

No. 613,652.

Patented Nov. 1, 1898.

**E. J. CHADBOURNE.  
STOP COCK BOX.**

(Application filed Mar. 14, 1898.)

(No Model.)

Fig. 2.

Fig. 1.

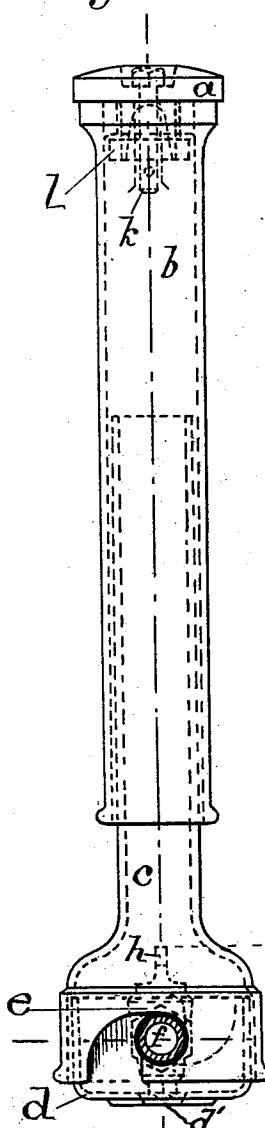


Fig. 3.

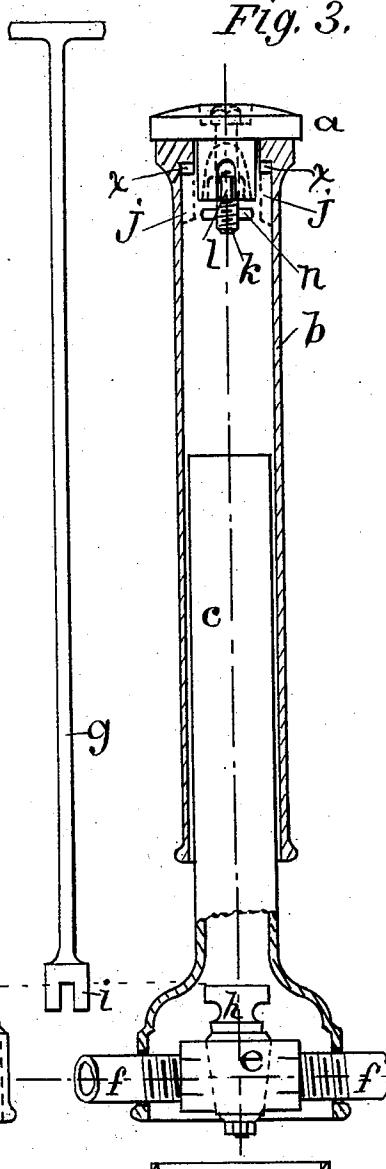


Fig. 4.

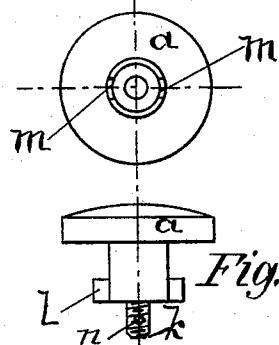


Fig. 5.

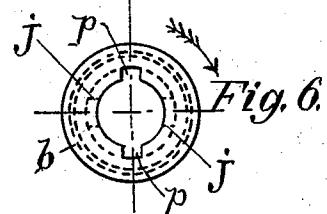


Fig. 7.

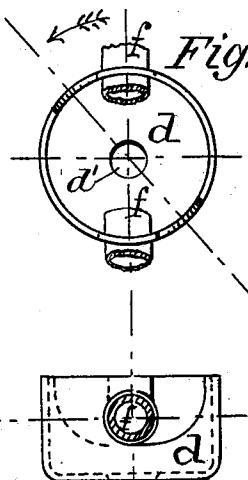


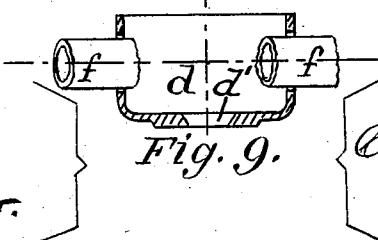
Fig. 8.

*Witnesses.*

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# UNITED STATES PATENT OFFICE.

EDWARD J. CHADBOURNE, OF WAKEFIELD, MASSACHUSETTS.

## STOP-COCK BOX.

SPECIFICATION forming part of Letters Patent No. 613,652, dated November 1, 1898.

Application filed March 14, 1898. Serial No. 673,841. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD JAMES CHADBOURNE, a citizen of the United States, residing in Wakefield, county of Middlesex, and 5 State of Massachusetts, have invented a new and useful Service-Cock Box, of which the following specification, including the accompanying drawings, bearing letters of reference herein referred to, is a full and exact 10 description.

My invention relates to improvements in service-cock boxes—in other words, to the means or device employed in connection with water-supply distribution to protect and give 15 access to the stop-cocks that are used underground to let on and shut off the supply of water to and from the consumer—my objects being to insure the most convenient accessibility with the operator's key to the stop-cock, 20 to protect said cock, to avoid danger of derangement by frost and temperature changes to the cock, and especially to simplify and render the device as inexpensive as possible.

I attain the objects noted by means of the 25 device illustrated and hereinafter more fully described.

Referring to the drawings, Figure 1 is an elevation including the box, a section of the supply-pipe, and the stop-cock; Fig. 2, an elevation showing key; and Fig. 3 is a corresponding sectional elevation taken at right angles to Fig. 1, the base *d* being omitted. Fig. 4 is an under view of cap *a*. Fig. 5 is a side elevation of same and showing lock-nut *l*, screw *k*, and 30 pin *n*. Fig. 6 is a plan without the cap. Fig. 7 is a plan of base *d* and parts of supply-pipe. Fig. 8 is a side elevation of base *d* corresponding to Fig. 1. Fig. 9 is a sectional elevation of same parts as shown in Figs. 7 and 8.

Like letters refer to the same or corresponding parts in all the figures.

The device consists of four main parts—viz., the cap *a*, including the lock-nut *l*, its screw *k*, and pin *n*, the body *b*, the lower body *c*, and the base *d*. Beginning with the base, its construction may be understood by reference to Figs. 1, 9, 8, and 7. This base is a simple casting, requiring no fitting, of pot form, having drainage-opening *d'* in the 45 bottom, which also admits the bottom end of cock *e*. It is provided with slots in the rim, suitable to receive the service-pipe, which

slots extend downward from its top and then around the circle horizontally something more than the semidiameter of the service-pipe. These slots are opposed to each other and extend around the circle in one direction. Thus the base-pot may be lifted from beneath the pipe entering the slots and then on being partially rotated locks itself upon the pipe, as 55 seen in Figs. 7 and 8, where it will hang upon the pipe or may be supported from beneath by filling under it. After this the lower body *c*, which is large enough at the lower end to 60 shut over it and is provided with upwardly-extending slots, similar to the downwardly-extending ones in the base, is then dropped on, embracing both the base and the pipe *f*, and on being partially rotated in the opposite direction is thereby locked down upon the pipe, 65 and consequently over and around the base, as seen in Fig. 1.

The locking-slots in the lower body and those in the base extend in opposite directions around the circle as they stand, although, of course, if one were inverted the slots would 70 then be seen to extend around in the same direction. These slots may leave the part overlapping the pipe a little hooking, as may be seen in Figs. 1 and 8.

The body *b* is made larger than the upper portion of the lower body *c*, so that it slips over it like a sleeve, more or less, according to the depth the pipe is laid from the surface of the ground, pavement, or sidewalk.

The top end of the body has an outer bead or rim for strength and an inner one having slots, as seen in Fig. 6 and dotted lines Fig. 1. These allow the lock-nut *l*, connected to the cap *a*, to drop through. The inner rim has 80 also the recesses *x* and stop *j*. (Shown in dotted lines, Fig. 6, and in Fig. 3.)

The cap *a* has a drooping rim in which are formed the slots *m*, in which the lock-nut is guided and turned about with the cap *a*.

A screw *k* has a seat or bearing in a depression in the top of the cap and, passing through the cap, is threaded to fit the lock-nut, and a pin *n* through it keeps the nut from accidentally screwing off. The top end 90 of this screw is made in any form to fit and be operated by the operator's key.

When it is required to put the cap on, it is dropped on, the inner rim entering the body-

top, the lock-bolt dropping through the slots *p*, (see Fig. 6,) after which the cap is turned until the lock-nut comes to the stops *j* or under the adjacent recesses *x*, (see Fig. 3,) when on turning the screw the lock-nut grips the inner rim of the body and the cap is fastened. When it is required to take the cap off, the reverse movement is given the screw until the nut drops clear of the recesses *x*, when the cap 10 may be turned till the lock-nut comes to slots *p* and is drawn up through them and the cap lifted. When the cap is off, the wrench or key *g* may be passed down to the cock *e*, and, gripping its plug *h* with its jaws *i*, the plug 15 is thereby easily turned for letting on or shutting off the water, and the whole device may also be used in similar cases for gas and other underground stop-cocks.

The parts may be simple iron castings except the screw *k*, nut *l*, and pin *n*, which are preferably of non-corrosive or non-oxidizable material.

The arrow in Fig. 7 indicates the direction the base is turned when locking it to the pipe. 25 The arrow in Fig. 6 indicates the direction the screw is turned when locking the cap. It also indicates the direction the lower body is turned when locking it to the pipe and so inclosing the base already locked thereto.

30 I claim—

1. In a stop-cock box, a pot-shaped bottom or base constructed with suspending-hooks formed in its sides to engage, and hang upon the pipe at either end of the stop-cock and 35 provided with a central drainage-hole into which the lower end of the stop-cock may protrude substantially as shown and described.

2. The combination of the described pot-like base having the suspending-hooks formed 40 in its sides, the horizontal pipe extending in opposite directions from the stop-cock, and an upwardly-extending sleeve or case inclosing said suspended pot and provided with hooks formed in its sides and engaging the

pipe from above substantially as shown and 45 described.

3. In a stop-cock box a base or lower portion inclosing the stop-cock by means of two sections or divisions the lower of which is inclosed by the upper one and having formed 50 in the sides of each section the pipe-engaging hooks operating together upon the pipe to thus inclose and protect the stop-cock and exclude the surrounding earth substantially as shown and described.

4. In a stop-cock box the top cover having a downwardly-projecting rim to enter the top of the box, said rim being provided with central vertical slots and also playing in said slots up and down and moved and controlled 60 by them, a horizontal lock-bar screwed at its center upon a screw projecting through the cover and provided with pentagon or other key-operated head, and a pin below the lock-bar to keep said bar from screwing fully off 65 and dropping, in combination with the described stops and holding lugs or flanges, substantially as shown and described.

5. The recess *x* in combination with the cover, lock-bar, stops, holding lugs or flanges, 70 and screw substantially as shown and described.

6. The stop-cock box having the four sections constructed and operating together as described, viz., the pot or base formed with 75 the suspension-hooks, the lower body inclosing said base with its pipe-hooks, the upper body inclosing said lower body, the cover constructed with the slotted internal downwardly-projecting rim grasping, and controlling the rotary movement of, the lock-bar, said lock-bar, screw, pin, stops and lugs or flanges, substantially as shown and described.

EDWARD J. CHADBOURNE.

Witnesses:

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EMERY GROVER.