(No Model.)

F. MERTSHEIMER.

DRAFT PIPE FOR STEAM BOILER FURNACES.

No. 286,625. Patented Oct: 16, 1883.

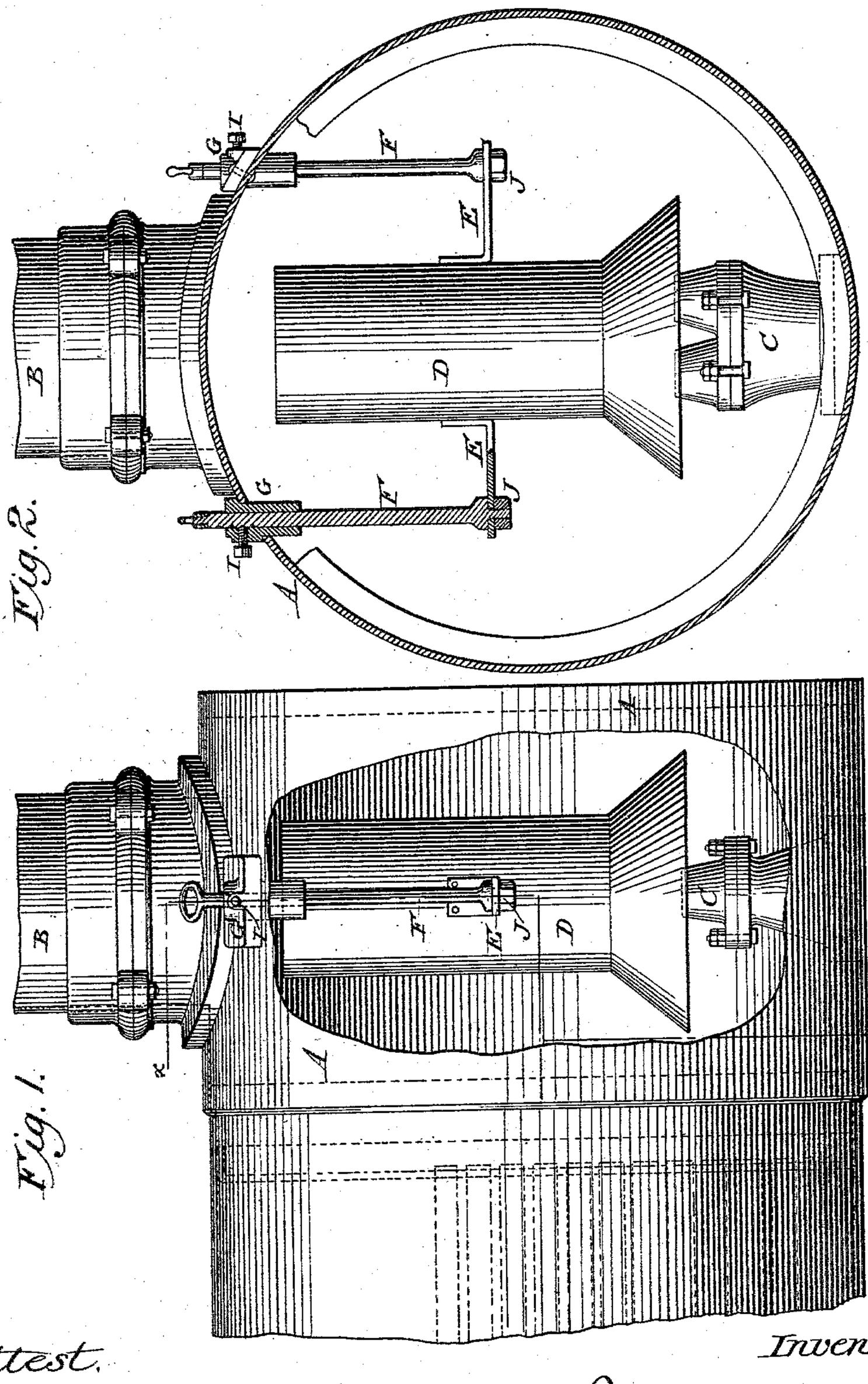

Fig. 2.

Fig. 1.

Attest.

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DRAFT-PIPE FOR STEAM-BOILER FURNACES.

SPECIFICATION forming part of Letters Patent No. 286,625, dated October 16, 1883.

Application filed May 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK MERTSHEIMER, of Denver, in the county of Arapahoe and State of Colorado, have invented certain Improvements in Draft-Pipes for Steam-Boiler Furnaces, of which the following is a specification.

My invention has reference to what are commonly known in the art as "draft-pipes," which are located in the smoke-boxes of locomotives to receive the blast from the exhaust-nozzles.

The invention relates to an improved manner of supporting or sustaining the draft-tubes, so that they may be conveniently raised or lowered from the exterior, as occasion may require, without the necessity of opening the smoke-box door.

To this end it consists, essentially, in combining with the draft-pipe a suspending arm or arms extended thence upward through the top of the smoke-box, and combined with exterior fastening devices, such as hereinafter described.

Referring to the accompanying drawings, Figure 1 represents a side elevation of the forward ends of a boiler and its smoke-box with my improvements applied thereto, one side of the smoke-box being broken away to expose the parts located therein. Fig. 2 is a vertical section through the same on the line *x x*.

A represents the shell or body of the smoke-box; B, the smoke-stack; C, the exhaust tubes or nozzles; and D, the draft-pipe, located between the nozzles and the stack in position to receive the blast of exhaust-steam. The foregoing parts, as represented, are of substantially the ordinary construction, and constitute no part of my invention.

In applying my improvement, I secure firmly to the draft-pipe D, on opposite sides, two arms, E, extending outward therefrom. The outer ends of these arms I secure to the lower ends of two rods or pendants, F, which are extended upward through the top of the smoke-box to the outside in such manner that their outer protruding ends may be grasped by the attendant in order to raise or lower the draft-pipe, as may be required. For the purpose of fastening the pendent rods so as to maintain the draft-pipe at the required height, each rod is passed through a plate or support, G, riveted firmly in place upon the smoke-box, each plate being provided with a set-screw, I, which may be turned inward firmly against the rod, in order to secure it firmly in position. Each rod is preferably provided, as shown, with a series of notches or indentations to receive the end of the set-screw, whereby the rod is maintained the more securely in position; but these notches are not a necessary feature. The upper ends of the rods F are preferably provided with or fashioned into handles or hand-pieces, as shown, in order that they may be more readily adjusted; but this feature is also of minor importance, and the form of the handles may be modified, or they may be dispensed with, if preferred. The connection of the arms E to the lower ends of the rods F may also be modified. It is preferred, however, to provide each rod with a threaded neck, and to insert the same through a perforation in the arm from above, and to secure the arm in place by means of a nut, J, applied at the lower end, as shown.

It will be perceived that in order to effect the vertical adjustment of the draft-pipe D it is only necessary to loosen the set-screws, whereupon the attendant, grasping the outer ends of the rods, may raise and lower the blast-pipe, as required, afterward fastening the same by again tightening the screws, and this without the necessity of opening the smoke-box.

I am aware that a draft-tube has been adjusted by a system of levers and rods, and to such construction I lay no claim.

My device is exceedingly simple and cheap in construction, and is advantageous, in that it admits of the tube being securely and permanently fastened at the desired height, and also in that it is applicable to existing boilers without difficulty.

What I claim as my invention is—

1. In combination with the smoke-box and draft-pipe of a boiler, the draft-tube, the rods F, attached thereto and extended upward through the smoke-box, with handles upon their upper ends, the bearing-plates G, and the set-screws I.

2. The combination, with the smoke-box, of

the draft-pipe therein, the rods F, attached to said pipe and extended upward through the top of the smoke-box, and external fastening devices, substantially as described, acting to hold the upper ends of the rods.

3. In a steam-boiler, a blast-tube suspended by rods, the upper ends of which are extended upward through the top of the smoke-box and combined with external devices, substantially as described, for securing and adjusting the same.

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Witnesses:
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