No. 636,722. Patented Nov. 7, 1899.

T. P. GREGER.

MANHOLE COVER.

(No Model.) (Application filed Jan. 12, 1899.)

Fig. 1.

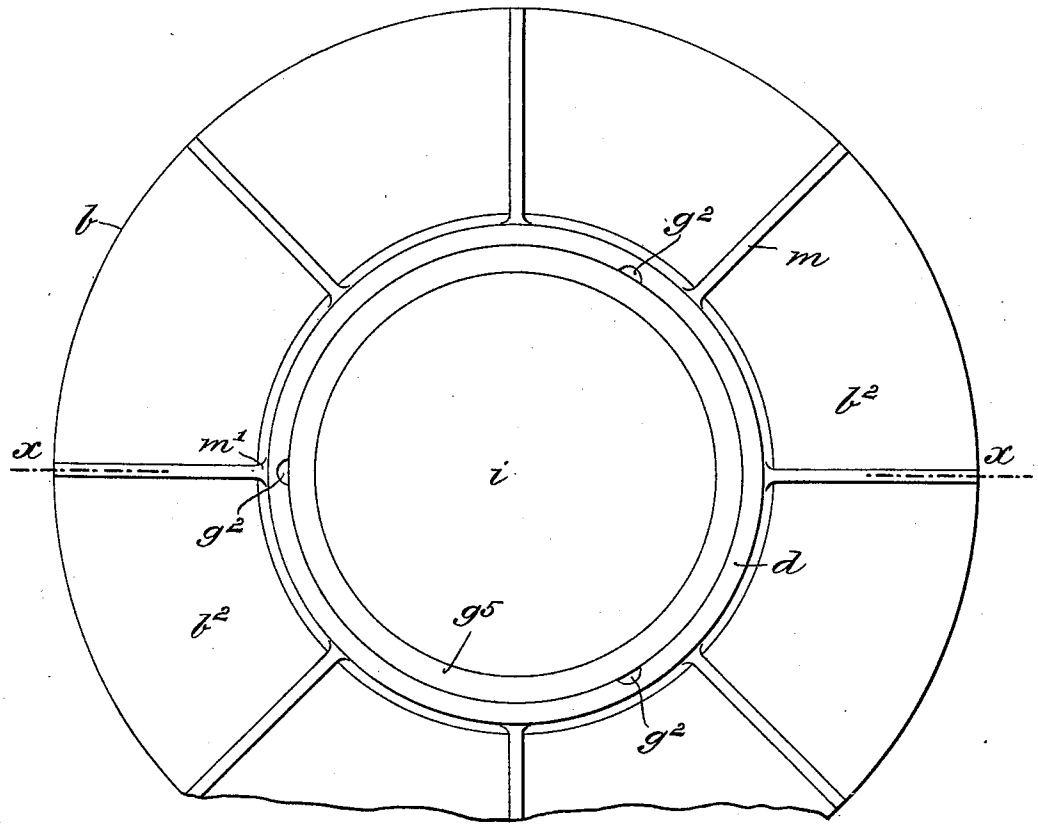
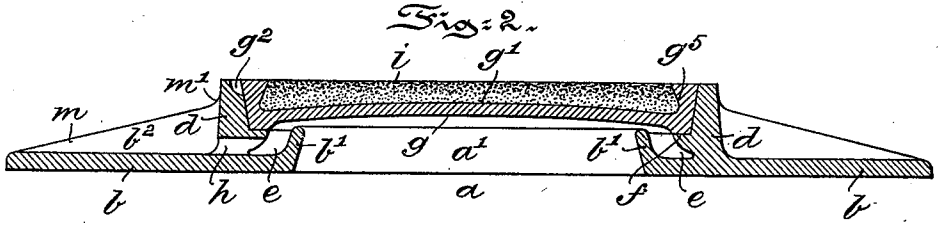


Fig. 2.



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UNITED STATES PATENT OFFICE.

THOMAS P. GREGER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE GREGER MANUFACTURING COMPANY, OF CAMDEN, NEW JERSEY.

MANHOLE-COVER.

SPECIFICATION forming part of Letters Patent No. 636,722, dated November 7, 1899.

Application filed January 12, 1899. Serial No. 701,911. (No model.)

To all whom it may concern:

Be it known that I, THOMAS P. GREGER, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Manhole-Covers, of which the following is a specification.

My invention has relation to covers for manholes—such as are provided for sewers, electric conduits, vaults, and gas-mains—located in pavements or in streets or roadways; and it relates particularly to the construction and arrangement of such covers for said purposes.

The principal objects of my invention are, first, to provide a cover and seat for manholes of simple construction which shall form an efficient seal for the manhole and shall prevent when the cover is in position the leakage of water or the entrance of dust, &c., into the sewer, conduit, vault, or main covered thereby, and, second, to provide a cover and seat for manholes, said seat consisting of a plate provided with an opening surrounded with an upwardly-extending annular flange or rim, said plate being also provided with an annular upwardly-projecting seat concentric with said rim and with which seat the cover forms a dust-proof connection, said seat being provided at or near its base with one or more drain-holes, forming a communication between the space outside of the annular seat and the space between the rim and seat.

My invention, stated in general terms, consists of a cover and seat for manholes constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and scope of my invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a top or plan view of a manhole-cover embodying the main features of my invention; and Fig. 2 is a vertical section, taken on the line $x\,x$ of Fig. 1, of the manhole-cover, illustrating one form of my invention.

Referring to the drawings, a represents the manhole-entrance to a sewer, conduit, or the like, upon which is mounted a plate b, provided with an opening a', surrounded by an annular upwardly-projecting flange or rim b' of approximately the same diameter as the manhole a and of preferably conical or converging form. Integral with or suitably secured to the plate b is an annular upwardly-projecting wall d concentric with the rim b' and larger in diameter than the opening a', thus forming between the rim b' and wall d an annular chamber or space e. The wall d is provided with an inwardly-projecting annular ledge or flange f, forming a seat for the cover g, the external periphery of which fits snugly upon the internal periphery of the wall d. At or near the base of the wall d is cut one or more openings or holes h, extending from the outside of the wall to the space e and forming a drain-hole from the space e to that portion b^2 of the plate b upon which the asphalt, block, or similar pavement is laid.

The cover g is preferably dish-shaped in cross-section and slightly convexed, as at g', in its floor. The annular wall g^5 of the cover converges or narrows from the base to the top in order to more securely hold within the cover the filling material. The cover g, if desired, may be filled with concrete, asphalt, or like material i, and its top is flush with the top of the wall d. Between the periphery of the cover g and the wall d are formed at certain points the semicircular recesses g^2, in which may be inserted the point of a crow-bar to lift the cover from its seat. As illustrated in Fig. 2, the ledge f, forming the seat or support for the cover, is arranged below the top of the rim b', thus permitting the cover to fit down closely over said rim.

Any moisture leaking through the connection between the wall d and cover g will fall into the space e, from which it is drained off through the holes h.

The wall d is strengthened by a series of radially-disposed ribs m, substantially triangular in shape, as illustrated in Fig. 2, the apices of which ribs terminating, as at m', below the top edge of the wall d.

Having thus described the nature and objects of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A manhole-cover, comprising a base-plate b, provided with an upwardly-extending wall d, and having a central opening a',

concentric with said wall d, an annular rim or flange b', surrounding the opening a', and forming with the wall an annular drainage-space e, the upper edge of said wall projecting above the upper edge of the rim b', a seat or flange f, formed on the interior of the wall d, and arranged below the upper edge of rim b', and a cover g, having a convex base adapted to enter said seat f, and to fit closely down upon the rim or flange b', substantially as and for the purposes described.

2. A manhole-cover, comprising a base-plate b, provided with an upwardly-extending wall d, and having a central opening a', concentric with said wall d, an annular rim or flange b', surrounding the opening a', and forming with the wall an annular drainage-space e, the upper edge of said wall projecting above the upper edge of the rim b', a seat or flange f, formed on the interior of the wall d, and arranged below the upper edge of rim b', and a cover g, having a convex base adapted to enter said seat f, and to fit closely down upon the rim or flange b', said wall d, being perforated below the seat f, and above the base b, to connect the space e, with the exterior of said wall, substantially as and for the purposes described.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

THOMAS P. GREGER.

Witnesses:
J. WALTER DOUGLASS,
THOMAS M. SMITH.