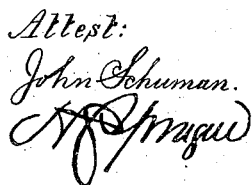


M. WALKER.
SHUT OFF BOX.

Patented June 15, 1886.



Inventor:
Miciah Walker.
by his Atty
Thos. S. Sprague

UNITED STATES PATENT OFFICE.

MICIAH WALKER, OF PORT HURON, MICHIGAN.

SHUT-OFF BOX.

SPECIFICATION forming part of Letters Patent No. 343,933, dated June 15, 1886.

Application filed January 29, 1886. Serial No. 190,262. (No model.)

To all whom it may concern:

Be it known that I, MICIAH WALKER, of Port Huron, in the county of St. Clair and State of Michigan, have invented new and useful Improvements in Shut-Off Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

10 This invention relates to a new and useful improvement in shut-off boxes for gas and water valves.

15 The invention consists in the improved construction and arrangement of the parts, whereby the box is made extensible and self-adjusting; and it consists, further, in an improved construction of the cover, all as hereinafter described.

20 In the drawings which accompany this specification, Figure 1 is a perspective of my improved shut-off box as it appears when in use. Fig. 2 is a vertical central section thereof. Fig. 3 is a perspective view of the box-cover, looking at its under side. Fig. 4 is a plan of the suspension-top of the box. Fig. 5 is a perspective, detached, of the upper plate of the suspension-top. Fig. 6 is a detached perspective of the lower plate of the suspension-top.

25 The shut-off box consists of the two cylindrical sections A and B, which are of proper diameter and sufficient length to telescope each other within the usual limits of depth to which the valves in gas and water mains or service pipes are usually placed in the ground. The lower section, A, is provided with an enlargement, C, arranged to inclose the top of the valve and be supported thereon, so that the dirt is excluded from the stuffing-box and valve-stem, and sufficient room left to operate the latter in the usual manner from above the ground. I prefer to support the lower section of the box upon the top of the valve by giving the base of the enlargement the requisite shape to form a seat on the rounding top of the valve-case. In this manner the box is firmly supported, and forms a close but adjustable joint with the valve-case. The upper section, B, of the box is of sufficiently larger diameter than the lower box to freely slide therein, and at its upper end it is provided with a spherical flange, D. The flange D is engaged into a corresponding spherical recess, E, at the under side of the

suspension-plate F, said recess being made large enough to form a universal joint between these parts to a degree large enough to allow the top plate, when in position, to adjust itself to the ordinary variations of the surface of the ground.

To permit the engagement of the spherical flange D into its recess, the suspension-plate is made in two parts, secured together after the engagement is made.

In the drawings, G shows a plate bolted into a recess on the under side of the plate F, both plates having spherical flanges H I, which form between them the required spherical recess.

M M are two lugs on the plate F, projecting within the opening therein upon opposite sides thereof. The outer rim of the plate F is inclined or rounded, so as to form no obstruction and allow wheels to pass over it without striking the edge. In the center this plate is provided with an opening closed with a removable cover, J. The cover J has upon its under side two spiral flanges, K, and upon its top face it is provided with a socket or recess, L. When the cover is properly in place, the lugs M engage into the intervals between the spiral flanges, and if, by means of a suitable tool engaged into the recess L, the cover is turned on its axis in the proper direction, the spiral flanges will ride up on the lugs and lift the cover sufficiently from its seat to allow its removal.

It will be seen that with the parts constructed and arranged as shown and described, the suspension-plate F holding the upper section of the box in position while it rests itself on the ground, the box is made self-adjusting—that is to say, its upper end is always kept at the level of the ground, no matter how the latter may sink away or be lifted up by frost or otherwise. The plate F is also self-adjusting to uneven ground—that is, it will always lie close to it at any angle or incline usually found in streets—and having its edge rounded off besides, will never form a stumbling-block for horses or pedestrians, or damage the wheels of vehicles, as is the case with shut-off boxes in present use, which, although provided with means of adjustment, are not self-adjusting.

What I claim as my invention is—

1. The combination, with the stationary part A, of the part B, telescoping the same and pro-

vided with spherical flange D, and a plate, F, formed with recess E, and the removable plate G, substantially as and for the purpose specified.

5 2. The combination, with the part A and the part B, telescoping the same and provided with spherical flange D, of the plate F, supported by the ground and formed with recess E and spherical flange H, and the plate G, 10 bolted to said plate F, and having spherical flange I, substantially as and for the purpose specified.

3. In a shut-off box having an upper extension suspended from a plate supported by the 15 ground, the combination of the spherical flange formed on the upper end of the extension, and of a corresponding spherical recess on the under side of the plate, substantially as and for the purposes described.

4. In a shut-off box, the combination of the 20 plates F G, secured together and provided with the spherical flanges H I, arranged to form the spherical seat E, and the pipe B, having spherical flange D, substantially as and for the purpose described. 25

5. In a shut-off box, in combination, the stationary section A of the box, the extension B, telescoping the stationary section, the spherical flange D of the extension, the ground-plate F, the spherical recess E on the ground-plate engaging with the spherical flange D, and the 30 removable cover J, seated in an opening in the ground-plate, all arranged and operating substantially as described.

MICIAH WALKER.

Witnesses:

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