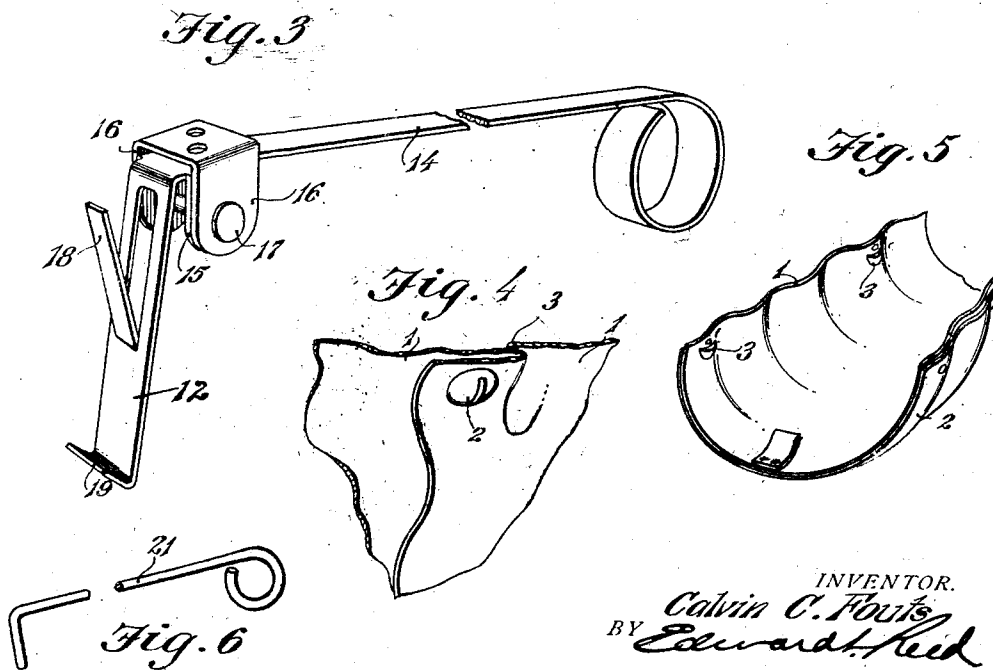
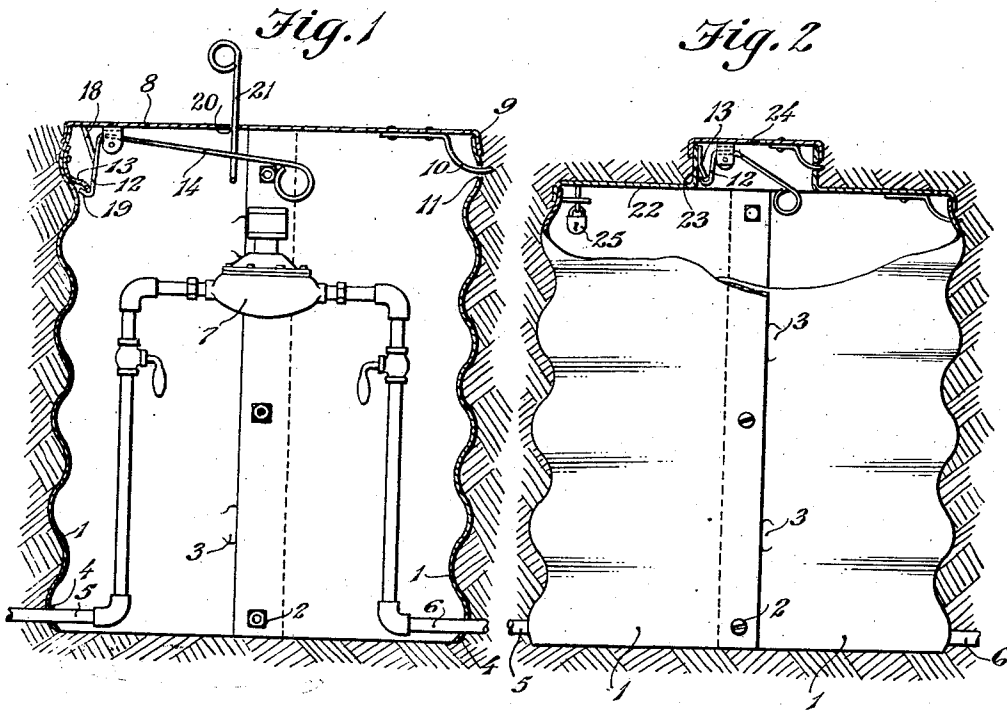


1,265,767.

Patented May 14, 1918.



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METER-BOX.

1,265,767.

Specification of Letters Patent.

Patented May 14, 1918.

Application filed February 7, 1917. Serial No. 147,043.

To all whom it may concern:

Be it known that I, CALVIN C. FOUTS, a citizen of the United States, residing at Middletown, in the county of Butler and State of Ohio, have invented certain new and useful Improvements in Meter-Boxes, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to meter boxes and the like, and the object of the invention is to provide a structure of this kind the principal parts of which can be separated and "nested," or compactly arranged for shipment or storage; to provide such a structure which will be of a strong unbreakable durable character; and to provide such a structure which may be produced at a low cost. It is also an object of this invention to provide a structure of this kind with a closure which will be automatically locked when placed in position thereon; and further to provide an automatic locking device which will be simple and strong in its construction, and which can be easily operated.

In the accompanying drawings Figure 1 is a vertical sectional view taken centrally through a meter box embodying my invention; Fig. 2 is a side elevation, partly broken away, of such a meter box having a slightly modified form of closure; Fig. 3 is a detail view of the locking device; Fig. 4 is a sectional detail view showing the joint between the two parts of the housing; Fig. 5 is a detail view showing the two parts of the housing nested; and Fig. 6 is a detail view of the actuating device for the lock.

In these drawings I have illustrated one embodiment of my invention and have shown the same as applied to a meter box, but it will be understood that the features thereof can be utilized in similar structures of different kinds, such as, for example, a manhole to provide access to under ground service lines of various kinds.

In that form of the device here illustrated I have shown the structure as a whole as comprising a housing, open at both ends, and a closure adapted to be movably secured to one end of said housing. Such a housing is usually set in the ground with its upper end flush with, or near, the surface thereof, so that the closure will be substantially flush with the surface of the ground, or the pavement if it happens to be set in the roadway or sidewalk. The housing may be of any

suitable shape, but in the present instance I have shown it as substantially cylindrical and as formed of two sections, 1, of sheet metal, each of which is substantially semi-circular in shape, in cross section, and the adjacent edges of the two sections of which are adapted to overlap when the sections are arranged in opposed positions to form the housing. The overlapping edges of the two sections are rigidly connected one to the other by suitable fastening devices, such as bolts 2. To render the structure more rigid and to relieve the bolts of shearing strains I have provided each section, near one edge thereof, with one or more shoulders 3 formed by indenting the metal, and arranged to engage the adjacent edge of the other section and form an abutment to limit the relative movement of the parts toward each other. Inasmuch as the principal strain upon a structure of this kind is from the outside it will be apparent that these shoulders will receive this strain and relieve the bolts thereof, and in cooperation with the bolts will form a very rigid and non-yielding connection between the sections. The sections may be formed of plain sheet metal, if desired, but because of the great gain in strength I prefer to use corrugated metal and I have, therefore, shown the sections as corrugated circumferentially, the corrugations of the two sections being arranged in alinement. The lower end of the housing is usually left open, though of course it may be provided with a bottom if desired, and each section has at its lower edge a notch, or opening, 4, to receive the service pipes 5 and 6 leading to and from the meter 7, which is supported within the housing by the vertical portions of these pipes. A structure built as above described possesses very great strength and will withstand practically any pressure to which it may be subjected, due either to freezing or other external causes. The very simple construction and the use of sheet metal as the material from which the housing is formed enables the same to be produced at a low cost. Further the construction is such that the two parts of the housing can be separated and nested one within the other, as shown in Fig. 5, for shipment or storage, thus economizing space and enabling a low freight rate to be had for shipping. The simplicity of the construction enables the housing to be readily assembled after it has

been delivered at the point where it is to be installed. The housing can be made in any desired size, it being obvious that if the depth required is greater than the width of the standard sheet of metal that each section may be made of two or more parts connected together in the usual, or any suitable, manner.

The outer end of the structure is provided with a suitable closure 8 which may be made of any suitable material, but preferably of either sheet metal or cast metal. As here shown the closure is formed with sheet metal and has its circumferential edge bent downward to form a flange 9 which fits snugly about the upper edge of the housing. It is desirable that these closures should be capable of being quickly removed and replaced, and that they should be locked in position when they are replaced. I have, therefore, provided the closure with an automatic locking device of such a character that the placing of the closure in position upon the housing will cause it to be automatically locked in place thereon, and have so constructed this locking device that it can be manipulated by use of a small implement to release the closure and permit to be removed. To accomplish this I have provided the closure near one edge with a downwardly and outwardly extending lip 10 adapted to enter an opening 11 formed in the housing near the upper edge thereof. This lip preferably projects outwardly slightly beyond the flange 9 of the closure and is so arranged with relation thereto that it can be inserted in, or removed from the opening 9 only when the opposite edge of the closure has been raised a considerable distance from the housing. In the present construction the closure must be in an approximately vertical position to permit the upper edge of the housing to enter the space between the lip 10 and the flange 9 of the closure. With the closure in this position on the housing that edge of the closure opposite the lip is moved downward and the lip is thus caused to enter the opening 11 in the wall of the housing.

The closure is provided, preferably on that side opposite the lip 10, with a locking device, such as a pivoted latch 12, adapted to engage a projection or shoulder 13 extending inwardly from the wall of the housing, and in the present instance comprising a lip rigidly secured to the inner wall of the housing. This latch is pivotally mounted near the adjacent edge of the closure and has an arm 14 extending inwardly from its axis and of such a character that it will have sufficient weight to move the latch toward the lip 13 and to hold the same firmly in engagement therewith. The latch may be supported from the closure in any suitable

manner, but as here shown it is provided with ears 15 arranged between the lugs 16, to which they are secured by means of a pivot pin 17. The movement of the latch upon its axis, under the influence of the weight of the arm 14, is limited by a stop arm 18 adapted to engage the closure. The nose of the latch is inclined as shown at 19 and the arrangement of the stop 18 is such that when the closure is out of its normal position the latch will be held in such a position that the inclined nose will engage the edge of the lip 13 and be forced back as the closure is lowered into position, and will then move into position beneath the lip. To enable the latch to be actuated to release the closure the latter is provided with an opening 20 through which there may be inserted a suitable instrument, such as a hook 21, shown in Figs. 1 and 6. By inserting this hook through the opening and turning the hook-shaped portion beneath the arm of the latch, the latch can be moved into an inoperative position and the closure raised by means of the hook. This construction of locking device is not only automatic in operation but is very simple in structure and positive in its action, thus insuring the proper locking of the closure whenever the latter is in position on the housing; and further it is of such a character that it can be produced at a very low cost.

In some instances it is desired to place the closure 8 as a whole beneath the surface of the ground, or pavement, and to provide the same with a small opening leading to the surface through which the meter may be read. Such a construction is shown in Fig. 2 where the closure 22 is provided with a central opening having an upwardly extending flange 23 on which is mounted a supplemental closure 24 provided with locking devices similar to those above described. The main closure may be secured in position in any suitable manner. As shown in Fig. 2 it is secured by means of a padlock 25 which can be operated through the small opening in the main closure.

While I have shown and described one embodiment of my invention I wish it to be understood that I do not desire to be limited to the details of construction shown and described as various modifications will occur to a person skilled in the art.

Having now fully described my invention, what I claim as new and desire to secure by Letters Patent is:—

1. A meter box comprising a substantially cylindrical housing of sheet metal divided longitudinally into two substantially equal sections, the adjacent portions of said sections overlapping, means for rigidly connecting said sections one to the other, a closure having a flange arranged to overlap the upper edges of said sections when they are

connected one to the other, and fastening devices carried by said closure, said sections of said housing having parts to cooperate with said fastening devices to retain said closure in its closed position.

2. A meter box comprising a substantially cylindrical housing of sheet metal divided longitudinally into two substantially equal sections, the adjacent portions of said sections overlapping, means for rigidly connecting said sections one to the other, one of said sections having an opening near the upper edge thereof, and the other of said sections having an inwardly extending lug near the upper edge thereof, a closure having a flange arranged to overlap the upper edges of said sections when they are connected one to the other, and having at one side thereof a part adapted to enter the opening in the one section when the closure is moved to its closed position, and having on the other side thereof a latch adapted to engage the lug on the other section of said housing when said closure is in its closed position.

3. In a device of the character described a housing having an opening near the upper edge thereof and having a shoulder near the upper edge thereof substantially opposite said opening, a closure for said housing having a depending flange, a lip secured to said closure and extending downwardly and outwardly to a point beyond said flange, said lip and said flange being spaced apart to re-

ceive the upper edge of said housing between them, said lip being arranged to enter the opening in said housing when the closure is placed in position thereon, a latch pivotally mounted on said closure adjacent to said shoulder, and means for causing said latch to engage said shoulder when said closure is in position on said housing.

4. In a device of the character described a housing having an opening near the upper edge thereof and having a shoulder near the upper edge thereof substantially opposite said opening, a closure for said housing having a depending flange, a lip secured to said closure and extending downwardly and outwardly to a point beyond said flange, said lip and said flange being spaced apart to receive the upper edge of said housing between them, said lip being arranged to enter the opening in said housing when the closure is placed in position thereon, a bar pivotally mounted on said closure near said shoulder and having a depending portion forming a latch to engage said shoulder, and having an inwardly extending portion serving to move said latch toward said shoulder, said closure having an opening to receive an implement by means of which said inwardly extending portion of said bar may be manipulated to actuate said latch.

In testimony whereof, I affix my signature hereto.

CALVIN C. FOUTS.