

R. DREHER.  
Beer-Kettle Bottoms.

No. 156,211.

Patented Oct. 27, 1874.

Fig. 1.

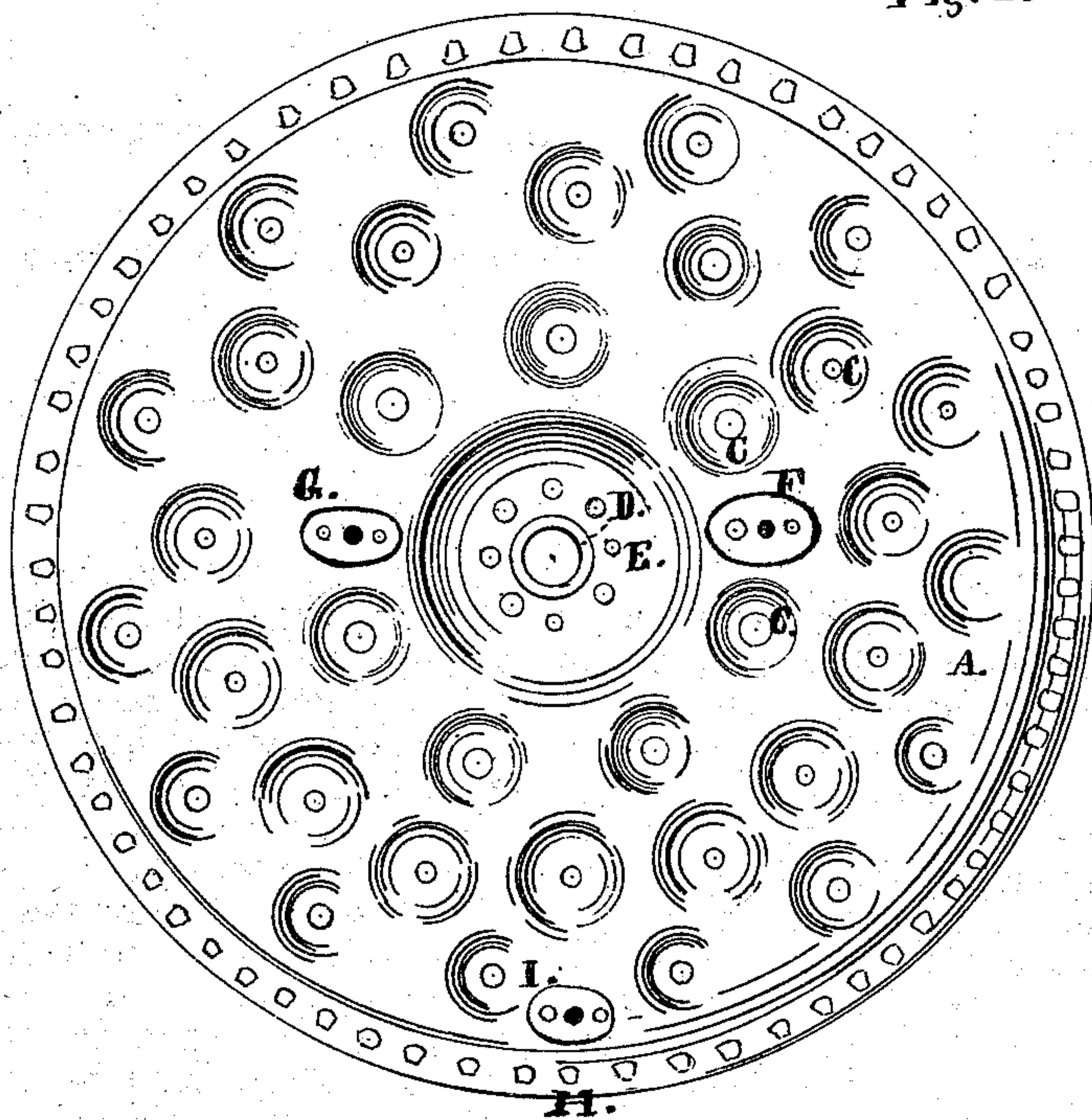
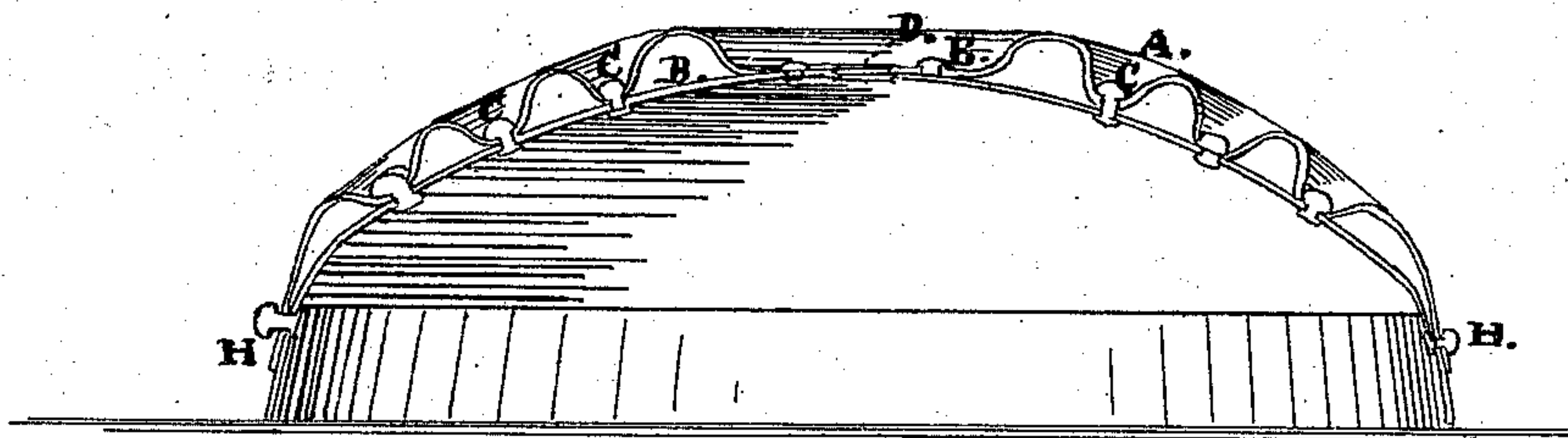


Fig. 2.



Witnesses.

H. B. Smith  
E. J. Smith.

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# UNITED STATES PATENT OFFICE.

RICHARD DREHER, OF MILWAUKEE, WISCONSIN.

## IMPROVEMENT IN BEER-KETTLE BOTTOMS.

Specification forming part of Letters Patent No. **156,211**, dated October 27, 1874; application filed June 19, 1872.

*To all whom it may concern:*

Be it known that I, RICHARD DREHER, of Milwaukee, in the county of Milwaukee and in the State of Wisconsin, have invented certain Improvements in Kettle-Bottoms, of which the following is a specification:

My invention is a kettle-bottom for brewers and others, and is made double, the outer bottom secured to the inner bottom with rivets, so as to hold it securely in position, and is for the use of steam between the two bottoms, for heating purposes; the outer bottom indented, so that the bottom of the indentations come against the inner bottom, and a rivet secures the outer bottom to the inner one, and these indentations made far enough apart to leave steam-room between the two, with an inlet and outlet for steam, and an air-passage to let the air out, and an opening through the center to the inside of the kettle, for the passage of the liquid that may be on the inside.

Figure 1 is a perspective view of the kettle-bottom; Fig. 2, a sectional view.

A is the outside bottom, with indentations reaching down to the surface of the inside

bottom; B, the inside bottom; C, rivets, holding the two bottoms together; D, opening through the bottom, through which to draw off the liquid; E, rivets around the opening D, to hold the two bottoms together tight; F, inlet-opening for steam; G, outlet-opening for steam; H, rivets round the edge, to hold the two bottoms together; I, outlet, to let air out of the bottom. These two bottoms are calculated to be about two inches apart where the steam-opening is, and come close together where the rivets H are, so that between the rivets C there shall be openings for steam, and the rivets C will hold the two bottoms together, so that the pressure of steam shall not burst them apart.

I claim as my invention—

A brewer's kettle with double bottom, the outer shell indented to touch the inner one, and secured thereto by rivets at the points of contact.

RICHARD DREHER.

Witnesses:

J. B. SMITH,

E. J. SMITH.