

(No Model.)

D. O'NEIL.
CURB BOX COVER.

No. 492,227.

Patented Feb. 21, 1893.

Fig. 1.

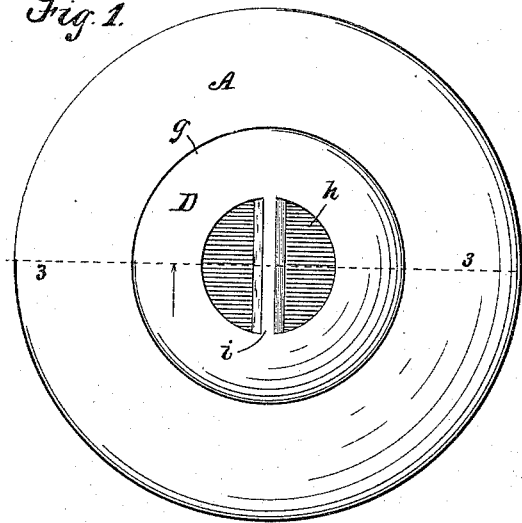


Fig. 2.

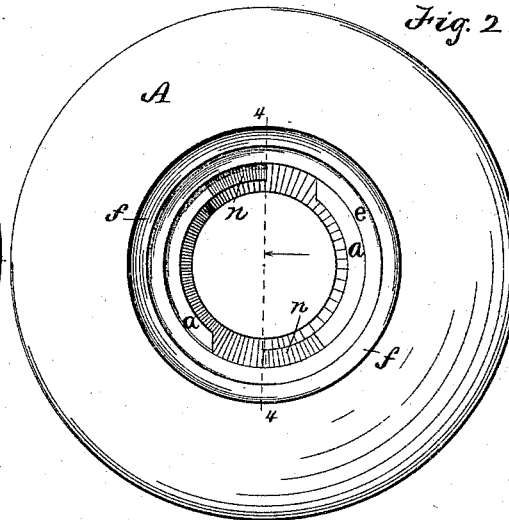


Fig. 3.

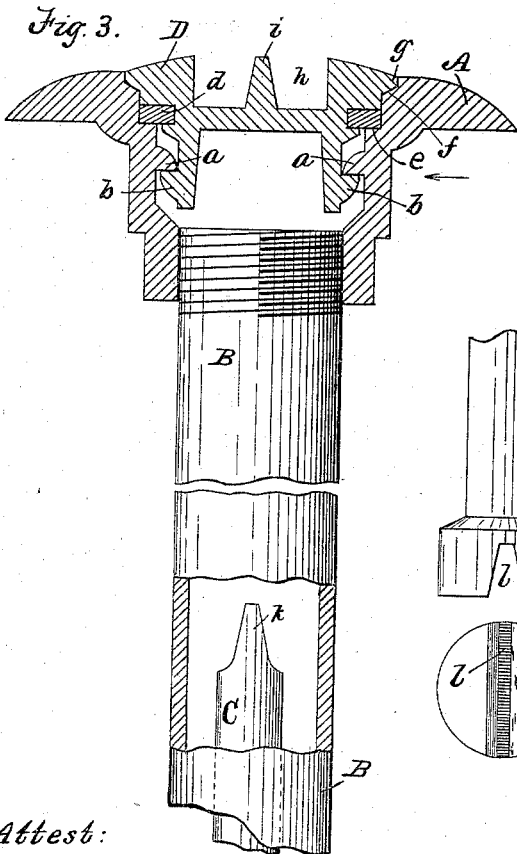


Fig. 4.

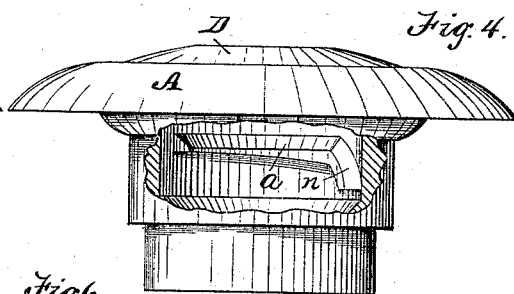


Fig. 6.

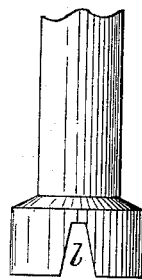


Fig. 5.

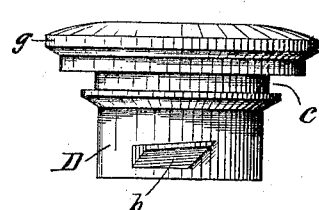
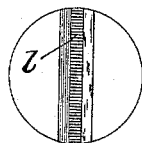


Fig. 7.



Attest:

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Inventor

Daniel O'Neil,
By E. B. Whitmore, Atty.

UNITED STATES PATENT OFFICE.

DANIEL O'NEIL, OF ROCHESTER, NEW YORK, ASSIGNOR OF TWO-FIFTHS TO
HOWE & BASSETT, OF SAME PLACE.

CURB-BOX COVER.

SPECIFICATION forming part of Letters Patent No. 492,227, dated February 21, 1893.

Application filed June 6, 1892. Serial No. 435,685. (No model.)

To all whom it may concern:

Be it known that I, DANIEL O'NEIL, of Rochester, in the county of Monroe and State of New York, have invented a new and useful improvement in Curb-Box Covers, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

The object of my invention is to produce a
10 curb box cover that shall be less easily tampered with than those now in use by unauthorized persons and one that can be more readily operated by those whose business it is to use them. Also to furnish in this invention a device which shall contain a packing ring
15 and be water tight and also have a metal-to-metal bearing and thus be unyielding to the shock or pressure of the wheels of vehicles or the tread of horses which may pass over it.
20 The invention is hereinafter more fully described and particularly pointed out in the claim.

Referring to the drawings Figure 1 is a plan of my improved curb box cover. Fig. 2 is a
25 similar plan with the plug removed. Fig. 3 is a side elevation vertically sectioned as on the dotted line 3 3 in Fig. 1. Fig. 4 is a side elevation seen as indicated by arrow in Fig. 2 a part being broken out and vertically sectioned as on the dotted line 4 4 in Fig. 2.
30 Fig. 5 is a side elevation of the plug viewed as indicated by arrow in Fig. 3. Fig. 6 is a side elevation of the working end of the operating wrench; Fig. 7 being an end view of
35 the same.

Referring to the parts shown, A is an annular crowning bed-piece which rests upon the side walk or other place in or about the street in the usual manner. When in the street or
40 drive way this bed-piece is set into stone.

B is a pipe threaded in the bed-piece and extending downward to the curb box and is made longer or shorter according to the depth of the trench.

45 C is the rod to operate the cock the latter being of ordinary construction and not shown.

D is a circular plug held within the bed-piece to close the central opening therein. The bed piece is formed with two internal
50 segmental spiral ribs *a a* opposite each other and the plug is formed with corresponding

spiral or inclined bosses *b b* which when the plug is put to place, enter in under the respective spiral ribs. The lower or terminal ends of the ribs *a a* turn abruptly downward, 55 as shown at *n* in Figs. 2 and 4 which allow the bosses of the plug to readily glide in under the ribs. By entering the plug into the bed-piece so that its bosses shall pass under the spiral ribs and turning it horizontally it 60 will be drawn firmly down to a seat or bearing upon the interior of the bed-piece. The plug is formed with an annular recess *c* to receive a packing ring *d* of leather, rubber or other suitable material. The bed-piece is 65 formed with an internal horizontal circular ledge *e* upon which to receive the packing ring, as shown. It is further formed with a circular depressed seat *f* to receive the peripheral part, *g*, of the plug. The parts are so 70 proportioned that when the plug is being turned downward in the bed-piece the packing ring first comes in contact with the lower ledge or seat *e*; and by further turning the plug the part *g* meets the upper seat *f*; in this 75 case bringing metal to metal. This solid metal bearing between the bed-piece and the plug renders the latter rigid and unyielding in its place in the bed piece so that the packing ring will not be injured or too severely 80 pressed by the weight of a vehicle should its wheels pass over the plug. This is a very great advantage for while the unyielding bearing between the plug and the bed-piece effectually protects the packing ring the latter 85 renders the joint between the plug and the bed-piece water tight. The upper surface of the plug like the upper surface of the bed-piece is crowning and formed with a circular depression *h* crossed diametrically by a V- 90 shape rib or bridge *i*. This depression and rib are for the purpose of receiving a wrench—such as shown in Figs. 6 and 7—for the purpose of turning the plug into and out of the bed-piece. This same wrench is also used 95 upon the rod C to operate the valve or cock, the upper end of the rod being formed V-shape similar in cross section to the bridge *i*. The sharp upward inclines *n n* at the terminals of the spiral ribs *a a* serve to lift the 100 plug out of the bed-piece when it is turned in an opposite way to that which carries it down

onto its seat, as above set forth. The top of the spiral is substantially straight or horizontal so that when the plug reaches the top of the incline *n* it will be above the top of the bed-plate so that it can be removed from it without having to rotate it nearly one whole revolution to reach the top of the spiral. When the plug is thus raised from its seat it may be readily taken hold of by the hand and wholly removed from the bed piece. The plug is purposely formed so that it cannot be taken out of the bed-piece by hand until it is first raised by means of the wrench used in turning it as just above stated.

What I claim as my invention is—

A curb box cover consisting of an annular, internally shouldered bed piece adapted to be secured to the top of the pipe, said bed piece being provided with two internal, spiral segmental ribs, diametrically opposite each other, each having its lower end abruptly inclined

downward, and having its upper surface substantially horizontal, and its lower surface inclined downward, and a cylindrical plug adapted to fit within the bed piece, and having shoulders to engage with the shoulders of the bed piece, and also with two projecting bosses diametrically opposite each other to engage with the spiral ribs of the bed piece, the upper face of each of said bosses being flat to engage with its respective rib, to secure to the plug in the bed piece, and the lower face being beveled or inclined to engage with the inclined end of the rib and raise the plug out of the bed piece, substantially as set forth.

In witness whereof I have hereunto set my hand, this 2d day of June, 1892, in the presence of two subscribing witnesses,

DANIEL O'NEIL.

Witnesses:

ENOS B. WHITMORE,
M. L. McDERMOTT.