F. SHANLEY.

MANHOLE.

APPLICATION FILED FEB. 24, 1919.

1,364,323. Patented Jan. 4, 1921.

Fig. 1.

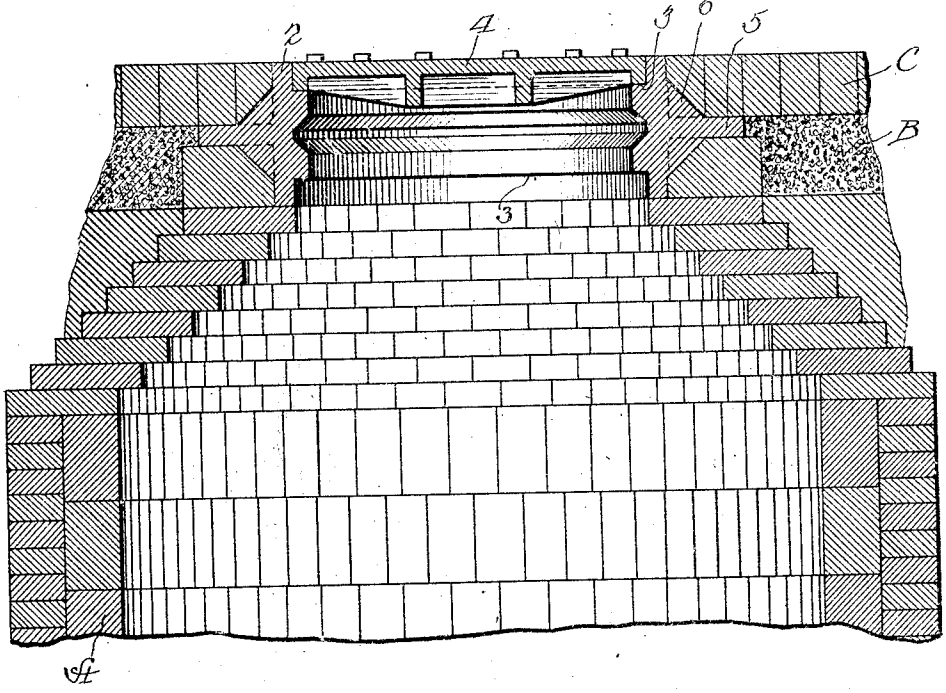
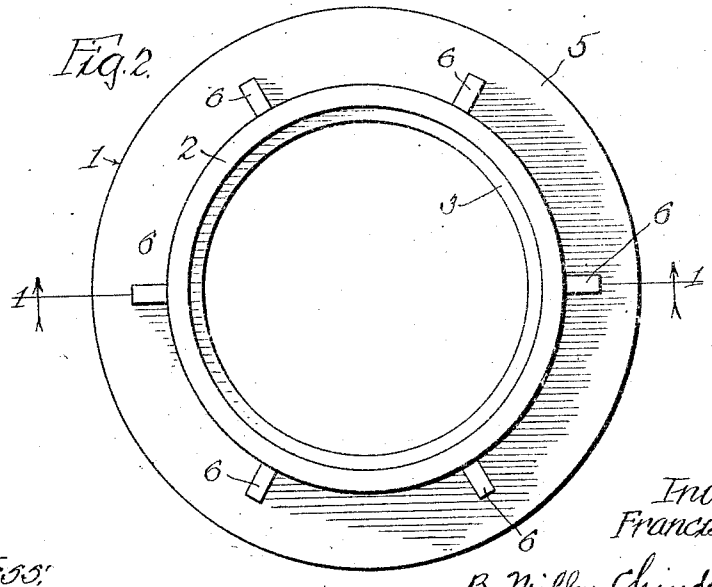


Fig. 2.



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MANHOLE.

1,364,323. Specification of Letters Patent. Patented Jan. 4, 1921.

Application filed February 24, 1919. Serial No. 278,719.

To all whom it may concern:

Be it known that I, FRANCIS SHANLEY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Manholes, of which the following is a specification.

This invention relates to manholes for catch basins, public utility street-vaults, battery wells for railway signal systems, etc.

In prior constructions a cast iron frame or "curb" has been provided, said curb having an outwardly extending flange which is supported upon the catch basin or vault. This flange is embedded in or covered by the concrete comprised in the street pavement. The frame or curb has an internal shoulder or ledge upon which the cover rests. The passage of vehicles over the cover causes the cover to move slightly, thus causing the abrasion of the cover-supporting ledge, and in the course of time the ledge may become so worn as to be ineffective for the proper support of the cover. In fact, the ledge may wear so that the cover is permitted to tilt under the weight of a passing vehicle, and in such circumstances the cover may even be thrown out of place by a rapidly moving vehicle.

When the cover-supporting ledge became excessively worn it was necessary to install a new curb, the concrete layer overlying the flange hereinbefore referred to being broken up in the removal of the old curb, and new concrete being placed after the new curb was set in position.

The object of the present invention is to reduce the expense of providing suitable support for the manhole cover. This object has been attained by providing the curb with two cover-supporting ledges and by making the curb reversible so that when one ledge has become worn the curb may be reversed so as to bring the other ledge into position to support the cover. Furthermore, the curb-supporting flange has been placed in a central plane with reference to the curb, and so located with regard to the pavement as not to be embedded in the concrete.

In the accompanying drawings Figure 1 is a vertical central sectional view of a manhole embodying the features of my invention. Fig. 2 is a top plan view of the curb.

In the drawings, A denotes a catch basin, vault or similar structure which may be built of any suitable material and of any preferred form. The frame or curb 1 consists of a cylindrical wall 2 having upon its inner surface two annular ledges or shoulders 3. One of these ledges is near the upper end of the frame while the other is near the lower end thereof. The ledges 3 are similar in form and interchangeably adapted to support a cover 4 of any suitable character.

Encircling the wall 2 is an annular horizontal flange 5 located in a plane midway between the upper and lower ends of the wall 2. If desired, a suitable number of strengthening webs 6 may be provided in the angle between the wall 2 and the flange 5.

Preferably, although not necessarily, the lower end of the cylindrical wall 2 rests upon the brickwork or other elements forming a part of the catch basin or vault. The flange 5 also rests upon bricks or the like forming the upper end of the catch basin. If the pavement comprises a layer of concrete B, said layer may extend to the plane of the lower surface of the flange 5 or to the plane of the upper surface of said flange, but need not and should not extend higher than the flange 5. Above the concrete is the layer of granite blocks, creosote wood blocks, asphalt or other paving material C.

When the upper ledge 3 has worn to such an extent as not to support the cover 4 properly, the curb may be removed, inverted and replaced, thereby bringing the other ledge 3 into position to support the cover. Inasmuch as there is no concrete overlying the flange 5, it is comparatively simple and inexpensive to remove and replace the curb.

It will be readily understood that the frame or curb may be rectangular or of any other desired form.

Without further elaboration, the foregoing will so fully explain the gist of this invention that others can, by applying current knowledge, readily adapt it for various applications without omitting certain features that, from the standpoint of the prior art, fairly constitute essential characteristics of the generic aspects of this invention, and therefore such adaptations should and

are intended to be comprehended within the meaning and range of equivalency of the following claims.

I claim as my invention:

1. A manhole having, in combination, a curb comprising a vertical inclosing wall, two similar cover-supporting ledges upon the inner surface of said wall, one of said ledges being near the upper end of the wall and the other near the lower end thereof, a cover adapted to rest upon either of said ledges, and an outwardly-extending supporting flange surrounding said wall, said flange being located in a plane substantially mid-way between the upper and lower ends of the wall.

2. A manhole having, in combination, a reversible curb provided at its upper and lower ends with similar interior cover-supporting ledges, and a cover adapted to rest upon either of said ledges.

3. A manhole having, in combination, a reversible curb provided at its upper and lower ends with similar cover-supporting portions and a cover adapted to rest upon either of said portions.

4. A manhole having, in combination, a cover and a support for said cover extending around the periphery thereof, said support being symmetrical with respect to a horizontal plane and being readily removable to be turned upside down, said support having means to fit and support said cover in either position.

5. A manhole having, in combination, a cover, a support for said cover extending around the periphery thereof and an underlying structure upon which said support rests, said support being symmetrical with respect to a horizontal plane and being readily removable to be turned upside down, said support being shaped to fit said cover and said supporting structure in either position.

6. In combination with a manhole cover, a support for said cover having two sides and similar means to support said cover in fitting engagement on each of said sides.

7. In combination with a manhole cover and a supporting structure, a reversible support for said cover adapted to be laid either side up on said supporting structure in fitting engagement therewith and having similar means on each side to support said cover in either position thereof.

8. A support for manhole covers, having in combination, means in duplicate on opposite sides of a plane of symmetry for supporting engagement with a manhole cover, and means in duplicate on opposite sides of said plane of symmetry for supporting engagement with a supporting structure.

9. A manhole having, in combination, a cover having an upper face adapted to receive the wheels of traffic in supporting engagement, a plurality of downwardly projecting reinforcing ribs on the under side of said cover, a curb having means at opposite sides to receive and support said cover by engagement with the peripheral portion thereof, said curb being symmetrical with respect to the horizontal plane and being readily removable whereby, when worn out on one side, it may be turned upside down to provide a fresh bearing for said cover.

10. A manhole having, in combination, a non-reversible cover, a reversible curb adapted to be placed in position either side up and having duplicate means on opposite sides to receive and support said cover in fitting engagement and an underlying structure adapted to support said reversible curb in either of its two positions.

In testimony whereof I have hereunto set my hand.

FRANCIS SHANLEY.