No. 681,762. Patented Sept. 3, 1901.

W. VOLKHARDT.

METER BOX.

(Application filed Nov. 3, 1900.)

(No Model.)

Fig. 1.

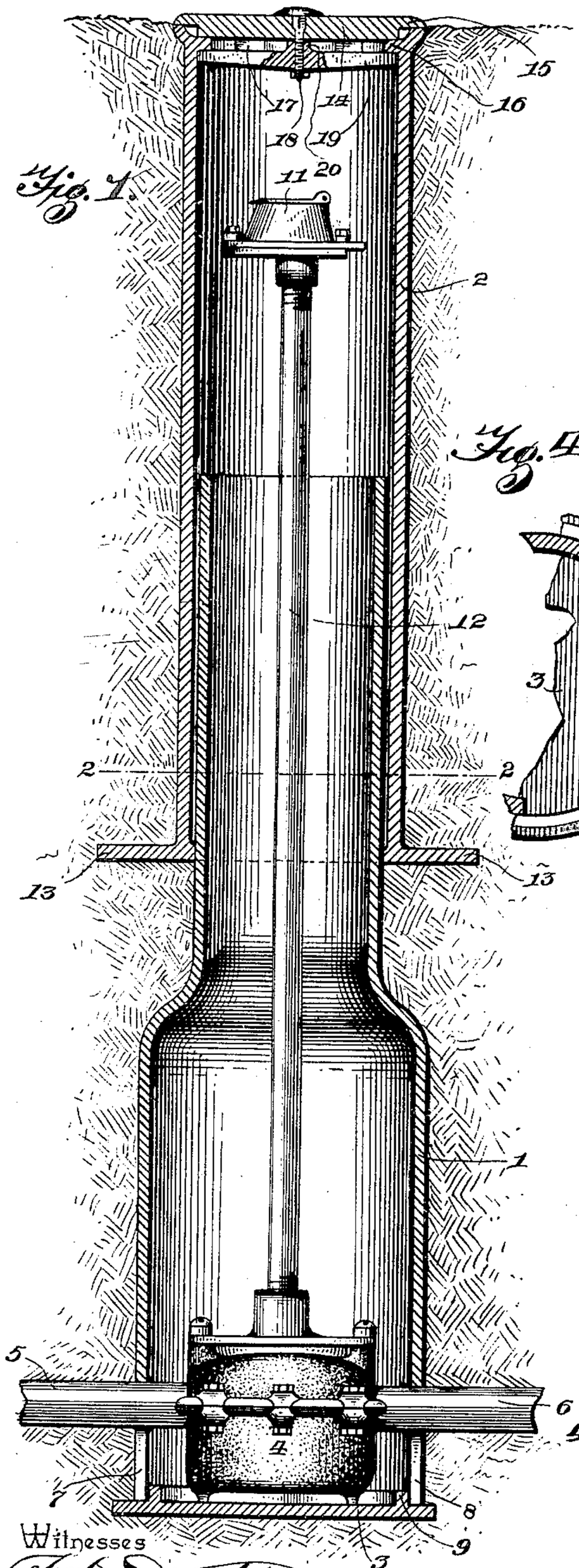


Fig. 2.

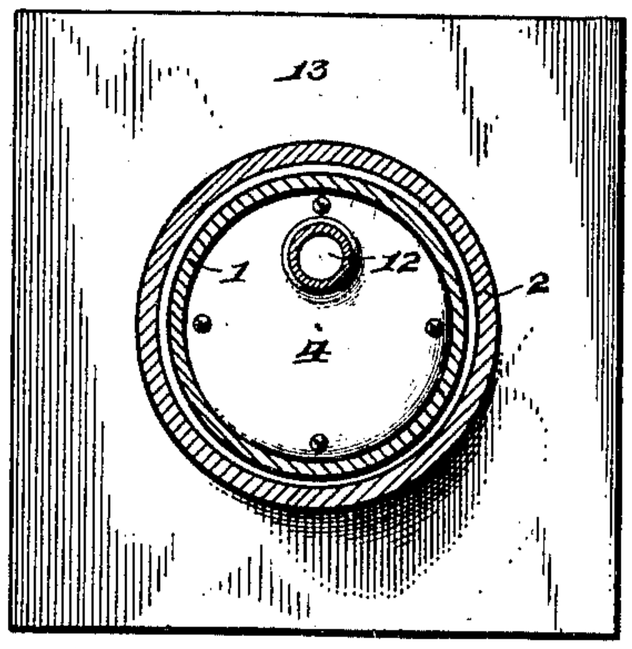


Fig. 4.

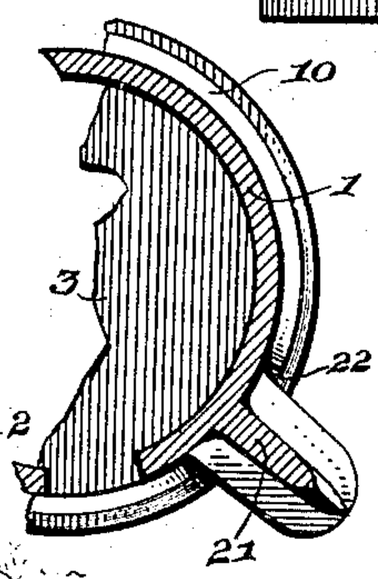
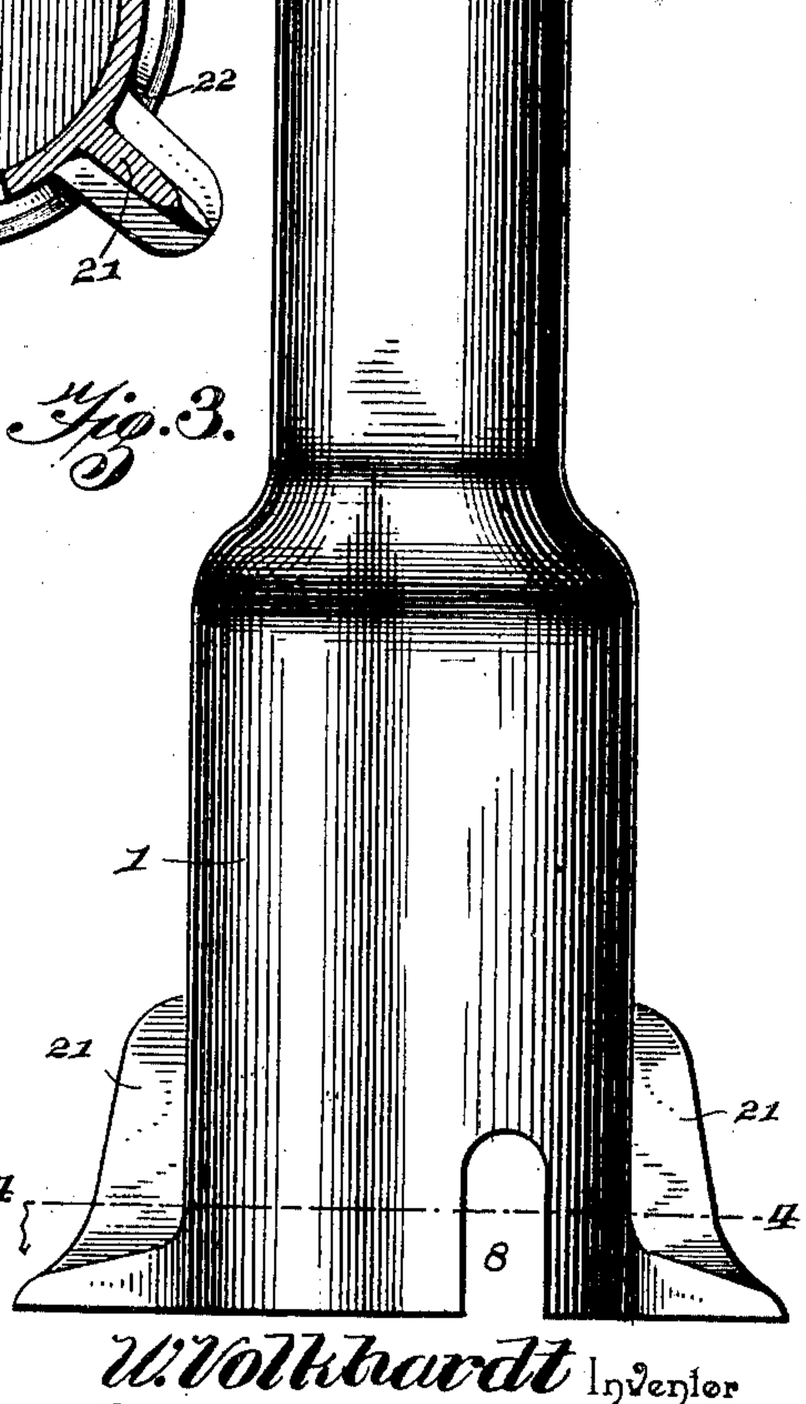


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM VOLKHARDT, OF STAPLETON, NEW YORK.

METER-BOX.

SPECIFICATION forming part of Letters Patent No. 681,762, dated September 3, 1901.

Application filed November 3, 1900. Serial No. 35,408. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM VOLKHARDT, a citizen of the United States, residing at Stapleton, in the county of Richmond and State of New York, have invented a new and useful Meter-Box, of which the following is a specification.

This invention relates to boxes or casings for meters and the like placed below the surface of the ground, and has for one object to provide an improved box of this character which is arranged to effectively house the meter and its connections and to protect the same from being damaged or displaced by the contact of vehicle-wheels with the upper exposed end of the box, through which access is had to the meter.

It is furthermore designed to provide an improved telescopic box, so as to be adjustable to accommodate itself to the depth of the meter and also arranged so that the upper section of the box may be held against being forced downwardly by the impact of a vehicle-wheel with the top thereof.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a central longitudinal sectional view of the improved box or casing inclosing a water-meter and the indicating-dial thereof, which are placed in the ground and below the level of the street. Fig. 2 is a transverse sectional view taken on the line 2 2 of Fig. 1. Fig. 3 is a side elevation of a modified form of the lower section of the box or casing. Fig. 4 is a detail transverse sectional view taken on the line 4 4 of Fig. 3.

Corresponding parts are designated by like characters of reference in all of the figures of the drawings.

Referring to the drawings, it will be seen that the present box is formed in two telescopic sections 1 and 2, which are tubular in shape, the upper end of the lower section 1 being received within the open bottom of the upper section 2, so that no dirt nor gravel can work in between the sections and thereby lock the same against being separated should it become necessary to remove the upper section. The lower section is substantially bell-shaped and is open at its opposite ends. A base-support is provided for the bottom of the lower section by means of a plate 3, which is of greater diameter than said section, so that the weight of the latter will not sink it. This plate is also designed for the support of the meter 4, which is provided with the opposite inlet and outlet pipes 5 and 6, respectively. The bottom of the lower box-section is provided with the opposite slots or bifurcations 7 and 8, so as to accommodate said pipes. It will be understood that the base-plate is first placed at the bottom of the hole in the ground, after which the meter is placed upon the plate, and then the bottom section of the box is placed upon the plate, so that the bifurcated or slotted portions of the former straddle the inlet and outlet pipes of the meter. The base-plate is also provided with an upstanding marginal flange 9 to snugly fit the inner side of the bottom of the section 1, as shown in Fig. 1, or arranged to snugly embrace the outer side of said section, as shown at 10 in Fig. 4. The purpose of this flange is to hold the lower box-section against lateral displacement from the base-plate. The recorder or indicating-dial 11 for the meter is located at a suitable distance below the surface of the ground, so that it may be conveniently exposed to take the state of the meter, but at the same time is located out of danger from passing vehicles and the like. This dial is commonly supported upon a pipe-casing 12, rising from the top of the meter and within the bottom section of the box. The upper box-section is slipped downwardly over the upper portion of the lower section and has a broad base-flange 13, so that when the dirt is filled in around the box the upper section will be supported upon the base-flange independently of the bottom section. This upper section extends to the surface of the street and has its upper open end normally closed by means of a cover 14. This cover is in the

form of a metal plate having an outer marginal flange 15, which is flush with the upper or outer side of the plate and is designed to rest upon the upper edge of the upper box-section, so that the body portion of the plate may be received within the open end of the section and rest upon an inner marginal flange 16, formed integral with said section. This flange is provided with a plurality of notches or openings, as indicated at 17. Projecting downwardly through the cover-plate is a central bolt or screw-threaded fastening device 18, and to the lower projecting end thereof is secured the intermediate portion of a diametric cross-bar 19, which has an intermediate integral collar 20 formed upon the upper side of the bar and through which the fastening passes. This collar is designed to space the cross-bar below the cover-plate for a distance equal to the thickness of the flange upon the upper box-section, and the cross-bar is substantially as long as the diameter of the section, so that in placing the cover upon the box the opposite ends of the locking cross-bar are first received through diametrically opposite notches in the inner marginal flange of the box, after which the cover is turned so that the ends of the cross-bar may take under the marginal flange, and thereby lock said cover against accidental displacement.

From the foregoing description it will be apparent that the box-sections are entirely independent of each other, so that in placing the same in position they may be telescoped to accommodate the box to the depth of the meter; also, it is only the upper section that is exposed to contact with vehicle-wheels and the like, and in view of the broad base 13, which is embedded in the ground, said section is held against being forced downwardly to the danger of the indicating dial or register of the meter.

As best indicated in Figs. 3 and 4, the lower box-section may be provided with one or more external vertical wings or flanges 21, that extends upwardly from the bottom edge of said section and is designed to prevent the section from working loose and turning in the ground. When an outer marginal flange is used upon the base-plate 3, as shown in Fig. 4, said flange is provided with one or more notches or recesses 22 to accommodate the vertical wing 21; also, instead of having the slots or bifurcations 7 and 8 diametrically opposite they may be arranged opposite and in the same half-section, so as to accommodate meters which do not have diametrically opposite inlet and outlet pipes.

It is especially important that the base-flange of the upper section be located at the bottom of said section, so as to form a stable support therefor, and to have the upper section embrace the lower section without touching the latter, whereby the flange does not limit the adjustment of the telescopically-connected sections, as would be the case should the upper section be placed within the lower section, for the upper edge of the latter would be in the path of the downward movement of the flange 13. Moreover, as the top section does not touch the bottom section there is no danger of the latter section being forced downwardly when the upper section is being placed in position, and likewise no danger of the two sections becoming interlocked.

What is claimed is—

1. A meter and stop-cock box, comprising a base-plate, having an upstanding circumferential flange, an open-ended tubular bottom section of less diameter than the base-plate and provided with a pair of bifurcations in its lower end, the lower marginal edge of the bottom section resting upon the base-plate within the outer marginal edge thereof at one side of and snugly fitting the upstanding flange, an upper open-ended tubular box-section telescopically embracing the upper portion of the bottom section, and having an outwardly-directed plate-like marginal flange of extended width at the bottom thereof.

2. A box or casing for street-meters and the like, having upon its upper end portion an inner marginal flange provided with a plurality of diametrically opposite notches, and a removable cover, having a central downwardly-projecting fastening device, and a locking cross-bar, having an intermediate upstanding collar receiving the fastening device and spacing the bar below the cover, the ends of the bar being passed downwardly through opposite notches of the flange and then engaged beneath the flange.

3. A box or casing for street-meters and the like, comprising a base, having an upstanding marginal flange, provided with one or more notches, and a box or casing having its opposite ends open, and provided with one or more upstanding external wings at the bottom edge thereof and received within the notches in the marginal flange of the base.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM VOLKHARDT.

Witnesses:

CHARLES F. PARET,

SAMUEL JEFFERSON.