No. 621,448. Patented Mar. 21, 1899.

P. V. DWYER.

EXTENSION STOP COCK BOX.

(Application filed Feb. 23, 1897.)

(No Model.) 2 Sheets—Sheet 1.

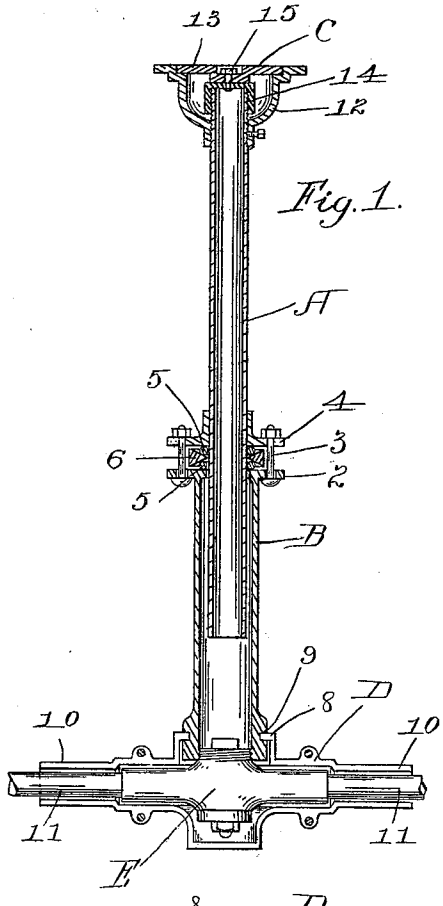


Fig. 1.

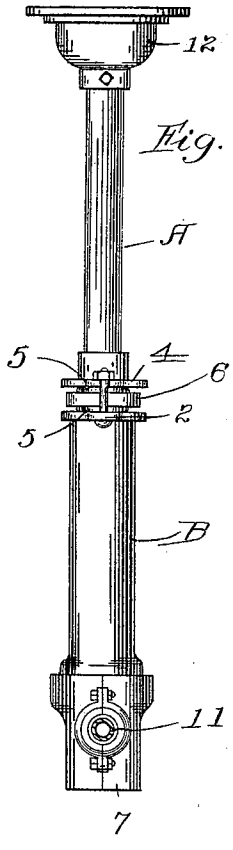


Fig. 2.

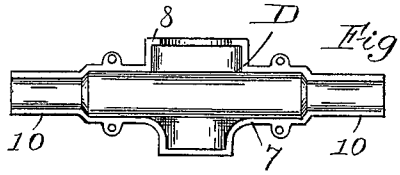


Fig. 3.

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(No Model.) 2 Sheets—Sheet 2.

Fig. 4.

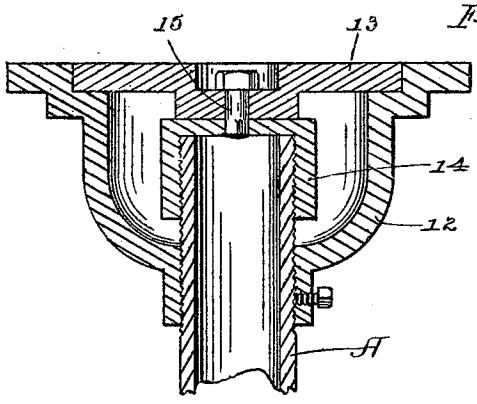


Fig. 5.

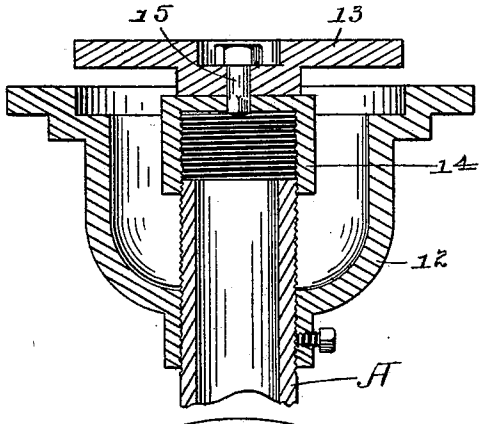
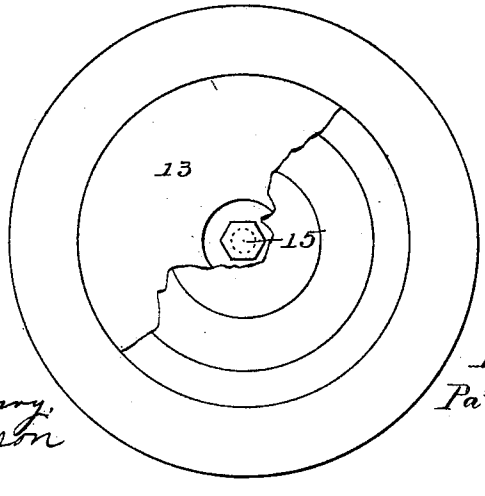


Fig. 6.



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UNITED STATES PATENT OFFICE.

PATRICK V. DWYER, OF ST. PAUL, MINNESOTA, ASSIGNOR TO LOUSIE A. FRANK, OF SAME PLACE.

EXTENSION STOP-COCK BOX.

SPECIFICATION forming part of Letters Patent No. 621,448, dated March 21, 1899.

Application filed February 23, 1897. Serial No. 624,608. (No model.)

To all whom it may concern:

Be it known that I, PATRICK V. DWYER, of St. Paul, Ramsey county, Minnesota, have invented certain Improvements in Extension Stop-Cock Boxes, of which the following is a specification.

My invention relates to improvements in extension stop-cock boxes, its object being to provide an improved construction of the same.

To this end my invention consists in the features of construction and combination hereinafter more particularly described and claimed.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical central section of my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a detail of one section of the detachable box for holding the stop-cock; and Fig. 4 is a vertical cross-section of the upper end of my invention, showing the cover for the pipe-sections in closed position. Fig. 5 is a similar view showing the same partially open, and Fig. 6 is a top elevation thereof partially broken away.

In the drawings the invention is shown composed of the telescoping pipes A and B, the pipe A being provided at its top with a closing-cap C. The upper end of the stand-pipe B is formed with an outward flange 2, connected by bolts 3 with the flanged collar 4, slidable upon the extension-pipe A. Between the flange 2 and flanged collar 4 is arranged a packing consisting of the elastic annular packing-rings 5, held in contact with the pipe by means of the intermediate wedge-shaped metallic ring 6. It will thus be evident that by tightening the bolts 3 the collar 4 will be drawn toward the pipe B, compressing the packing-rings 5, thus making closer joint between the pipes A and B. The lower end of the pipe B is provided with a detachable shoe or box D, forming a support and guide for the stop-cock E, which in the drawings is shown screw-threaded in the bottom of the pipe. This box consists, preferably, of similar sections 7, each provided with an annular flange 8, fitting in a groove 9 in the lower end of the pipe B, the box being also formed with lateral extensions 10, serving as guides for the water-pipes 11. While I usually connect the box D with the stand-pipe in the manner shown, I do not confine myself to that form of connection, but may modify the same. The other end of the extension-pipe A extends through a cup-shaped cap 12 of ordinary construction. Instead of closing this cap with a hinged cover, as is ordinarily done, I prefer to use the construction shown in the drawings, which consists of a cover-plate 13, fitting in the top of the cap and connected with an inverted cap or thimble 14 by means of a bolt 15, the cap 14 being interiorly threaded to fit over the end of the extension-pipe. The bolt 15, as shown, passes loosely through the cover 13 and is fixed in the cap or thimble 14, so that in the turning of said bolt the thimble will be actuated independently of the cover.

The principal features of novelty in my invention are the box D for supporting and guiding the stop-cock, the form of packing connection between the extension-pipes, and the construction of the top cover C. The box D, it will be evident, takes the strain of a weight upon the top of the pipes, relieving the stop-cock. The form of packing between the pipes I also claim as an improvement over the packing ordinarily used. The metallic wedge-shaped ring 3 keeps the annular packing-rings 4 in close contact with the extension-pipe, so that by tightening the bolts connecting the flange 2 and flanged collar 4 the packing-rings are wedged as tightly as desired against the pipe to make a water-tight joint. The closing-cap C for the top of the stand-pipe is also a more efficient construction than the ordinary hinged cover. It constitutes a better closure for the cap and pipe and also is more easily opened when frozen, &c.

I claim—

1. In a stop-cock box, the combination with the telescoping pipe-sections, of a collar or follower slidable upon the inner section, the annular packing-ring, and the annular wedge-shaped compressing-ring, both interposed between said follower and outer pipe-section, and means for connecting said collar to said outer pipe-section so as to compress said rings together, and thereby cause the packing-ring to bear upon the inner pipe.

2. In a stop-cock box, the combination with

the telescoping pipe-sections, of the follower slidable freely upon the inner pipe, the flanges upon said follower and outer pipe, the annular ring interposed between said flanges, being inwardly tapered or wedge-shaped in cross-section, the annular packing-rings interposed between said ring and said flanges, and the securing-bolts for said flanges by means of which said packing-rings are compressed between the flanges and said metal ring and caused to bear upon the inner pipe.

3. In a stop-cock box of the class described, the combination with the vertical pipe and the cup upon its top, of the cover for said cup, the bolt extending through and adapted to freely turn in said cover and having connection with a screw-threaded part beneath, whereby the turning of the bolt in one direction secures the cover upon the cup, while the turning of the bolt in the reverse direction lifts the cover from the cup.

4. In a device of the class described, the combination with the vertical pipe, the cup upon its top, the cover for said cup, the cap-nut threaded upon the projecting end of said pipe, and having a headed bolt extending through, and freely turning in, the cover, whereby the turning of said bolt in one direction secures the cover upon the cup, and the turning of the bolt in the reverse direction causes the cover to be lifted by said cap-nut off from the cup.

5. In a stop-cock box, the combination with the stop-cock and the connected water-pipe sections, of the shoe or cover for said stop-cock secured to the lower vertical pipe-section and seated upon and partially surrounding said stop-cock and said connected water-pipes, whereby the weight and pressure of the pipe is distributed upon the stop-cock and said pipes, and the same are held from displacement under the torsional strain of opening or closing the stop-cock.

6. In a stop-cock box, a cover or shoe partially inclosing and resting upon the stop-cock and its connected pipes, and rigidly secured to the stand-pipe.

7. In a device of the class described, the combination with the telescoping pipe-sections, and the stop-cock at the bottom of the lower section, of the box surrounding and serving as a support for said stop-cock, said box being made up of similar sections connected together, and having detachable connection with the adjacent pipe-sections.

8. In a device of the class described, the combination with the stand-pipe, the extension-pipe adjustably secured therein, and projecting at its upper end through a cup-shaped cap, the cover for closing the upper end of said pipe and cap, consisting of an interiorly-threaded thimble to fit over said pipe, and a connected cover fitting in said cap.

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

PATRICK V. DWYER.

Witnesses:
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