895.

Application filed February 13, 1895. Serial No. 538,275. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SMITH, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Sink-Plugs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in sink plugs, the nature and object of which will be best understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective showing the parts of my improvement disconnected but in proper relative position preparatory to assembly; Fig. 2, a sectional elevation of my improved plug; Fig. 3, a view similar to Fig. 1 but showing a modified form of my improvement; Fig. 4, a sectional elevation of a completed plug constructed after the modification shown at Fig. 3, and Fig. 5 a sectional elevation of an additional modified form of my improvement.

Similar numbers of reference denote like parts in the several figures of the drawings.

1 is a usual rubber plug having there-through from top to bottom a perforation 2.

3 is a cap plate and 4 a nub which are drawn up integrally from a single piece of sheet metal.

5 is a tube provided at its upper end with a flange 6 adapted to fit within the lower part of the cap plate 3, and 7 is a thin disk preferably of metal interposed between the flange 6 and said plate for the purpose presently explained.

In constructing my improvement I place the disk 7 and flange 6 within the bottom of the cap plate 3 so that the disk will be interposed between said flange and plate, and then, by any suitable mechanical means, curl or bead over the lower edge of said plate around the peripheries of said disk and flange and beneath the bottom of the flange as clearly shown at Fig. 2. This firmly unites the cap plate, disk and tube together. The tube is then inserted through the perforation 2 within a recess 8 formed in the plug, and a washer

9 is then placed around the bottom of the tube and the edges of the latter are spread and set firmly over against the bottom of the washer thereby drawing all the parts firmly together. The nub 4 is perforated and a ring 10 is placed therein. The disk 7 prevents any leakage through the plug, while the cap plate 3 presents a smooth, rounded and finished appearance upon the top of the plug.

At Fig. 3 I have shown a nub 11 and tube 12 made integral with a swaged offset 13 extending around the same to afford a shoulder which sets against a washer 14, as shown at Fig. 4 this washer being placed on top of the plug, the top being secured in position precisely in the same manner as that hereinbefore described. In this construction shown at Fig. 4 a block 15 of rubber is driven upward within the tube to prevent leakage through the plug.

At Fig. 5 I have shown a construction which is the same as that shown at Fig. 4 with the exception that the washer on top of the plug is dispensed with and a swaged offset 16 formed around the tube of sufficient width to serve the purposes of the washer. I however prefer the construction shown at Figs. 1 and 2 since it can be manufactured cheaper than the other constructions, owing to the fact that it is extremely difficult to draw up a long tube such as is shown at Figs. 4 and 5, and for the further reason that a good finish may be placed upon the several parts shown at Fig. 1 by means of tumbling, whereas the parts shown at Figs. 4 and 5 could not be tumbled with good results but would require further finishing by hand.

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

1. A sink plug comprising a rubber body recessed at the bottom and having a perforation extending therethrough from top to bottom, a cap plate on top of said plug and having a hollow perforated nub rising therefrom, a ring within said nub, a tube rigid with said plate and passed through the perforation in the plug, a washer around the bottom of the tube and against which washer the edges of the tube are expanded, and a disk within said tube to render the latter water tight, substantially as set forth.

2. The combination of the rubber plug recessed at the bottom and having a perforation extending therethrough from top to bottom, the cap plate surmounting the plug and
5 having rising therefrom a hollow perforated nub, the ring within said nub, the tube extending through the perforation in the plug and having a flange extending from its upper end, the disk interposed between said flange
10 and cap plate, the edge of the latter being curled around said disk and flange below the

bottom of the latter, and the washer around the lower end of the tube and against which washer the bottom of the tube is expanded, substantially as set forth. 15

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES E. SMITH.

Witnesses:

F. W. SMITH, Jr.,
M. T. LONGDEN.