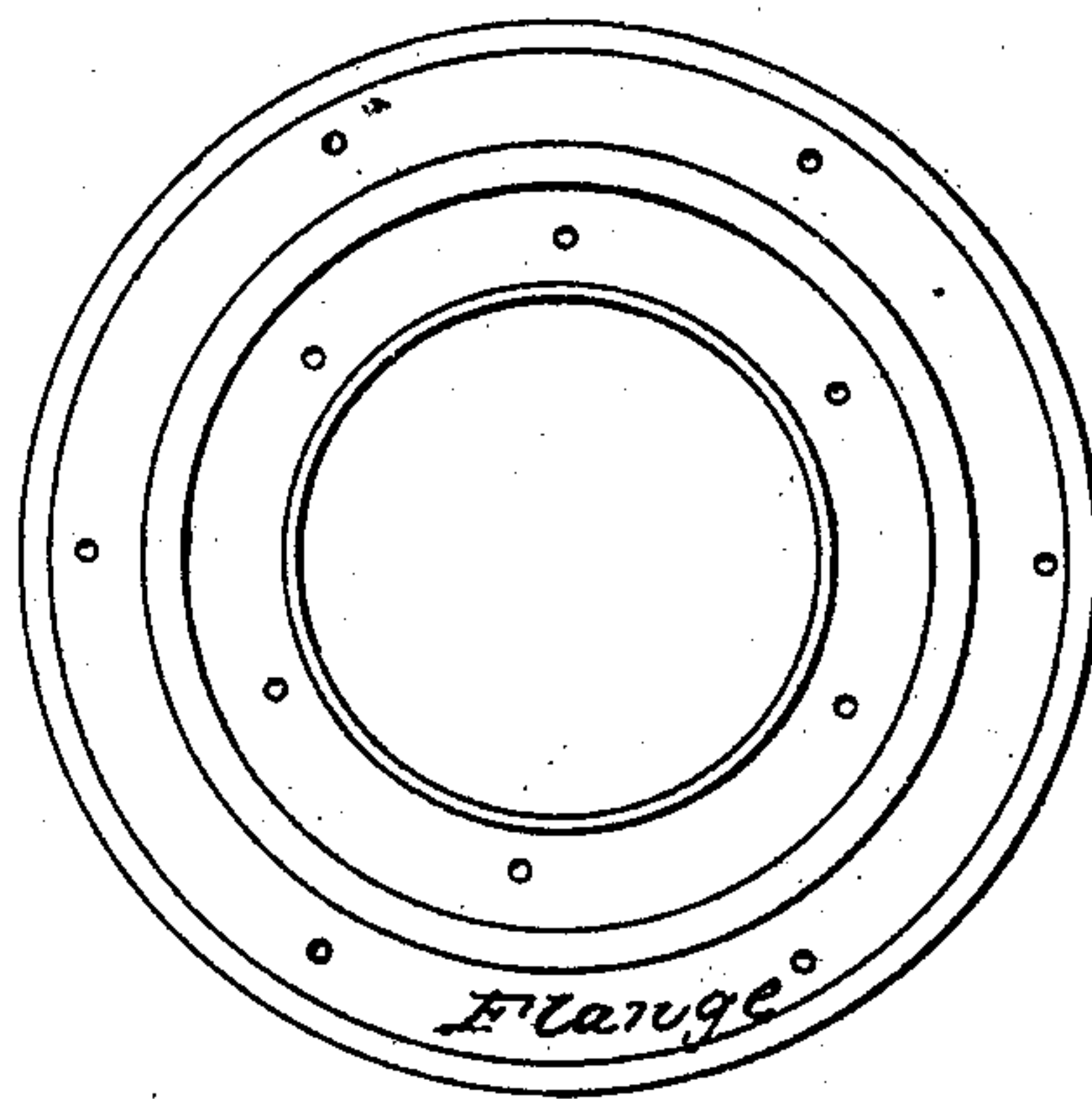
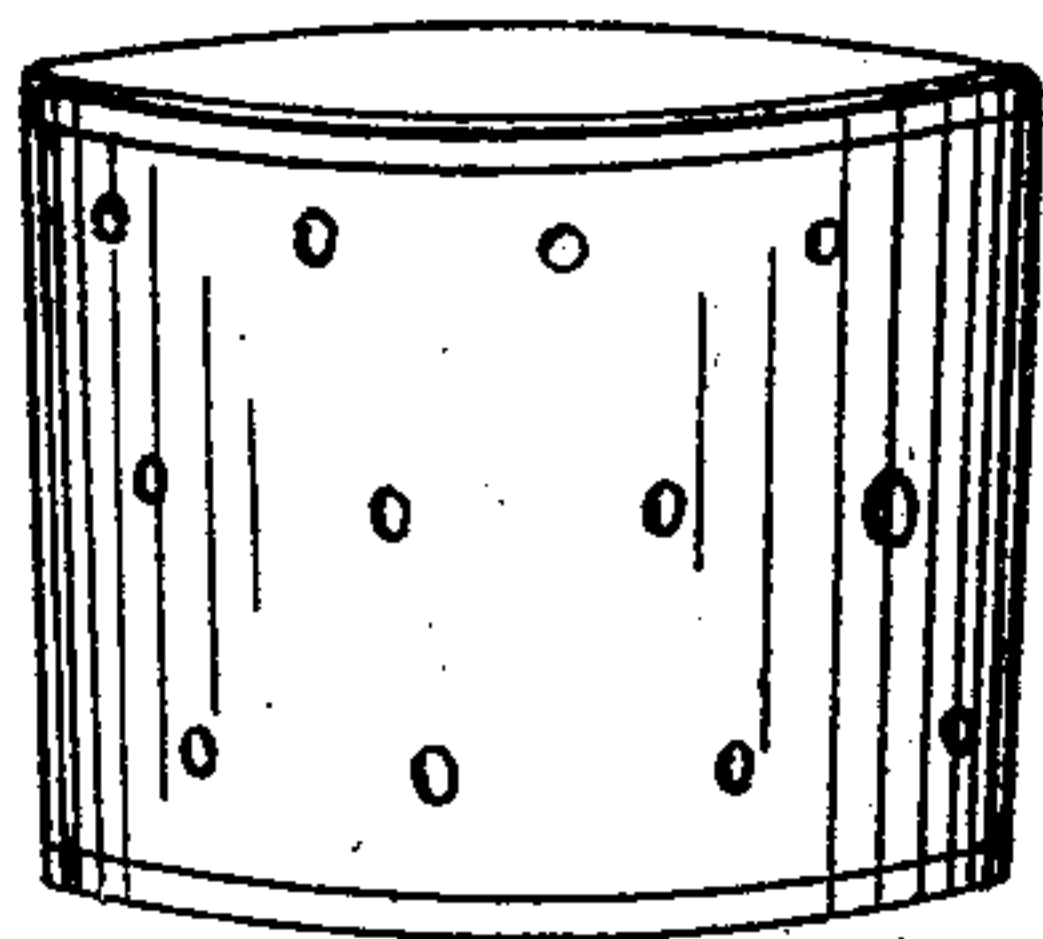
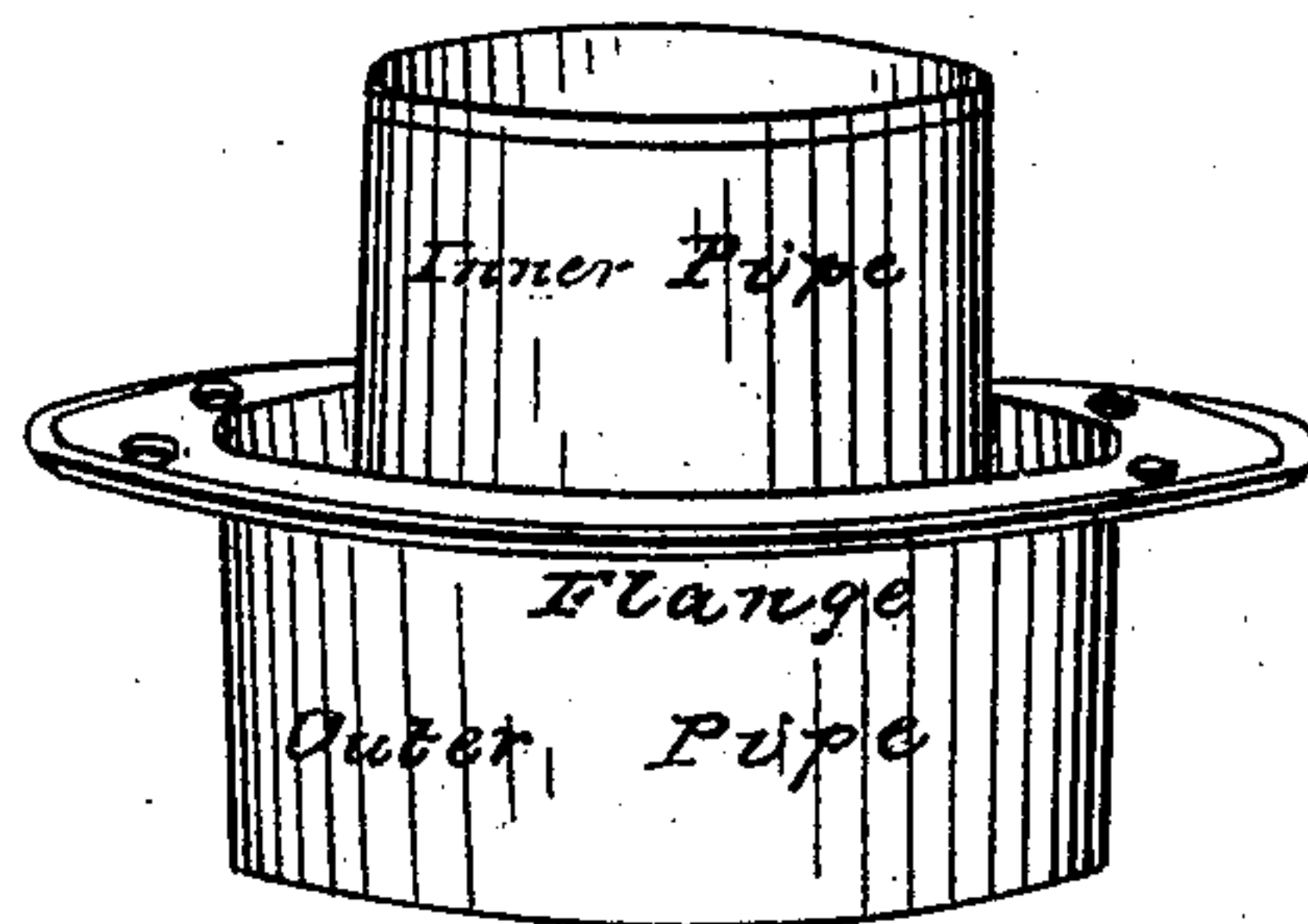
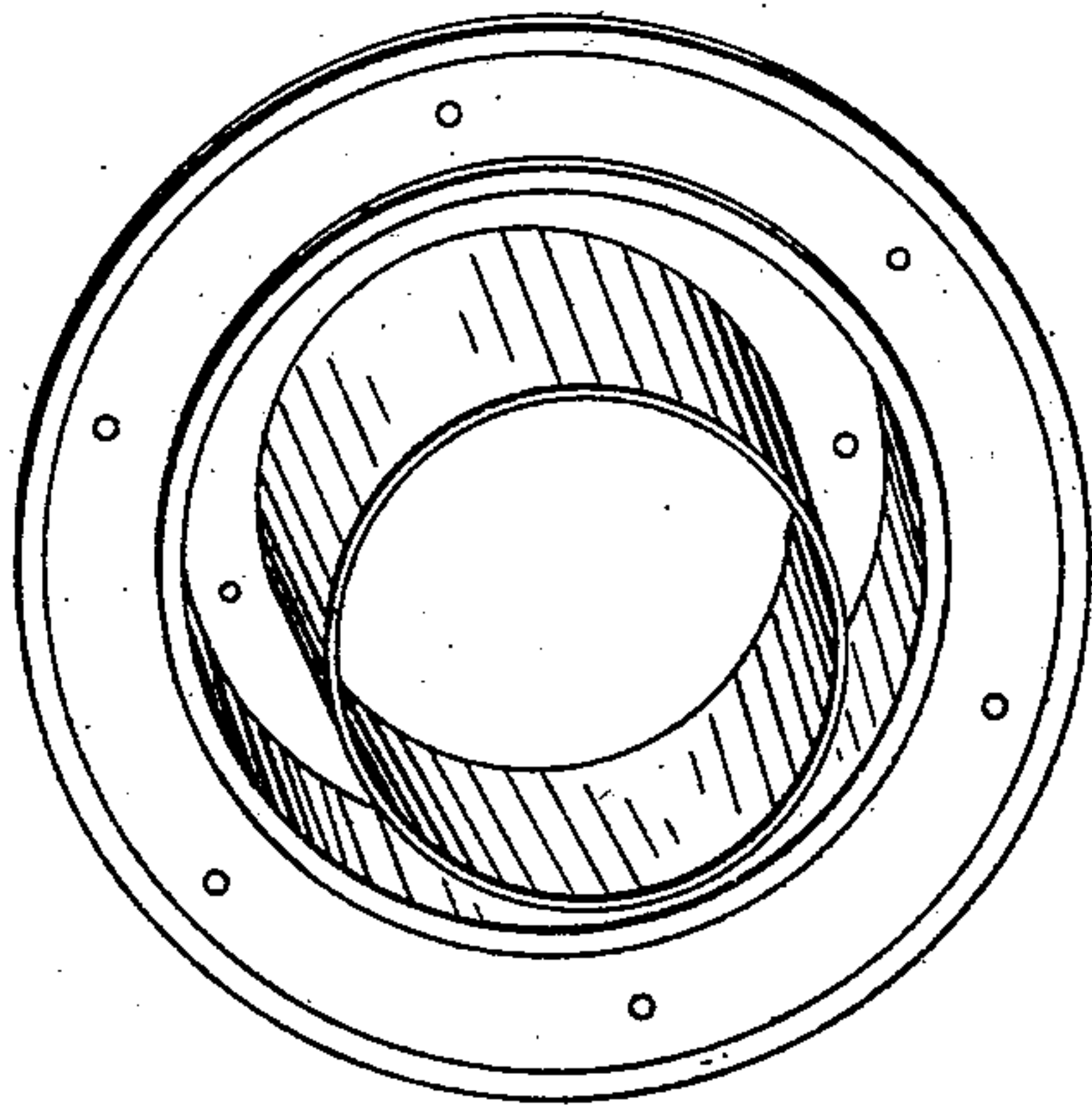


L. WOOD,
Stovepipe Thimble.

No. 16,423.

Patented Jan. 13, 1857.



witnesses
J. H. Adams
W. L. Betts

Inventor
L. Wood

UNITED STATES PATENT OFFICE.

LOFTIS WOOD, OF NEW YORK, N. Y.

STOVE-THIMBLE OR DECK-IRON.

Specification of Letters Patent No. 16,423, dated January 13, 1857.

To all whom it may concern:

Be it known that I, LOFTIS WOOD, of the city, county, and State of New York, have invented a new and Improved Method of
5 Securing Stovepipes on Board Ships, so as to be Safe Against Fire and Water-Tight.

If a stove pipe is passed through the deck of a vessel there is danger from fire; if the two are in contact, or if they can come in
10 contact by the motion of the vessel; and if to avoid this an opening is left around the pipe the water will get in below. It is necessary also that the pipe should be held firmly in its place without yielding to the
15 motion of the vessel and that the casing should be strong and durable.

To meet these requirements and answer these purposes I have constructed what I call a deck iron of which the following is a
20 full and exact description, reference being had to the accompanying drawings.

The deck iron is made of cast iron, or other hard metal, and is cast in one piece. Being of metal, it is strong and durable, and
25 being in one piece there are no joints liable to leak. It is composed of an outer and an inner pipe, concentric and the sides parallel; which are united on their under or lower side or end, the space between the two pipes
30 being from an inch to two inches wide. The two pipes thus united are inserted in the deck of the vessel and extend entirely through it. The outer pipe comes to the surface of the deck and has a flange or rim, cast with it, which is fastened down to the
35 deck or let into it, and made firm in its place. The inner pipe comes above the deck, of sufficient height to prevent water from washing down between it and the stove
40 pipe. The stove pipe passes through the

inner pipe which it fills. These are made of different sizes to suit all classes of vessels. The space or chamber between the two pipes, and which is water tight, may remain empty or be filled with water, or with
45 any non-conducting substance. This deck iron is highly approved by ship builders and owners and is adopted as a useful, safe, convenient and cheap contrivance.

In casting the deck iron much difficulty was
50 found at first, the case forming the chamber in the mold being thin, in proportion to its depth or length, it was apt to crumble and to be displaced or broken by the gases issuing while casting. But after many experi-
55 ments I am able to cast them perfectly by inserting an iron tube perforated in various places in this space or chamber midway between the outer and inner pipe before the molding sand is put in. This strengthens
60 and binds the case together when the sand is forcibly pressed in, and also after the case is formed, perforating it by a small iron wire, passed through it lengthwise in various places to make outlets for the gases.
65 But for these precautions the form and dimensions of the deck iron are such that it could not well be cast in one piece.

I do not herein claim the mode or process of casting above described though I believe
70 it to be in some respects new, but

What I claim as my invention and desire to secure by Letters Patent is—

The deck iron above described constructed substantially as above set forth, irrespective
75 of the mode or process of casting.

LOFTIS WOOD.

In presence of—

GEO. C. GODDARD,

LEONARD W. GODDARD.