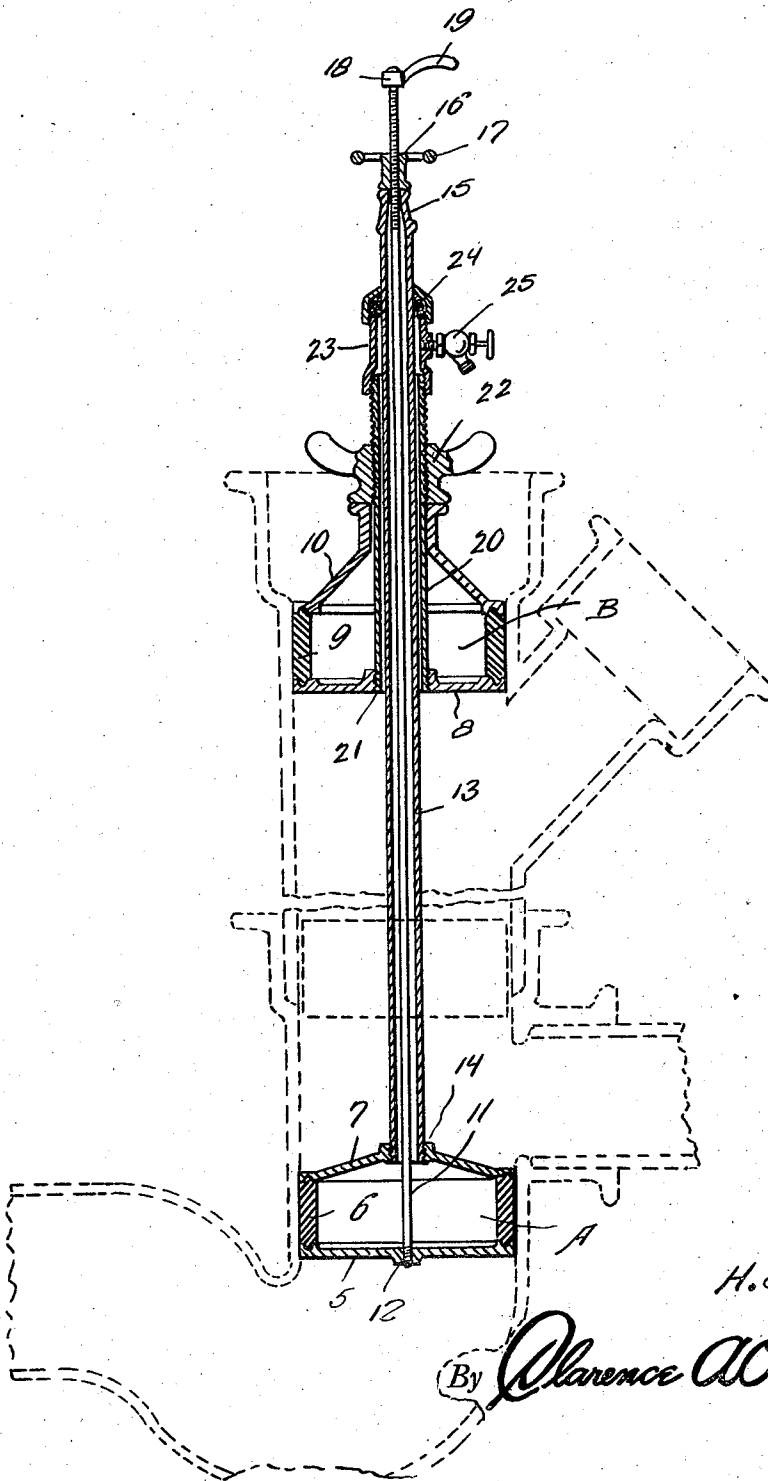


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DOUBLE TEST PLUG
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DOUBLE TEST PLUG.

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The present invention relates to a double test plug such as is in common use in testing the draw-in and stack system of any plumbing system, all such plugs now on the market 5 having the disadvantage of not being adjustable to the fittings of varying lengths. The rubber rings of these plugs bear fully against the fitting and on being compressed, cut by the edge of the fitting. It often happens also that the fittings, are too long or 10 too short to take the test plug at all, and consequently repeated blacksmithing becomes necessary from job to job either to shorten or lengthen the test plugs.

15 The principal object of the present invention is to overcome the disadvantages and objections pointed out as common to the contrivances now on the market and to provide a double test plug which is simple in construction, and reliable in operation, besides possessing the capacity for long and 20 continued service.

A still further very important object of the invention is to provide a double test 25 plug of this nature which is exceedingly simple in its construction, easy to adjust, inexpensive to manufacture, not likely to easily become out of order, and otherwise well adapted to the purpose for which it is designed. 30

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in 35 the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:—

40 The figure is a longitudinal section through the double test plug embodying the features of my invention.

Referring to the drawing in detail, it will be seen that the letter A designates generally the lower plug and the letter B the upper 45 plug. The lower plug A includes the usual bottom casting 5, rubber ring 6, and upper casting which is of a frusto-conical formation so that the center thereof may be moved downwardly for expanding the rubber ring 50 6 in the fitting. Plug B includes a bottom 8, a rubber ring 9, and a frusto-conical shaped top casting 10. A rod 11 is threadedly engaged at one end to the center of the bottom 5 as at 12 and extends upwardly through 55 a tube 13 threadedly engaged with the center

of the upper casting 7 as at 14. The tube 13 and the rod 11 extend through openings provided in the castings 8 and 10.

The upper end of the tube 13 is reduced as at 15 for the purpose of forming a shoulder. 60 A nut 16 having an operating wheel 17 is threaded on the upper portion of the rod 11 for engaging the shoulder 15 so that the tube 13 may be moved downwardly over the rod 11 for the purpose of expanding the ring 65 6 in a fitting. A lock nut 18 is also threaded on the upper end of the rod 11 to anchor handle 19 to rod 11. A tube 20 is threadedly engaged with the bottom casting 8 as at 21, and extends upwardly through the opening 70 in the top casting 10, and the portion of the tube above the top casting 10 is threaded on its exterior surface for the purpose of receiving a wing nut 22 which engages the 75 casting 10 for the purpose of expanding the ring 12 in a casting. The tube 20 extends about the tube 13 in spaced relation thereto.

A coupling or fitting 23 is threadedly engaged on the upper end of the tube 20 and 80 has a stuffing box 24 engaged about the tube 13. A cock 25 is engaged in the fitting 23.

From the above detailed description, it will be seen that my novel contribution to this art includes particularly, the sub-combination made up of the plug B with its 85 tube 20, fitting 23, the stuffing box 24. These elements forming the sub-combination, may be used on practically all of the test plugs now on the market in place of the usual top 90 plugs. This sub-combination acts as an adjustable unit in sliding up and down on the tube 13, so the upper rubber ring can be placed as may be necessary to hold tight when the nut 22 is actuated. The various 95 plumbing fittings on the market are made in different lengths and if the rubber rings are used correctly, they will last some time. If they are used so as to engage right on the edge of a fitting, it will be found that after a very few usages, the rubber rings be- 100 come cracked and useless.

The adjustment provided by the sub-combination prevent disadvantages and also provide labor saving advantages where a short fitting would require cutting pipe and rod on 105 a non-adjustable double test plug. To install, this device, top plug is slid up to the shoulder formed by the fitting 23, thus allowing the mechanic to see just where the bottom plug is going to strike. Then by 110

holding handle 19 and turning down on wheel 17, the rubber ring 6 is expanded or bulged outwardly to engage the inside wall of the pipe or fitting or to make a tight joint therewith. The sub-combination unit mentioned above, may then be pushed downwardly to the place desired and the rubber ring 9 engaged by actuation of the nut 22. The job can then be filled with water in the usual well known manner. In case the mechanic desires to draw the water out over night, this may be accomplished by turning wheel 17 and on resuming the test the wheel 13 may be turned in the opposite direction for tightening the band 6 so that there is no time lost in cutting or fitting of plugs at every test.

It is thought that the construction, operation, and advantages of this invention will now be clearly understood without a more detailed description thereof. The present embodiment of the invention has been disclosed in detail merely by way of example, since in actual practice, it attains the features of advantage enumerated as desirable in the statement of the invention and the above description.

Numerous changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of

the invention as hereinafter claimed, or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

A double test plug of the class described including, in combination, a bottom plug comprising a bottom casting, a ring on the casting and a top frusto-conical shaped casting, a tube engaged with the center of the top casting and extending upwardly therefrom, a rod engaged with the center of the bottom casting and extending upwardly through the tube, a nut threaded on the upper end of the rod for engaging the upper end of the tube for expanding the ring, a top plug comprising a second bottom casting disposed about the tube, a second ring thereon, and a second top frusto-conical casting disposed about the tube, a second tube engaged with the center of the second bottom casting and disposed about the first tube in spaced relation thereto and extending through the top casting of the upper plug, a nut threaded on the second tube for engaging the second upper casting, a fitting on the second tube including a stuffing box engaging the first tube for allowing the second tube to be slid over the first tube, and a cock in the fitting.

In testimony whereof I affix my signature.
HENRY J. PROVOST.