

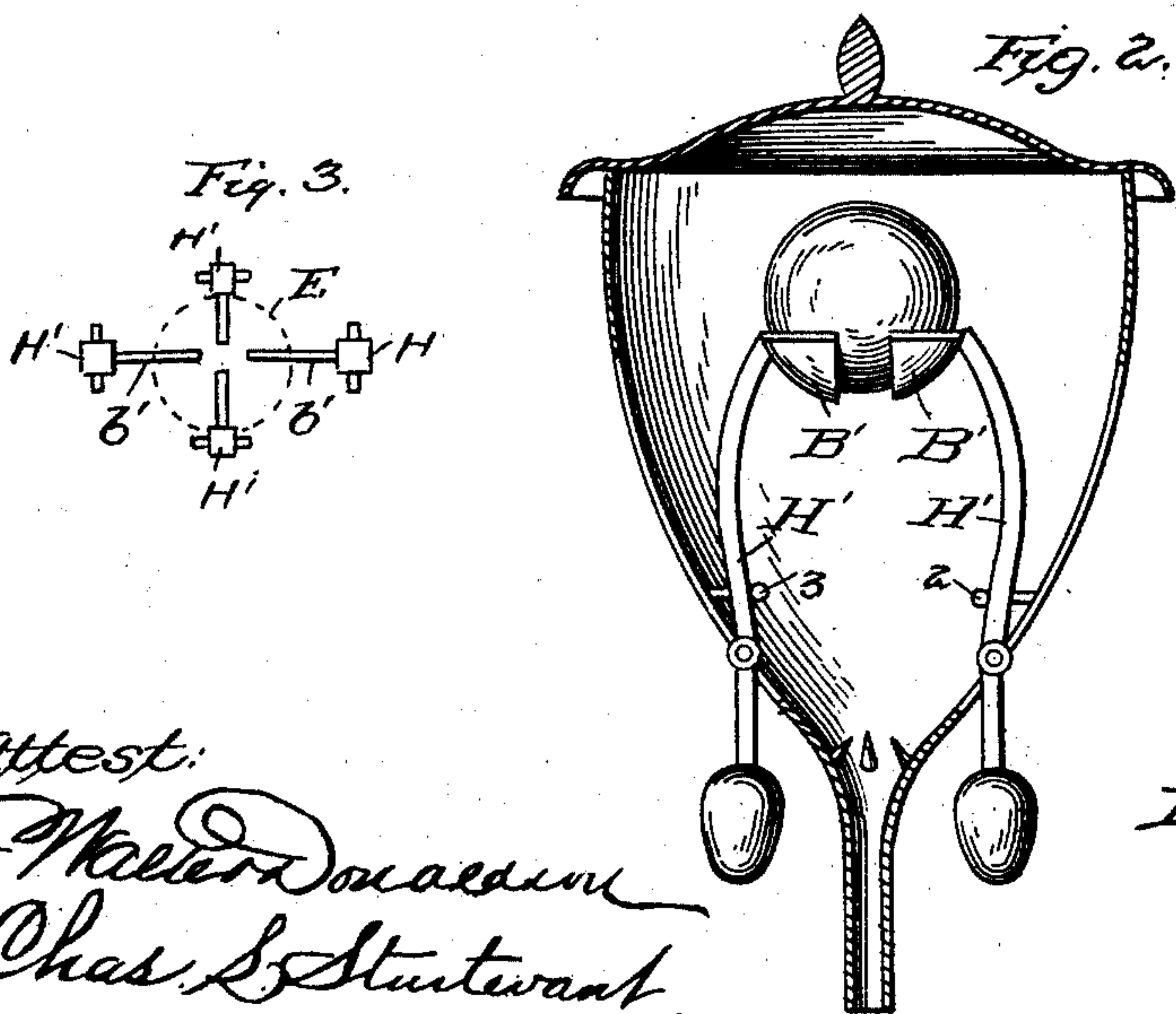
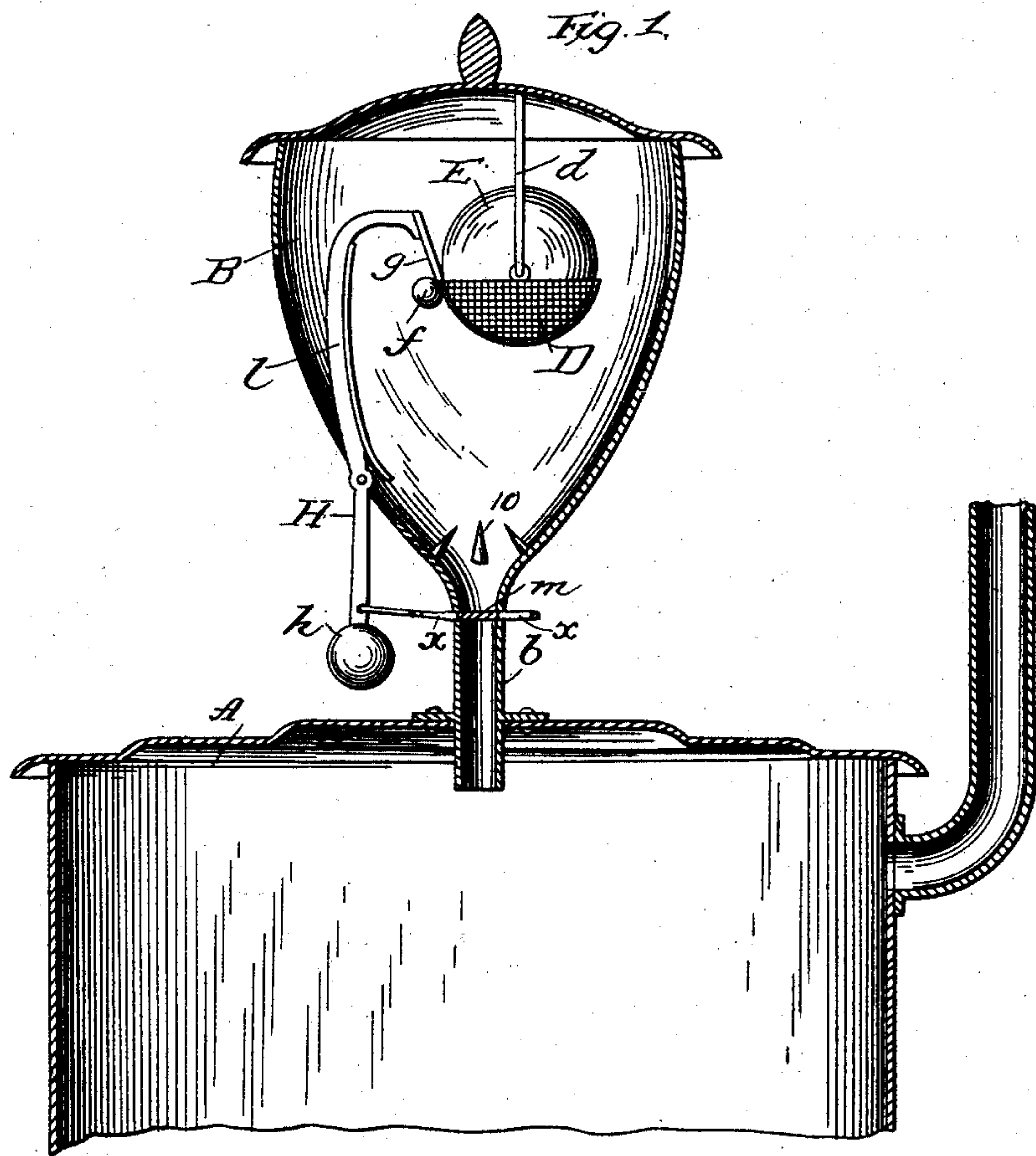
(No Model.)

B. GOLDSMITH.

CAR HEATER.

No. 371,059.

Patented Oct. 4, 1887.



Attest:
Walter Donaldson
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Inventor
Bernard Goldsmith
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UNITED STATES PATENT OFFICE.

BERNARD GOLDSMITH, OF MILWAUKEE, WISCONSIN.

CAR-HEATER.

SPECIFICATION forming part of Letters Patent No. 371,059, dated October 4, 1887.

Application filed March 26, 1887. Serial No. 232,561. (No model.)

To all whom it may concern:

Be it known that I, BERNARD GOLDSMITH, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Car-Heaters; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention is an automatic fire-extinguisher for the stoves of railway-cars.

It consists, essentially, of a railway-car stove combined with a vessel inclosing a fire-extinguishing liquid with pendulum attachments for breaking or opening the vessel and spilling the contents upon the fire in the stove.

Figure 1 shows a vertical section through the case and upper part of a stove and a side elevation of the frangible vessel and the devices in connection therewith. Fig. 2 is a similar view of a modification. Fig. 3 is a detail plan view of four pendulums arranged to hold the ball E, the said pendulums being each provided with a finger for this purpose.

In the drawings, A represents the top of any ordinary stove, and B is an urn, preferably of sheet metal, or a vessel of any ornamental shape, with a hollow stem, *b*, adapted to be screwed or otherwise fixed in the top of the stove; so that any liquid contents of the urn B may run down into the stove directly upon the fire. From the top of the urn and within the same is a cage, D, suspended upon a bail, *d*, said cage holding a globe or other suitable vessel, E, made of glass or other frangible material and adapted to hold an extinguishing-liquid. The cage D has a weight, *f*, on one side and an arm, *g*, on the same side. A pendulum, H, provided with a weight, *h*, is pivoted in a slot by means of a tight-fitting joint in the wall of the urn, and has an arm, *l*, extending upward and bent to bear against the arm *g* of the cage. The pivot on which it turns is parallel with the sides of the car, so that if the car tips to the right or to the left of the figure the pendulum will swing to the right or left, as the case may be. If it swings to the right, it will draw the upper end of the arm *l* away from the arm *g*, when the weight *f* will tip the cage and cause the ball or other vessel to fall and break, thus releasing the contents, which will run down through the

hollow stem *b* and extinguish the fire. If the weight swing to the left, the arm *l* will push against the arm *g* and overset the cage in the other direction with like effect. Projections 10, or spurs, may be employed to insure the breaking of the vessel, being placed for this purpose so that the vessel will fall upon them.

In order to prevent the products of combustion from rising into the urn through the hollow stem, I use a sliding valve, *m*, sliding in a close collar in the stem, with an opening on each side, so that when the pendulum is in an approximately-vertical position the solid part of the valve will obstruct the passage of the stem; but when the pendulum swings in either direction one of the holes *x x* will be brought into line with the stem, leaving it open; or a separate pendulum may be used with like effect.

The form shown is adapted to be applied to any of the known forms of stoves by merely tapping a hole through the top of the stove; but in making new stoves the form of the receptacle for the globe or the vessel holding the extinguishing-fluid may be varied as may be found convenient.

Fig. 2 shows a modified form in which the glass or other vessel is held in a divided cup, B', each half of which is supported upon a pendulum, H', similar in all respects to the first, except that the upper arm is rigidly fixed to half of the cup or cage which carries the vessel B. A stop, 2, is provided for the right-hand pendulum above the pivot, and a stop, 3, for the left-hand pendulum, also above the pivot. This prevents one pendulum from following the other, and whichever way the car tips or the concussion occurs one or the other will open the divided cage and drop the vessel.

By forming the ends of the pendulum H' with fingers *b'*, Fig. 3, instead of the sections of the divided cup, I can use four pendulums instead of two, so that lateral concussion and inclination will effect the operation of the device as well as longitudinal movement of the weights.

The pendulum may be arranged to strike the ball, if desired.

I claim as my invention—

1. In combination with a stove, a vase con-

5 nected therewith, a frangible vessel, a movable support for said frangible vessel, and a weighted lever in operative relation with the said support, whereby tilting of the car communicated to the lever will cause the latter to oscillate to permit displacement and rupture of the frangible vessel, substantially as described.

10 2. In combination with the stove, the vase in connection therewith, a frangible vessel, a suspended movable support therefor weighted upon one side, and a weighted lever in operative relation with said support, whereby the tilting of the car in one direction will cause
15 the lever to displace the support and frangible vessel, and in the opposite direction to permit

the support to tip by its own weight, all substantially as described.

3. In combination, the stove, the vase or receptacle, the frangible ball, the support therefor, the pendulum for causing the breaking of the said ball, and the valve *m*, connected directly to the said pendulum, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

BERNARD GOLDSMITH.

Witnesses:

WALTER DONALDSON,
CHARLES L. STURTEVANT.