

(No Model.)

J. J. BURROWS.

COVER FOR MAN HOLES OR CATCH BASINS.

No. 386,768.

Patented July 24, 1888.

Fig. 1.

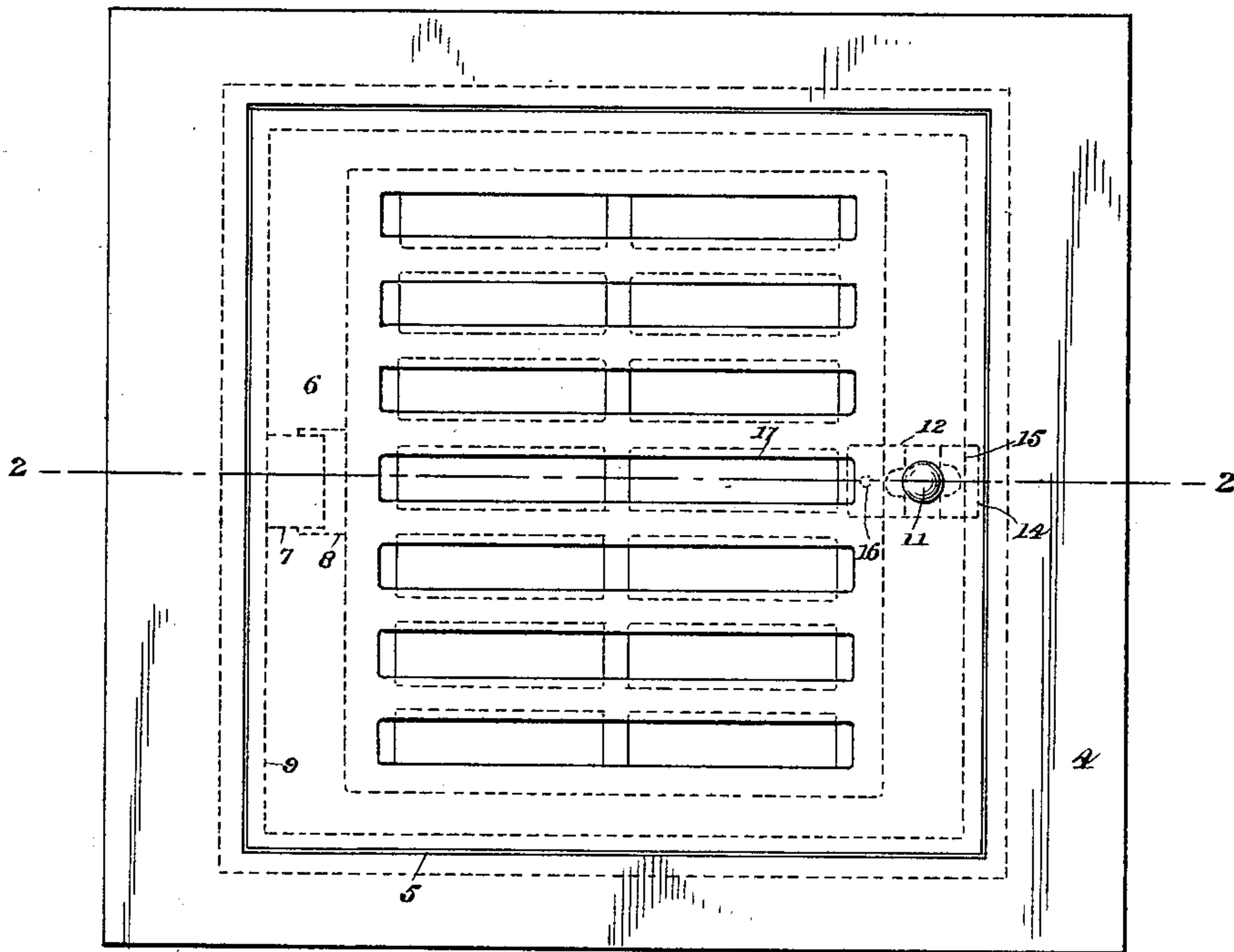


Fig. 2.

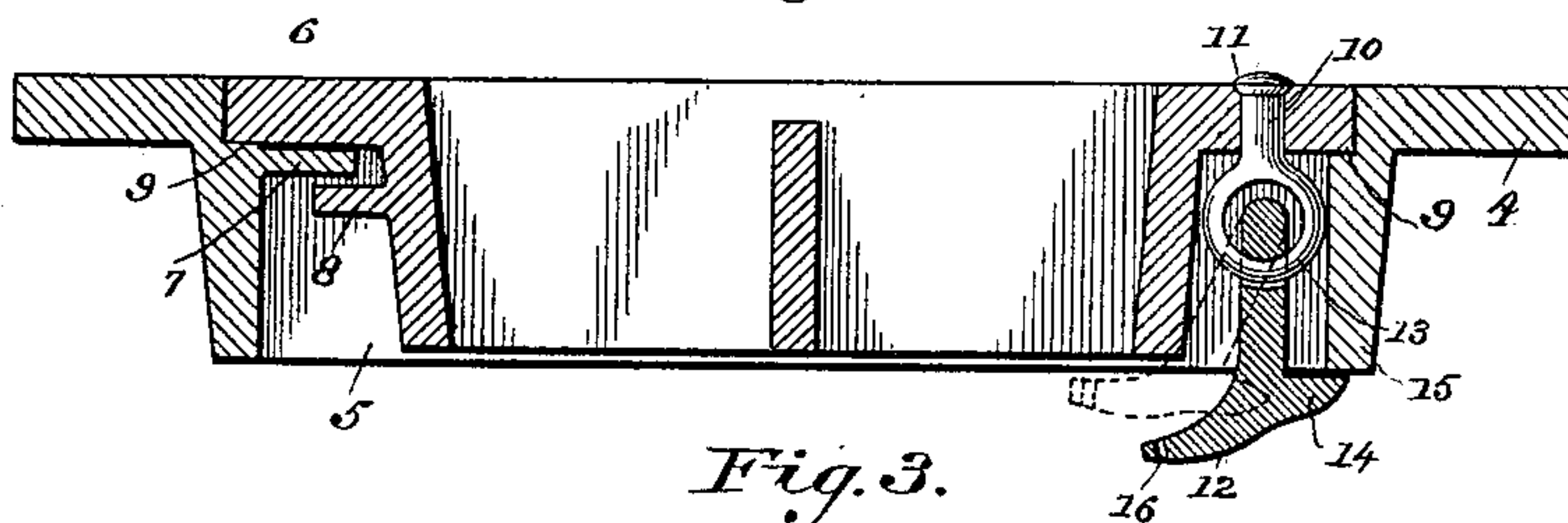
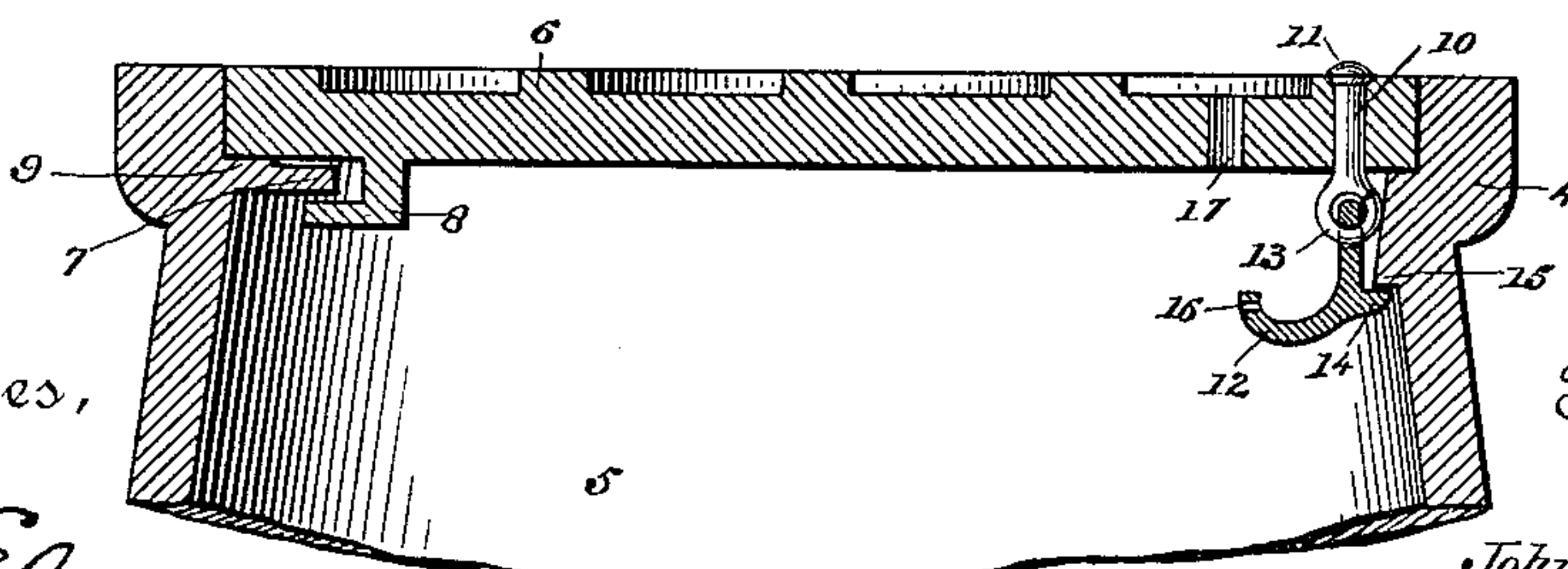


Fig. 3.



Witnesses,

H. W. Elmore.
Paul F. C. Tucker.

Inventor,

John J. Burrows,

By his Attorneys.

Fowler & Fowler.

UNITED STATES PATENT OFFICE.

JOHN J. BURROWS, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR
OF ONE-HALF TO JOHN T. SPRINGMAN, JR., OF SAME PLACE.

COVER FOR MAN-HOLES OR CATCH-BASINS.

SPECIFICATION forming part of Letters Patent No. 386,768, dated July 24, 1888.

Application filed March 23, 1888. Serial No. 268,289. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. BURROWS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Covers for Man-Holes or Catch-Basins, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to covers for man-holes or catch-basins or any of the usual openings communicating with sewers or subways, and through which access may be gained to such sewer or subway.

The invention has special reference to means for automatically locking the cover, and it is adapted to be attached to any kind of cover used with man-holes, catch-basins, sewer or water traps, or the like. These man-holes or catch-basins occur at frequent intervals in the streets of cities and are usually placed flush with the paved surface of the street, so as not to prove an obstacle to traffic. These covers have to be removable, so that access may be had to the sewer or subway, and many of them are formed with grating-like openings for ventilation. Where these covers have been laid loosely over the man-holes or catch-basins it has been found that the covers become constantly displaced by the wheels of vehicles rolling over them or by horses treading upon them. Again, if these grating-like covers be loosely laid, there is great liability of the calks on horses' shoes becoming wedged in the openings of the cover and lifting the same off the man-hole. It therefore becomes desirable to have these covers removable and at the same time have them constructed so that they may be locked securely when closed.

The object of my invention is to provide a simple automatically-locking cover to be used with a man-hole or catch-basin. To the aforesaid purpose my invention, briefly stated, consists in a cover removably hinged to the bed-plate and provided with a swinging gravity-dog having a perforated extension or handle and acting to automatically lock the cover

when closed, the dog being accessible from the exterior of the cover that it may be grasped by the handle for unlocking the same.

The invention further consists in the details of construction of the various parts of the device, all as hereinafter fully described and claimed.

In order that my invention may be fully understood I have illustrated in the accompanying drawings, and will proceed to describe the best form thereof so far devised by me, such form, however, admitting of modifications.

In the accompanying drawings, Figure 1 is a plan view of a rectangular-shaped catch-basin provided with my improvements. Fig. 2 is a sectional view on line 2 2 of Fig. 1. Fig. 3 is a sectional view, similar to that shown in Fig. 2, of a circular-shaped man-hole provided with my improvements.

In the said drawings, like numbers of reference designate like and corresponding parts throughout.

Referring to the drawings, 4 is the bed-plate or frame formed with the opening 5. The cover 6 closes over the opening 5 of the bed-plate and is removably hinged to the plate by means of the inwardly-projecting locking-lug 7, formed upon the inside of the bed-plate, and the co-operating outwardly-projecting lug 8, mounted upon the under side of the cover. In the construction I have shown the locking-lug 7 is an extension of the shoulder 9, which extends entirely around the inside of the bed-plate and upon which rests the cover when closed. The interlocking of these two lugs 7 and 8 forms an open hinge, by means of which the cover can be removed when open and can be locked when closed.

On the opposite side of the cover from the lug 8 is formed an eye, 10, in which is loosely riveted the eyebolt 11, in the eye of which swings the gravity-dog 12, which is formed with an eye, 13, interlocking with the eye of the bolt 11. The gravity-dog is formed with a locking-lip, 14, which engages the projection 15 upon the bed-plate and automatically locks therewith when the cover is closed, as shown in the drawings. The dog is formed with an extension oppositely disposed to the

locking-lip 14, so as to constitute a handle, the end of which is provided with a hole, 16, into which a wire may be introduced through the perforation 17 in the cover for retracting the dog, so as to disengage the same from the locking-projection 15, whereupon the cover may be opened.

In the drawings I show two forms of cover, 6, the one in Figs. 1 and 2 being formed grating-like, and the one in Fig. 3 being solid, with indentations on the exposed surface. In the former construction the gravity-dog may be reached through one of the grating-openings, as 17, while in the latter construction I have to especially form the perforation 17, through which a wire may be passed in order to grasp the gravity-dog.

The operation of the device is quite evident. The dog being free to swing gravitates into a vertical depending position, as shown in the figures, when the cover is closed, so that the lip 14 thereof takes under the projection 15 of the bed-plate. The cover is unlocked by passing a wire or rod through the opening 17, grasping the dog and retracting it into the dotted-line position shown in Fig. 2, so as to disengage the dog from the projection 15, whereupon the cover may be raised.

Having thus described my improvements in

man-hole or catch-basin covers, what I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the bed-plate 4, formed with an opening, 5, and provided with the shoulder 9 and the lug 7, of the cover 6, provided with the lug 8 and formed with an opening, 17, the gravity-dog 12, provided with the handle perforated at 16 and mounted on the cover so as to swing freely, and the locking projection 15 for the dog to lock with, substantially as described.

2. The combination, with the bed-plate 4, formed with the opening 5 and provided with the shoulder 9 and the lug 7, of the cover 6, formed with the opening 17 and provided with the lug 8, the eyebolt 11, riveted to the cover, the gravity-dog 12, swinging on said eyebolt and provided with the locking-lip 14 and the perforation 16, and the locking projection 15 for the dog, substantially as described.

In testimony whereof I have hereunto set my hand and seal this 16th day of February, 1888, in the presence of the two subscribing witnesses.

JNO. J. BURROWS. [L. S.]

Witnesses:

SCHUYLER DURYEE,
CHAS. D. FOWLER.