

W. E. McCORQUODALE.
SEWER CONNECTION.
APPLICATION FILED SEPT. 29, 1909.

974,752.

Patented Nov. 1, 1910.

2 SHEETS—SHEET 1.

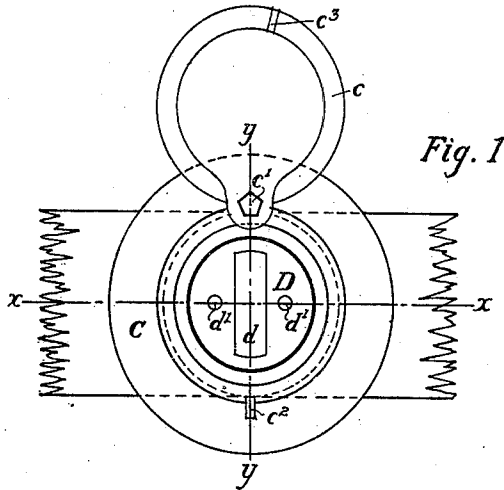


Fig. 1

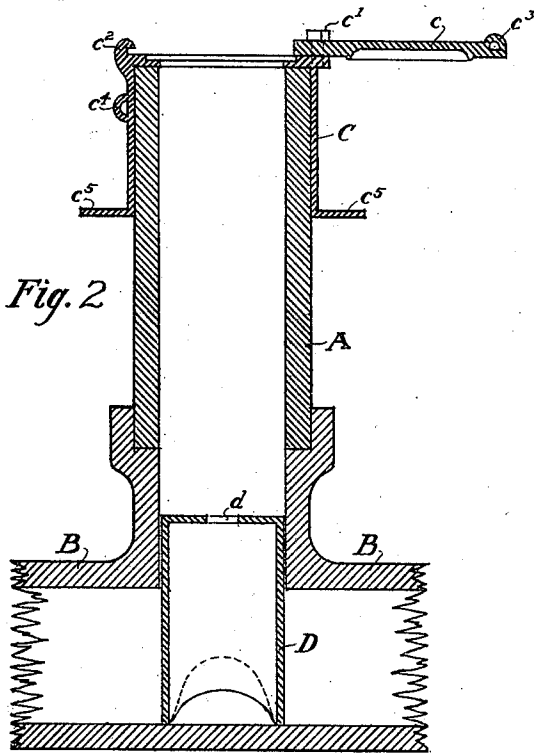


Fig. 2

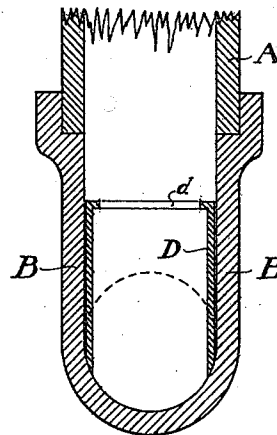


Fig. 3

Witnesses
Wm. J. Distin
M. M. Ommun

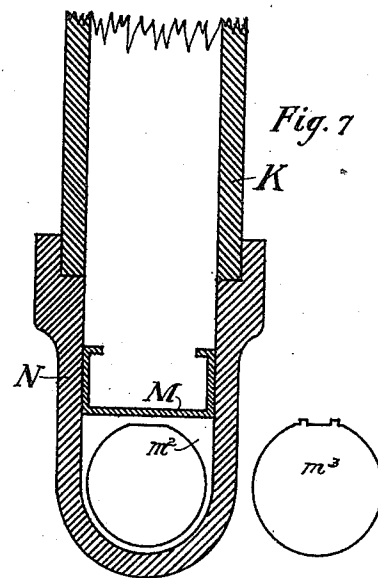
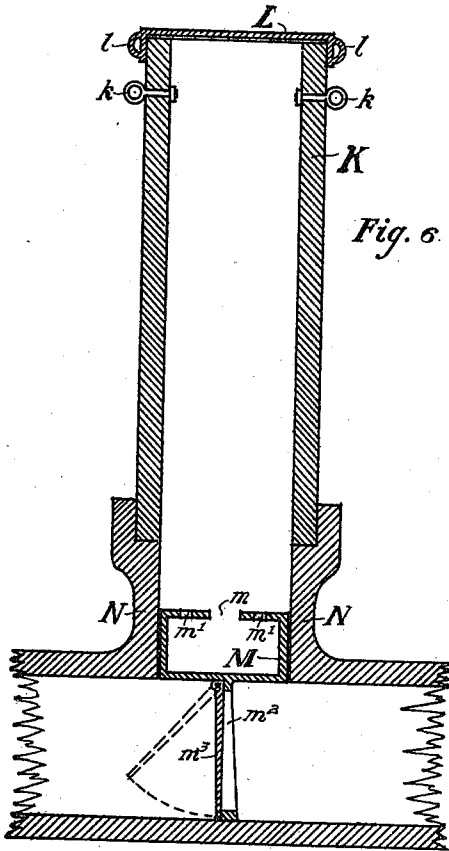
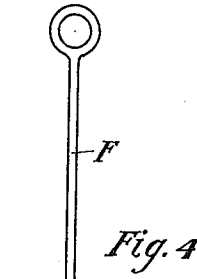
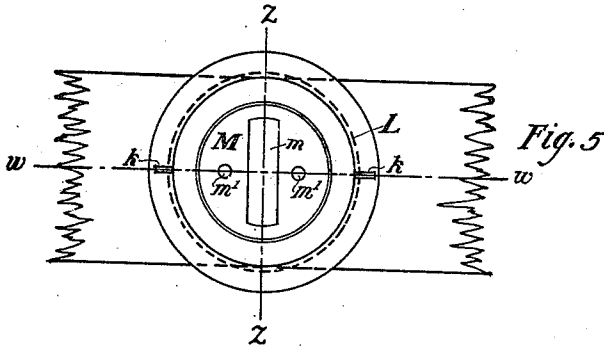
Inventor
Walmer E. McCorquodale
by
J. F. Reale Attorney

W. E. McCORQUODALE.
SEWER CONNECTION.
APPLICATION FILED SEPT. 29, 1909.

974,752.

Patented Nov. 1, 1910.

2 SHEETS—SHEET 2.



Witnesses
H. J. Dietz
M. M. Oemun.

Inventor
Wilmer E. McCorquodale
by
J. F. Beale Attorney

UNITED STATES PATENT OFFICE.

WILMER E. MCCORQUODALE, OF ORANGE, TEXAS.

SEWER CONNECTION.

974,752.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed September 29, 1909. Serial No. 520,104.

To all whom it may concern:

Be it known that I, WILMER E. MCCORQUODALE, citizen of the United States, residing at Orange, in the county of Orange and State of Texas, have invented certain new and useful Improvements in Sewer Connections, of which the following is a specification.

The object of my invention is to provide a sewer connection for individual houses or premises having a cut-off, a sewer union for seating the cut-off adapted to form therewith a back water valve, a key or other means for detaching the cut-off from the said sewer connection, and a cover for the sewer connection adapted to be locked and sealed. My invention to be also adapted for a clean out in case of any stoppage.

My invention is designed for sewer systems which are promoted to rent or lease sewer service, my object being to produce a sewer connection for each house, which, in case of non-payment of rent, or the house being vacant, may be cut-off from the sewer system, and the connection locked and sealed to prevent access thereto by unauthorized persons. The cut-off for my sewer connection serves also as a back water valve and, in case of any stoppage, serves as a clean out. An air tight cover for the connection is provided thus protecting the house from sewer gas.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan view of my invention. Fig. 2 is a central vertical section taken on the line $x-x$ of Fig. 1. Fig. 3 is a central vertical section taken on the line $y-y$ of Fig. 1 and Fig. 4 is a detail view. Fig. 5 is a top-plan view of a modification of my invention the cap being removed. Fig. 6 is a central vertical section taken on line $w-w$ of Fig. 5, and Fig. 7 is a central vertical section taken on line $z-z$ of Fig. 5.

Referring more particularly to the drawings, it will be seen that my sewer connection is composed of a vertical pipe A connected by a sewer union B to a line of sewer, or sewer system, not shown. To the upper end of the pipe A is fitted a casing or casting C provided with a lid or cover c , and said lid is shown as pivoted by set screw c^1 to the upper end of said casting. Diametrically opposite screw c^1 a lug c^2 is cast to the upper end of the casting and projects

over its end in the path of the lid c , its projecting end binding upon the top of said lid as it is swung in place on top of the casting, thus clamping the lid in place. A gasket, not shown, is interposed between the lid and casting forming a gas tight joint. Instead of providing a pivoted lid, the lid may be fastened in place by a series of set screws passing through the lid and into the casting; a gasket being interposed to form a gas tight joint.

c^3 denotes a lug cast integral with lid c having an eye formed therein and c^4 denotes a like lug cast integral with pipe A in position to register under the lug c^3 when lid is closed. The eyes in said lugs serve for the passage of sealing wires for sealing the lid to the casting.

c^5 denotes a flange projecting outwardly at right angles from the bottom of casting C, and serves as an anchor for said casting and pipe A when in position and packed around with earth. If, for purposes of economy, this flange should be omitted and the length of casting reduced, I prefer in such case to secure the casting C to pipe A by means of two or more eye bolts passing through the casting and pipe and secured by nuts on the inside of said pipe.

D denotes a cut-off detachably mounted in pipe A and consists of a cylinder, the outside diameter of which is slightly smaller than the interior diameter of said pipe. Said cylinder is of sufficient length to project down into the sewer union B and the lower end of the cylinder, as shown in Figs. 2 and 3, is shaped to fit the interior walls of union B. When said cut-off is in position it not only closes the lower end of pipe A, but also projects into and closes the sewer union, and together with said union forms a back water valve. The upper end of said cylinder is headed and the head provided with a slot d for the admission of a key F for the insertion and removal of the cut-off. Two perforations d^1 are also provided in said head for securing a wire thereto for removing the cut-off.

The sewer union B is composed of a vertical branch or connection of like diameter as pipe A with which it connects, and a horizontal branch also of the same diameter adapted for connection at each end with a line of sewer. It is evident from the construction of my sewer connection that be-

sides its advantages in affording a cut-off and back water valve it is also adapted for a clean-out in case of any stoppage.

To cut-off sewer service from a house provided with my sewer connection, said connection is opened by first breaking the seal, then turning back the pivoted lid *c* and inserting the cut-off into pipe A and lowering it by the key until it reaches the bottom of the lateral branch of the sewer union. A gasket is then placed over the top of the casting C and the lid *c* turned forward covering the gasket and top of casting and forced under the lug *c*² until it binds tightly upon the top of the lid. Sealing wires are then passed through the eyes in the lugs and suitable seals of lead or other material applied to said wires.

In the modification shown in Figs. 5, 6 and 7, I employ a vertical pipe K to which are secured eye bolts *k*. As a cover for the upper end of said pipe I employ a cap L provided with eye lugs *l*. The eyes in the lugs and bolts serve as fastenings for the sealing wire, and a gasket, not shown, is interposed between the cap and top of pipe. M denotes the cut-off which is cylindrical in shape headed at its upper end and provided with a slot *m* for the insertion of a key and perforations *m*¹ for fastening wire. Either a key or wire may be employed for placing the cut-off in position or removing same or both may be used. The lower end of the cut-off is headed and to this head is cast integral a valve seat *m*² which fits snugly into a sewer union N hereinafter mentioned. To the lower head of the cut-off above and to one side of said seat is suspended by a hinge a flap valve *m*³ which normally seats itself by gravity on the valve seat *m*². Thus the flap valve opens or swings but one way which should be in a direction outwardly from the head of the sewer sys-

tem, thus in case of water or sewage backing up the sewer, the flap valve would intercept it, while a like flow in the opposite direction would open the valve and pass on to the outlet of the sewer system. Instead of having the valve seat *m*² forming a part of or attached to the lower head of the cut-off, it may be bolted on the interior wall of the sewer union or it may be cast integral therewith.

I do not confine myself to any particular form or material for the construction of the sewer union B and instead, a T-union or a Y-union may be used.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A sewer connection for houses and premises embracing a vertical outlet pipe, a cover or closure for the upper end of said pipe, means for securing and sealing said closure to said pipe, a vertically movable cut-off detachably mounted in said pipe adapted to close the lower end of said pipe, and a sewer union for the lower end of said pipe adapted to seat said cut-off and form therewith a back water valve for the sewer.

2. A sewer connection for houses and premises embracing a vertical outlet pipe, a closure for the upper end of said pipe, means for locking and sealing said closure, a vertically movable cut-off mounted within said pipe adapted to close its lower end, a sewer union for the lower end of said pipe adapted to seat said cut-off, means for removing said cut-off from said vertical pipe and sewer union.

In testimony whereof I affix my signature in presence of two witnesses.

WILMER E. McCORQUODALE.

Witnesses:

MORGAN G. DAVIES,
J. M. McCORQUODALE.