

J. W. CALHOUN.
METER BOX COVER.
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1,280,388.

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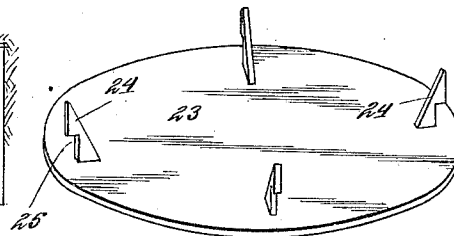
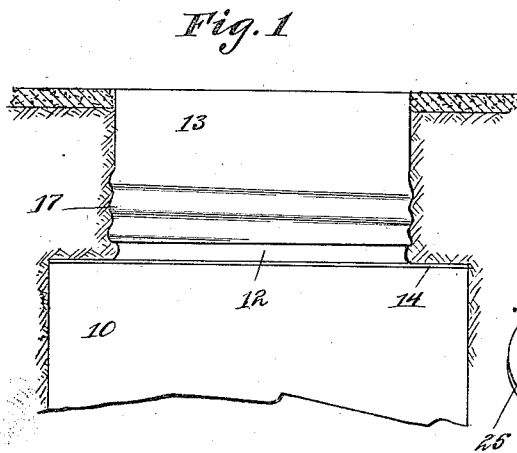
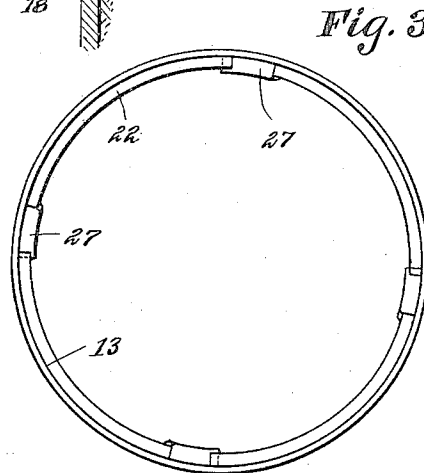
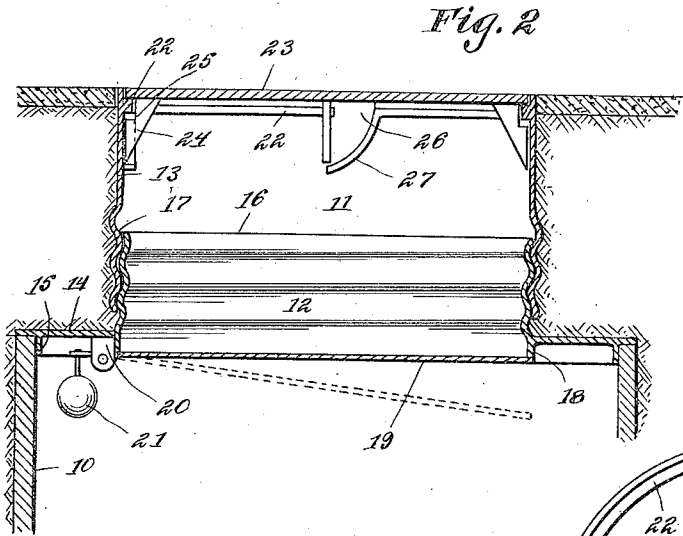


Fig. 4

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UNITED STATES PATENT OFFICE.

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METER-BOX COVER.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN W. CALHOUN, a citizen of the United States, residing at Chester, in the county of Delaware and State of Pennsylvania, have invented new and useful Improvements in Meter-Box Covers, of which the following is a specification.

This invention relates to closures for man holes and is especially designed for use in connection with water meters and the like.

The primary object of the invention is to provide a cover or closure for man hole casing which may be quickly and easily applied or removed, the application of the cover providing for automatically locking the same in position, so that it may not be removed by unauthorized persons.

Another object of the invention is to provide means for associating the cover with the man hole casing in a manner to provide for adjusting the height of the top of the cover to the elevation of the roadway or sidewalk, so that should the elevation be changed, the cover may be easily and quickly adjusted thereto.

A further object is to provide means for preventing the warm air from the man hole from reaching the lid and melting the frost in the top of the casing. This melting results in the formation of ice and causes the lid to stick thereby rendering the removal of the lid difficult.

For the accomplishment of the above objects, the invention includes a novel form of cover having a top or lid mounted upon the man hole casing through the medium of an adjustable extension, said lid having an automatic locking engagement with the extension, so that when the lid is positioned upon the man hole the former will be automatically turned into locking engagement with the latter, thereby securely holding the lid in place.

The invention further consists in providing a supplemental closure positioned below the lid and hingedly secured at the bottom of the cover extension, the supplemental closure being normally held in position to close the man hole and providing a dead air space within the extension, so that the warm air of the man hole is prevented from reaching the upper lid or entering the extension.

In the drawings,

Figure 1 is a view in side elevation of the

upper operating mechanism of the man hole positioned within the sidewalk.

Fig. 2 is a vertical sectional view through the upper operating mechanism of the man hole and cover.

Fig. 3 is a plan view of the cover removed, and

Fig. 4 is a detailed perspective view of the upper closure of lid.

Referring to the drawings in detail, wherein like characters of reference denote corresponding parts, the casing of a man hole is indicated at 10. This casing may represent the man hole of a sewer, an electric conduit or a water meter, the invention being equally applicable to these and various other uses, it being only necessary to change the proportions of the cover to adapt it for the particular use intended.

The cover is designated at 11 and includes sections 12 and 13. The former section comprises a disk 14 of sufficient size to cover the top of the casing 10, the said disk being provided with an annular flange 15 spaced from the edge thereof, which forms an annular shoulder or seat for the reception of the upper edge of the casing 10 and retains the cover in position. The disk 14 is formed with a central opening which is surrounded by a threaded extension 16 which is designed for engagement with the threaded end 17 of the section 13. The central opening in the disk 14 is also provided with a downwardly extending lateral flange 18 which forms a seat for a closure 19, the latter being hingedly or pivotally secured between ears 20 carried by the disk 14. Secured to the closure 19 is a counterbalance weight 21 which is designed to normally maintain the said closure in engagement with the flange 18 so that the opening in the disk 14 will be normally closed. When the closure 19 is opened for any purpose, the weight 21 will automatically return the said closure to its normal position.

The section 13 is provided near the top thereof with an annular flange 22, the said flange being spaced from the top and providing a seat for the upper closure or lid 23. This latter carries a plurality of depending legs 24, which are notched as shown at 25 to receive the inwardly extending flange 22 when the lid is in position. The flange 22 is interrupted as shown at 26 at spaced intervals to provide for the insertion of the legs 24, each of the spaces shown at 26 hav-

ing located adjacent thereto an arcuate guide or cam surface 27, which is designed for contact with the legs 24. In positioning the lid 23 the latter will be partly revolved through contact with the legs 24, the cam surface 27 causing the notches 25 to engage over the flange 22 and thus securely hold the lid in position, the weight of the lid acting to cause such pressure rotation.

By forming the extension of the sections 12 and 13 the lid or top of the cover may be adjusted to the proper height to maintain the same flush with the surface of the roadway or sidewalk. By raising or lowering the cover it may be adjusted without the necessity of adjusting the casing 10. By providing the auxiliary closure 19, warm air from the man hole is prevented from reaching the upper lid 23 and melting the frost, thereby obviating the danger of freezing the moisture which would result in the sticking of the lid, the space within the extension forming a dead air space.

It is believed that when the foregoing description is read in connection with the accompanying drawings, that the construction, operation and advantages of the invention will be fully understood and that a more extended description is therefore unnecessary. The invention is susceptible of various changes and modifications and the right is herein reserved to make such changes as fall within the scope of the appended claims.

Having described the invention what is claimed is:—

1. A man hole cover embodying a disk engageable with the top of the man hole casing, an adjustable extension projecting from said disk, a closure hingedly secured to one end of said extension and a lid removably positioned at the opposite end of the extension.

2. A man hole cover embodying a disk engageable with the top of the man hole casing, a sectional extension projecting from said disk, an automatically operated closure hingedly secured to one end of said extension and a lid removably positioned at the opposite end of the extension.

3. A man hole cover embodying a disk engageable with the top of the man hole casing, a threaded extension projecting from said disk, a hinged auxiliary closure secured to one end of said extension and a lid removably positioned at the opposite end of the extension.

4. A man hole cover embodying a disk engageable with the top of a man hole casing, an extension projecting from said disk, a closure hingedly secured to one end of said extension, a lid removably positioned at the opposite end of the extension and means for partially rotating the lid to lock the latter in position.

5. A man hole cover embodying a disk engageable with the top of the man hole casing, an extension projecting from said disk, a closure hingedly secured to one end of said extension, a lid removably positioned at the opposite end, a flange carried by the extension and legs locking the lid upon the extension.

6. A man hole cover embodying a disk engageable with the top of the man hole casing, an extension projecting from said disk, a closure hingedly secured to one end of the extension, a lid removably positioned at the opposite end, a flange carried by the extension, legs carried by the lid and engageable with said flange and a cam positioned for engagement with the legs for automatically moving the latter into engagement with the flange.

In testimony whereof I affix my signature.
JOHN W. CALHOUN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."