(No Model.)

A. ORMSBY.

STOP COCK BOX.

No. 420,413. Patented Jan. 28, 1890.

Fig. 1.

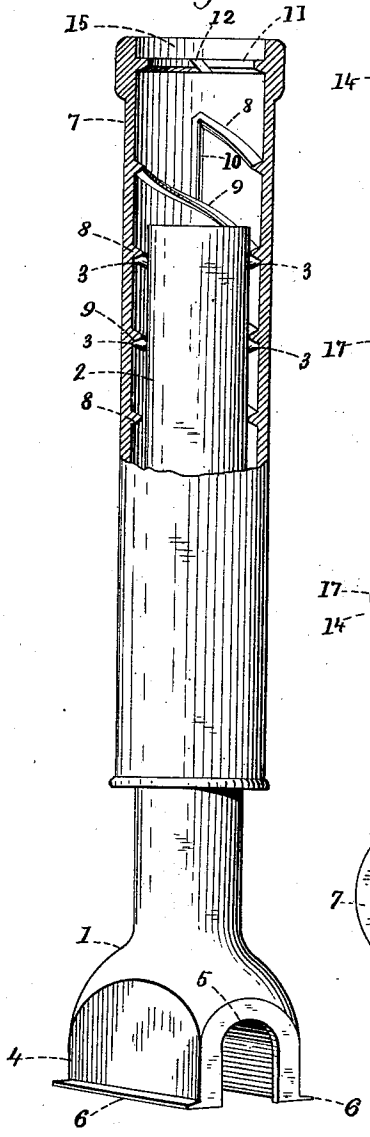


Fig. 2.

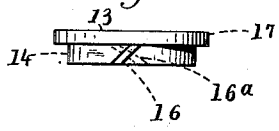


Fig. 3.

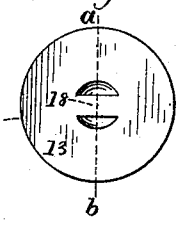


Fig. 4.



Fig. 5.

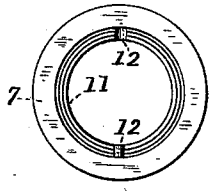
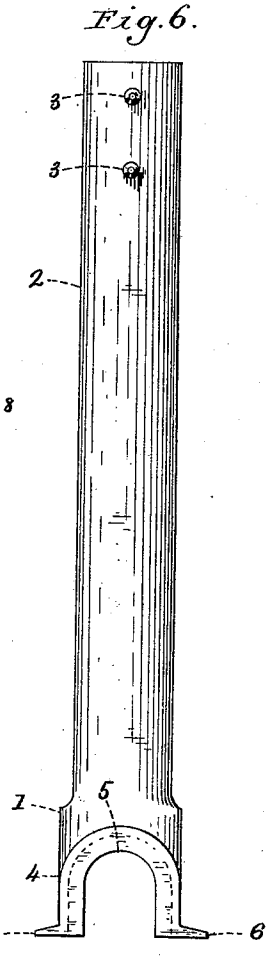


Fig. 6.



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UNITED STATES PATENT OFFICE.

ALEXANDER ORMSBY, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO HENRY EBERHART, OF SAME PLACE.

STOP-COCK BOX.

SPECIFICATION forming part of Letters Patent No. 420,413, dated January 28, 1890.

Application filed July 16, 1889. Serial No. 317,726. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER ORMSBY, a citizen of the United States, residing in Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Stop-Cock Boxes, of which the following is a specification.

My invention relates to certain new and useful improvements in stop-cock boxes, whereby the box may be readily extended or shortened and the inner and outer boxes are not liable to become fastened together either by rust or dirt, and whereby a sufficient frost-lift is at all times provided for, and also to certain other details of construction, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional elevation. Fig. 2 is a side elevation of the removable cover. Fig. 3 is a top view of the cover. Fig. 4 is a central section through line *a b*, Fig. 3. Fig. 5 is a top view of the outer case, showing the openings in which the cover is fitted. Fig. 6 is a front elevation of the inner box.

The inner box-tube 1 is provided with a tubular portion 2, having two conical projections 3 on each side; but two may be used—one on each side—if desired. At the foot of the tubular portion 2 is a base portion 4, made hollow, so as to communicate with the tubular portion, and is provided with an arched opening 5 through each side of the base, thereby adapting it to straddle and set down over a stop-cock pipe. This base is made sufficiently long to fully inclose and cover the stop-cock and straddle the pipe at each end of the stop-cock, and is provided with two flanges 6, located on opposite sides of the base. The object of this construction is to strengthen the base, to give it a broad foot to stand on, and be held more firmly down when the earth is packed around it. The outer case consists of a tubular portion 7, having two projecting internal screw-threads 8 and 9 of steep incline, and a vertical rib 10, connecting the end of the upper thread with the thread below it. Its object is to provide a stop to prevent the inner tube from going up too far.

The object in having two screw-threads is to provide two bearings directly opposite each other to rest upon the pins or conical lugs 3, one lug receiving the screw-thread 8 and the opposite lug the other screw-thread 9, the construction being such that the lugs 3, being directly opposite each other, lie in a substantially horizontal line, and the two independent and inwardly-projecting screw-threads 8 and 9 form an equal bearing at each side, so that the outer case 7 is evenly balanced when in position at any desired vertical point up or down on the tubular portion 2.

The employment of two independent screw-threads 8 and 9 admits of a steeper pitch than a single thread would give consistent with a proper space between the threads for what is technically called a "frost-lift;" besides the lugs 3 could not be located directly opposite each other on opposite sides of the tubular portion 2 if a single thread were used, and consequently the two tubular portions could not be evenly balanced when put together.

The object of the conical lugs or tapering projections 3 is to provide the means for an easy adjustment when required and to prevent the parts being clogged up by dirt or rust, and thereby prevent their easy adjustment or removal when necessary. This is an important advantage, because as heretofore constructed it is a well-known fact that such stop-cock boxes are liable, after standing for a long time, to become cemented together with rust and dirt, so that it is almost impossible to remove the outer from the inner box. Furthermore, when they become thus cemented together, a provision for a frost-lift is then of no value. By my construction this objection is obviated, and the double internal threads are sufficiently far apart to allow for any required frost-lift, which is always easily operative, for reasons heretofore given.

The top of the case 7 is provided with an inside projecting rim or flange 11, in which are cut two inclined slots 12, directly opposite each other on each inner side, and inclining in opposite directions, and the cover 13 (see Figs. 2, 3, and 4) is provided with a downward projection 14 to fit the opening 15 in the top of the case. On each side of the portion 14,

directly opposite each other, is an inclined lug 16, one inclining in an opposite direction from the other, as shown by the dotted lines 16^a in Fig. 2. At the top of the portion 14 is a flanged portion 17. In the center of the cover are two recesses, which project downward and inward, so as to leave the holding-piece 18 between them, by which the cover is taken off. From this construction it will be seen that as the cover slips down into place and the inclined projections pass into the inclined openings or slots 12 it moves down with a turning downward movement. This prevents it from accidentally coming off, and at the same time permits its easy removal when required.

I claim as my invention—

1. In a stop-cock box, an inner tubular portion 2, having an enlarged base with the usual opening to straddle a pipe and cover the stop-cock, and provided with lugs 3, secured on opposite sides of the tubular portion opposite each other in substantially the same horizontal plane, in combination with an outer tubular case provided with two independent inwardly-projecting screw-threads 8 and 9, forming the bearings for the lugs 3, and placed sufficiently far apart to permit the lifting of the case 7 by the action of frost, substantially as described.

2. In a stop-cock box, an outer case or tubular portion 7, having an inner projecting flange 11, provided with two opposite inclined slots on opposite sides, in combination with a cover having the portion 14, provided with two corresponding oppositely-inclined lugs 16, substantially as and for the purposes described.

ALEXANDER ORMSBY.

Witnesses:
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