July 7, 1936. J. P. LEOFFERT 2,046,330

SERVICE VALVE BOX

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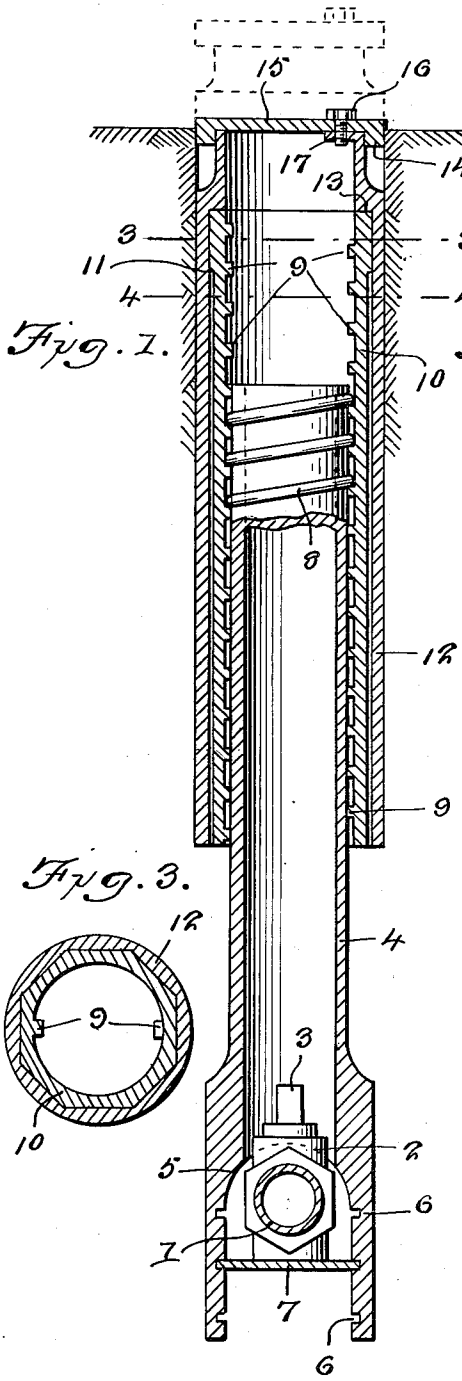

Fig. 1.

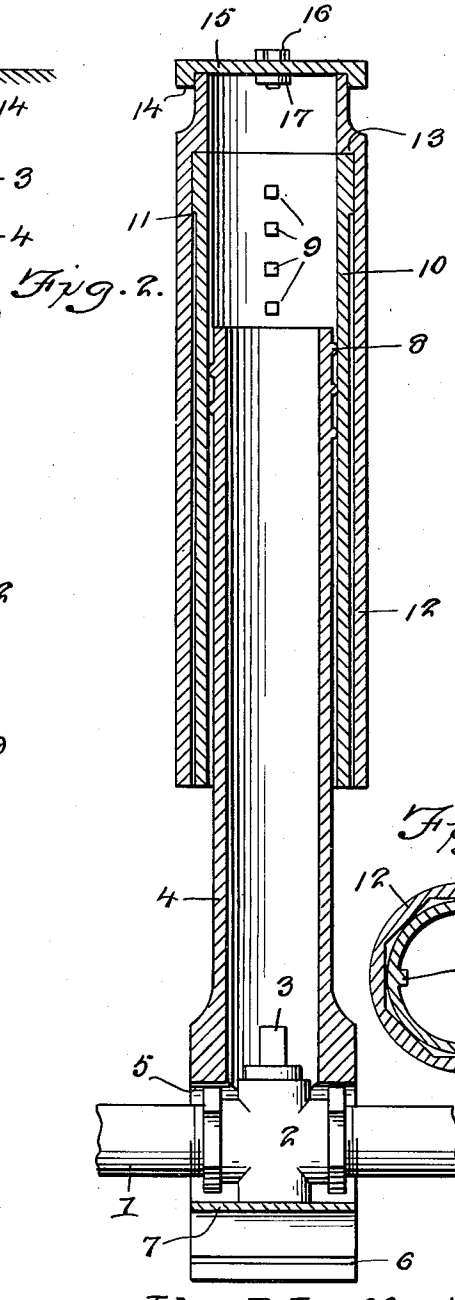

Fig. 2.

Fig. 3.

Fig. 4.

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SERVICE VALVE BOX

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1 Claim. (Cl. 137—13)

This invention relates to service boxes which give access to the cut-off valves of gas and water pipes, and has for its object the provision of a box in which the valve will be positively and firmly supported, the tendency of frost to lift the box will be come overcome and distortion of the valve from this cause will be avoided. The invention is illustrated in the accompanying drawing and consists in certain novel features which will be hereinafter first fully described and then more particularly defined in the appended claim.

In the drawing:

Figure 1 is a vertical section through a service box embodying the invention.

Figure 2 is a similar view taken in a plane at a right angle to Figure 1.

Figure 3 is a horizontal section on the line 3—3 of Figure 1.

Figure 4 is a similar view on the line 4—4 of Figure 1.

The reference numeral 1 indicates a gas or water service pipe and 2 designates a cut-off valve interposed in said pipe, the stem 3 of the valve being on the upper side. The service box comprises a tubular lower section 4 which has a forked or arched lower end 5 spanning the valve and provided in its side walls with horizontal grooves 6 in which a supporting plate 7 may be engaged to firmly support the valve and resist any tendency of the valve to settle or sink within the box, as shown and as will be understood.

The upper end of the box section 4 is open to permit the insertion of a key for engaging the stem 3 when the valve is to be opened or closed, and externally a thread 8 is formed around the upper end of the section to engage vertically spaced lugs 9 on the inner surface of the upper tubular box section 10, this construction and arrangement permitting the sections to be readily telescopically adjusted according to the depth of the valve. The upper box section 10 has an open upper end, of course, and its outer surface at said end is formed with a non-circular band or flange 11, the flange being preferably octagonal, as shown in Figure 3, although it may have any desired number of plane faces. Slidably fitted upon the upper box section is a sleeve or housing 12 which should be long enough to extend below the frost line, and the bore of the sleeve has a cross-sectional contour corresponding to the contour of the flange 11. The upper end of the sleeve is provided with an internal shoulder 13 which limits the downward movement of the sleeve by impinging upon the upper end of the box section 10, the end of the sleeve being externally reduced to accommodate the flange 14 of the cap 15 which is secured upon the sleeve by a screw 16 inserted through the cap and a lug 17 on the sleeve, as shown and as will be readily understood.

The action of frost in the ground is to lift the box and heretofore distortion of the box, displacement of the valve, and breakage of the pipe at the valve frequently resulted. With my construction, the valve is positively supported and the lifting action of frost is received by the sleeve which slides upward on the upper box section leaving the box intact and undisturbed. Should the sleeve remain raised, slight pressure from one's foot will push it back into place. Should the sleeve be cracked or broken it may be easily lifted and withdrawn without disturbing the box and a new sleeve just as easily slid into place over the box. The box is not apt to be cracked as it is housed in and by the sleeve.

Having described my invention, what I claim is:

A service box including telescopically adjustable upper and lower sections, and the lower section having its lower end widened and bifurcated to provide confronting straight walls, and which walls at points throughout the length thereof are provided with series of opposed transverse grooves to receive therein a removable plate and said plate affording an adjustable support for a cut off valve for a gas or water service pipe.

JOHN P. LEOFFERT.