

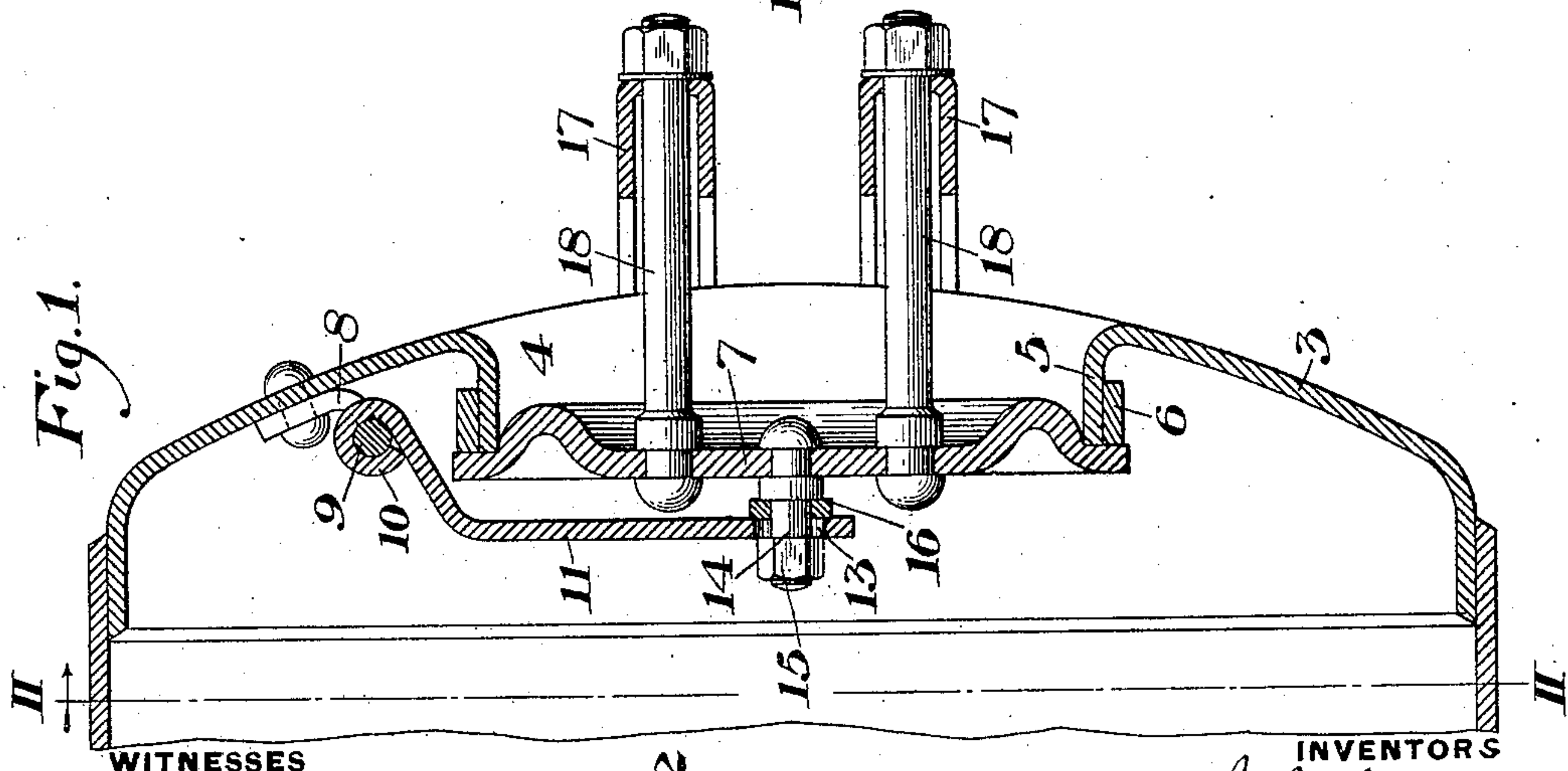
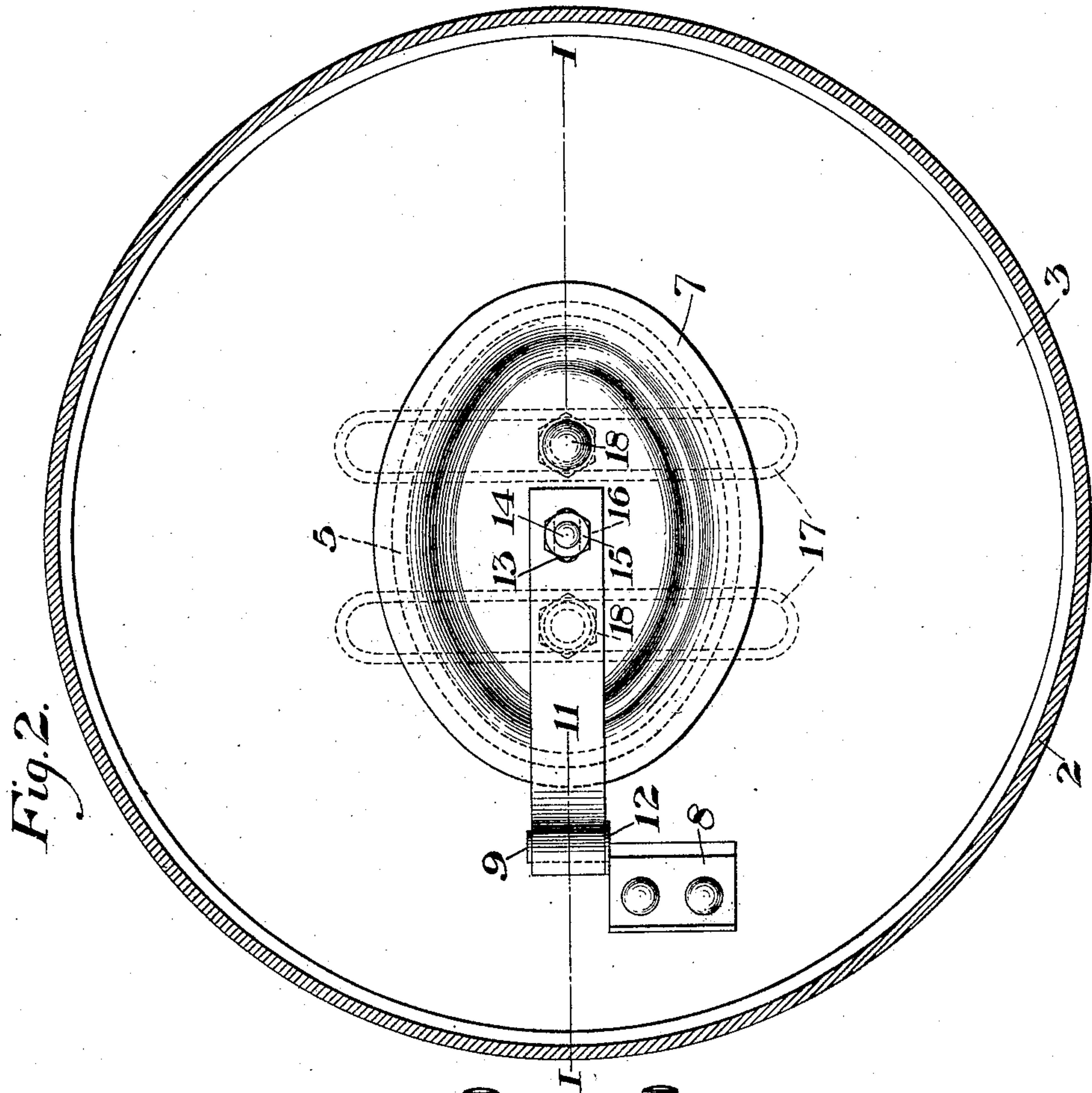
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PATENTED NOV. 27, 1906.

J. R. BROWN & I. HARTER, JR.

MANHOLE PLATE OR COVER.

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WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN ROWLAND BROWN AND ISAAC HARTER, JR., OF MANSFIELD, OHIO,
ASSIGNORS TO THE STIRLING CONSOLIDATED BOILER COMPANY, OF
NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

MANHOLE PLATE OR COVER.

No. 836,859.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed December 29, 1905. Serial No. 293,742.

To all whom it may concern:

Be it known that we, JOHN ROWLAND BROWN and ISAAC HARTER, Jr., of Mansfield, Richland county, Ohio, have invented a new and useful Improvement in Manhole Plates or Covers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figures 1 and 2 are sectional views illustrating a manhole plate or cover embodying our invention, the section of Fig. 1 being taken on the line I I of Fig. 2 and the section of Fig. 2 on the line II II of Fig. 1.

Our invention is designed to provide a manhole plate or cover which is capable of adjustment in a vertical and horizontal direction and also for rotation around its center, these adjustments being necessary to provide for correct centering of the plate after the position of the manhole-lug has been determined.

A further object is to provide means by which the plate or cover can be readily removed entire when desired.

With these objects in view our invention consists in the novel construction, arrangement, and combination of parts, all substantially as hereinafter described, and pointed out in the appended claims.

In the drawings, 2 designates a drum or boiler having the head 3, in which is formed the manhole 4, the surrounding edge portions 5 of the head 3 being turned inwardly and provided with a reinforcing-band 6 to form a seat for the plate or cover 7.

8 is a hinged lug which is riveted to the interior of the drum-head 3 and which has an upwardly-projecting portion 9, which forms a pin or pintle for the eye 10 of the hinged arm 11. The pin or pintle 9 is made of sufficient length to receive one or more washers 12 below the eye 10, to thereby provide for a vertical adjustment of the hinged arm and cover-plate. The hinged arm 11 at its free end portion has a slot 13 to receive a collar or stud-bolt 14, secured to the center of the plate or cover 7. The purpose of this slot is to provide for a horizontal adjustment of the plate or cover, which is also capable of rotation with the bolt 14 in said slot. The bolt

is secured to the arm 11 by a nut 15, one or more washers 16 being interposed between the hinged arm and the collar of the bolt, if desired.

17 designates the usual yokes, supported on the drum-head and seating the usual collar-bolts 18, secured to the manhole plate or cover and providing means whereby the plate or cover is secured from the outside.

The advantages of our invention result from the provision of the means whereby the manhole plate or cover may be adjusted both vertically and horizontally and also circularly and also in the arrangement of the hinged connection for the plate or cover.

What we claim is—

1. The combination with an arm hinged or pivoted to the interior of the drum or other part having a manhole, of the manhole plate or cover rotatably connected to the said arm; substantially as described.

2. The combination with an arm hinged or pivoted to the interior of the boiler or other part having the manhole, of the cover-plate rotatably and adjustably connected to the said arm; substantially as described.

3. The combination with a manhole plate or cover, of a hinged arm carrying the same, and means for adjusting the plate both horizontally and vertically; substantially as described.

4. The combination with a manhole plate or cover of a hinged or pivoted arm to which the plate is rotatably connected, and means for adjusting the plate both vertically and horizontally; substantially as described.

5. In a manhole attachment, a hinge plate or lug riveted to the interior of the part having the manhole and provided with an upwardly-projecting pin or pintle, an arm carried by the pin or pintle and adjustable vertically thereon, and a cover-plate carried by the arm; substantially as described.

6. In a manhole attachment, the combination with a vertically-adjustable hinged or pivoted arm, of a manhole plate or cover rotatably secured thereto; substantially as described.

7. The combination with a vertically-adjustable hinged or pivoted arm, of a manhole plate or cover pivotally secured to said arm,

and also horizontally adjustable thereon; substantially as described.

8. In a manhole attachment, the combination with a hinged or pivoted arm having a slot at its free end portion, a collar-bolt adjustably secured in said slot, and a manhole plate or cover rotatably mounted on the bolt; substantially as described.

In testimony whereof we have hereunto set our hands.

J. ROWLAND BROWN.
ISAAC HARTER, JR.

Witnesses:

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