

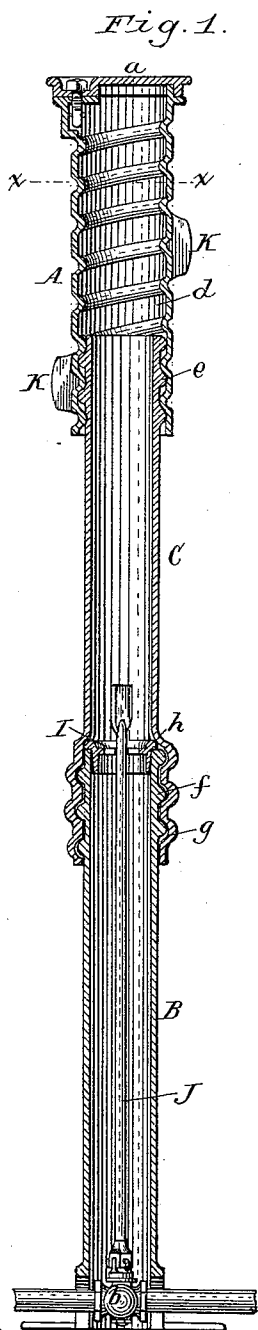
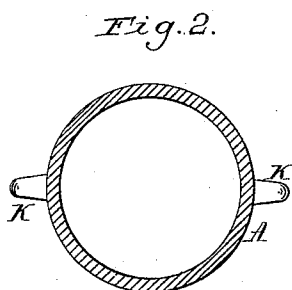
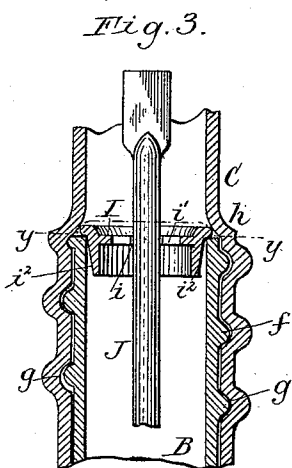
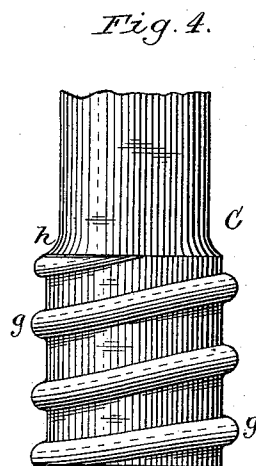
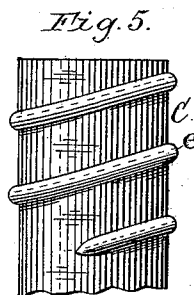
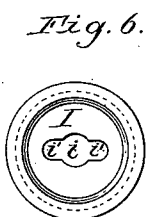
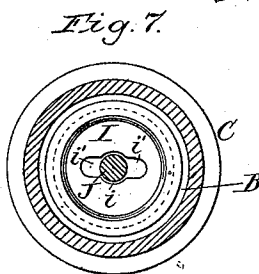
(No Model.)

A. W. MORGAN.

STOP COCK BOX FOR WATER OR GAS PIPES.

No. 447,078.

Patented Feb. 24, 1891.



Geo. Buchheit &
Theo. L. Popp. } Witnesses.

Amos W. Morgan Inventor.
By Wilhelm H. Bonner
Attorneys.

UNITED STATES PATENT OFFICE.

AMOS W. MORGAN, OF BUFFALO, NEW YORK.

STOP-COCK BOX FOR WATER AND GAS PIPES.

SPECIFICATION forming part of Letters Patent No. 447,078, dated February 24, 1891.

Application filed June 20, 1887. Serial No. 241,818. (No model.)

To all whom it may concern:

Be it known that I, AMOS W. MORGAN, of the city of Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Stop-Cock Boxes for Water and Gas Pipes, of which the following is a specification.

This invention relates to an improvement in that class of stop-cock boxes which are composed of adjustable sections, whereby the length of the box can be increased or reduced, as may be required, in order to place the top of the box on a level with the surface of the ground.

The object of my invention is to construct the box in such manner that the upper and lower parts of the box can be easily connected by intermediate sections or extensions when required, thereby lengthening the box.

In the accompanying drawings, Figure 1 represents a vertical section of my improved stop-cock box. Fig. 2 is a horizontal section of the upper portion of the same in line *x x*, Fig. 1, on an enlarged scale. Fig. 3 is a fragmentary vertical section of a portion of the box on an enlarged scale. Fig. 4 is a side elevation of the lower portion of one of the intermediate sections or extensions. Fig. 5 is a similar view of the upper portion of one of the extensions. Fig. 6 is a top plan view of the plate or disk whereby the valve-rod is centered in the box. Fig. 7 is a horizontal section in line *y y*, Fig. 3.

Like letters of reference refer to like parts in the several figures.

A represents the upper portion of the box, which is provided with the usual cover *a*.

B is the lower portion of the box, which incloses the stop-cock *b*, and C is an intermediate section or extension connecting the upper and lower portions A B. The upper portion A is provided with an internal screw-thread *d*, which engages with an external screw-thread *e*, formed at the upper end of the extension C, and the lower portion B of the box is provided at its upper end with an external screw-thread *f*, which engages with an internal screw-thread *g*, formed at the lower end of the extension C. In making up a stop-cock box as many of these intermediate sections or extensions C are connected together as may be necessary to form a box

of the required length, the extensions being all constructed with an external screw-thread at the upper end and an internal screw-thread at the lower end. The extensions C may be made of different lengths, so that a box of any desired size can be readily formed. This construction avoids the necessity of manufacturing the upper and lower parts A B of the box in different sizes, whereby the cost of the box is materially reduced.

The external screw-threads *e* and *f*, formed, respectively, at the upper ends of the lower part B and the extension C, are made of uniform pitch, as shown in Fig. 5, while the internal screw-thread *g* at the lower end of the extension C is made of diminishing pitch, as shown in Fig. 4, the distance between two turns of the thread decreasing gradually as the thread recedes from the end of the extension. Upon screwing the extension C upon the lower part B of the box, or one extension upon the other, the screw-threads of the respective parts bind upon each other by reason of the different pitch, and thereby firmly lock the parts together.

The external thread *e* upon the upper end of the extension C fits loosely in the internal thread *d* in the upper part A of the box, so that the part A can move vertically under the influence of the frost.

The extensions C are slightly reduced in diameter above the internal screw-threads *g*, so as to form a shoulder *h*, against which the end of the adjacent section bears and which assists in tightening the parts upon each other.

I represents a circular plate or disk, which is seated in the upper end of the lower part B of the box, or, if desired, of the extension C, and provided with a central opening *i*, having laterally-extending slots *i'* *i'*. The flat head of the valve-rod J passes through these slots in placing the plate I in its seat, and the round part of the valve-rod is guided in the round central opening *i* when the plate I is in place, thereby centering the valve-rod in the box. The plate or disk I is provided with a slightly-tapering depending flange *i'*, by which the plate is tightly clamped in the upper end of the tubular part to which it is applied.

KK represent upright wings or ears formed on the outer sides of the upper portion A of

the box, and which prevent the part A from being turned in the ground after the same has been adjusted on the extension C. The wings K are preferably arranged on diametrically-opposite sides of the portion A, one wing being located near the upper end of the portion A and the other wing near the lower end thereof. These wings prevent the upper portion A of the box from being unscrewed except by removing the ground around the upper portion, and thus render it difficult for unauthorized persons to interfere with the box.

I claim as my invention—

15 In a stop-cock box, the combination, with a lower stationary section provided at its upper end with an external screw-thread and an upper adjustable section having an internal screw-thread extending its entire length, of

an intermediate section provided at its lower end with an internal screw-thread which is adapted to engage with the external screw-thread on the upper end of the lower section and with an external screw-thread at its upper end which is adapted to engage with the internal screw-thread of the adjustable top section, the external screw-threads at the upper end of the lower section and intermediate section being of uniform pitch and the internal screw-thread at the lower end of the intermediate section of diminishing pitch, substantially as set forth.

Witness my hand this 7th day of June, 1887.

AMOS W. MORGAN.

Witnesses:

JNO. J. BONNER,
FRED. C. GEYER.