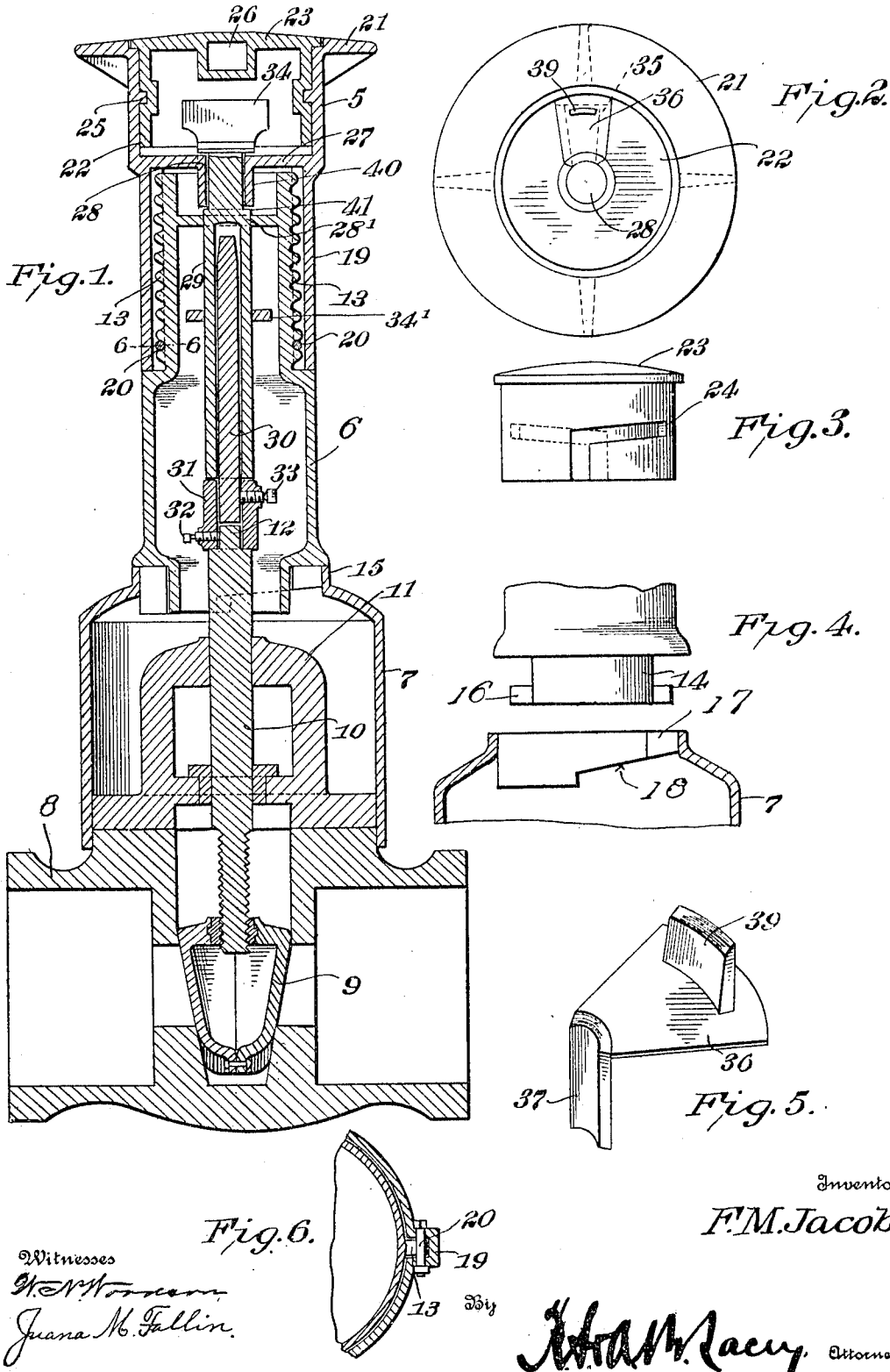


F. M. JACOB.
EXTENSION SERVICE BOX.
APPLICATION FILED MAY 21, 1909.

954,437.

Patented Apr. 12, 1910.



Witnesses
H. M. Lacy
Juana M. Fallin.

Inventor
F. M. Jacob,

H. M. Lacy, Attorneys.

UNITED STATES PATENT OFFICE.

FRANCIS M. JACOB, OF COLUMBUS, MISSISSIPPI.

EXTENSION SERVICE-BOX.

954,437.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANCIS M. JACOB, 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 relates to extension service boxes of that general class shown and described in former United States Patent issued to me on the 15th day of December 1908, under Number 906,886.

The object of the invention is generally to improve and simplify the construction of the service box and to so arrange the casing or housing as to permit the service box to be used in connection with different styles of valves as well as in connection with turning plugs or cocks.

A further object of my invention is to provide a service box, the construction and relative disposition of the several parts of which is such that by varying the length of one of the casing sections the box may be lengthened according to the conditions under which it is to be used, and by changing the shape of another section the box may be fitted to valves of different sizes and shapes.

A still further object of the invention is generally to improve this class of devices, so as to increase their utility, durability and efficiency, as well as to reduce the cost of manufacture.

For a full understanding of the invention, and the merits thereof, and 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, in which;

Figure 1 is a longitudinal sectional view of an extension service box, constructed in accordance with my invention; Fig. 2 is a top plan view of the same; with the cover removed; Fig. 3 is a side elevation of the cover detached; Fig. 4 is a side elevation partly in section of the adjacent ends of the intermediate and lower sections of the casing showing the same separated; Fig. 5 is a detail perspective view of the movable cover plate detached. Fig. 6 is a transverse sectional view taken on the line 6-6 of Fig. 1.

Corresponding and like parts are referred to in the following description and indi-

cated in all the views of the accompanying drawings by the same reference characters.

The improved extension box forming the subject matter of the present invention comprises a casing preferably formed in three sections, 5, 6, and 7, the lower section 7 being adapted to rest on the housing 8 of the valve 9. The curb box may be used in connection with any style of valve, and by way of illustration is shown applied to a gate valve, the stem 10 of which extends longitudinally through the gland 11 and is provided with a reduced terminal head 12 of angular formation which projects within the intermediate casing section 6, as shown. The upper end of the casing section 6 is reduced and provided with oppositely disposed racks 13, while the lower end thereof is provided with a depending flange 14 which fits within the contracted neck 15 of the lower casing section 7 and is provided with oppositely disposed ears 16 arranged to enter correspondingly shaped openings 17 in the section 7 so that when the casing sections are assembled and the section 6 partially rotated, the ears 16 will bear against the inclined or cam faces 18 of the lower section 7 and thus lock said sections together.

The upper section 5 of the casing fits over the reduced extension of the intermediate section 6 and is provided with vertical ribs 19 which receive the racks 13 and are provided with threaded openings for the reception of screws, pins or similar fastening devices 20 which latter engage the teeth of the rack 13 so that after the upper section 5 has been adjusted thereon to the desired height said upper section may be locked in adjusted position by means of said fastening devices. The upper casing section 5 is provided with a circular head 21 adapted to bear against the surface of the ground, said head being provided with a centrally disposed socket or recess 22, adapted to receive a detachable cover 23. The cover 23 is provided with a depending flange having bayonet slots 24 formed therein which receive locking lugs 25 projecting inwardly from the wall of the depression 22, for the purpose of locking the cover 23 in closed position, there being an opening or socket 26 formed in the top of the cover 23 to permit the insertion of a suitable tool when it is desired to rotate the cover to effect the locking or removal thereof.

Extending transversely across the upper

casing section 5 is a diaphragm or partition 27 having an opening formed therein and through which extends one of the telescopic members 29 of an extension rod, the other member 30 of said extension rod being projected longitudinally beyond the adjacent telescopic member 29 to permit the attachment of a coupling member or sleeve 31. The sleeve 31 receives the angular head 12 of the valve stem and is held in engagement therewith by a clamping screw 32, there being a similar clamping screw 33 extending through the sleeve and engaging the member 30 for normally retaining said member in operative position with relation to the valve stem. The intermediate portion of the extension rod member 29 passes through an opening 28' formed in the transverse diaphragm on the intermediate casing 6, the openings 28 and 28' serving to center the extension rod within the casing or housing and to maintain said rod in vertical alignment with the valve stem so that when the head 34 of the member 29 is rotated with a suitable tool the valve 9 may be raised or lowered to control the flow of fluid through the housing 8. A cross piece 34' is also fitted in the upper portion of the intermediate casing section 6 and receives the lower end of the member 29 thereby to assist in holding the same centrally within the box.

The diaphragm 27 of the upper casing section 5 is formed with a lateral recess 35 which recess is normally closed by a plate or cover 36 having one end thereof provided with a depending segmental section 37 and its other end formed with a vertical lug or finger piece 39 by means of which the cover may be lifted from the casing so as to permit the headed end 34 of the member 29 to be positioned within the opening 28.

A flange 40 depends from the lower surface of the partition 27 for engagement with a shoulder 41 on the extension rod section 29. This shoulder serves to prevent withdrawal of the member 29 from the casing or housing.

By forming the casing of the service box of a plurality of detachable sections the length of the box may be varied at will by simply removing the intermediate section 6 and substituting a longer or shorter section as the conditions might require, while by changing the shape and size of the lower casing section 7 the curb box may be used in

connection with different styles or types of valves.

It will also be noted that by adopting a standard size for the upper and intermediate sections, the length of the box may be varied and said box be made to fit any size or shape of valve by merely changing the lower casing section.

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

1. The combination with a valve and housing, of a service box including upper and lower sections one of which is arranged to bear against the valve housing and is provided with oppositely disposed recesses having cam lugs extending therefrom, the upper casing section being provided with a depression, and having oppositely disposed hollow ribs, an intermediate casing section having its upper end provided with racks fitting within the hollow ribs, and its lower end formed with ears adapted to extend through the recesses in the lower casing section for engagement with the cam faces of the lugs, an extension rod comprising telescopic members one of which is provided with means for engaging with the valve stem and the other with a head seated in the depression of the upper casing section, and fastening devices extending through the ribs of the upper casing section and engaging the teeth of the rack.

2. The combination with a valve and housing, of a service box including upper and lower casing sections one of which is adapted to rest on the valve housing, and is provided with oppositely disposed recesses having lugs extending therefrom and provided with cam faces, an intermediate section also forming a part of the casing and having locking ears arranged to enter the recesses for engagement with the cam faces of the lugs, an extension rod extending through all of said sections provided with means for detachable engagement with the valve stem, the upper casing section being adjustable vertically of the intermediate section and means for locking the upper casing section in adjusted position.

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

FRANCIS M. JACOB. [L. s.]

Witnesses:

B. A. WEAVER,
JNO. P. MAYO.