

(No Model.)

H. F. FULLER.
MANHOLE COVER SEATING.

No. 575,475.

Patented Jan. 19, 1897.

Fig. 1.

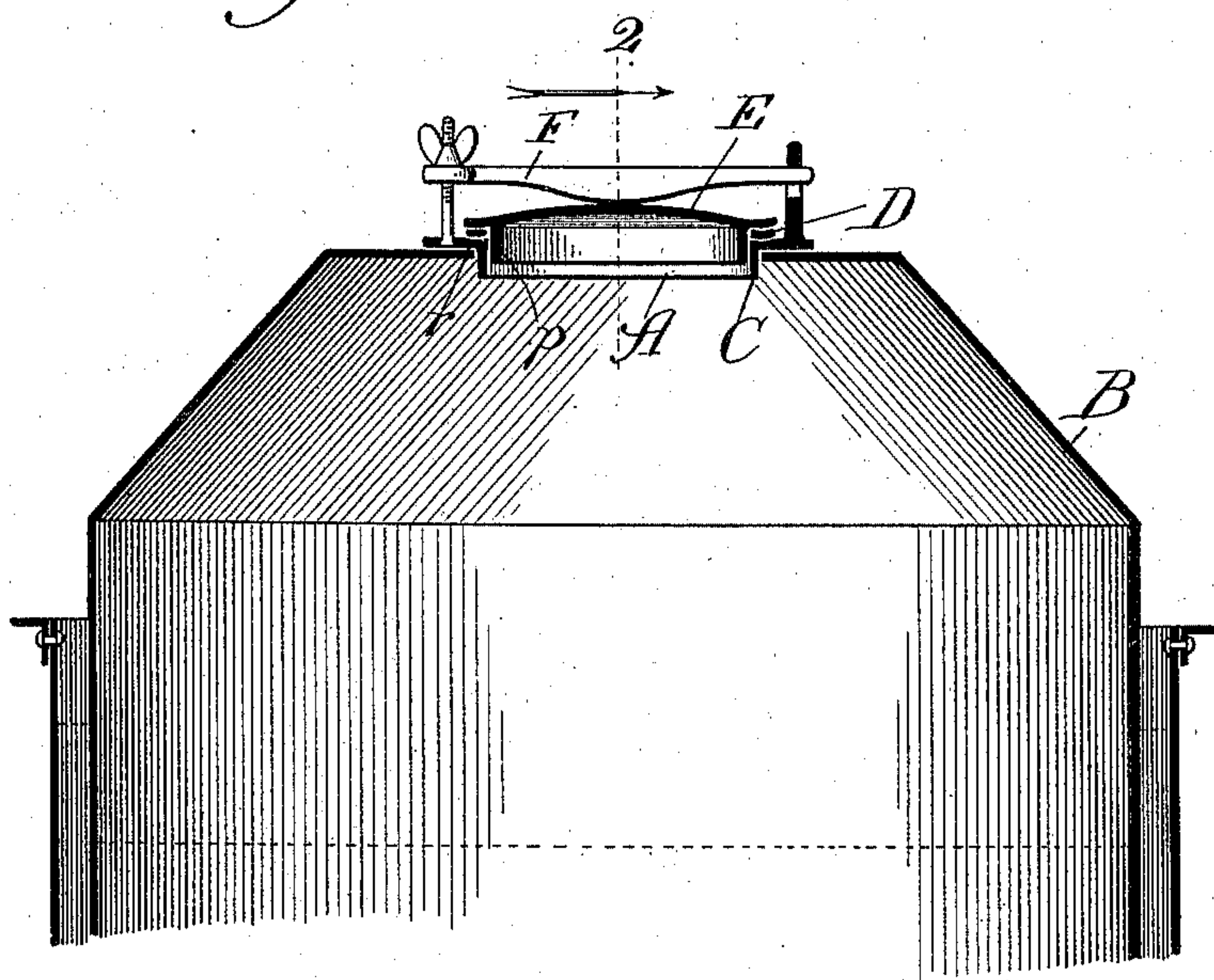
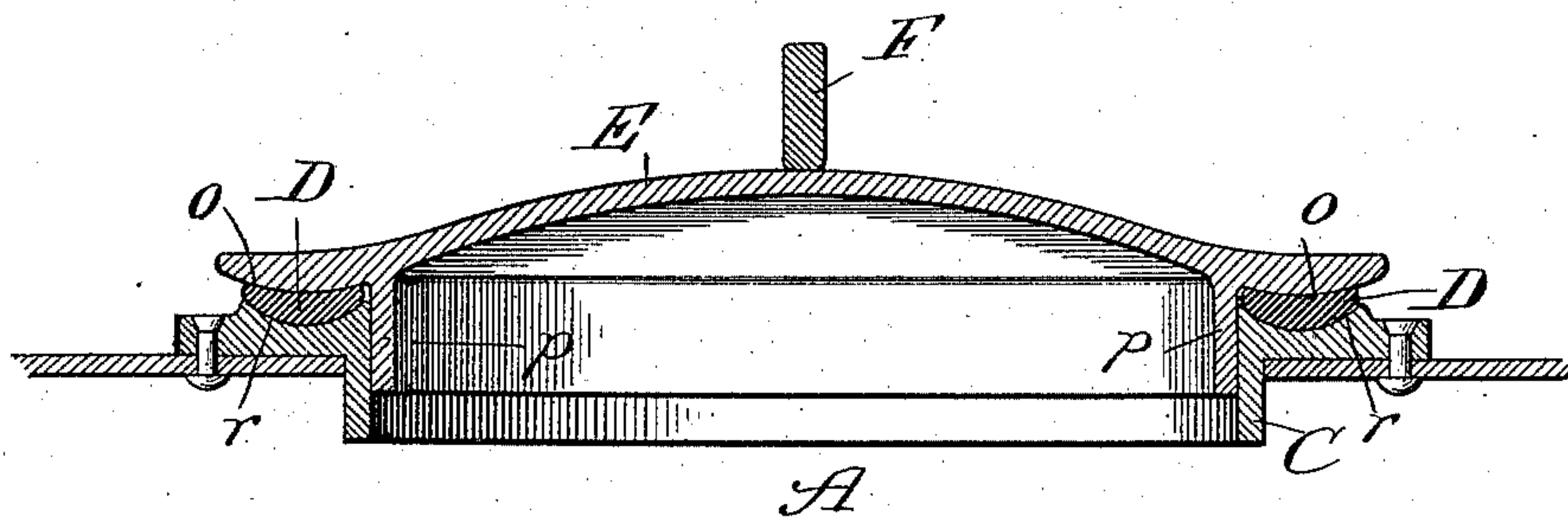


Fig. 2.



Witnesses:
E. S. Gaylord,
Lute J. Blum.

Inventor:
Henry F. Fuller,
By Dyrenforth & Dyrenforth,
Attorneys.

UNITED STATES PATENT OFFICE.

HENRY F. FULLER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WALMSLEY,
FULLER & COMPANY, OF SAME PLACE.

MANHOLE-COVER SEATING.

SPECIFICATION forming part of Letters Patent No. 575,475, dated January 19, 1897.

Application filed November 2, 1896. Serial No. 610,853. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. FULLER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Manhole-Cover Seating, of which the following is a specification.

My invention relates to an improvement in the construction of the packed junction between the cover of a manhole and the seat about the latter for the cover.

The object of my improvement is to secure a perfectly air and gas tight closure of a manhole by its cover without employing elaborate or unduly cumbersome mechanism for the purpose. To this end I provide about the manhole a transversely-concave annular seat, the concavity being described on a circle of one radius to receive the packing, and I form the flange about the cover transversely convex, with the convexity described on a circle of greater radius. Thus with the packing-ring in place when the cover is fastened down its flange bears mainly against the opposite edges of the packing-ring, thereby compacting the packing and accordingly tightening the joint, and should there be any moisture in the cup-shaped seat the tendency will be to confine it and thus compact the packing the more, besides securing the sealing effect of the water.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 shows a broken section of a gas-generator equipped with my improvement, and Fig. 2 is a section taken at the line 2 on Fig. 1, viewed in the direction of the arrow and enlarged.

A is a manhole, shown to be provided in the top of the inner tank B of a gas-generator, though it may be equipped with my improvement in any other situation in which it may be provided.

C is the bushing, shown to be riveted in place and provided in its horizontal portion with the transversely-concave annular seat *r* for the gasket D, which may be formed of rubber, though a liquid packing may be used.

E is the manhole-cover, of any suitable general form, provided with the perpendicular annular flange *p*, to fit inside the bushing and having the outward-extending flange *o* transversely convex on its under side, the convexity being formed on a circle of greater radius than that on which the concave seat *r* is formed.

When the cover E is tightened and held down in place, as by the clamping-bar arrangement F illustrated, which is a well-known device for the purpose and therefore requires no detailed description herein, the convex flange *o* bears against the opposite edges of the gasket, thereby compacting it toward its center and accordingly tightening the joint, and any water that may be contained in the annular concavity *r* affording the gasket-seat will be crowded against the central portion of the underside of the gasket and tend to increase the hermetical quality of the junction by affording a water-seal.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a manhole, an annular transversely-concave packing-seat, a cover having an annular flange the under side of which is of slight transverse convexity as compared with the degree of concavity of the seat, forming with said seat a concavo-convex recess, and an elastic packing within said recess adapted by pressure to conform thereto and to be centrally compressed in the manner and for the purpose substantially as described.

2. In combination with a manhole, an annular transversely-concave packing-seat having its concavity formed on a circle of one radius, an elastic packing in said seat, and a cover having a flange transversely convex on its under side on a circle of greater radius, whereby its pressure upon the elastic packing will cause the same to be compacted toward its center, substantially as described.

HENRY F. FULLER.

In presence of—

J. H. LEE,

R. T. SPENCER.