(No Model.)

J. D. SCHIBLI.

STOVE FOR RAILWAY CARS, &c.

No. 386,353. Patented July 17, 1888.

Fig. 2.

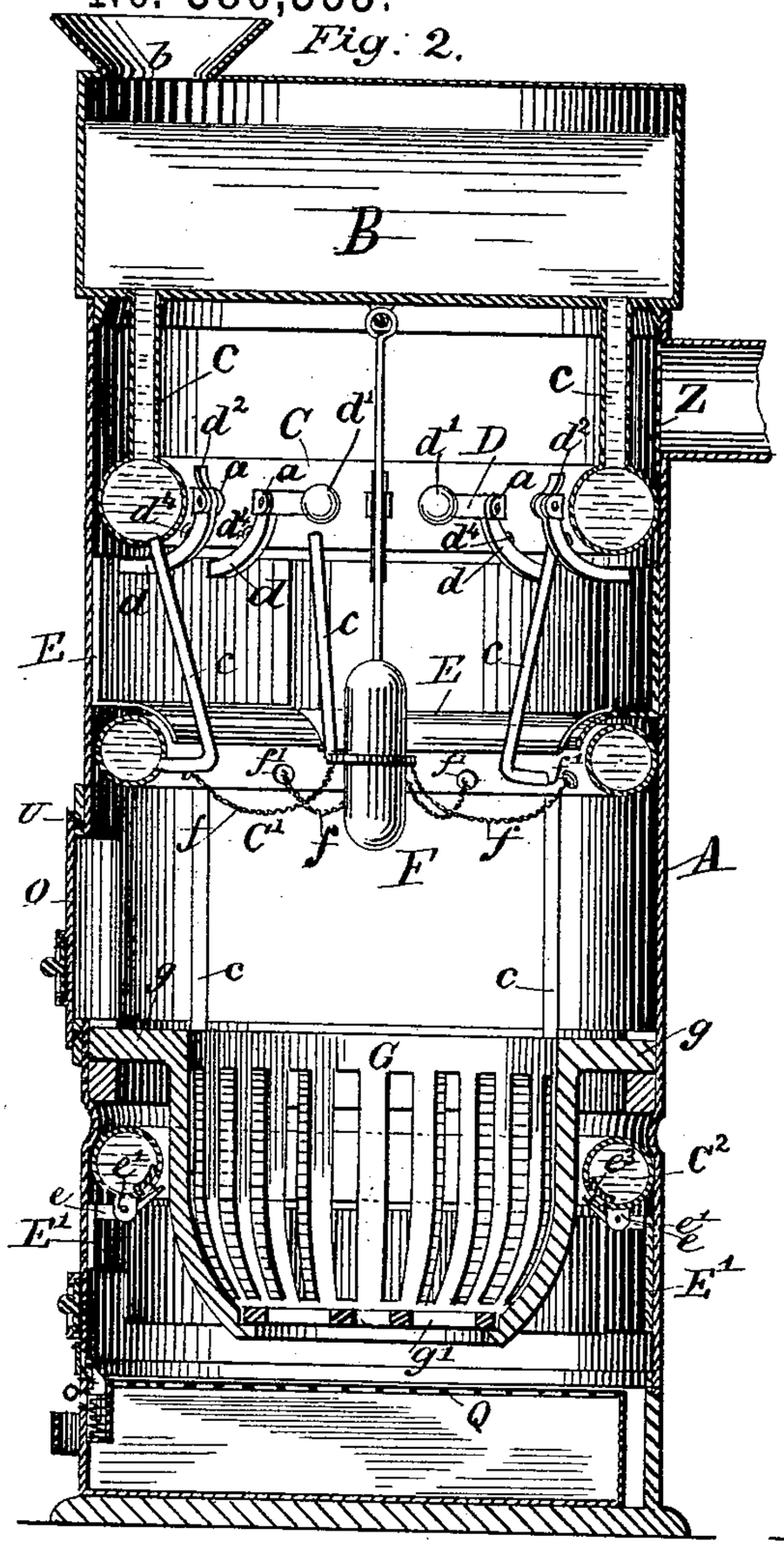

Fig. 1.

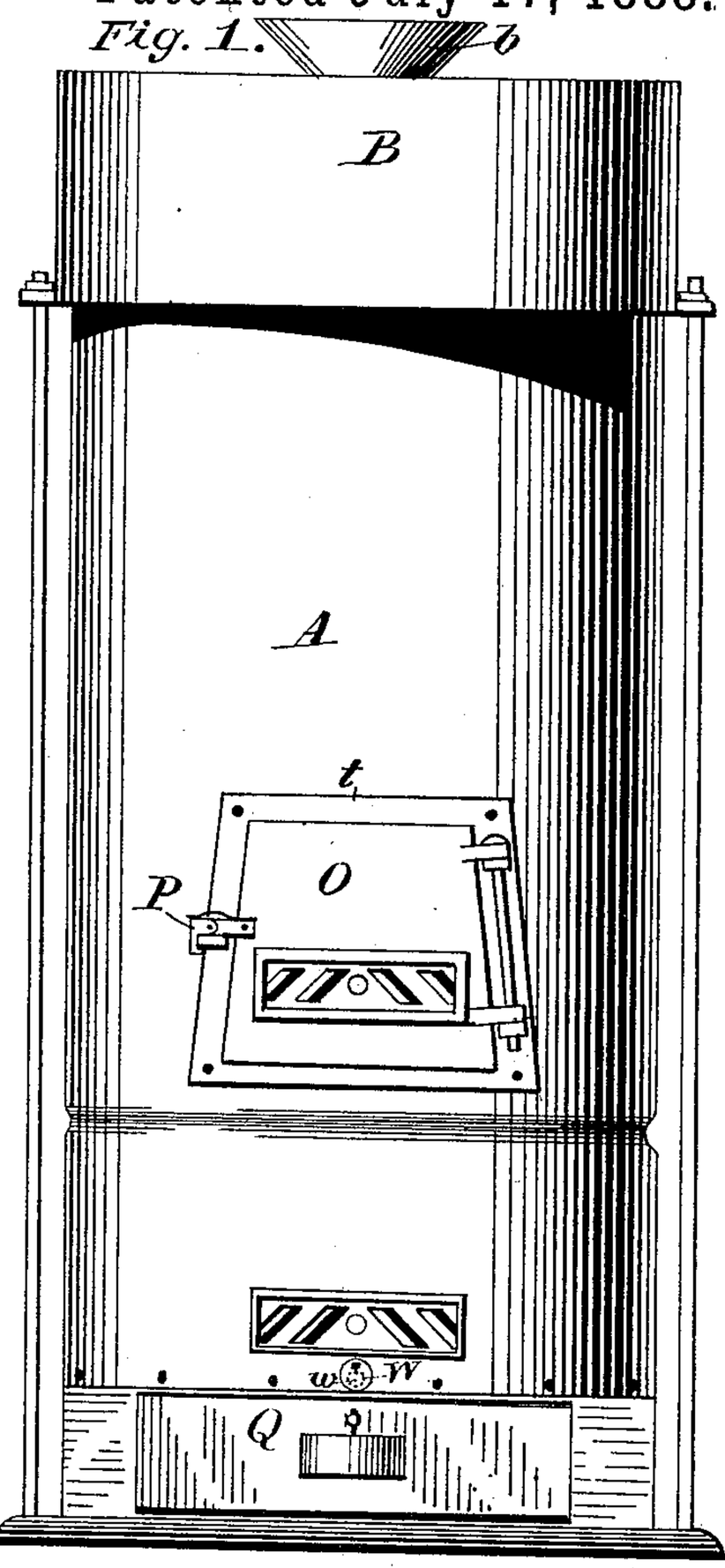

Fig. 4.

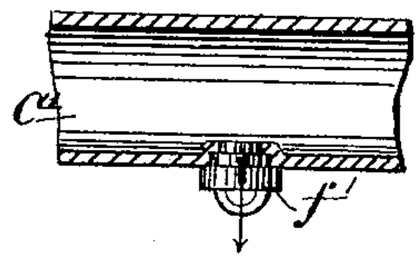

Fig. 3.

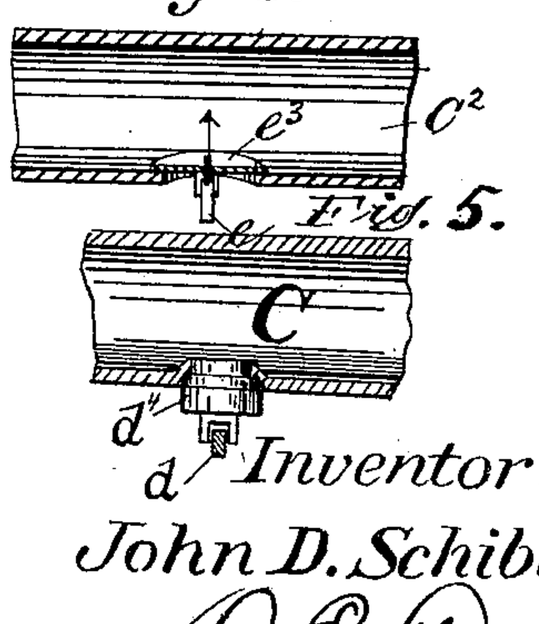

Fig. 5.

Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN DAVID SCHIBLI, OF LITTLE ROCK, ARKANSAS.

STOVE FOR RAILWAY-CARS, &c.

SPECIFICATION forming part of Letters Patent No. 386,353, dated July 17, 1888.

Application filed October 18, 1887. Serial No. 252,735. (No model.)

To all whom it may concern:

Be it known that I, JOHN DAVID SCHIBLI, of Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Stoves for Railway-Cars, &c.; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

The object of my invention is to provide a stove for railway-cars, steamboats, or any other conveyance in which stoves are used, which shall automatically extinguish itself in case of an accident by which the stove would be upset or crushed in by any heavy object coming in contact with it; and my invention consists in placing a water-reservoir in any convenient position exterior of the stove, which will communicate with other reservoirs located inside the stove, or which may be formed integral with the main body of the stove, as will be fully set forth in the following specification and claims.

In the drawings, Figure 1 is a front elevation of a stove embodying my invention. Fig. 2 is a vertical section; and Figs. 3, 4, and 5 are details of the plugs or valves.

Similar letters of reference indicate similar parts in the respective figures.

A is the stove, and B is the main water-reservoir, having the funnel-shaped opening *b*.

C C′ C² are water-reservoirs located inside the stove and secured to it in any convenient manner. These reservoirs communicate with each other and with the main reservoir B by means of the pipes *c*. Each of the reservoirs C, C′, and C² are provided with several openings, which are closed by valves operated by means to be hereinafter described. The reservoir C is provided with lugs *a*, located just above the openings in the reservoir, and in these lugs are pivoted the bent levers D. The parts *d* of the levers D are secured to the plates E, which overlap each other and extend all around the inside of the stove, and are held against the side of the stove by means of the weights *d′* or the springs *d²* on the free ends of the lever D. The parts *d* of the levers are also provided with valves *d³*, (see Fig. 5,) which open outwardly, and which normally close the openings in the reservoir C as long as the plates E are in their normal position.

F is a weight which is suspended from the top of the stove and is free to swing in any direction.

f f are chains which are secured at one end to the weight F, and their other ends are fastened to the plugs *f′*, which open outwardly and normally fit into the openings in the reservoir C′.

The lower part of the stove is provided with overlapping plates E′, to which one end of each of the bent levers *e* is secured, the levers being pivoted to the lugs *e′* on the reservoir C², the lugs being located below the openings in the reservoir. The free ends of the levers *e* are provided with valves *e³*, which close the openings in the reservoir and are held to their seat by the pressure of the water in the reservoir.

I prefer to use a fixed basket-grate, G, which shall be surrounded by the reservoir C². The grate is provided with a flange, *g*, by which it is secured to the outer casing of the stove and held in its proper position, and is also provided with a movable bottom, *g′*. An ash-pan, Q, of any well-known and desirable construction, is removably located in the stove beneath the fire-grate. Access to the interior of the stove is had through the door O, hinged to the outer shell.

W is a small swinging disk to close the hole *w*, which is provided for the insertion of the poker.

The opening in the stove leading to the chimney is covered with a disk of reticulated metal, Z, to prevent sparks from escaping from the stove.

My invention will operate as follows: As long as the car or other conveyance moves smoothly on its way, all the parts will remain in their normal position. Suppose, however, that a collision should take place and the car or other conveyance be brought to a sudden stop, or the sudden check to the momentum of the conveyance would cause the freely-suspended weight F to swing violently toward one side of the stove, and thus pull out some of the plugs *f′* and allow the water to escape from the reservoir C′ onto the fire and so quench it. The same result would be accomplished should

the stove be upset; also, should any heavy object strike the stove between the reservoirs C and C′, or below the reservoir C^2, the side of the stove would be crushed in, and the plates E or E′ would be forced out of their place, thus opening the valves d^4 or e^3 and allowing the water to escape from the reservoirs to the fire.

Of course either of the three valve-operating arrangements described could be used exclusively in the stove; but I prefer to arrange the valve-operating mechanism for each reservoir in a different way, as described, as with this arrangemont it would be almost impossible for an accident of sufficient severity to render the fire dangerous to occur without one or the other of the reservoirs being opened to allow the water to escape to the fire.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination, with a stove, of a water-reservoir exterior of the stove, a series of water-reservoirs communicating with the interior of the stove, and pipes connecting the series of reservoirs with each other and with the exterior reservoir, substantially as specified.

2. The combination, with a stove and one or more water-reservoirs having openings communicating with the interior of the stove, of a series of bent levers pivoted to said reservoirs, overlapping plates attached to said levers, and valves attached to said levers to close the openings in the reservoir, substantially as specified.

3. The combination, with a stove and water-reservoir having openings communicating with the interior of said stove, of a series of bent levers pivoted to said reservoir, a series of overlapping plates attached to one of the ends of said levers and extending around the interior of the stove against the sides thereof, valves secured to said levers to close the openings in the reservoir, and weights or springs on the free ends of said levers, substantially as specified.

4. The combination, with a stove and a water-reservoir having tubes or conduits extending and opening into the interior of the stove, of a weight centrally suspended within said stove from the top thereof to have a free lateral swing, plugs normally closing communication from the reservoir into the stove, and chains or the like connecting the plugs and weight, whereby when the weight is swung laterally the plugs are forced from their seats and communication is opened from the reservoir into the stove, substantially as described.

5. The combination, with a stove and a basket-grate suspended within said shell, of a reservoir exterior of the stove, a reservoir within the stove in communication with the exterior reservoir and surrounding the grate, said interior reservoir being provided with openings into the interior of the stove, and valves or plugs normally closing said openings, and levers for opening communication, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN DAVID SCHIBLI.

Witnesses:

CHARLES M. WERLE,

JOSEPH BECKER.