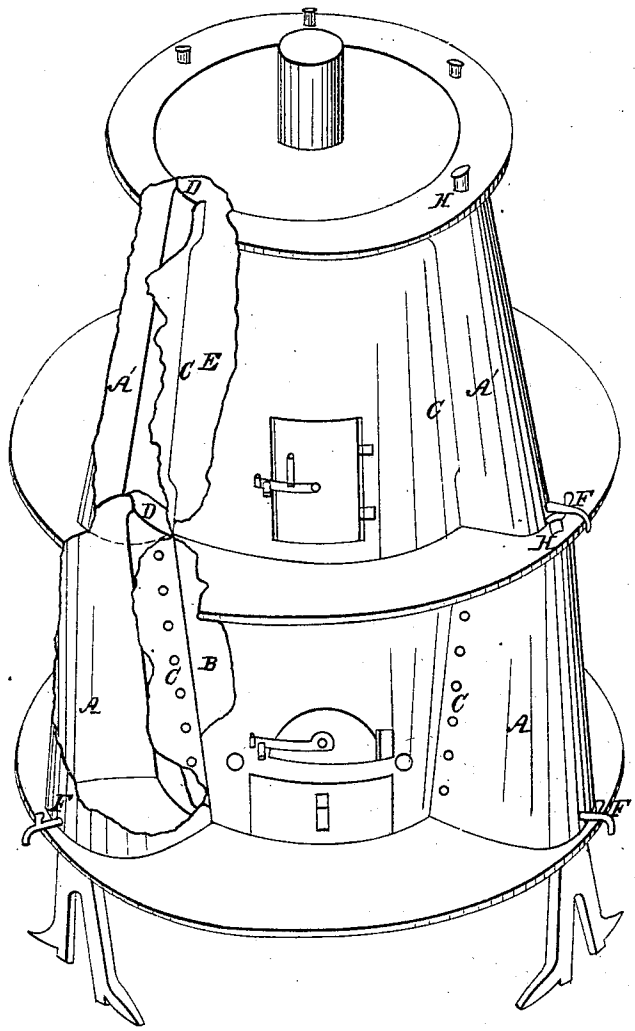
2 Sheets—Sheet 1.

A. J. PYLE.

Car Heater.

No. 89,340. Patented April 27, 1869.

Fig. 1.



Witnesses:

J. C. Anderson

A. R. Coe

Inventor:

A. J. Pyle

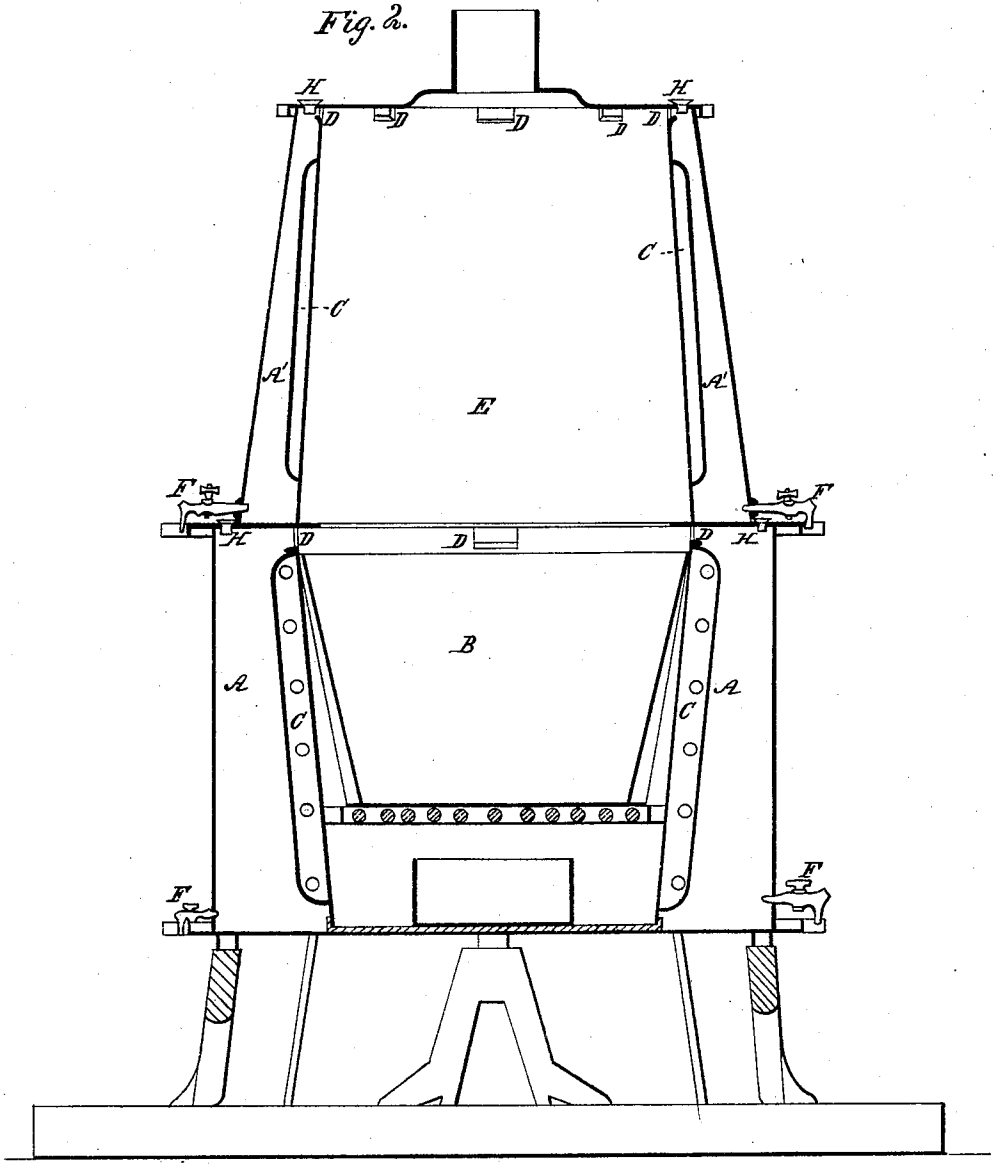
2 Sheets—Sheet 2.

A. J. PYLE.

Car Heater.

No. 89,340. Patented April 27, 1869.

Fig. 2.



Witnesses:
R. L. Turner
F. Beale

Inventor:
Dr. A. J. Pyle
Byles's attys
J. S. Brown

United States Patent Office.

A. J. PYLE, OF NEW GALILEE, PENNSYLVANIA.

Letters Patent No. 89,340, *dated April* 27, 1869.

SAFETY-STOVE FOR RAILROAD-CARS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, Dr. A. J. PYLE, of New Galilee, in the county of Beaver, and State of Pennsylvania, have invented an Improvement in Heating-Stoves for Railway-Cars; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a persp. ive view of the same, partly broken away to show the interior.

Figure 2, a longitudinal vertical section thereof.

Like letters designate corresponding parts in both figures.

My improvement consists in providing the stove with water-tanks, or reservoirs, which may empty their contents into the fire-chamber when it is upset, thus extinguishing the fire, and cooling the stove.

This feature renders my invention peculiarly applicable, not only to stoves used for heating railway-cars, but in other situations where the stove is liable to be accidentally overturned.

Let B represent the fire-chamber, and

E, the radiating chamber of a stove, of any desired external form.

Around the exterior of the fire-chamber B is arranged a set of water-tanks, or reservoirs A A, resting on a projecting ledge, formed by the bottom of the stove.

The interior of each tank communicates, near the upper end, with the interior of the stove, by orifices D D.

And each tank may be provided with an opening in its top, through which to pour the water, said opening being closed by a cover, H. This opening also serves as an outlet for the escape of vapor arising from the partially-heated water, and renders explosions impossible.

Air-spaces, or passages C C are formed between the tanks and the stove in the manner shown, so as to interfere with the radiation of heat from the surface of the stove as little as possible, and also to prevent the water from becoming too highly heated. These spaces may be simple openings between the stove and the tanks, or they may be enclosed with perforated plates, in the form of registers. Both of these plans are shown in the drawings.

When the stove is in use, the tanks are kept nearly full of water, and should the stove be overturned—a common occurrence in railway accidents—the water pours through the orifices D D gradually, as the same upsets, thereby completely extinguishing the fire; thus securing the car from taking fire on such occasions.

The openings in the covers H H also permit a portion of the water to escape on the outside, to assist in cooling the body of the stove.

Besides the above advantages, a supply of warm water is always on hand while the stove is in use, and may be drawn off by the spigots F F, at the bottom of the tanks, whenever desired.

The tanks do not interfere with the radiation of heat from the stove to any considerable extent, and, in connection with the stove, possess all the advantages, and produce all the beneficial effects of a moist warm-air furnace, and are well suited to the confined atmosphere of a railway-car.

I have thus far described but one set of tanks, and without special reference to their arrangement; but I have shown in the drawings a second tier of tanks, or reservoirs, arranged around the upper part, or radiating chamber of the stove, above the first set. The projecting edge of the top plate of the stove serves as a cover for the upper tier. In other respects the tiers or sets may be alike, except that the tanks in the upper tier are smaller than those in the lower, and double in number, less one, which is omitted, to make room for a stove-door.

The construction of the stove in two parts, as shown, with upper and lower tanks, is a good and desirable one.

The outward form of the tanks is not of any material consequence, nor is any special construction.

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

The tanks, or reservoirs A A, in connection with a stove, constructed, arranged, and operating substantially as and for the purposes herein specified.

DR. A. J. PYLE.

Witnesses:

J. J. ANDERSON,
J. A. SHALES.