

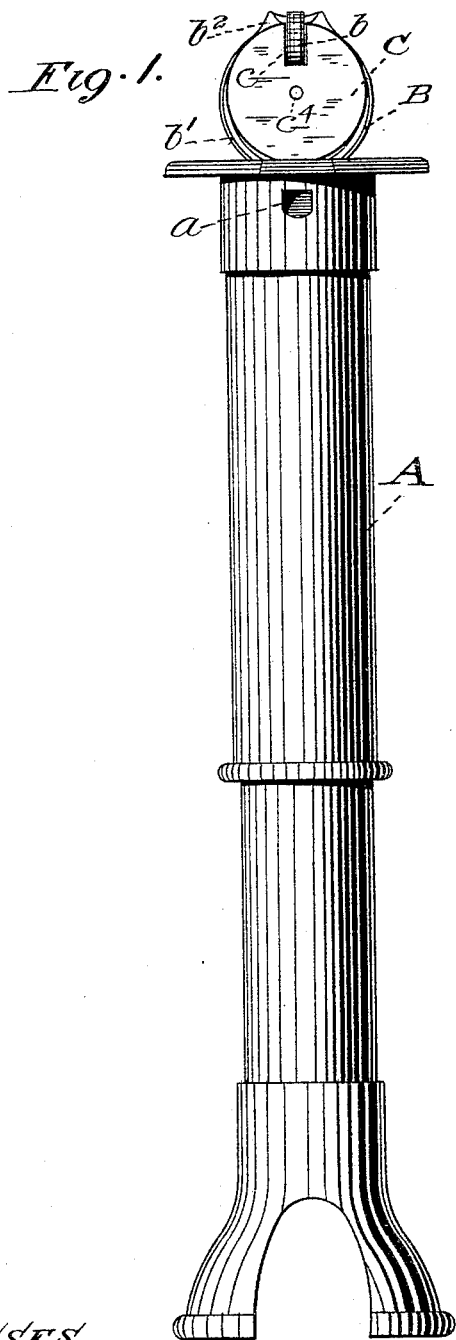
(No Model.)

3 Sheets—Sheet 1.

E. G. CRAWFORD.  
STOP BOX FOR WATER OR GAS PIPES.

No. 454,398.

Patented June 16, 1891.



WITNESSES  
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Edward L. Sarnell

INVENTOR  
Edwin G. Crawford  
by C. D. Moody  
att'y

(No Model.)

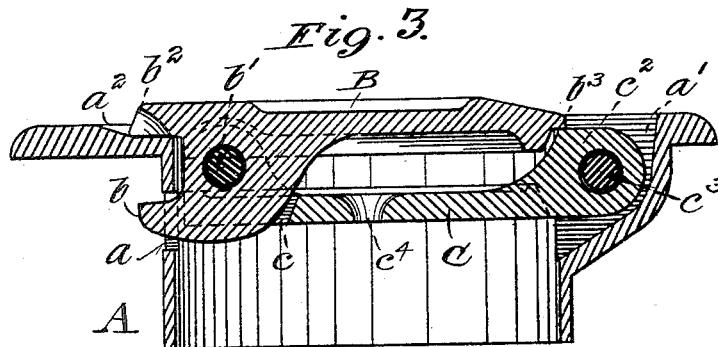
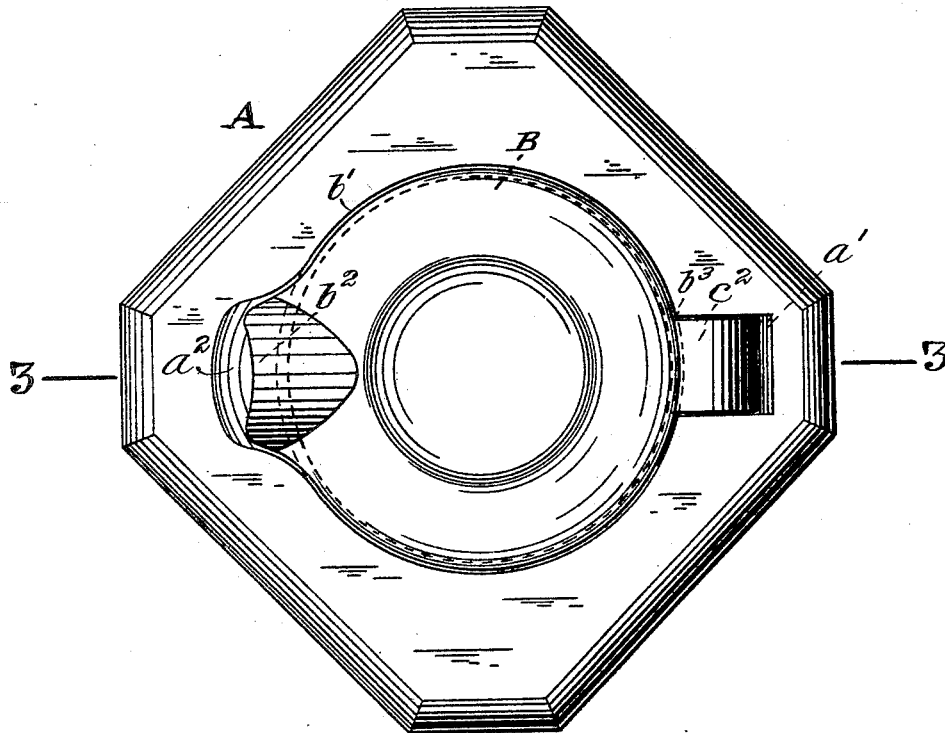
3 Sheets—Sheet 2.

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*Fig. 2.*



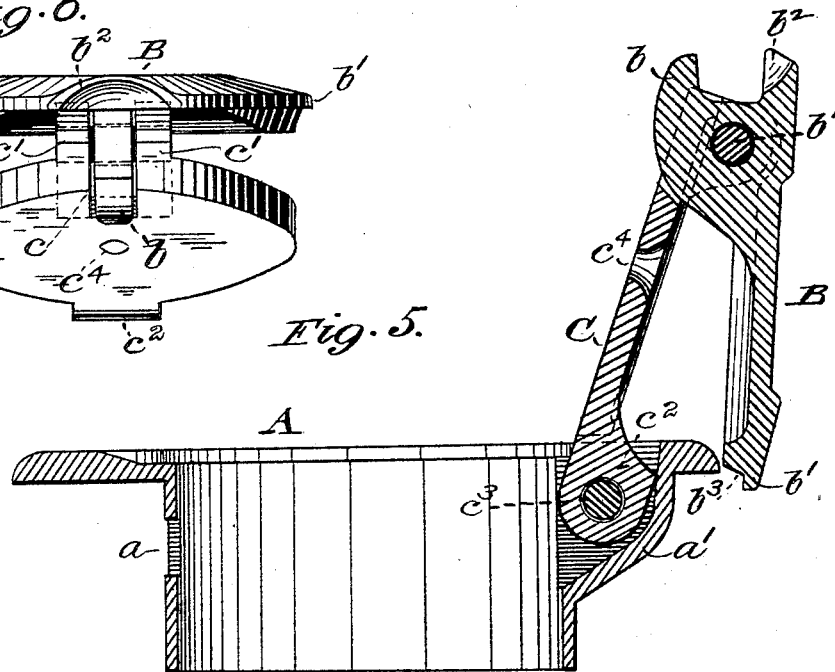
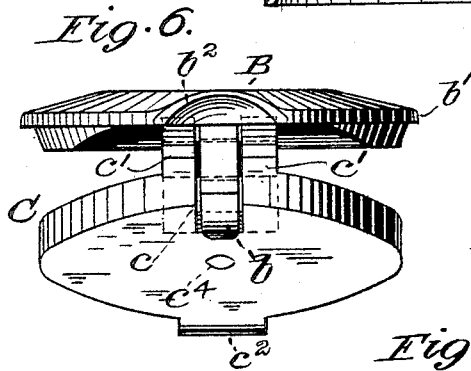
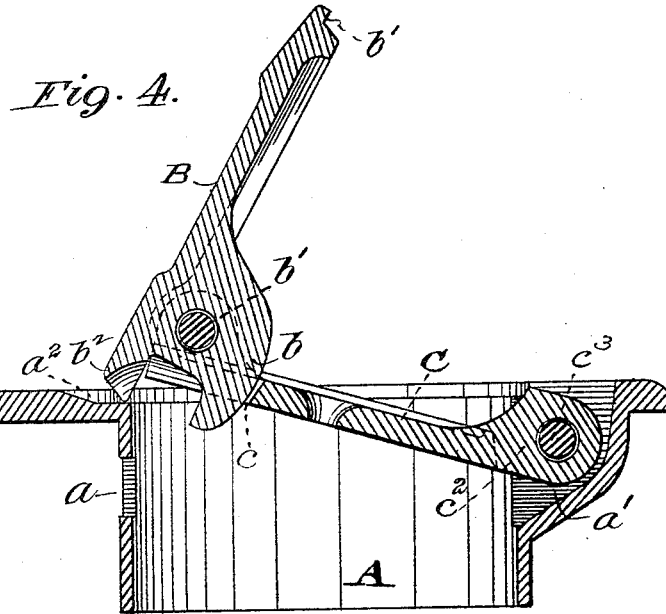
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# UNITED STATES PATENT OFFICE.

EDWIN G. CRAWFORD, OF ST. LOUIS, MISSOURI.

## STOP-BOX FOR WATER OR GAS PIPES.

SPECIFICATION forming part of Letters Patent No. 454,398, dated June 16, 1891.

Application filed March 12, 1891. Serial No. 384,780. (No model.)

*To all whom it may concern:*

Be it known that I, EDWIN G. CRAWFORD, of St. Louis, Missouri, have made a new and useful Improvement in Stop-Boxes for Water or Gas Pipes, of which the following is a full, clear, and exact description.

My invention relates to the construction and operation of the cover of the box, and has for its object, principally, to provide means whereby access to the box is impeded and tampering with the box by children largely, if not entirely, prevented, substantially as is hereinafter described and claimed, aided by the annexed drawings, making part of this specification, in which—

Figure 1 is a side elevation of a stop-box having the improvement, the box-cover being opened; Fig. 2, a plan of the box, its cover being closed; Fig. 3, a vertical section on the line 3 3 of Fig. 2; Fig. 4, a section on the same line as that of Fig. 3, but showing the cover partially raised as in opening the box; Fig. 5, a section on the same line as that of Figs. 3 and 4, but showing the cover raised and thrown back, as when the box is fully opened; and Fig. 6, the upper edge view of the cover opened—that is, as when in the position of Fig. 5.

The same letters of reference denote the same parts.

A leading feature of the improved cover is its connection with the fixed part or body A of the box. Instead of the cover being connected directly with the body A, it is jointed to a part which in turn is jointed to the body, and all so that to open the box both the cover B and the part C, with which the cover is immediately connected, must be turned or moved upon their respective bearings, the cover B being turned or moved upon the part C and the part C being turned or moved upon the body A. The cover B is constructed suitably for closing the body A, and the part C may be variously shaped and connected with the cover and the box-body without departing from the principle of the improvement; but the most desirable mode of carrying out the improvement is exhibited in the drawings.

The stop-box is of the usual description, saying as its construction is modified or sup-

plemented by the improvement under consideration. The cover B is in the form of a plate fitted substantially to the opening in the upper end of the body A and at one part of its circumferential portion provided with a lug *b*, which projects downward and outward, substantially as shown, and adapted when the cover is closed to engage in a recess opening or shoulder *a* in or upon the side of the body A. The lug also provides for connecting the cover with the part C, the said part C being slotted at *c* to admit the lug *b*, and the lug being jointed to the part C by means of a pin *b'*, which passes through the lug, and also the projections *c' c'* upon the upper side of the part C at the sides, respectively, of said slot *c*. The part C, although it might be made smaller and the improvement in a measure carried out, is made to substantially occupy the opening in the body A beneath the position of the cover B, and, while it necessarily need not be hinged to the body A at that particular point, it is jointed to said body A at a point therein directly opposite the position of said lug *b* when the cover is closed, and the preferable mode of jointing it to said body A is as follows: The part C is provided with a lug *c'*, which projects to enter a recess *a'* in the side of the body A, and the lug is hinged to the body A by means of a pin *c'*, which passes through the walls of said recess and through the interposed lug *c'*, substantially as shown.

With the parts thus made and arranged, when the cover is closed, as in Figs. 2 and 3, the part C drops into the interior of the body A, and the cover B, by reason of its flange *b'*, rests upon the upper edge of the body A, and at the same time the outer portion of the lug *b* engages in the opening *a*, and so long as said lug engages in said opening the box cannot be opened. To open the box, the cover B must be first turned at its point of connection with the part C, so as to effect the withdrawal of the lug *b* from the opening *a*. This movement is illustrated in Fig. 4. The box is then opened by turning the part C at its point of connection with the body A and moving the parts into the position shown in Fig. 5. The interior of the box can now be reached.

To close and lock the box, the described movement of the parts C B is reversed, the part C being turned down into the position of Fig. 4, and then the cover B is turned upon the part C into the position of Figs. 2 and 3.

A feature of the construction is the provision for misleading any unauthorized person seeking to open the box. At a point thereon, and preferably directly over the position of the lug *b*, the cover B is provided with what may be termed a "decoy-lip" *b*<sup>2</sup>, which is suitably shaped, and either by itself or in connection with an adjacent depression *a*<sup>2</sup> in the body A, all substantially as shown, to convey the impression to any one unacquainted with the internal construction of the box that it is the point at which the cover should be lifted to effect the opening of the box; but as the box cannot be opened without first lifting the cover B at a point remote (in the present instance at a point diametrically opposite to the lip *b*<sup>2</sup>) from said lip the person is likely to remain misled, and the box to him is practically locked. To carry out this feature more effectively, the cover B, at that point *b*<sup>3</sup> thereof at which it is lifted to effect the opening of the box, is made to appear from above integral with the lug *c*<sup>2</sup> of the part C—that is, said lug *c*<sup>2</sup> to a casual observer seems to belong to the cover B and to be the part by which the cover is hinged to the body A, whereas in fact the slight projection of the flange *b*<sup>1</sup> above said lug *c*<sup>2</sup> is the only means by which the cover B can be upturned upon its bearing—namely, its connection with said part C.

Incidentally advantage is taken of the lip *b*<sup>2</sup>, in combination with the adjacent body A, to facilitate the opening of the box, and as follows: The cover B becomes a lever with the point of the lip *b*<sup>2</sup> turning upon the body A as a fulcrum, and as the cover is turned to

withdraw the lug *b* from the opening *a* said lip-point turns and slides upon the body A, and the lifting of the part C is thereby more easily accomplished. This position is indicated in Fig. 4. A suitable drainage-opening *c*<sup>4</sup> may be arranged in the part C, and said opening may be used for other purposes.

I desire not to be restricted to any particular means for interlocking the cover when closed with the fixed part of the structure beneath.

I claim—

1. A stop-box whose cover is hinged at its periphery to a part underneath it, which in turn is hinged to the box-body.

2. A stop-box whose cover is peripherally hinged to a part in turn peripherally hinged to the box-body, said hinges being out of coincidence vertically with each other, substantially as and for the purpose described.

3. A stop-box whose cover is hinged to turn vertically upon a part underneath it, which part in turn is hinged to the box-body, said cover being provided with a projection which as said cover folds into its closed position engages with said box-body, substantially as described.

4. The combination of the box-body A, the cover B, and the part C, said cover being peripherally hinged to said part C and provided with a part which, when said cover folds into its closed position, engages with said box-body, and said part C being peripherally hinged to said box-body, substantially as described.

Witness my hand this 7th day of March, 1891.

EDWIN G. CRAWFORD.

Witnesses:

C. D. MOODY,  
A. BONVILLE.