F. M. JACOB.

EXTENSION SERVICE BOX.

APPLICATION FILED JAN. 8, 1908.

906,886. Patented Dec. 15, 1908

Fig. 1.

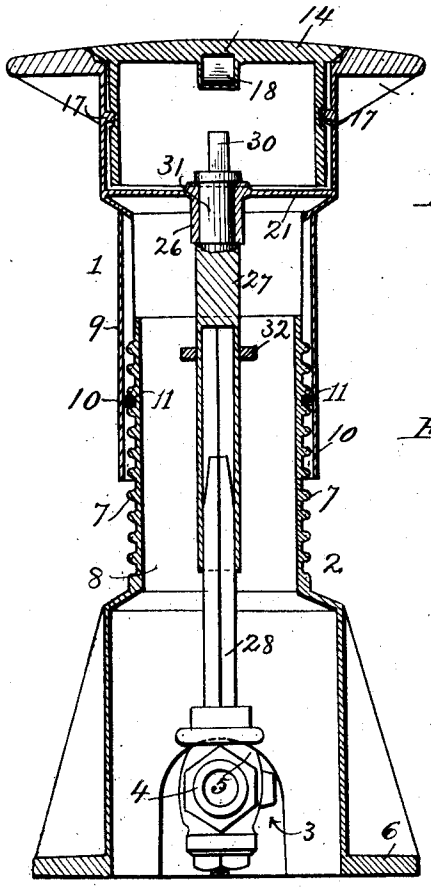


Fig. 2.

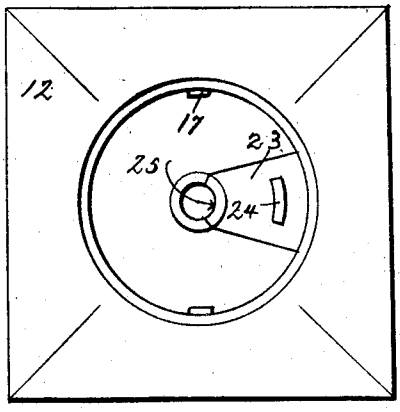


Fig. 3.

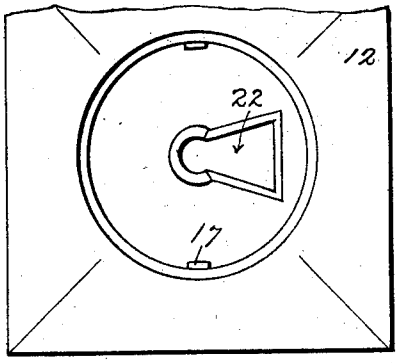
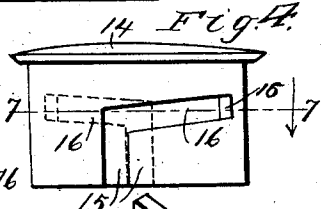


Fig. 4.



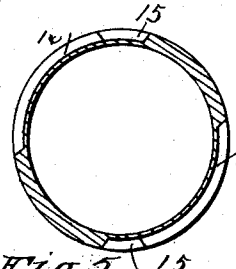


Fig. 5.

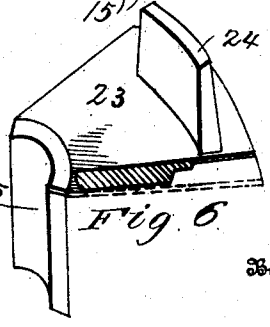
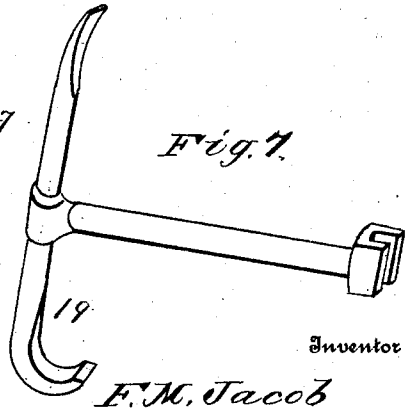


Fig. 6.

Fig. 7.



Inventor

F. M. Jacob

Witnesses:

By

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UNITED STATES PATENT OFFICE.

FRANCIS M. JACOB, OF COLUMBUS, MISSISSIPPI.

EXTENSION SERVICE-BOX.

No. 906,886. Specification of Letters Patent. Patented Dec. 15, 1908.

Application filed January 8, 1908. Serial No. 409,871.

To all whom it may concern:

Be it known that I, FRANCIS M. JACOB, a citizen of the United States, residing at Columbus, in the county of Lowndes and State of Mississippi, have invented certain new and useful Improvements in Extension Service-Boxes, of which the following is a specification.

This invention appertains to boxes for service pipes, such as water and gas, which boxes are extensible to admit of adapting them to different depths and to allow for adjustment for frost so as to have the top of the box about flush with the surface and not project and be in the way.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings.

While the invention may be adapted to different forms and conditions by changes in the structure and minor details without departing from the spirit or essential features thereof, still the preferred embodiment is shown in the accompanying drawings, in which:

Figure 1 is a vertical section. Fig. 2 is a plan view, having the cap removed. Fig. 3 is a view similar to Fig. 2, the key being omitted. Fig. 4 is a side view of the cap. Fig. 5 is a horizontal section of the same. Fig. 6 is a detail perspective view of the cover. Fig. 7 is a detail view of the key.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The box consists of an upper section 1 and a lower section 2. The base of the lower section is provided in opposite sides with notches 3 to receive the pipe 4 and admit of the waste or stop cock 5 entering the lower portion of the box so as to prevent the earth from crowding and obstructing the same. An outer flange 6 projects from the lower end of the section 2 and provides for obtaining an extended footing upon the earth to prevent settling of the box. This flange 6 also prevents withdrawal of the box by the weight of the earth packed thereon. The sections 1 and 2 are hollow and telescope and are held in an adjusted position by means of pins 10 passed through hollow ribs 9 of section 1 and engaging with cog teeth 7 of the section 2.

A cap 14 is adapted to close the upper end of the section 1 and its rim is formed in opposite sides with vertical grooves 15 from the upper ends of which extend grooves 16, the latter inclining slightly to the horizontal so as to coöperate with lugs 17 so as to draw the cap close upon the section 1 by imparting a rotary movement to said cap. An opening 18 is formed in the top of the cap 14 to receive the curved end of a key 19 or other tool by means of which said cap is turned and removed from the section 1.

A partition 21 extends across the upper section 1, preferably at the juncture of the extension 9 and is provided with a central opening to receive the upper end of an extension rod, by means of which the valve or plug of the cock 5 is turned. An opening 22 formed in one side of the partition 21 communicates with the central opening and admits of the upper section or member of the operating extension rod, being placed in position or removed, said opening being closed by means of a cover 23 which also engages with a side of the extension rod and holds the same in the central opening of the partition. The lug 24 projects upward from the cover 23 and forms a finger piece to admit of the cover 23 being conveniently removed or placed in position. The rim of the cap 14 is of such depth as to engage with the outer end of the cover 23 and hold the same in place. The cover is formed with a pendent portion 25 which passes through the opening 22 and prevents lateral movement of the cover. A gland 26 surrounds the central opening of the partition 21 and is pendent therefrom. A portion of the gland is formed by the inner portion 25 of the cover 23 to admit of the upper portion of the extension rod entering and leaving the central opening of the partition. The extension rod consists of two members or parts 27 and 28, which have a telescoping arrangement to admit of the extension rod adapting itself to the adjusted length of the box. The member 27 is formed with a head 30, which is adapted to be engaged by a key or other tool when it is required either to open or to close the cock 5. The member 27 is reduced at a point immediately below the head 30, as shown at 31, to be received in the gland 26, and thereby prevent vertical dis-

placement of the member 27 and insure its movement with the upper section 1 of the box when adjusting the same. A cross piece 32 is fitted in the upper portion of the lower section 2 and receives the lower end of the member 27, thereby holding the same centrally within the box.

The box is adapted to be fitted to a service pipe for supplying water, gas or other product and is located in line with the stop cock 5 provided for shutting off the flow through said service pipe. After the lower section 2 has been placed in position with its notches 3 fitted over the pipe 4, the upper section 1 is placed in position and adjusted so that its top will come flush or nearly so with the surface of the ground, the same being secured by the pins 11 in the manner stated. After the box is adjusted it is made secure by packing the earth about the same in the accustomed manner. The stop cock 5 may be operated when the cap 14 is removed by fitting the key 19 or other tool to the head 30 of the extension rod.

The telescopic extension rod is automatically adjustable with the box, thereby admitting of the head 30, to which the key is fitted, occupying a fixed position with reference to the top of the box. As is well known, the plug valve of the stop cocks are tapered and arranged with the larger ends uppermost, hence a blow upon the upper ends of said valves tightens the same, and oftentimes prevents the plugs being turned with the consequent wrenching off of the heads or operating stems. The telescopic extension rod prevents this difficulty, since any blow delivered upon the upper portion or member 27 spends itself upon the upper portion of the service box after being transmitted to the plug or valve, as will be readily understood.

Having thus described the invention, what is claimed as new is:

1. In combination a service box for a stop cock, said box having a horizontal partition near its upper end and having said partition formed with a central and a side opening, an operating rod for the stop cock adapted to pass through the side opening of the partition and enter the central opening thereof and having a reduced portion to receive a part of the partition surrounding the opening, and a cover for the side opening of the partition adapted to have its inner end enter the reduced portion of the said rod and prevent vertical displacement thereof.

2. In combination, a service box having a partition near its upper end formed with a central and a side opening and having inwardly extended lugs, a rod for operating the cock to which the box may be fitted and having its outer portion reduced to receive a portion of the partition bordering upon the central opening thereof, a cover for closing the side opening in the partition and having its inner end fitted into the reduced portion of said rod, a cap for closing the upper end of the box and adapted to hold said cover in place and provided with vertical and approximately horizontal grooves to coöperate with the aforesaid lugs for retaining said cap in place within the upper end of the box.

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

FRANCIS M. JACOB. [L. S.]

Witnesses:

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