Dec. 7, 1926. 1,610,123

C. B. FAIRWEATHER

MANHOLE COVER LOCK

Filed Oct. 31, 1925

Fig. 1.

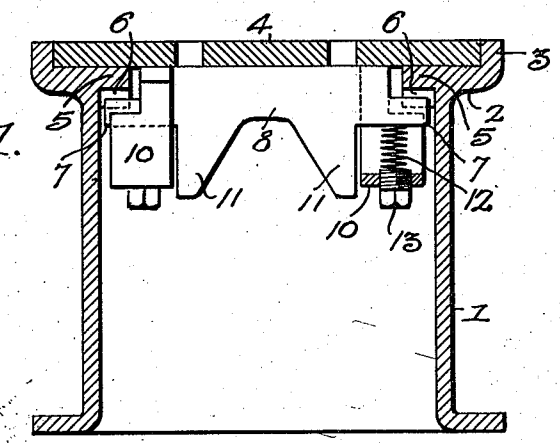



Fig. 2.

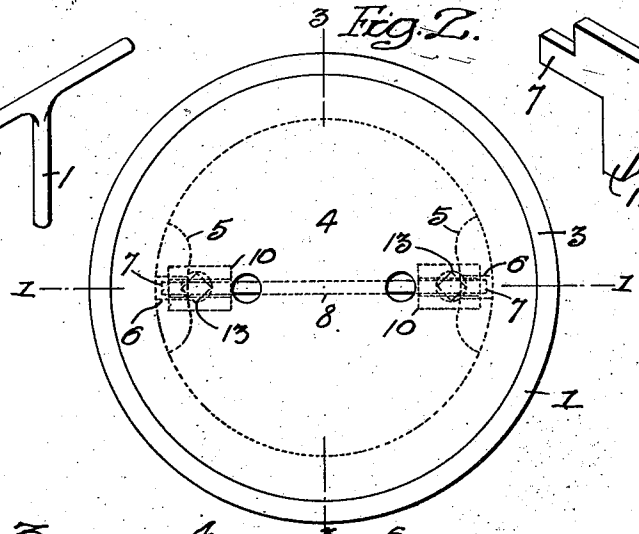



Fig. 6.

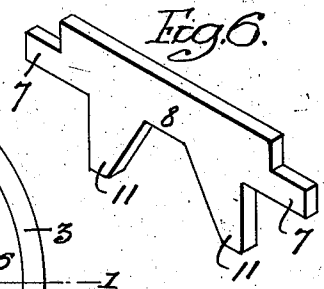



Fig. 7.

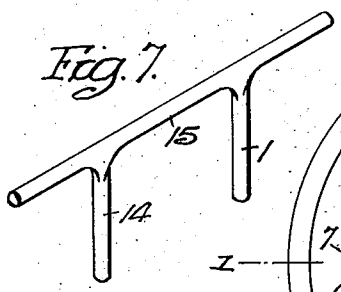



Fig. 3.

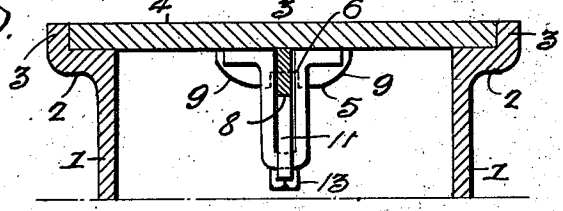



Fig. 4.

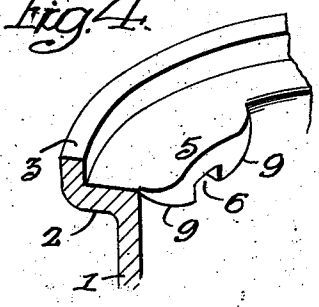
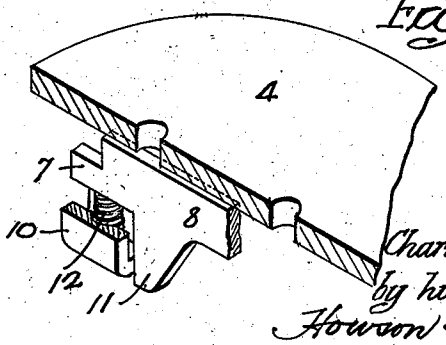



Fig. 5.




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Patented Dec. 7, 1926. 1,610,123

# UNITED STATES PATENT OFFICE.

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## MANHOLE-COVER LOCK.

Application filed October 31, 1925. Serial No. 65,964.

My invention relates to certain improvements in locks for securing man-hole cover-plates to intake casings or boxes.

The object of my invention is to locate the lock on the inner side of the cover-plate, and to provide means for actuating the lock through small openings in the plate, the means also being used to turn the plate clear of the keepers on the casing.

The invention is particularly useful in locking the cover-plates of street or road intakes, or valve boxes, but it will be understood that the lock can be used to fasten any type of cover-plate.

In the accompanying drawing:

Fig. 1 is a sectional view of a man-hole casing, showing the cover and the locking mechanism, the section being on the line 1—1, Fig. 2;

Fig. 2 is a plan view;

Fig. 3 is a sectional view on the line 3—3, Fig. 2;

Fig. 4 is a sectional perspective view of a portion of the casing showing one of the keepers;

Fig. 5 is a sectional perspective view of a portion of a cover-plate and lock;

Fig. 6 is a detached perspective view of the locking-bar; and

Fig. 7 is a perspective view of the key.

The casing or box 1 may be of any shape desired. In the present instance, the casing has a flange 2, with an upturned edge 3 forming a recessed bearing for the cover-plate 4, the top of which is flushed with the edge 3, as shown in Fig. 1.

On the casing are keepers 5, which are notched at the underside, as at 6, to receive the ends 7 of the locking-bar 8, Fig. 6, carried by the cover-plate 4. The underside of the keepers 5 are beveled, as at 9, so that when the cover-plate is turned to the locking position, the locking-bar will be depressed and will snap into the notches 6.

The locking-bar 8 is adapted to U-shaped guides 10, which are welded to the underside of the cover-plate 4. The bar is held from moving longitudinally by extensions 11, which are located in the space between the guides 10, as shown in Fig. 1.

Springs 12 are located on screw-studs 13 within the guides 10 and yieldingly support the locking-bar 8. The tension of the springs can be regulated by turning the screw-studs, and on removing the studs, the springs can be withdrawn and replaced by other springs, if found necessary.

In the cover-plate directly above the locking-bar are two holes, for the reception of pins 14 of a key 15, Fig. 7. The cross-bar of the key forms a substantial handle by which the key and cover-plate can be turned after the locking-bar has been depressed by pressure upon the key, so as to clear the bar of the keepers. After the plate is turned, it can be removed by the key, if it is comparatively small, but a large plate can be removed by ordinary tools.

The above-described locking device is simple in construction, and effectually holds the cover-plate in position. The lock can be actuated by any tool passed through the opening in the plate, and on turning the plate, it is free to be removed.

I claim:

1. A combination of a casing having notched keepers; a cover-plate having guides on its underside; a locking bar mounted in the guides and extending under the keepers; means for holding the supporting bar in the notches of the keepers; the said plate perforated for a key which will depress the bar and allow the plate to be turned clear of the keepers.

2. The combination of a casing having notched keepers; a cover-plate having U-shaped guides on its under side; a locking-bar mounted in the guides and extending under the keepers; and springs in the guides yieldingly supporting the bar, the plate being perforated for a key which will depress the bar and turn the plate when released from the keepers.

3. A combination of a casing having keepers notched at their underside and beveled at each side of the notch; a cover plate mounted on the casing and having U-shaped guides; a locking bar adapted to the guides; means carried by the U-shaped guides for holding the supporting bar in engagement with the notched keepers, the plate being perforated for a key which will depress the bar and turn the plate when released from the keepers.

4. The combination of a casing having two oppositely disposed keepers, each keeper

having a notch in its underside and beveled at each side of the notch; a cover-plate mounted on the casing and having U-shaped guides on its underside; a locking-bar mounted in the guides and having ends extending into the notches of the keepers when in the locked position, said bar having extensions for holding the bar in position; and springs in the guides for supporting the bar, and screw-studs forming adjustable supports for the spring, the plate being perforated in line with the bar for the reception of a key for depressing the bar and turning the plate.

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