(No Model.)

A. F. HEGEWALD.

MANHOLE.

No. 589,528. Patented Sept. 7, 1897.

Fig. 1.

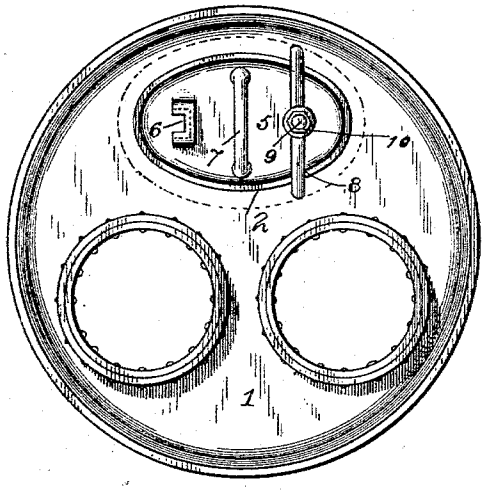
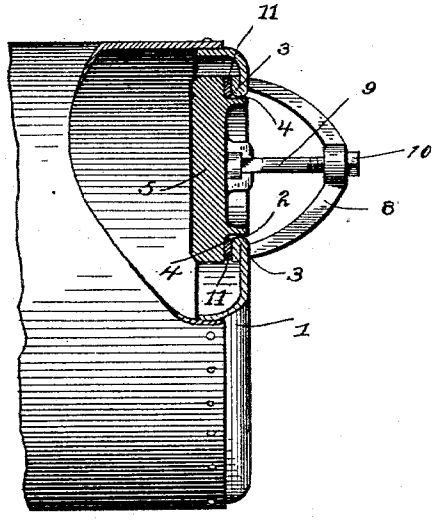


Fig. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR FREDERICK HEGEWALD, OF NEW ALBANY, INDIANA, ASSIGNOR TO THE CHARLES HEGEWALD COMPANY, OF SAME PLACE.

MANHOLE.

SPECIFICATION forming part of Letters Patent No. 589,528, dated September 7, 1897.

Application filed May 17, 1897. Serial No. 636,980. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR FREDERICK HEGEWALD, a citizen of the United States, residing at New Albany, in the county of Floyd and State of Indiana, have invented certain new and useful Improvements in Manholes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to manholes for steam boilers, drums, and the like.

The object of my invention is to provide a manhole with an integral interior band rounded so as to permit of a person entering the boiler or drum for cleaning or repairing the same without danger of cutting himself or damaging his clothes, and by reason of the band being made integral with the head the liability of unequal expansion and contraction is reduced to a minimum.

In the common construction of manholes a separate ring or band is usually bolted or otherwise secured to the inner side of the head and surrounds the opening. In experience it has been discovered that at the point of connection of the bands with the head of the boiler a rupture takes place, owing to the fact that it is very difficult to get a band of metal of the same texture and density as that of the head of the boiler, thus causing an unequal expansion and contraction of the two. In order to overcome this objection is the principal object of my invention; and to this end it consists in certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is an end view of a boiler embodying my invention, and Fig. 2 is a sectional view of the same.

In said drawings, 1 denotes the head of the boiler, having the usual opening 2. The material forming the wall of this opening is bent back upon itself to form a band 3, having smooth rounded edges 4.

5 denotes the manhole-plate, having slotted lug 6 and a handle 7.

8 denotes the frogs, and 9 denotes the bolts, the heads of which are engaged in the slotted lugs and project through the frogs and are secured thereto by nuts 10.

11 denotes the ordinary packing-ring, clamped between the plate and the band, forming an air-tight joint.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the parts will be readily understood without requiring further explanation.

It is evident that a person entering the boiler will not injure himself or damage his clothing, for the reason that the edge of the opening is perfectly smooth, and it is further apparent that by reason of the band and the head of the boiler being made of the same material they will expand and contract evenly under the changes of temperature, and for this reason will not part or separate one from the other.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

A manhole having the marginal edge of the metal forming the same bent backward and against the inner wall of the boiler-head, to form a smooth rounded edge to the hole, in combination with the closing-plate having a marginal seat fitting against the bent edge within the hole, slotted lugs at the ends of said plate on the outer side thereof, frogs spanning the hole, bolts passing through the frogs and connected to the lugs, and a central handle for the plate, substantially as described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

ARTHUR FREDERICK HEGEWALD.

Witnesses:
E. J. HEWITT,
E. C. HEGEWALD.