

A. A. WHEELLOCK.

Car Heater.

No. 86,790.

Patented Feb. 9, 1869.

Fig. 1

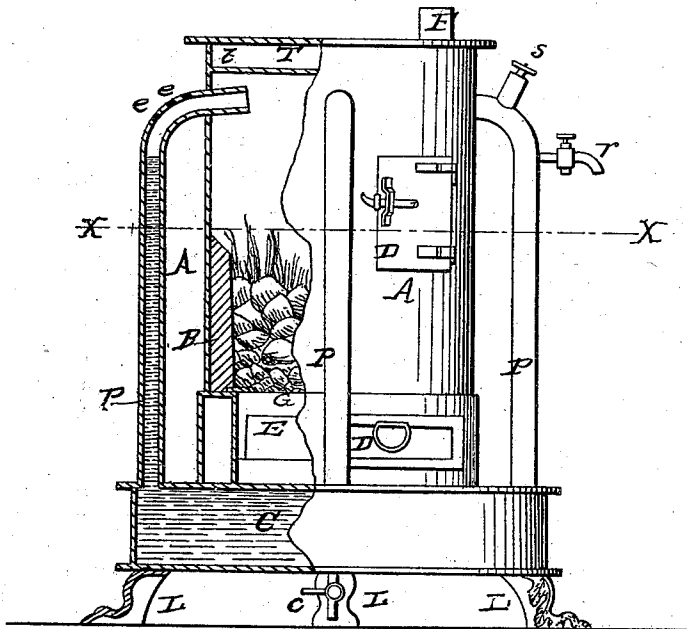
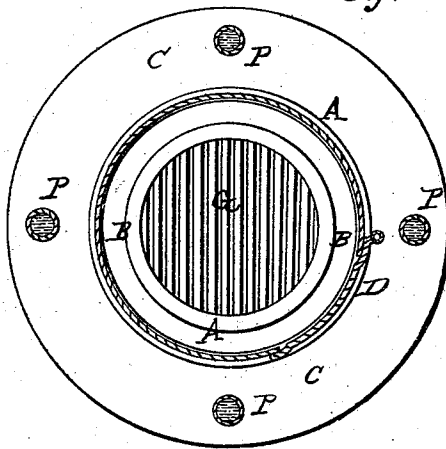


Fig. 2



WITNESSES
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ARNOLD A. WHELOCK, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 86,790, dated February 9, 1869.

IMPROVEMENT IN RAILROAD-CAR STOVES.

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, ARNOLD A. WHELOCK, of the city and county of Washington, in the District of Columbia, have invented a new and improved Safety-Stove for Railway-Cars; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view, a portion of the outer wall having been broken away.

Figure 2 is a horizontal section through line *x x* of fig. 1.

The object of this invention is to construct a stove for railway-cars, of such a character that if accidentally overturned from any cause, the coals, ashes, &c., will not escape, but the fire will be instantly extinguished.

In the drawings—

A is the body of the stove, made of either sheet or cast-iron, and provided with a fire-chamber, the lower part of which is lined with fire-brick B, and also with an ash-pan, E, grate G, doors D D, and smoke-flue F, all of the usual construction, the stove being of the upright-cylinder pattern.

This stove rests upon and is firmly attached to an annular or cylindrical water-reservoir, C, which, in its turn, is supported upon the legs of the stove L L, and forms a neat and handsome base, or pedestal, to the whole device. The reservoir is concentric with the stove, but of considerably greater diameter, as shown in the drawings.

From near the rim, or periphery, of the reservoir, a series of iron pipes, P P P, extends vertically upward, nearly to the top of the fire-chamber, where they bend inward and pass through the wall of the stove, as seen in fig. 1, their lower end opening into reservoir C, and their upper end into the fire-chamber near the top of the stove, and considerably above the fuel therein.

One or more of these pipes is provided with a waste-cock, *r*, and, above the level of the waste-cock, one of them has a supply-cock, *s*.

All of them have a few small openings, *e e*, in their upper wall, at the elbow above the level of the waste-cocks, such openings being either inside or outside of the stove, as may be preferred.

A cock, *c*, is attached to the bottom of the reservoir C, for convenience in drawing off the water.

The reservoir and pipes may be lined with zinc, lead, or other material to prevent oxidation, or their inner surfaces may be galvanized.

The fire-chamber is provided with a horizontal screen, T, near its upper end, suitable openings *t* being provided therein for the passage of the smoke.

Care must be taken that none of these openings come under the smoke-flue, the object of the screen being to prevent the coals from escaping through the smoke-flue in case the stove should be accidentally overturned.

The screen may be made of any suitable material, cast or wrought, and if necessary, braces may be interposed between it and the top of the stove, to prevent its fracture from the sudden dashing of the coals against it.

The apparatus being thus constructed, its operation is as follows:

The reservoir is filled with water by means of funnel or cock *s*, the water being allowed to rise in the pipes as far as waste-cocks *r r*.

Fire being now made in the stove, but little heat will be communicated to the pipes or reservoir, and if any steam is formed, it will escape through the openings *e e*.

In the event of an accident to the train, such as to throw the stove upon its side, the water will pour into the fire-chamber and extinguish the fire.

The pipes will ordinarily serve as guards to prevent the burning of the passengers' clothing. They will also brace and strengthen the upright cylinder.

The reservoir will act as ballast to prevent the easy overturning of the stove.

Having thus described my invention,

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

The arrangement of the openings *e e*, waste-cock *r*, and supply-cock *s*, at the upper end of the bent pipes P P, when said pipes are employed substantially as and for the purpose described.

To the above specification of my invention, I have signed my hand, this 5th day of November, 1868.

ARNOLD A. WHELOCK.

Witnesses:

CHAS. A. PETTIT,
SOLON C. KEMON.