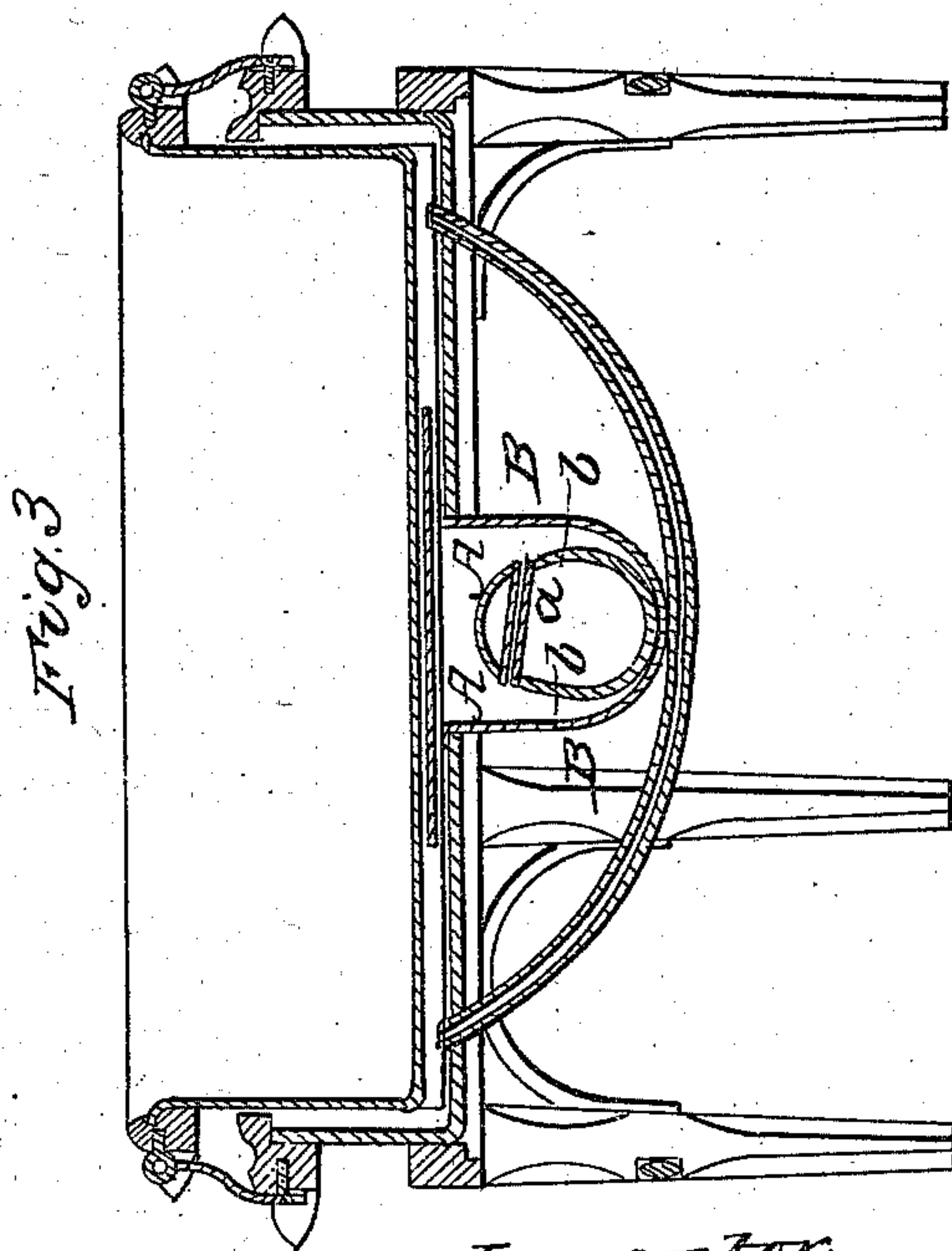
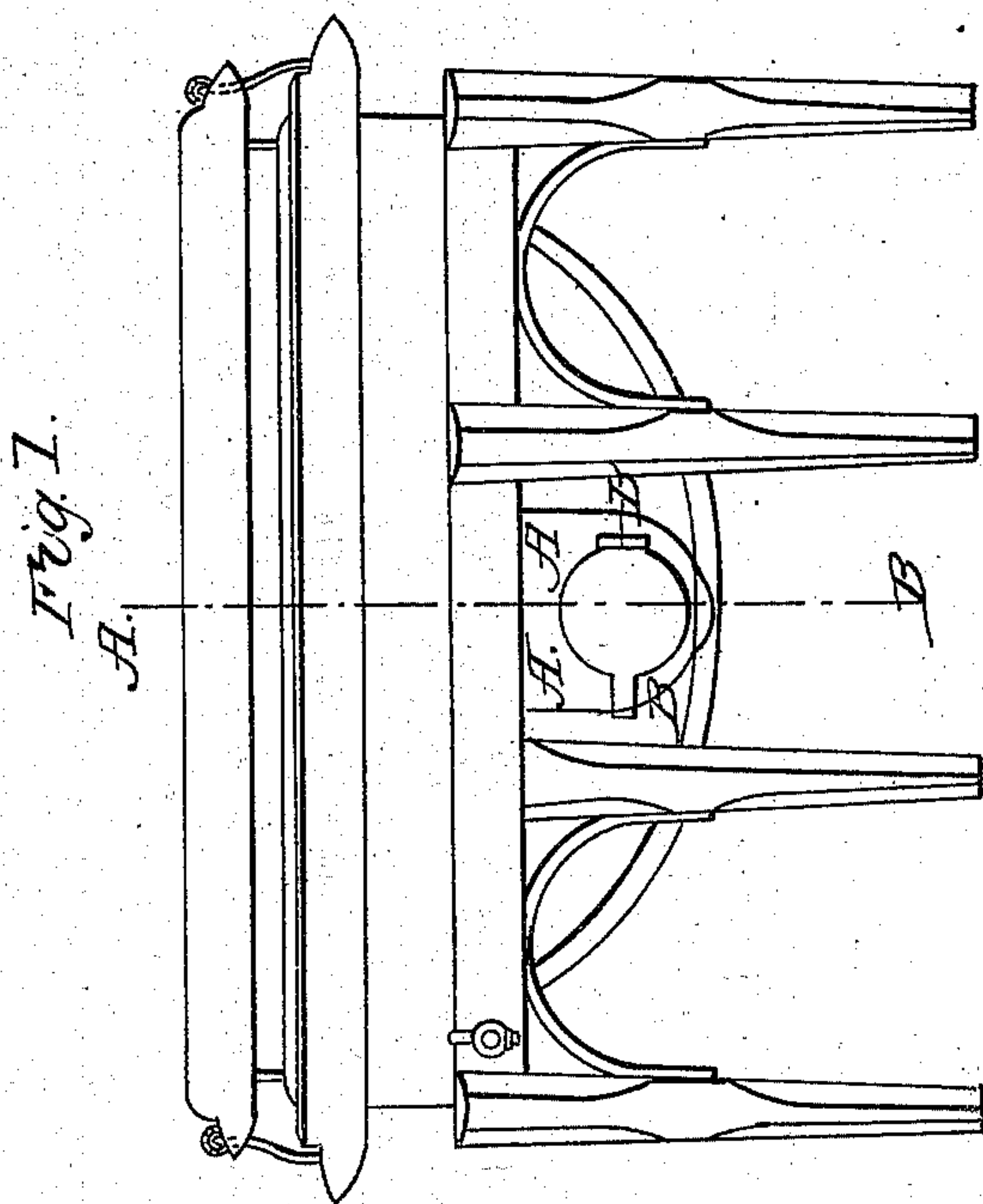
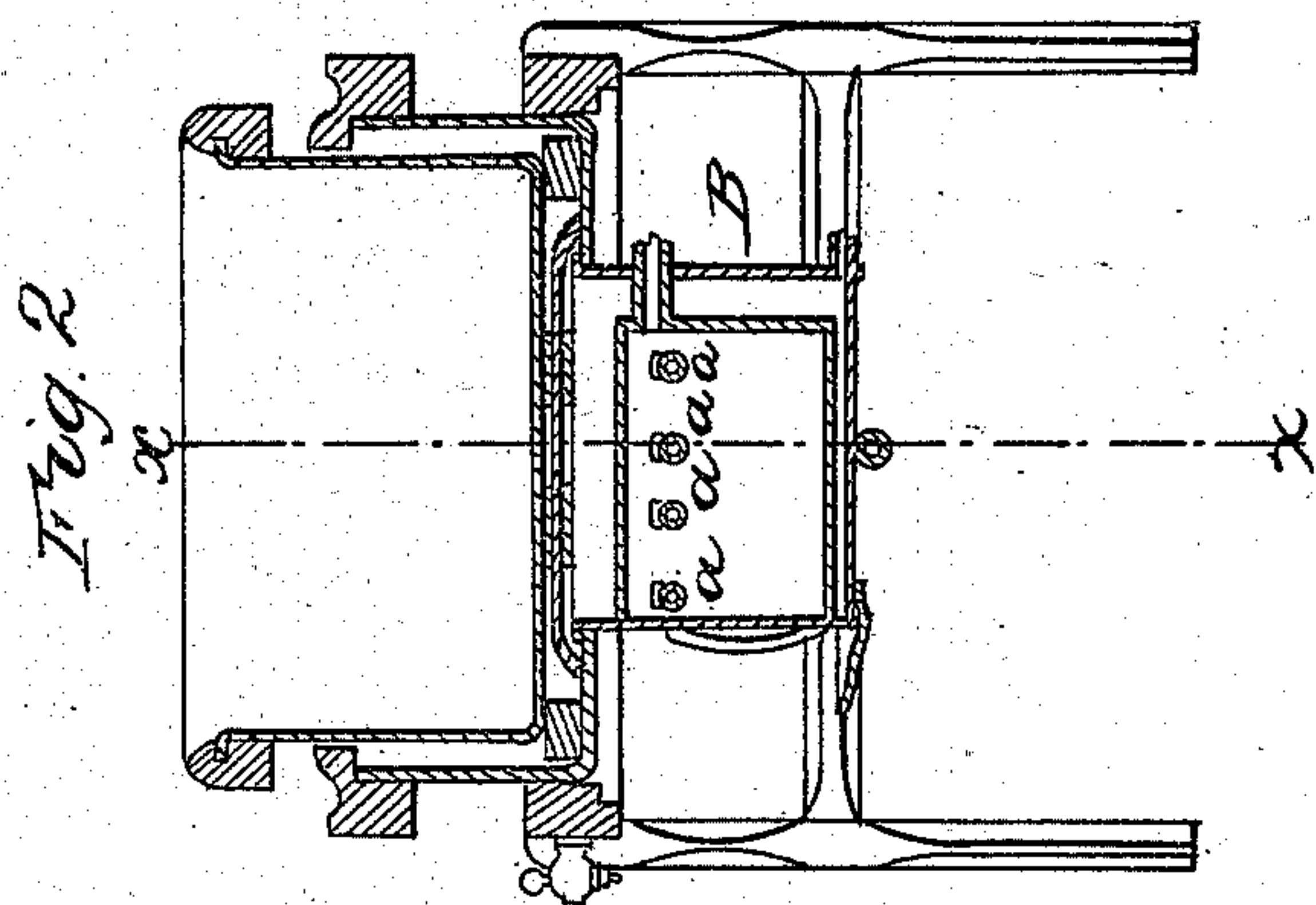


O. SAGE.
Cheese Vat.

No. 35,327.

Patented May 20, 1862.



witnesses
John P. Jacoby
A. W. Radnor

Inventor
O. Sage
By his Attorney
Thos H. Dodge

UNITED STATES PATENT OFFICE.

O. SAGE, OF WELLINGTON, OHIO.

IMPROVEMENT IN CHEESE-VATS.

Specification forming part of Letters Patent No. 35,327, dated May 20, 1862.

To all whom it may concern:

Be it known that I, O. SAGE, of Wellington, in the county of Lorain and State of Ohio, have invented a certain new and useful Improvement in Cheese Vats and Heaters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 represents a side view of a vat or heater with my improvement applied. Fig. 2 represents a cross-section on line A B, Fig. 1, and Fig. 3 a longitudinal section on line *xx*, Fig. 2.

It will be unnecessary to describe the construction of the various parts of the heater shown in the drawings, since they are well understood by those skilled in the art, and, besides, the frames, water and milk chambers or receptacles do not differ materially from the same parts represented and described in my patent of 1859, to which reference can be had.

My present improvement relates to the particular mode of making the furnace and combining it with the water box or chamber.

In the drawings, A represents the furnace, which is made oblong and has a series of short inclined pipes, *a a a a*, passing through its upper part, as clearly indicated in the drawings.

This furnace is supported in the bottom of the water-box B in such a manner as that there is a water-space, *b*, all around it, as clearly indicated in the drawings, the smoke and heated air passing out of a pipe, C, in the upper edge of one end.

By the use of a converging-topped furnace, in combination with a series of inclined cross-tubes which communicate with the water at each end, a very quick and even heat is obtained to the water, which in turn is communicated to the milk. The arrangement of the short inclined cross-tubes enables the heated water to pass out of them very freely, while the furnace can be repaired with much greater ease than in cases where the pipe is coiled up.

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

The combination, with the lower part of the water box or chamber, of an oblong or top-inclined furnace having inclined cross-tubes, the parts being arranged in relation to each other as and for the purposes set forth.

In witness whereof I have hereunto subscribed my name.

O. SAGE.

In presence of—

E. W. HOUGHTON,
ORTEN FOOTE, Jr.