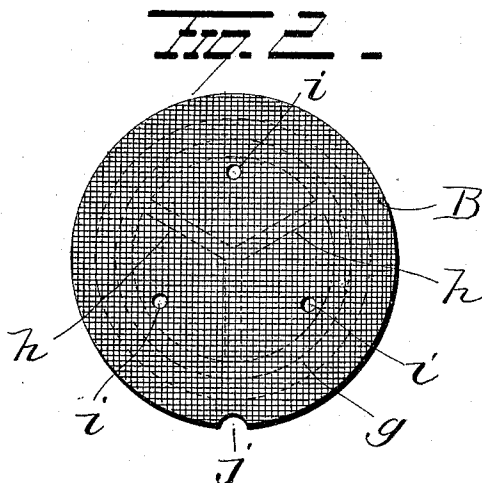
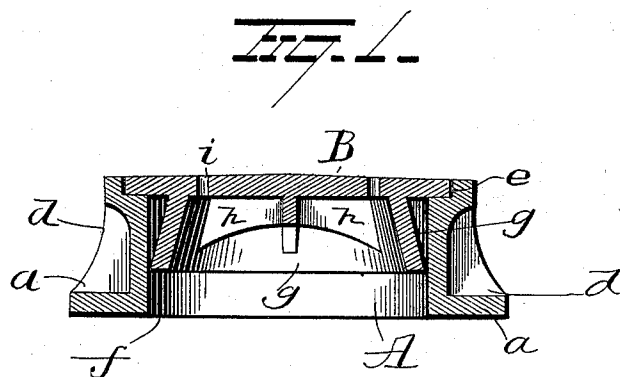


(No Model.)

P. J. HICKEY & C. F. NORRIS.
MANHOLE COVER.

No. 545,889.

Patented Sept. 10, 1895.



Witnesses

E. J. Nottingham
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UNITED STATES PATENT OFFICE.

PETER J. HICKEY AND CHARLES F. NORRIS, OF NEW YORK, N. Y.

MANHOLE-COVER.

SPECIFICATION forming part of Letters Patent No. 545,889, dated September 10, 1895.

Application filed August 3, 1894. Serial No. 519,400. (No model.)

To all whom it may concern:

Be it known that we, PETER J. HICKEY and CHARLES F. NORRIS, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Manhole-Covers; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to an improvement in covers for manholes of sewers, the object of the invention being to so construct the same that it cannot be accidentally tipped when any weight—such as that of a person—is brought to bear thereon.

A further object is to construct a manhole-cover in such manner that it cannot be tipped and at the same time be capable of ready removal.

A further object is to produce a manhole-cover which shall be simple and substantial in construction and effectual in all respects in the performance of its functions.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a sectional view illustrating our improvements. Fig. 2 is a detail view of the cover.

A represents a cap or collar adapted to be placed in the top of the manhole, said cap or collar being made at its end with a laterally-projecting annular flange *a*, and said collar and flange provided at intervals with ribs *d* to strengthen the cap or collar. The upper end of the cap or collar A is made with an annular recess *e* for the reception of the cover B, and the inner wall *f* of said cap or collar is made parallel with the wall of the manhole and at right angles to said cover B. From the under face of the cover B an annular flange *g* projects, said flange *g* being made flaring downwardly—that is to say, the flange *g* is of greater diameter at its free end than at its point of juncture with the cover B. From this construction and arrangement of parts it will be seen that should anything strike the cover B which would tend to tip or tilt it the free end of the annular flange *g* would

strike the wall of the cap or collar A at a point opposite to where the cover was struck, and thus the cover would be prevented from tipping, thereby preventing injury to a person treading on the cover.

The cover B is provided on its under face with ribs *h* within the flange *g*, whereby to strengthen said cover. The cover is also made with perforations *i* to permit the escape of gases from the sewer, and the top of said cover is roughened to prevent persons slipping thereon. The cover B is also made with a notch or recess *j* for the reception of a suitable device by means of which to remove it when desired.

Our improvements are very simple in construction, will prevent the accidental tipping of the cover and at the same time permit its ready removal, and are effectual in all respects in the performance of their functions.

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a collar having a seat formed thereon, of a cover having an annular flange projecting from the inner face thereof on an incline, the free end of said flange fitting the inside of the collar, substantially as set forth.

2. The combination with a collar having a seat formed at the upper edge thereof, of a cover fitted to the seat and provided with an annular flange which inclines outwardly from its point of engagement with the cover, its free end fitting the inner wall of the collar, and ribs extending across inside of the flange.

3. The combination with a collar, of a cover having an outwardly inclining flange on its lower face, the lower edge of the flange engaging and fitting the inner wall of the collar, and the cover having perforations there-through inside of the flange, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

PETER J. HICKEY.
CHARLES F. NORRIS.

Witnesses:

JANDINE LYNG,
JOSEPH A. BRADY.