

No. 626,565.

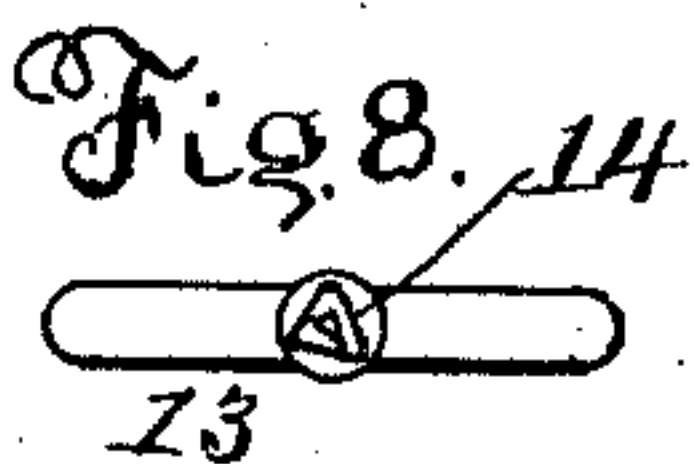
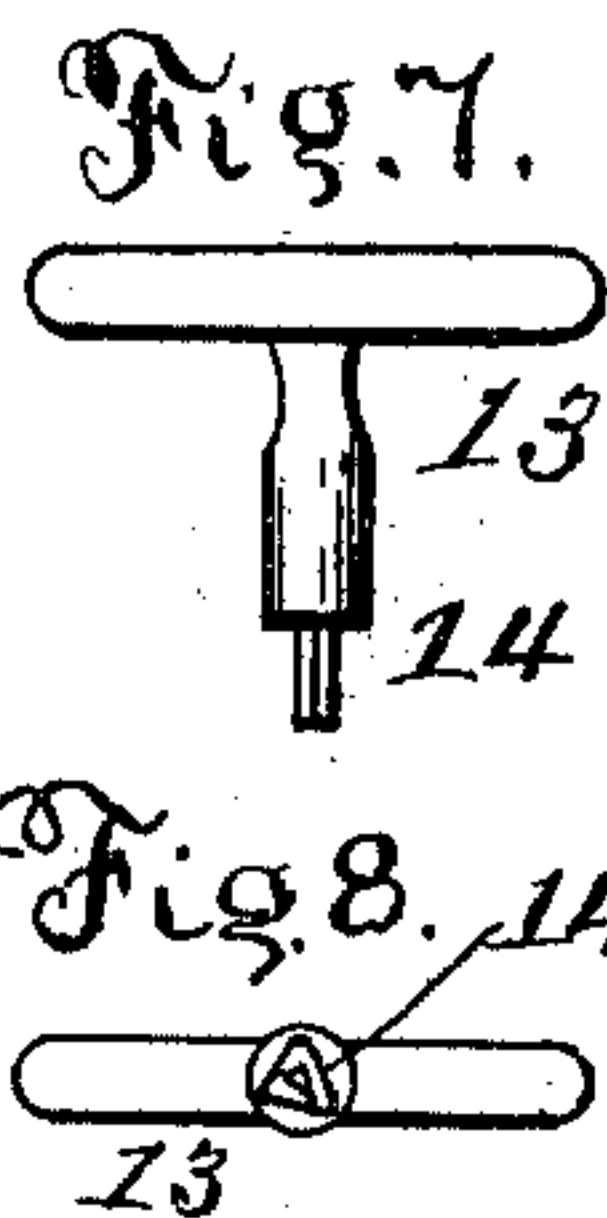
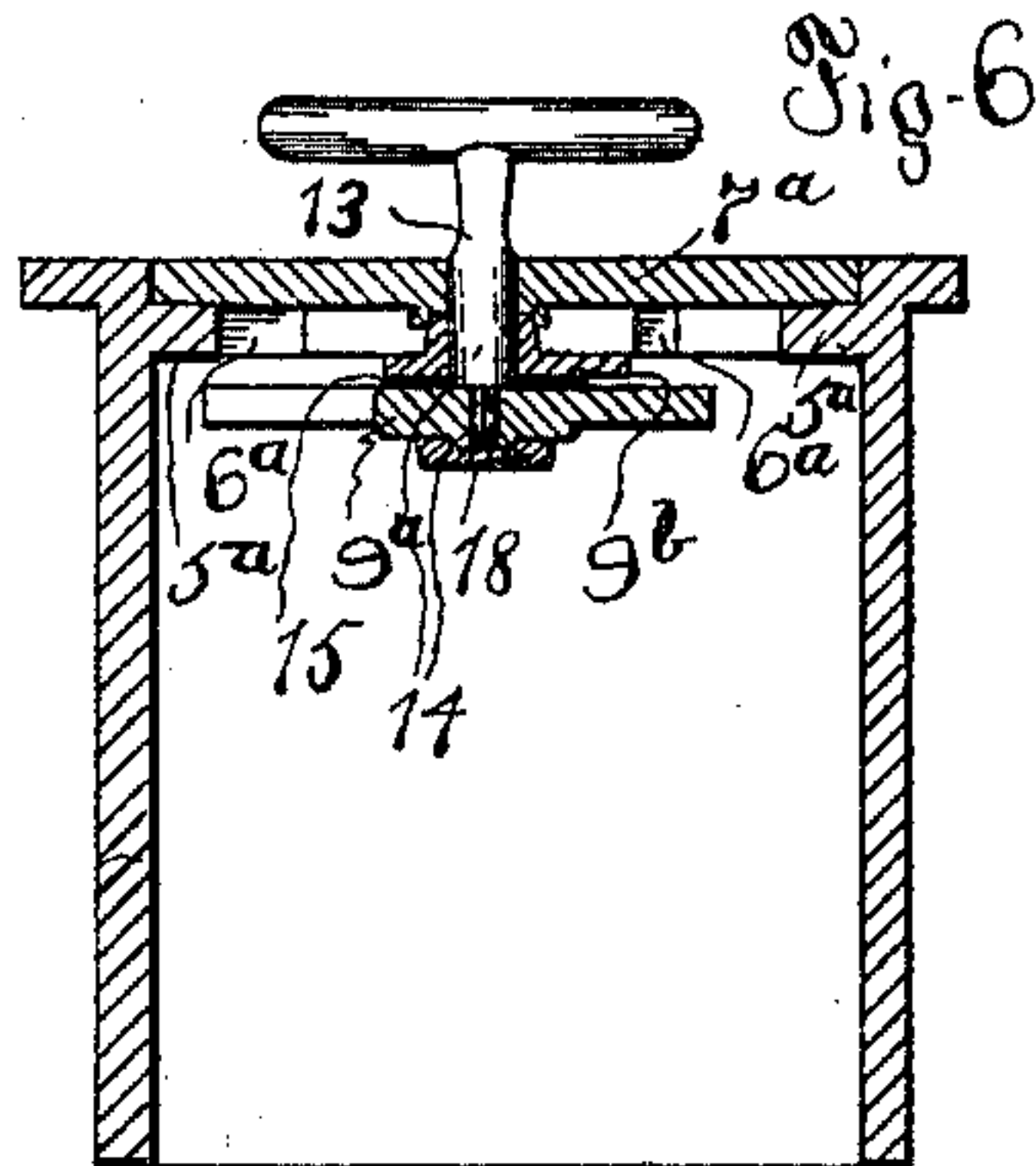
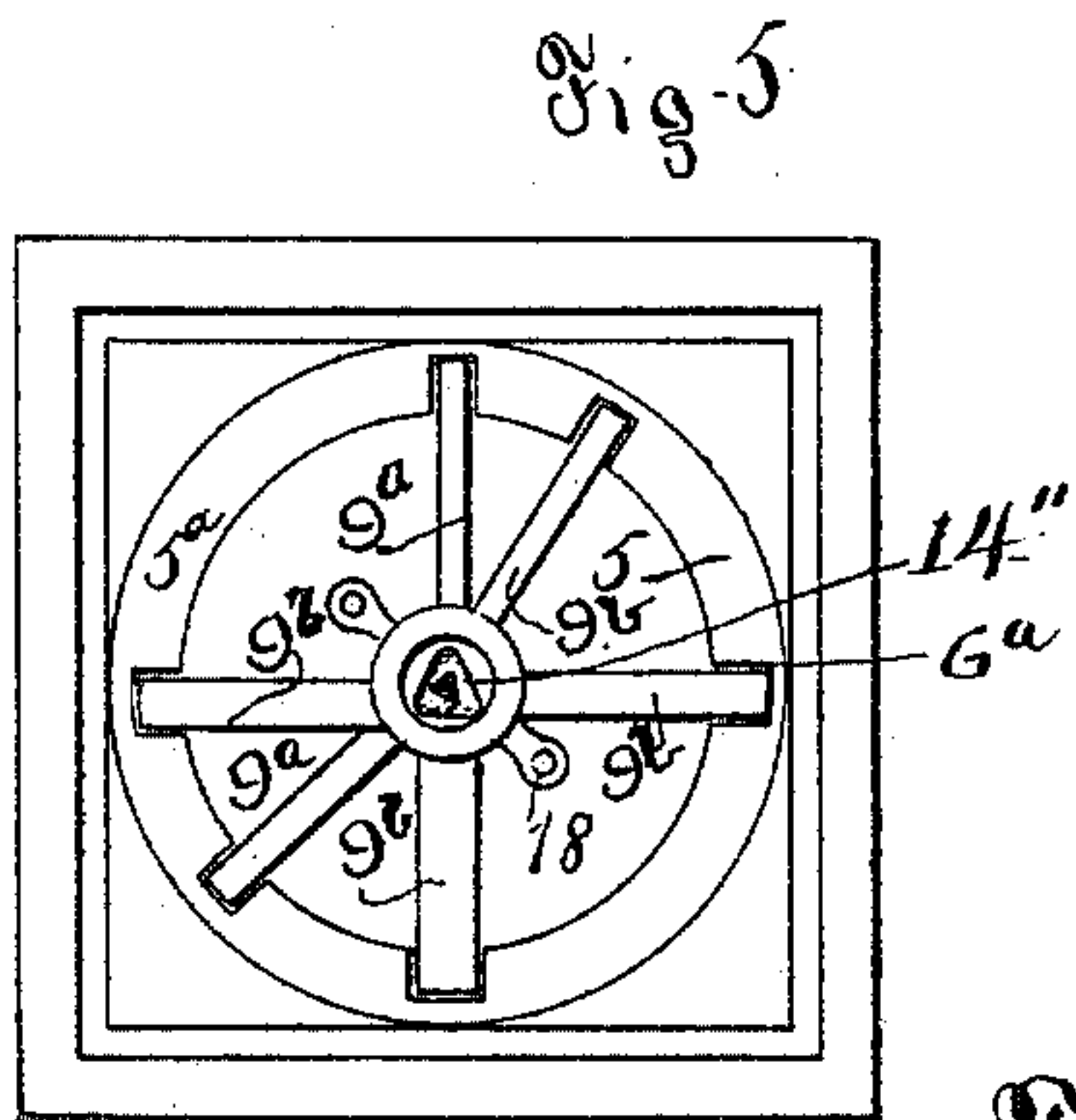
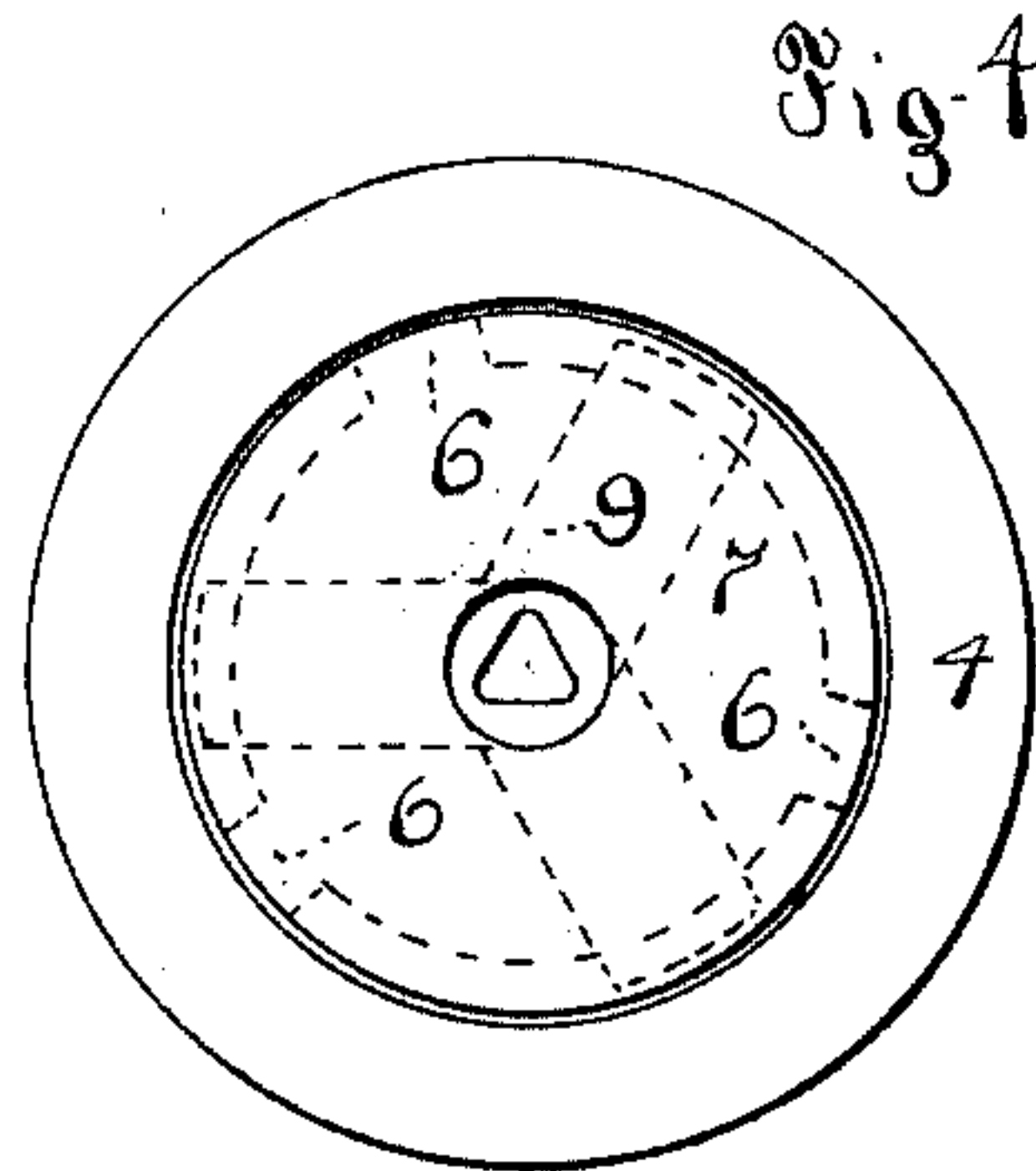
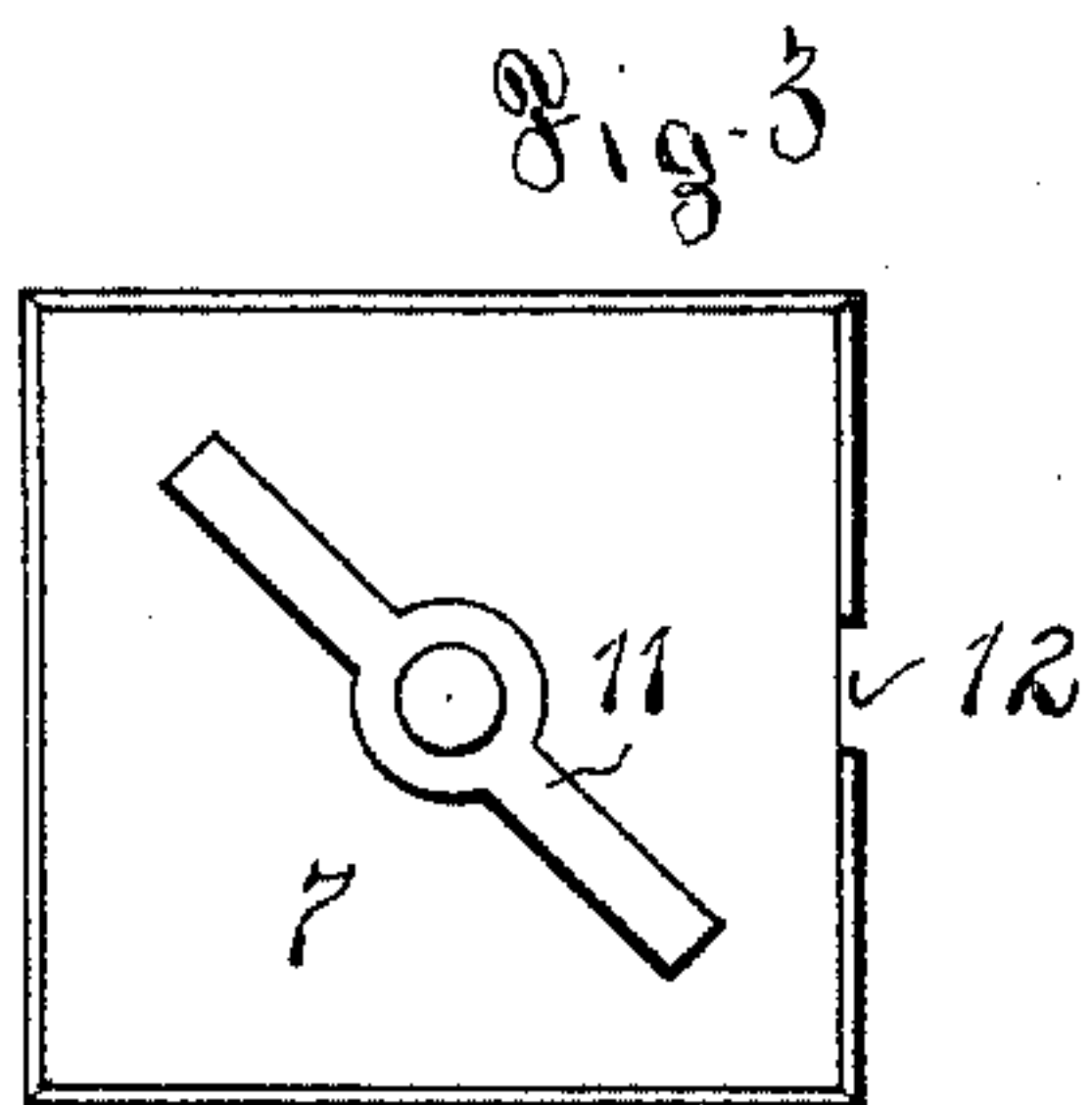
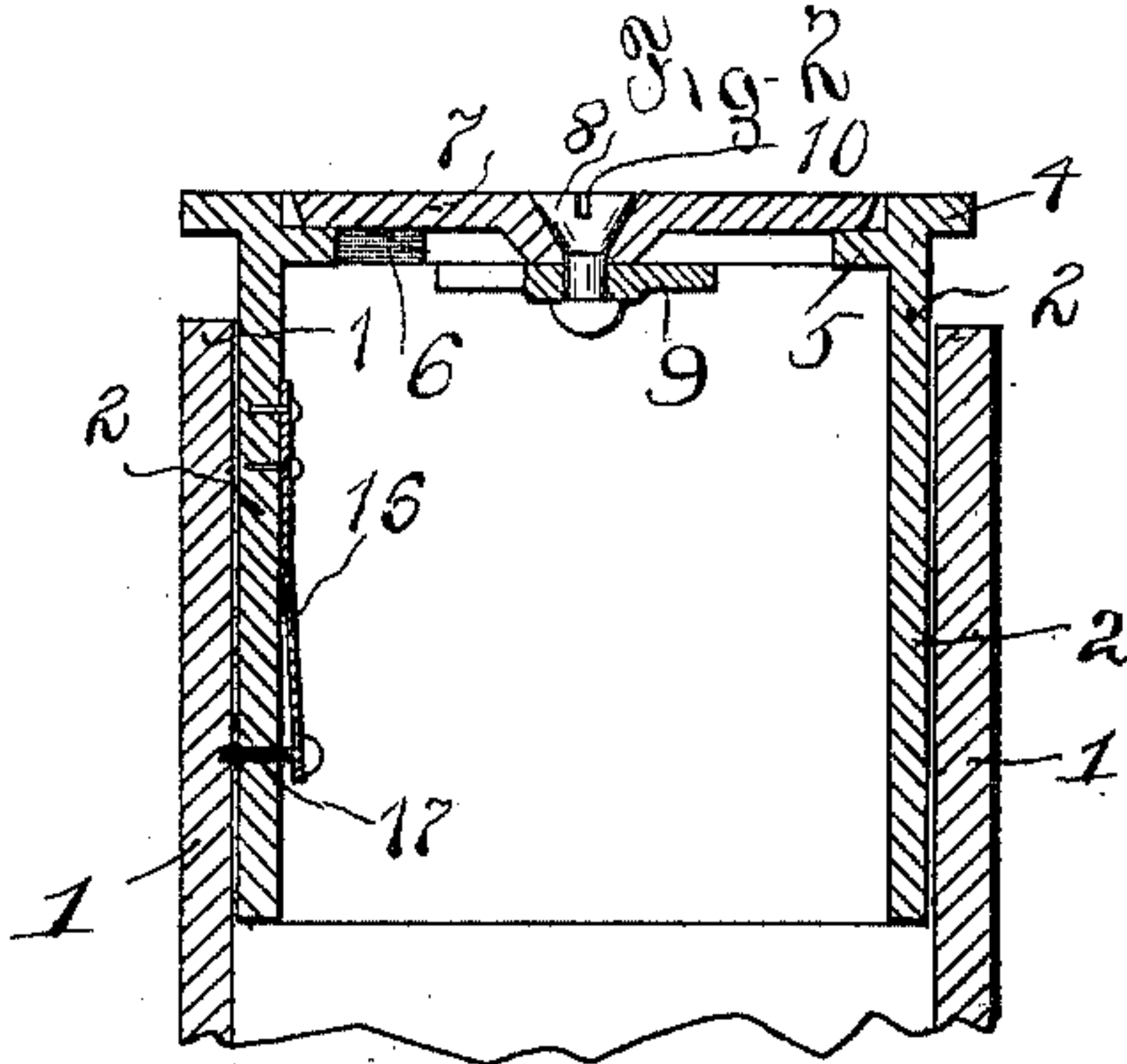
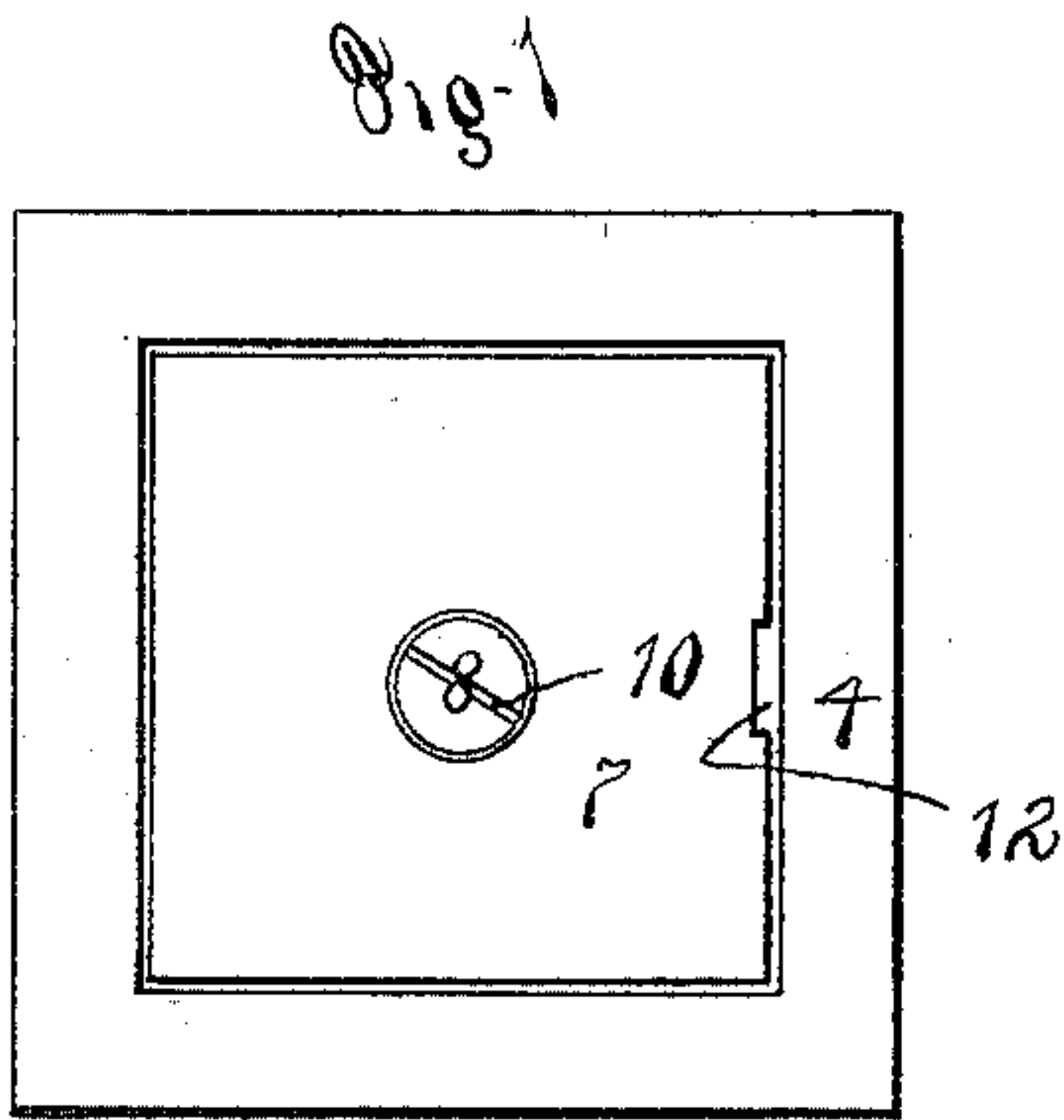
Patented June 6, 1899.

C. RIETZINGER & W. D. KAVANAGH.

RIM AND COVER FOR STOP COCK BOXES, &c.

(Application filed Dec. 31, 1897.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## RIM AND COVER FOR STOP-COCK BOXES, &c.

SPECIFICATION forming part of Letters Patent No. 626,565, dated June 6, 1899.

Application filed December 31, 1897. Serial No. 665,121. (No model.)

*To all whom it may concern:*

Be it known that we, CHRISTIAN RIETZINGER and WILLIAM D. KAVANAGH, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Rims and Covers for Stop-Cock Boxes and Fastenings Therefor; and we do hereby declare the following to be a sufficiently full, clear, and exact description thereof as to enable others skilled in the art to make and use the said invention.

This invention relates to the covers and frames of stop-cock boxes and fastenings therefor, such as are used upon thoroughfares to provide access to gas and water service stops, and has for its objects the safe closure of such boxes and protection from dirt and prevention of accidental injury to persons and animals by stepping into them.

To this end the invention consists in a frame with a fastening for securing the same to the box and a shoulder or rim inside the frame for supporting the cover in the same level plane with the upper surface of the frame. Notches are formed in the supporting-rim and a lock or bolt attached to the cover, so as to be turned only by a proper key to engage and disengage the cover-plate with and from the frame.

The construction and operation of the invention are hereinafter fully described, and shown in the accompanying drawings, in which—

Figure 1 shows a plan of one form of the stop-cock box-cover and frame embodying this invention; Fig. 2, a vertical section thereof; Fig. 3, an inverted view of the cover as detached from the rim. Fig. 4 shows a modified form of the rim and lock. Figs. 5 and 6 show modifications in the form of the lock and key. Figs. 7 and 8, respectively, show the key in enlarged front and end views.

Referring to the drawings, 1 represents the body of the box; 2, the frame fitted therein, having the flanged top 4 flush with the pavement and an internal rim or flange 5 parallel with and below the top 4.

6 6 are notches formed in the internal flange 5, through which the ends of the fastening-bar

9, hereinafter described, can pass when the cover is released or unlocked.

7 is the cover-plate, having a central aperture, in which the pivot or arbor 8 of the revolving bar or bolt 9 is fitted and turns. The ends of the bolt 9 are of such length as to pass through the notches 6 in the flange 5 when in register therewith and when turned beneath the flange 5 to hold the cover-plate down by holding against the under edge of the flange 5. The arbor 8 of the bolt 9 may be made with a simple kerf 10 across it, like that in the head of an ordinary wood-screw, or may have other forms, and more than one bar may be used with more than one series of notches 6 in the flange 5, so that a key 11, turning both bars to proper relative position, becomes necessary to open it, and more than two prongs or ends to the bar may be employed. A third and fourth one may be used, if desired, so that they must be brought into register with the proper notches in the frame before the cover can be released. A bevel or notch 12 is formed in the side of the lid to facilitate the entrance of a lever to raise the cover in opening it.

The rim and cover shown in Figs. 1, 2, and 3 are of rectangular form. That shown in Fig. 4 is of circular form, and the locking-bar 9 is made with three prongs or ends, and notches 6 in the flange 5 are made to conform thereto.

Figs. 5 and 6 show, respectively, in inverted plan and vertical section the modified form of lock, in which two bolts or bars 9<sup>a</sup> and 9<sup>b</sup> are used, one of which bars 9<sup>b</sup> has four prongs or arms and engages in four notches in the internal flange 5<sup>a</sup> and the other bar 9<sup>a</sup> but two prongs, which are of unequal breadth and length, and the notches 6<sup>a</sup> in the flange 5<sup>a</sup> are of such form and relative position with each other as to correspond or register with the prongs of the bars 9<sup>a</sup> and 9<sup>b</sup>, so that the proper angular adjustment of the bars 9<sup>a</sup> and 9<sup>b</sup> to register with the notches 6<sup>a</sup> is required to permit the disengagement of the ends of the bars 9<sup>a</sup> and 9<sup>b</sup> from the flange 5<sup>a</sup> to permit the removal of the cover 7 from the rim, and a key 13 (shown separately in Figs. 7 and 8) having wards 14 to fit recesses or



wards 14" in bars 9<sup>a</sup> and 9<sup>b</sup>, so that when the key 13 is inserted and turned in one direction the ends of the bars 9<sup>a</sup> and 9<sup>b</sup> are turned into positions to register with the notches 6<sup>a</sup> in the rim 5<sup>a</sup> and permit the lifting of the cover-plate 7, and when turned in the opposite direction the ends of the bars 9<sup>a</sup> and 9<sup>b</sup> pass under the rim 5<sup>a</sup> and hold the cover-plate 7 in closed position. In this instance it is preferable to support the lower bar by a strip of metal 18, placed across it and riveted at the end to the under side of the cover-plate 7<sup>a</sup>, so that the key can pass readily into it, and the parts of the bars which turn can be easily separated by washers 15 of non-corrodable material, which avoid adhesion by rusting, that otherwise in the exposed position in which such rims and covers are used would be apt to obstruct the turning of the bars. One or more springs 16, having teeth 17 projecting through the frame 2, serve to hold the frame on the box, and when the lid is closed and locked the spring 16 is inaccessible, thus preventing the detaching of the frame from the box.

Having described our invention and the operation thereof, what we claim is—

1. In a stop-cock-box frame and cover therefor, a frame having a notched internal rim or flange, a cover fitted within said frame, flush with the top of the frame, and resting on said internal rim, in combination with rotatable bars, pivotally attached to the under side of the said cover, said bars having cavities therein to be operated by a correspondingly-shaped key, to alternatively turn the bars into or out of register with the notches on said rim as and for the purpose set forth.

2. In a stop-cock-box cover, an internally and externally flanged frame 2 adapted to fit within and over the upper end of the box 1, a spring with a pin attached to said frame adapted to press through the side thereof and engage in the box 1 in combination with a cover or lid, fitted to rest upon the internal flange of said frame and means of clamping and unclamping said lid from said frame, substantially as shown and described.

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