F. C. CONLEY.
Car-Stove.

No. 199,414. Patented Jan. 22, 1878.

Fig. 1.

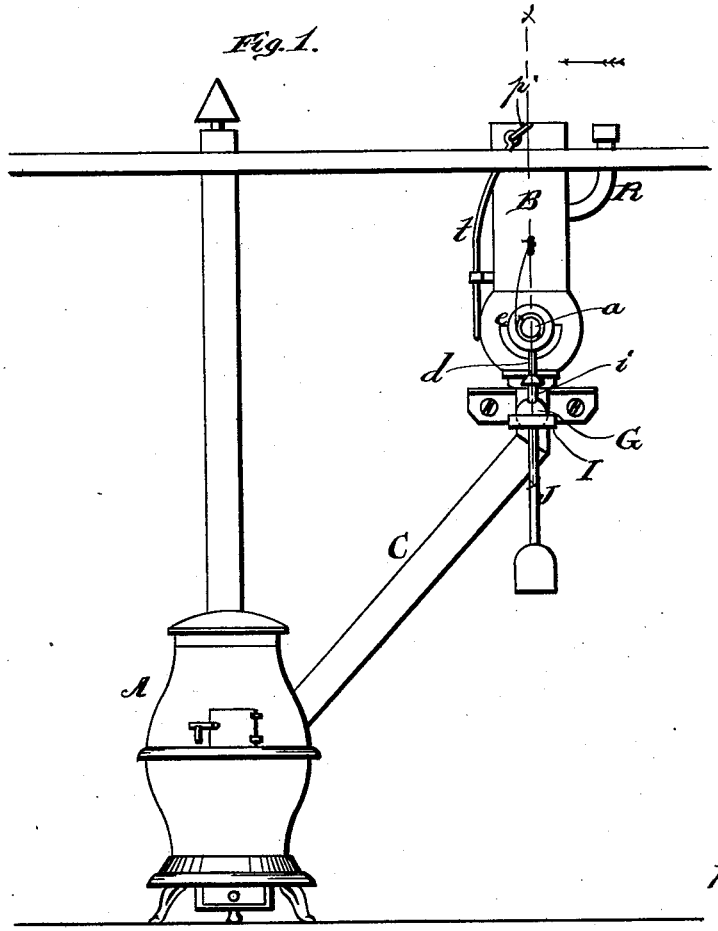


Fig. 3.

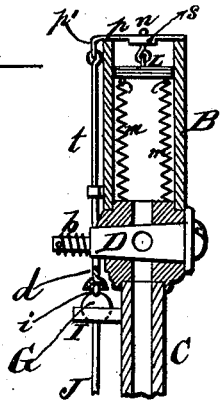
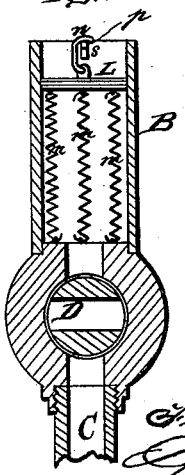


Fig. 2.



WITNESSES

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FRANCIS CLARK CONLEY, OF RALSTON, PENNSYLVANIA.

IMPROVEMENT IN CAR-STOVES.

Specification forming part of Letters Patent No. **199,414**, dated January 22, 1878; application filed April 21, 1877.

To all whom it may concern:

Be it known that I, FRANCIS C. CONLEY, of Ralston, in the county of Lycoming and State of Pennsylvania, have invented a new and valuable Improvement in Self-Extinguishing Car-Stoves; 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 annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front view of my device, and Fig. 2 is a sectional detail of the same. Fig. 3 is a sectional view taken through line *x x* of Fig. 1.

The nature of my invention consists in the construction and arrangement of a device or mechanism for automatically extinguishing fires in railroad-car stoves when from any accident the car should turn to either side, whether turning completely over or not, as will be hereinafter more fully set forth.

In the annexed drawings, which fully illustrate my invention, A represents a car-stove of any suitable construction. B is a water-reservoir, elevated above the stove, at any suitable distance from it, and connected with the stove by means of a pipe, C, in such a manner that the water in the reservoir B can pass through said pipe into the stove and put out any fire therein.

In the bottom of the reservoir B is a tapering valve, D, the projecting stem *a* of which is provided with a spiral or other spring, *b*, (see Fig. 3,) arranged in such a manner as to hold an arm, *d*, projecting from the valve against a shoulder, *e*, on the valve-case when the valve is open.

In the end of the arm *d* is a cavity, as shown in Fig. 3, to fit over a nib, *i*, which projects upward from a ball, G, attached to the upper end of a pendulum, J, said ball being supported in annular seat or open socket I, attached to the conducting-tube C below the valve.

By turning the valve D to close the same the arm *d* will project downward, and the nib *i* may be fitted in the cavity at the outer end of said arm. The valve is retained closed, and any ordinary jarring of the car will not release the arm *d* from the nib *i;* but if, from any cause, the car should tilt over to either side beyond a certain angle, the pendulum J will cause the ball G to change its position on the seat I, so that the arm *d* will be released from the nib, and the spring *b* at once open the valve, allowing the water in the reservoir to pass into the stove through the pipe *c* and extinguish the fire.

Within the reservoir B is a plunger or follower, L, connected by means of one or more springs, *m*, with the bottom of the reservoir. In the top of the plunger L is a hook, *n*, by means of which it is raised, and suspended from a shaft, *p*, across the top of the reservoir. At one end of this shaft *p* is a crank, *p'*, from which depends a rod, *t*, held by a suitable guide in such a position that the arm *d*, in opening the valve, will strike the end of said rod and lift the same. To the shaft *p* is further attached a flange or lug, *s*, which projects downward when the rod *t* is pulled down and the follower L suspended, from the shaft by its hook. Now, when the valve, by the means above described, is being opened, the arm *d* strikes the rod *t*, lifting the same and turning the shaft *p*, so that the flange or lug *s* thereon will press the hook *n* off the shaft. The springs *m* then suddenly pull down the follower L, so that the water in the reservoir is forcibly ejected into the stove. This is of material importance, especially in cases where the cars should be very suddenly overturned.

R is the inlet-pipe, through which water is admitted into the reservoir below the raised plunger or follower when required.

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

1. The combination of the valve D, with spring *b* and arm *d*, having a cavity in its outer end, the pendulum J, ball C, with nib *i*, and the seat I, all substantially as and for the purpose described.

2. The combination of the valve D, having arm *d*, the rod *t*, shaft *p*, with crank *p'* and flange *s*, and the plunger or follower L, with springs *m* and hook *n*, all substantially as and for the purpose described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANCIS CLARK CONLEY.

Witnesses:

SHERWOOD S. CONLEY,

CHARLES KIG.