

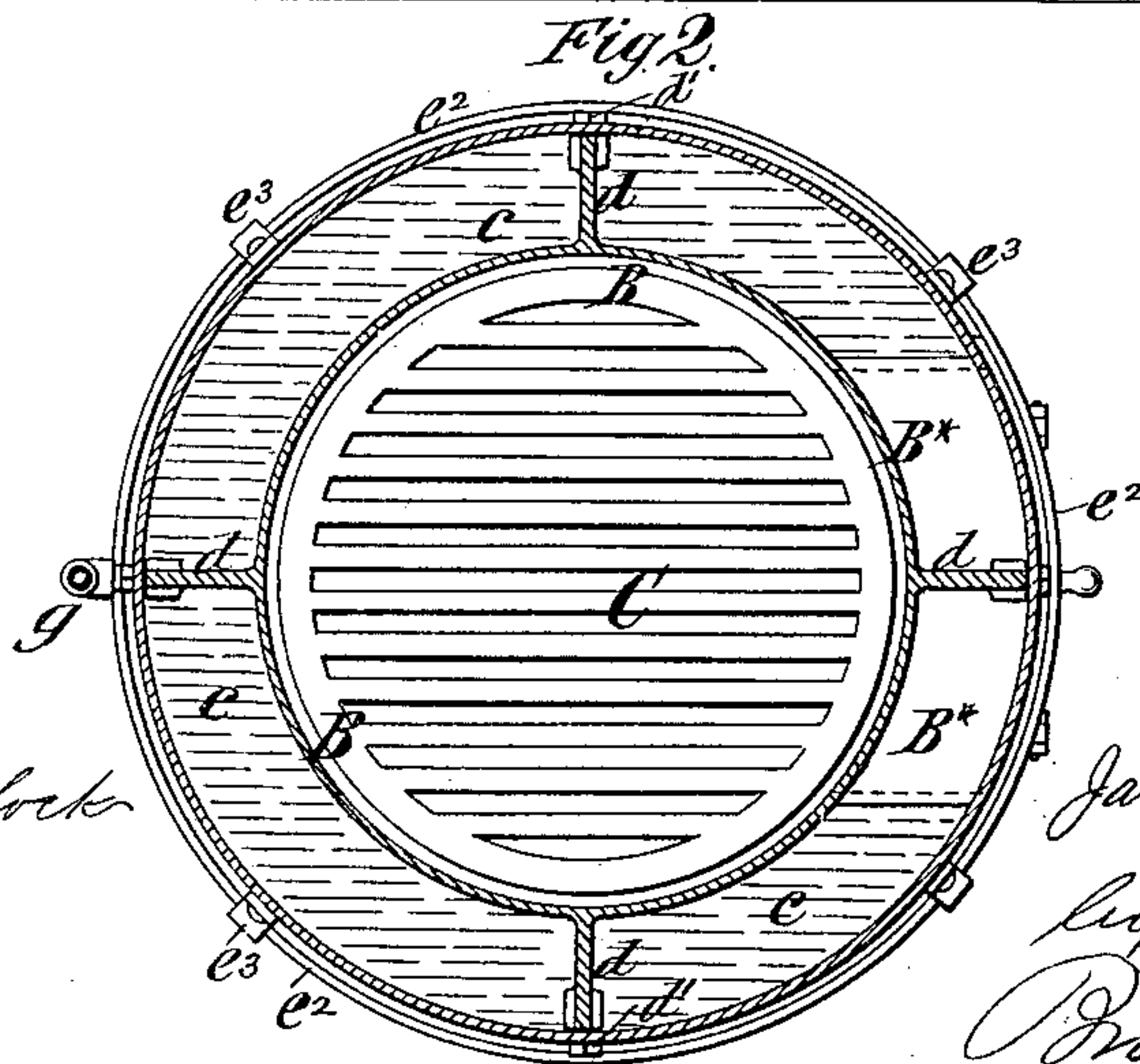
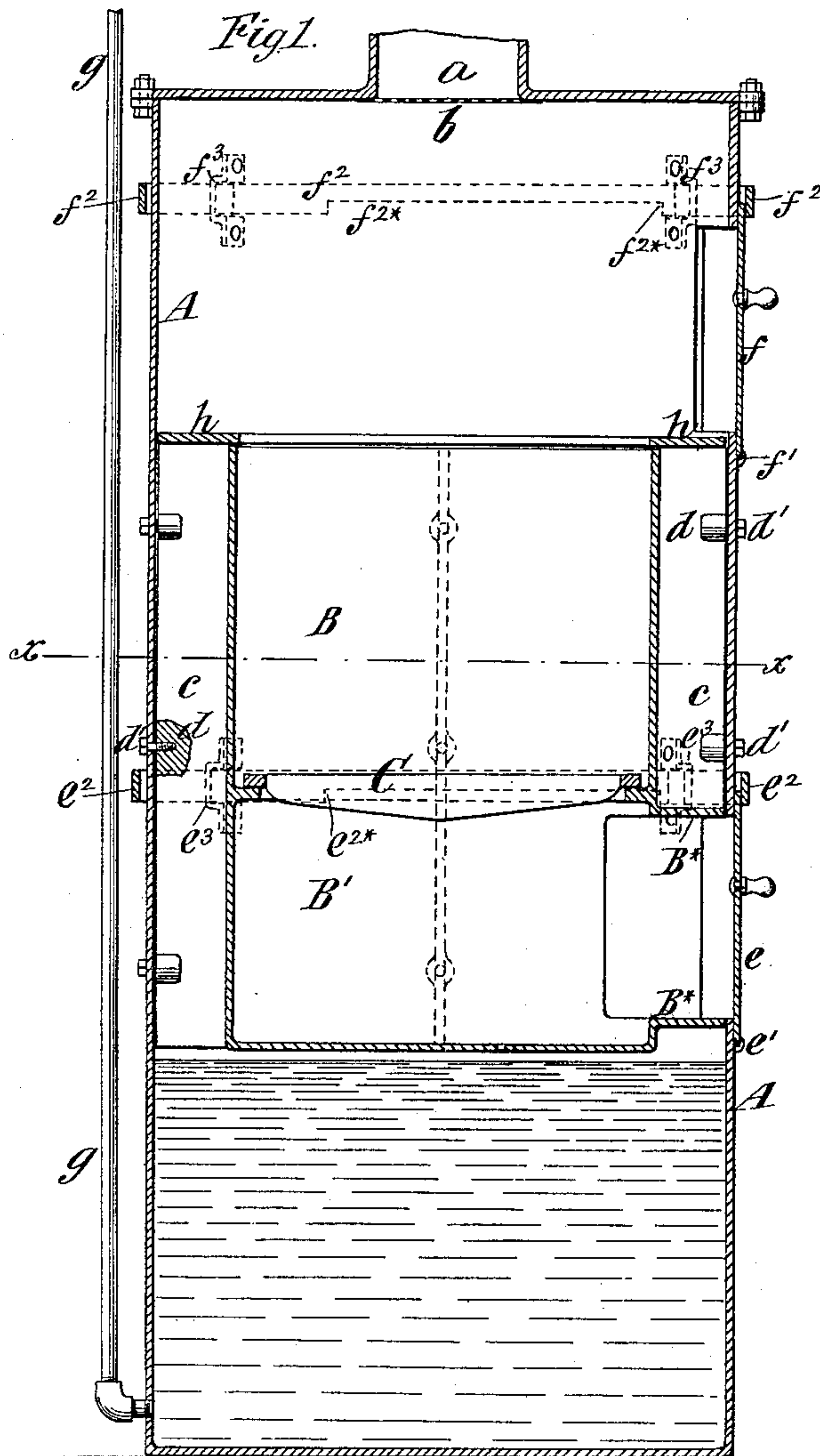
(No Model.)

2 Sheets—Sheet 1.

J. A. FAUST.
STOVE FOR RAILWAY CARS.

No. 336,221.

Patented Feb. 16, 1886.



Witnesses:
Matthew Pollock
F. Keirnan

Inventor:
James A. Kerly Faust
by his Atty
Brown & Hall

(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

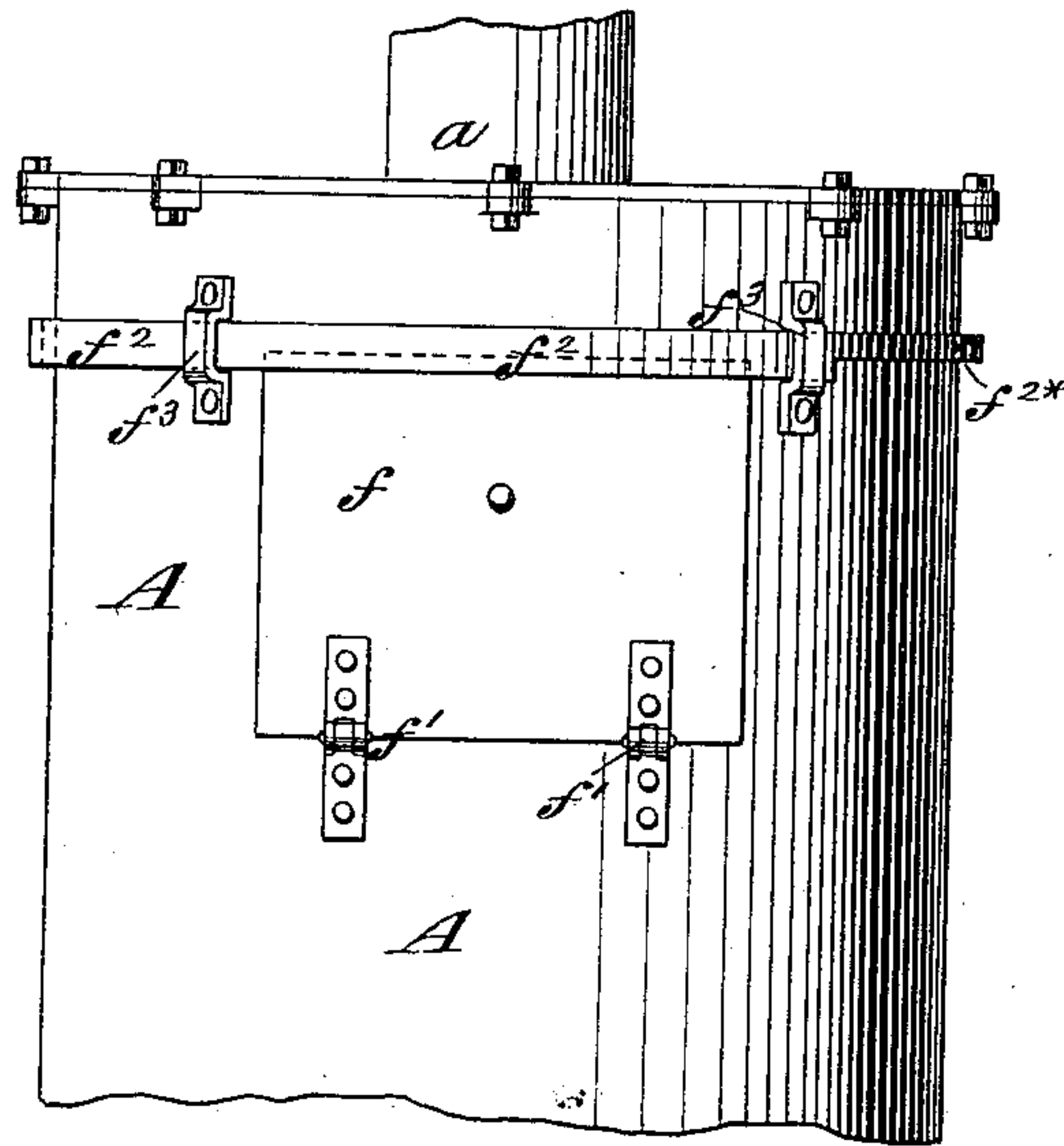
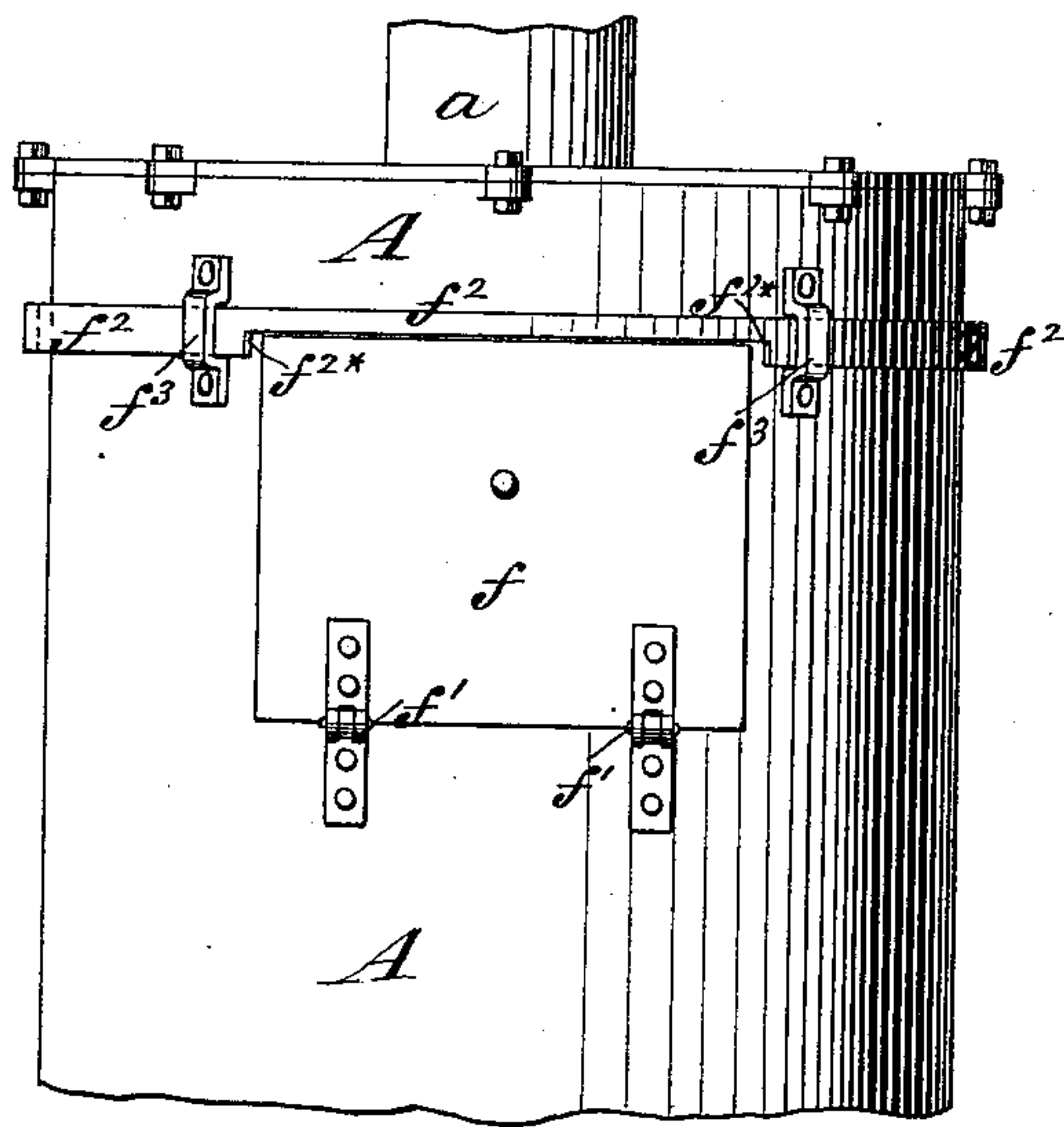


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES AKERLY FAUST, OF SALT LAKE CITY, UTAH TERRITORY.

STOVE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 336,221, dated February 16, 1886.

Application filed February 3, 1885. Serial No. 154,855. (No model.)

To all whom it may concern:

Be it known that I, JAMES AKERLY FAUST, of Salt Lake City, in the county of Salt Lake and Territory of Utah, have invented a new and useful Improvement in Stoves for Railway-Cars, of which the following is a specification.

My invention relates to stoves or car-heaters which have combined with them water-reservoirs from which the water will flow to extinguish the fire when the stoves or heaters are overturned or demolished by an accident.

The invention consists in the combination, with the outer casing or jacket of a stove, of a fire-door hinged at one edge and having its opposite edge overlapped by a ring or band which encircles the stove, and has a gap or recess which, by turning the ring or band, may be brought into a position coincident with the door to permit of its being opened. After the door is closed the ring or band is turned or shifted circumferentially, so that it will overlap and confine the door, and the latter cannot be opened until the ring or band is shifted or turned to again bring the gap or recess coincident with the door.

The invention consists in the combination, with an approximately-cylindric casing or jacket made water-tight in the lower portion to form a water-chamber, of an inner shell closed at the bottom, containing the fire-box and ash-pan, and constructed with radial wings or ribs extending lengthwise of it, whereby it is connected with and suspended in the casing or jacket, so as to form an annular space for the passage of water between the casing and inner shell when the stove is overturned.

In the accompanying drawings, Figure 1 is a vertical section of a stove embodying my invention. Fig. 2 is a horizontal section on the dotted line $x\ x$, Fig. 1; and Figs. 3 and 4 are elevations of the upper part of a stove, showing more clearly my improved means for confining the door, Fig. 3 showing the parts adjusted to hold the door closed, and Fig. 4 showing them adjusted to permit of the door being opened.

Similar letters of reference designate corresponding parts in the several figures.

A designates an outer casing or jacket, which may be made of sheet or plate iron, and in

the top of which is a stove-pipe opening, a , the top being otherwise closed. I prefer to permanently fix over this opening a guard, b , of wire-netting or other reticulated or perforated material. As here shown, the casing A is of approximately straight cylindric form.

B designates the fire-pot, and B' the ash pan or receptacle, and C the grate. The fire-pot and ash-pan may both be made integral of cast metal, or made separately and secured together. They form an inner shell, which is sufficiently smaller than the casing or jacket A to afford an annular space, c , between them. This inner shell is suspended in the casing or jacket at some distance from the bottom, and it may be secured in any suitable manner. As here shown, the inner shell is formed with radial wings or flanges d , which properly center it in the casing A, and screws or bolts d' are inserted from the outside into the said wings or flanges. The ash-pit B' has a throat or portion, B*, which extends through the casing A, and is closed by the usual ash-pit door, e , and above the fire-pot B is a feeding-opening, closed by a door, f . This door f has hinges f' at its lower edge, and is opened by swinging downward and outward. At the upper edge of the door the casing or jacket A is encircled by a ring or band, f^2 , which is fitted in loops or guides f^3 , and is free to turn circumferentially on the casing. The ring or band for almost its whole circumference is broad enough, and arranged to overlap the free edge of the door; but in its lower edge is formed a gap or recess, f^{2*} , wide enough to permit the door to move through it. When the ring is turned to bring the gap or recess into a position coincident with the door, as shown in Fig. 4, the latter may be opened. After closing the door the ring is turned to the position shown in Fig. 3, and overlaps the door to such an extent as to prevent its being opened. The ring or band f^2 will never be turned accidentally to the exact position necessary to release the door, and hence there is no danger of the door flying open in case the stove is overturned. The ash-pit door e is hinged at e' , and I have here shown it as secured by a band, e^2 , fitted to turn in loops or guides e^3 , and having in it a gap or recess, e^{2*} . This means of securing the ash-pit door is very

desirable, but other means may be used. The lower part of the casing or jacket A is to be filled with water nearly up to the ash-pit B', and the water may be introduced through a pipe, *g*, which may be prolonged through the top of the car. When the stove is overturned and the fire leaves the fire-pot and tumbles about and into the top portion of the jacket, the water in the lower part of the jacket will flow through the annular space *c* and extinguish the fire. Said annular space therefore forms a passage external to the fire-pot B, through which the upper and lower parts of the jacket are in communication.

In order to prevent coal or foreign matter from falling into the bottom of the casing, I place over the top of the annular space *c* a guard-plate or annular cover, *h*, which is not fastened down, and will be at once displaced if the stove is overturned, and will not therefore obstruct the passage of water.

I am aware that it is not new to combine in a car-heater a cylindric shell or casing having in its lower portion a water-reservoir and an inner shell which contains the fire-box and is supported at the lower end upon an upward cylindric extension of the water chamber or reservoir, and hence I do not claim such construction as of my invention. In my stove the inner shell, which constitutes the fire-box and ash-pan, is entirely closed at the bottom, and is constructed with radial wings or ribs *d*, which extend lengthwise thereof and project outward from it to the jacket or casing, and by which the inner shell is suspended and held concentric within the jacket or casing, so as to maintain between the inner shell and

the casing an annular space which is open at top and bottom when the stove is overturned, the ring or flange *h* being loose. In a stove of this construction a very large quantity of water may be contained in the lower portion of the jacket or casing, even when the latter is of small size, because the inner shell is suspended within the jacket or casing without any support for its bottom, and the space below it may all be utilized as a water-chamber.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a stove and a fire-door hinged at one edge, of a ring or band encircling the stove, overlapping the opposite edge of the door, and having in its edge a gap or recess through which the door may be opened and closed, the said ring or band being capable of being turned to change the position of its gap or recess relatively to the door, substantially as herein described.

2. The combination, with the approximately-cylindric casing or jacket A, made water-tight in its lower portion to form a water-chamber, of an inner shell closed at the bottom, containing the fire-box D and ash pan D', and constructed with radial wings or ribs *d*, extending lengthwise of it, whereby it is connected with and suspended in the casing or jacket A, so as to form an annular space, *c*, for the passage of water between the casing or jacket and inner shell when the stove is overturned, substantially as herein described.

JAMES AKERLY FAUST.

Witnesses:

THEORE. W. WHITELEY,
SAM. J. CREIGHTON.