

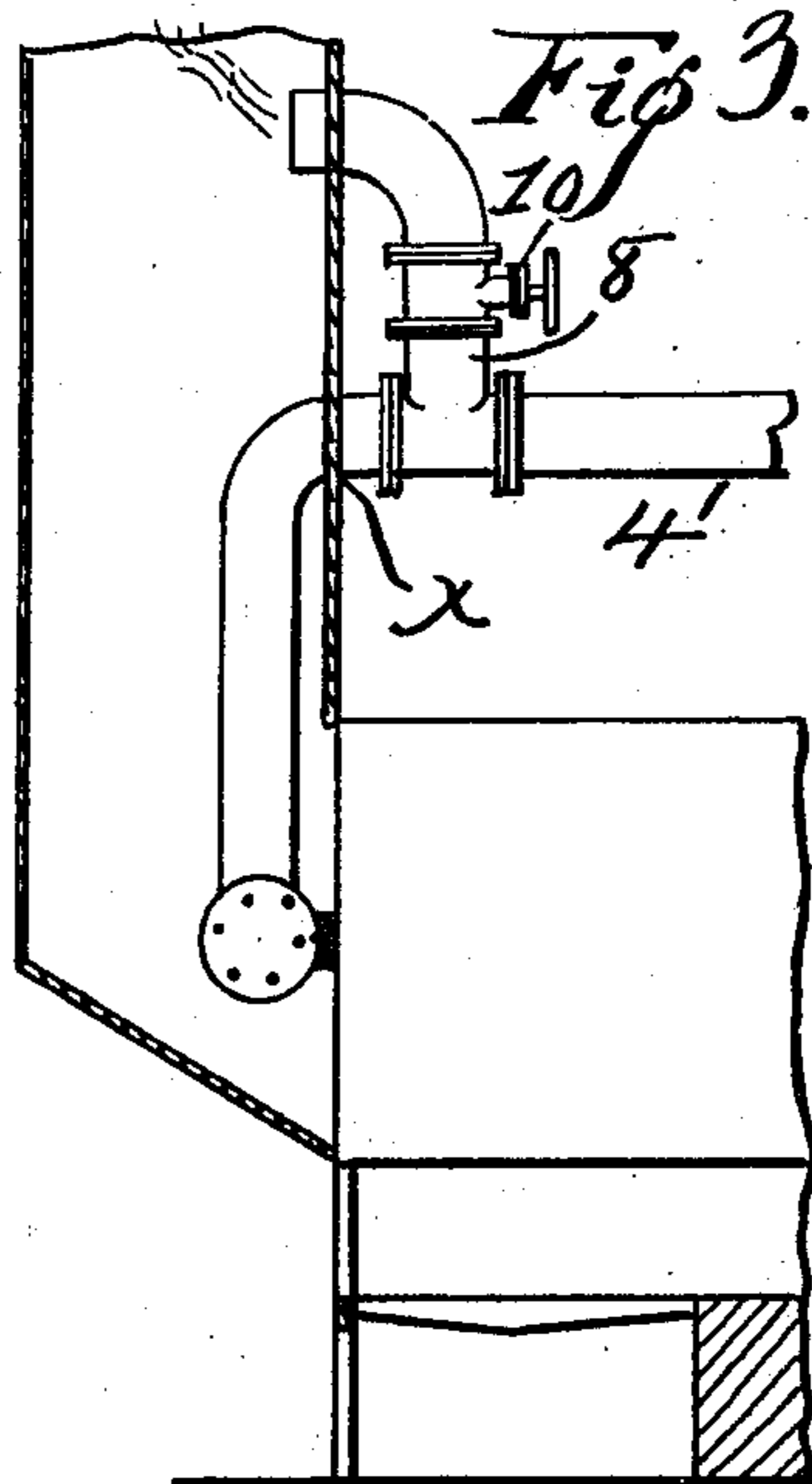
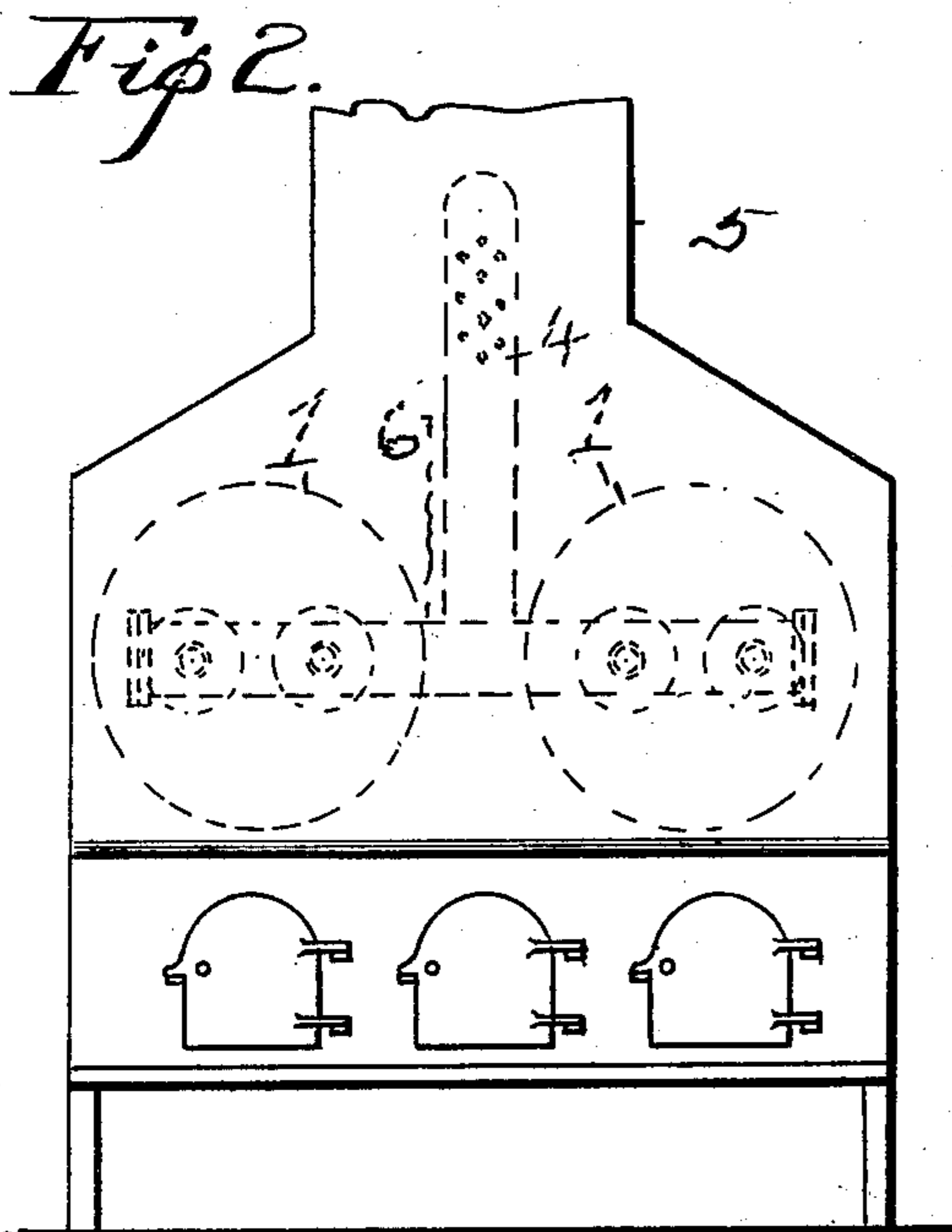
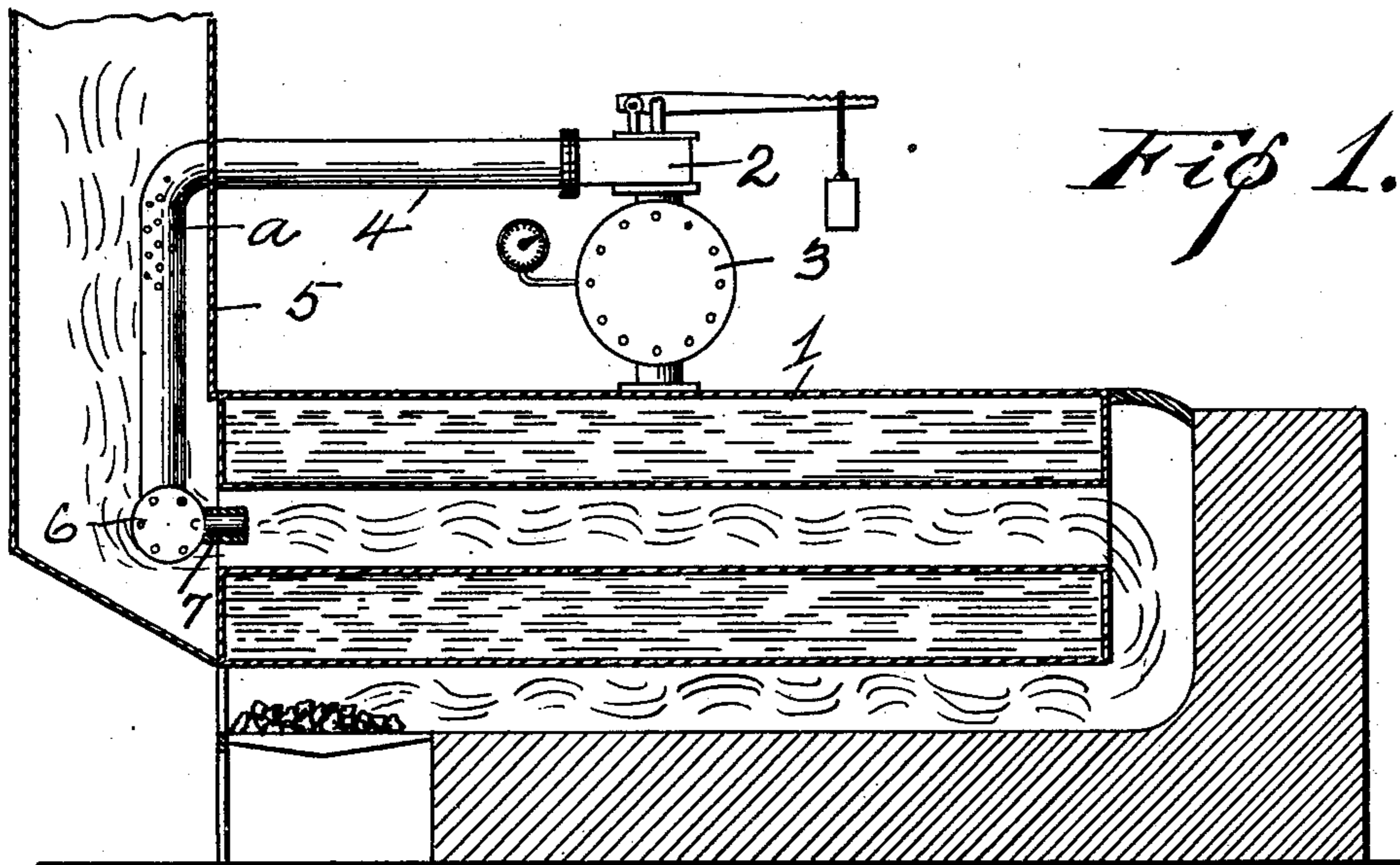
No. 678,113.

Patented July 9, 1901.

J. Q. EVERSON.
DRAFT REGULATOR.

(Application filed Oct. 27, 1900.)

(No Model.)



Witnesses;
Clarence Williams
James C. Heron.

Inventor
John Q. Everson
By John H. Roney
his Attorney

UNITED STATES PATENT OFFICE.

JOHN Q. EVERSON, OF PITTSBURG, PENNSYLVANIA.

DRAFT-REGULATOR.

SPECIFICATION forming part of Letters Patent No. 678,113, dated July 9, 1901.

Application filed October 27, 1900. Serial No. 34,617. (No model.)

To all whom it may concern:

Be it known that I, JOHN Q. EVERSON, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny, State of Pennsylvania, have invented or discovered a certain new and useful Improvement in Draft-Regulators, of which the following is a specification.

My present invention is an improvement upon the device patented by me in Letters Patent of the United States No. 325,791, dated September 8, 1885. In the use of the apparatus illustrated and described in said Letters Patent it was impossible in many instances—as, for instance, in non-return flue-boilers—to prevent the force of the steam discharged into the flues from forcing the products of combustion, and in some cases the fuel itself, out of the furnace-door.

My present improvement is for the purpose of reducing the steam-pressure before admission to the flues to avoid this difficulty; and to this purpose it consists in the novel construction and arrangement of parts herein-after specifically described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 indicates a longitudinal section of a flued steam-boiler with my improvement applied thereto. Fig. 2 is a front elevation of the same. Fig. 3 is a modified form of my present improvement.

In describing my present improvement and its mode of operation I will describe so much of my former improvement as will enable a proper understanding of the present invention.

Referring to the drawings, 1 is a flued steam-boiler having a safety-valve 2 connected with the steam-drum 3 thereof. A horizontal pipe 4 is connected with the safety-valve and enters the stack 5. The continuation or vertical member of said pipe 4 is projected downwardly of the stack and is connected to a transverse pipe 6, the said transverse pipe having a number of short horizontal branches 7, which enter the fire-flues of

said boiler. The vertical member of the pipe 4 is provided with a number of perforations or holes *a* for the purpose of permitting the steam to be discharged in advance of its discharge into the fire-flues of the boiler for the purpose of lessening or decreasing the force of the steam, and thus preventing the pressure of the steam blowing or forcing the fuel or products of combustion through the door of the furnace.

In Fig. 3 I have shown a modified form of my present improvement, which comprises a branch pipe 8, which is connected to the pipe 4' and enters the stack at *x*, the opening in said pipe 8 being controlled by a valve 10.

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

1. The combination with a steam-boiler having fire-flues and a safety-valve of a pipe connected at one end with the opening controlled by said valve and provided with branch pipes at the other located with reference to the fire-flues of the boiler so as to discharge steam into the outlet ends of said fire-flues, and means for lessening or decreasing the pressure of the steam in advance of its discharge into the fire-flues of the boiler, substantially as described.

2. The combination with a steam-boiler having fire-flues and a safety-valve of a pipe connected at one end with the opening controlled by said valve and having branch pipes located so as to discharge steam into the outlet ends of the fire-flues of said boiler, the said pipe being provided with one or more perforations at a point between the safety-valve and said branch pipes, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN Q. EVERSON.

In presence of—

JOHN H. RONEY,

CLARENCE A. WILLIAMS.