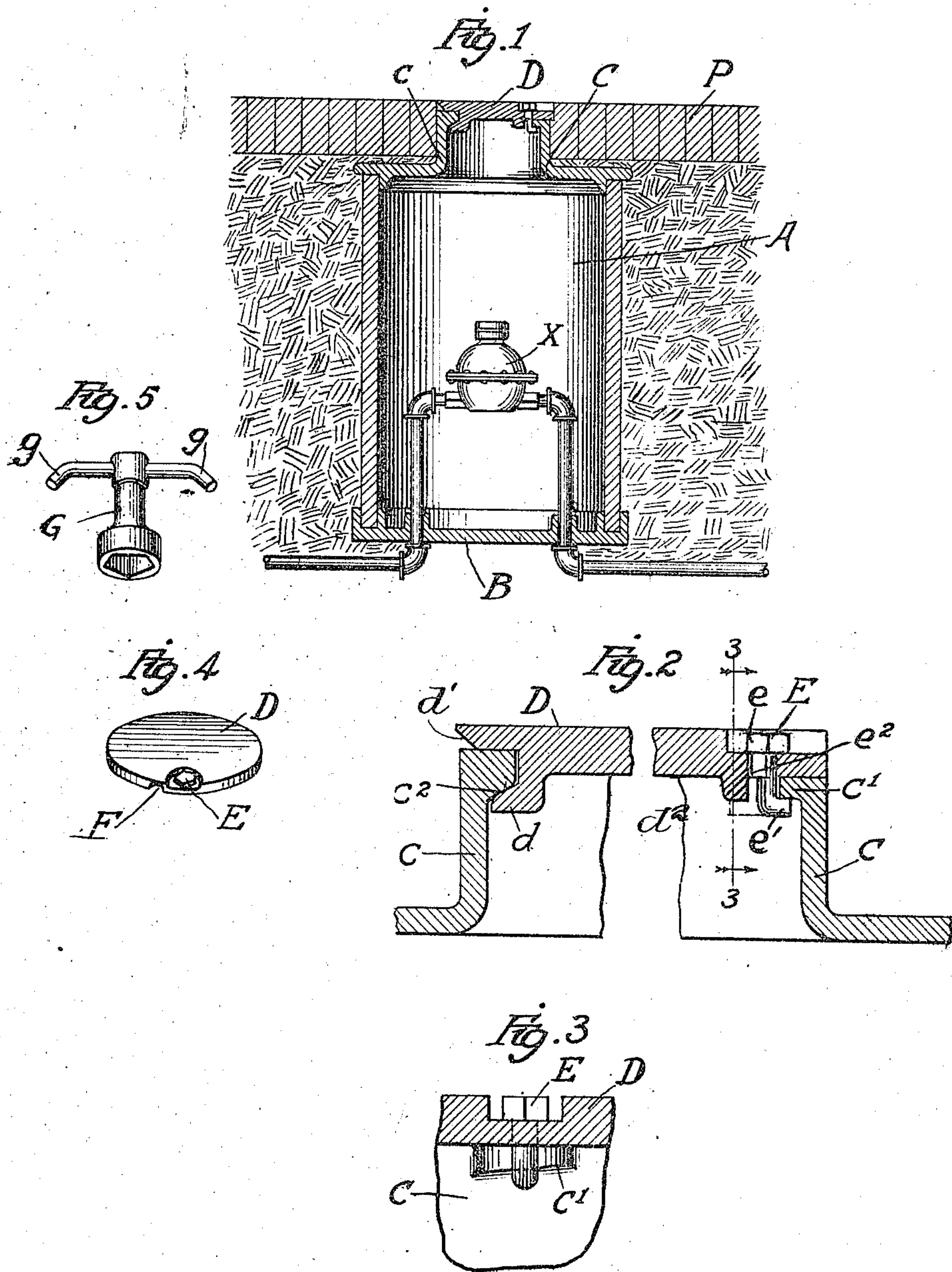


H. W. CLARK.
 PROTECTING BOX OR CASING.
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989,695.

Patented Apr. 18, 1911.



Witnesses:
 Frank Blanchard
 Willett H. Cornwell

Inventor:
 H. W. Clark
 By H. H. Hadley
 Attorney

UNITED STATES PATENT OFFICE.

HORACE W. CLARK, OF MATTOON, ILLINOIS.

PROTECTING BOX OR CASING.

989,695.

Specification of Letters Patent.

Patented Apr. 18, 1911.

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To all whom it may concern:

Be it known that I, HORACE W. CLARK, a citizen of the United States, residing at Mattoon, in the county of Coles and State of Illinois, have invented certain new and useful Improvements in Protecting Boxes or Casings, of which the following is a true specification.

My invention is an improvement in boxes or casings for housing water-meters, stop-cocks, valves and other water appliances and gas distributors and appliances; also telephone and other electric conductors and appliances and protecting them from improper access or injury by contact with other objects and from crossing either below the surface of the ground or in open or exposed places.

The invention relates particularly to an improvement in the lid applied to the neck of the box cover or top proper and the means for fastening the same and reference is here made to United States Letters Patent Number 794,661 issued to me under date of July 11th, 1905; the invention herein, being an improvement upon the device described in the said Letters Patent.

My construction is herein described, reference being had to the accompanying drawings.

In the drawings, Figure 1 represents a vertical section of my improved meter box set below the ground and inclosing a water meter of any type. Fig. 2 is an enlarged view of the lid of my box as shown in section at Fig. 1. Fig. 3 is a detailed section taken on the line 3-3 of Fig. 2. Fig. 4 is a view of the lid of my box and Fig. 5 is the key used by me for the operation of the device.

More particularly described, A represents my meter box constructed of metal, brick or other desirable material, fitted with a bottom B of any desirable type or material and with a cover or top C, which top C is designed to fit upon a body or box A and has an upwardly projecting neck *c* upon which my lid D is intended to be secured. It is designed that the box A together with the bottom B and all of the cover C except the upper part of the neck *c* shall lie beneath the surface of the pavement P.

X represents a water meter or other mechanical device for registering or measuring which it is desired to inclose within my box A. The neck *c* of the cover is fitted at one side on its inner surface with a lug *c'* later-

ally beveled on its under surface as shown at Fig. 3. Opposed to the lug *c'* and also on the inner surface of the cover neck *c* is fitted a lug *c²* provided on its under surface with a bevel running upwardly from the wall of the neck to the outer edge of the lug as shown at Fig. 2. The lid D is provided on its under surface with a lug *d* placed and beveled in conformity with the position and shape of the lug *c²* and is designed to engage therewith. Opposed to the lug *d*, and upon the under outer edge of the lid D, I provide a bevel *d'*, which enables the lid D to be placed obliquely against the lug *c²*. Adjacent to the lug *c'* the lid is counter-sunk and perforated to receive a locking bolt E fitted with a squared or many sided head *e* and at its lower end with a right-angled flange or prong *e'*, which prong is designed to engage with the under beveled face of the lug *c'* in locking engagement. In order to provide for the insertion of the bolt E into the perforation of the lid D, the said perforation to allow for the passage of the right-angled prong *e'*, must be larger in diameter than the diameter of the bolt body. In order to prevent the loose engagement of the bolt with the lid, I provide immediately below the head *e* of the bolt a collar *e²* which fills the perforation in the lid and for the purpose to be explained. I form this collar as an eccentric in its relation to the bolt. This eccentric *e²* is formed to lie opposite upon the bolt to the prong *e'*. On the under side of the lid and opposed to the lug *c'*, I provide a lug *d²* laterally beveled on its under face in like manner as lug *c'* and is designed to engage the bolt E when in an unlocked position.

Fig. 4 shows my lid D fitted with a recess F in its edge near the bolt E, intended to receive one of the lever ends *g g* of the key G. In operation, to place the lid upon the box cover, the lid is applied obliquely to the side opposite the locking bolt. The lugs *d²* and *d* are made to engage with each other and the bevel *d'* allows the lid D to be applied in this oblique direction. The lid is then dropped into place and the key G applied to the bolt head *e* and the locking bolt turned into engagement. The eccentric *e²* forces the lid into tight engagement at the opposite side tightening the lug *c²* and lug *d* and the beveled face of the lug *c'* drawing the lid down tightly at the locking point, when the prong *e'* is forced across the bevel. In order to remove the lid, the bolt is un-

locked by the use of the key C, the prong e' forced into tight engagement with the beveled face of the lug d^2 , and the lever g is then thrust into the recess F and by leverage, the lid is loosened so the operator can easily remove the lid.

It will be understood that I intend my invention to be used not only for water meter boxes, but as a cover for any underground receptacle where the same may be practically used.

What I claim as my invention is:—

1. A cover for a protecting casing, having a lug fitted to the inner face of the protecting casing, a lid, a locking bolt fitted within a suitable perforation in the lid of the same, said bolt adapted to engage in locking contact with the lug, and fitted on its body with an eccentric adapted to lie within the perforation of the said lid.

2. A protecting casing, comprising a casing body, and a lid, a lug fitted to the inner face of the said casing body, a locking bolt fitted within a suitable perforation of the said lid, said bolt adapted to engage in locking contact with the said lug, and fitted on its body with an eccentric adapted to lie within the perforation of the said lid.

3. The combination in a protecting casing of a casing body, a cover provided with a neck, a lug fitted to the inner face of said neck, a lid, a locking bolt fitted within a suitable perforation in said lid, adapted to engage in locking contact with the said lug and fitted on its body with an eccentric adapted to lie within the perforation of the said lid.

4. The combination in a protecting casing of a casing body, a neck, a lid, lugs fitted to the under side of the said lid and to the inner face of the said neck: a lug fitted to the opposite inner face of the cover neck and a locking bolt adapted to engage said last named lug, which bolt is fitted with an eccentric collar lying within a suitable perforation in said lid.

5. The combination in a protecting casing of a casing body and a cover neck with a

lid, a lug fitted on the inner surface of the cover neck upwardly beveled on its under side, a lug fitted on the inner face of the cover neck opposite to the upwardly beveled lug and beveled laterally on its under side, said lid fitted on its inner face with a lug beveled to correspond with the said upwardly beveled lug and locking bolt fitted within a suitable perforation in said lid, a right angled prong the lower end of the said locking bolt adapted to engage said beveled face of the said laterally beveled lug, an eccentric fitted upon the body of said bolt to lie within the perforation in said lid, whereby in the operation of turning the bolt into locking engagement, the said lid is forced downward at the locking point and laterally and downward at the point of engagement of the said upwardly beveled lug of the cover neck and its corresponding lug of the lid.

6. The combination in a protecting casing of a casing body, having a cover neck, adapted to receive a lid, with a lug fitted upon the inner face of the cover neck upwardly beveled on its under side, a corresponding bevel upon the under and outer edge of the cover, a lug with a laterally beveled under surface on the inner face of said cover neck opposite to the said upwardly beveled lug; a lug fitted to the under face of the lid beveled to correspond with the said upwardly beveled lug and adapted to engage therewith, a locking bolt provided at its lower end with a right-angled prong or flange adapted to engage with the said laterally beveled lug, fitted within a suitable perforation in the lid and provided with an eccentric collar upon the body of said bolt, adapted to engage with said lid, a recess formed in the outer edge of said lid near the said locking bolt and a key fitted with cross head lever arms adapted to engage said recess.

HORACE W. CLARK.

Witnesses:

HUGH H. HADLEY,

WILLETT H. CORNWELL.