

(No Model.)

2 Sheets—Sheet 1.

C. W. LITTLEFIELD.
RAILWAY CAR.

No. 384,987.

Patented June 26, 1888.

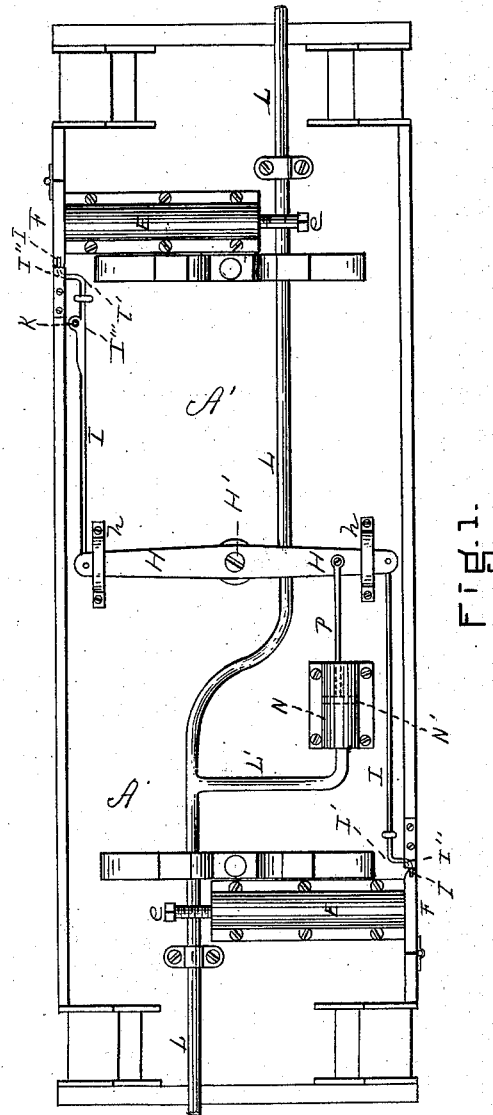


Fig. 1.

WITNESSES.

J. M. Hartnett.
E. M. Williams

INVENTOR.

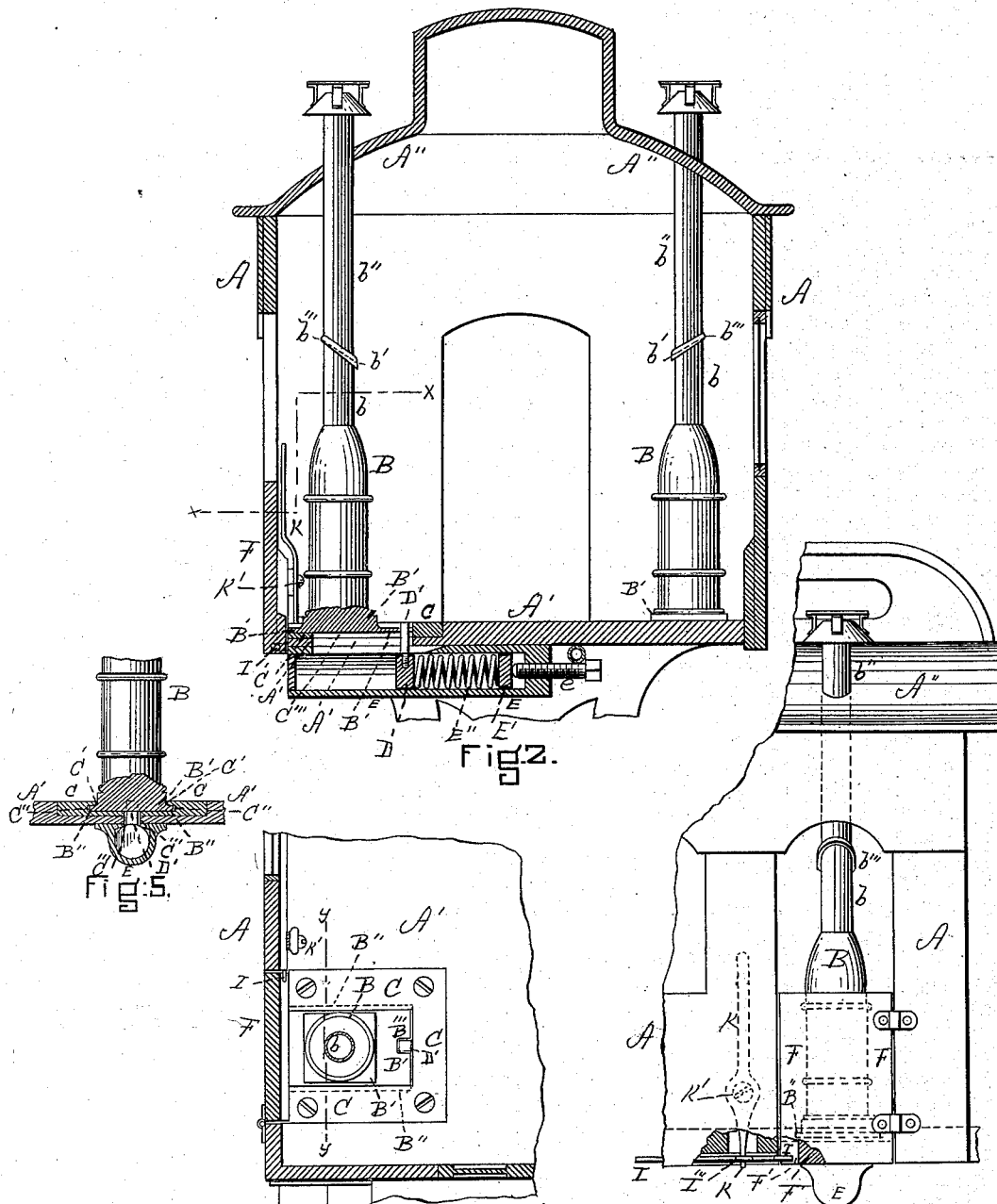
Charles W. Littlefield.
By his Atty.
Samy W. Williams.

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WITNESSES.

J. M. Hartnett.
L. B. W. Williams

Fig. 3.

Fig. 4. INVENTOR.

Charles W. Littlefield.

By his Atty.

Henry W. Williams

UNITED STATES PATENT OFFICE.

CHARLES W. LITTLEFIELD, OF AMESBURY, MASSACHUSETTS.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 384,987, dated June 26, 1888.

Application filed November 3, 1887. Serial No. 254,190. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. LITTLEFIELD, of Amesbury, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Railway-Cars, of which the following is a specification.

This invention has for its object to prevent stoves in railway-cars from setting fire to the cars in time of accident. I accomplish this by means of the device or mechanism below described, whereby when a collision or other accident is imminent the employés on the train may instantly cause the stoves to be projected or thrown from cars to the ground at the side of the track.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a plan view of the under side of a car embodying my invention. Fig. 2 is a cross vertical section with stoves shown in elevation. Fig. 3 is a horizontal section on line *x*, Fig. 2. Fig. 4 is a detail view or side elevation of a portion of the car, a part being represented as broken out. Fig. 5 is a sectional detail, the section being taken on line *y*, Fig. 3.

A represents the sides, A' the bottom, and A'' the roof, of the car.

B B are the stoves, the funnel *b* of each of which connects by a miter-joint on the broken line *b'* (see Fig. 2) with the funnel *b''*, which extends through the roof of the car. A flange, *b'''*, extending from the funnel *b''*, prevents the two funnels from parting, but interposes no obstacle to the movement of the stove toward the side of the car.

B' is the base of the stove bolted to or integral therewith, said base being provided with opposite flanges, B''. (See Fig. 5 and broken lines in Figs. 3 and 4.) C is a plate bolted to the floor of the car so as to be flush with it, and cut away, so as to leave the rectangular depression C' for the stove to set into, the sides of said depression being horizontally grooved at C'' to receive the flanges B'' of the stove-base B', whereby the stove is prevented from tipping over. This plate C is provided centrally in the depressed portion with a slot, C''', running transversely with the car, through which slot a post or engaging-pin, D', extends, said post being rigidly secured to a slide, D, in the tube E, secured to the under side of the

car on a line with the slot C'''. Within the said tube is a block, E', and between the slide D and said block is a spiral spring, E'', and the pressure of this spring is regulated by a screw or bolt, *e*, which passes through the end wall of the tube, as shown, and bears against the movable block E'. (See Fig. 2.) The force of this spring is exerted, through the media of the slide D and pin D', on the stove B, whose base-plate B' is notched at B''' to accommodate said pin. (See Fig. 3.)

F F are doors located in the sides of the car next the stoves, swinging outward, and each being provided with a vertical groove or depression, F', (see Fig. 4,) in its free vertical edge.

H is a horizontal lever, centrally pivoted at the center of the under side of the car, as at H', and limited in its movement by the embracing-checks *h h*.

I I are two similar rods, pivotally secured to the opposite ends of the lever H and running horizontally along the bottom of the car (being supported by the hangers J J) in opposite directions. These rods are bent outwardly at I' I', and again bent at I'' I'', (see Fig. 1,) so that their ends point at and are coincident with the grooves or depressions F' in the edges of the side doors, F. A vertical actuating-lever, K, is pivoted at K' to the inside of the car, near one of the doors F, and, extending through the floor of the car and engaging one of the rods I at I'', operates to push the rods I I simultaneously into or out from the grooves or depressions F' in the doors F.

Under ordinary circumstances the doors F are closed and locked by the ends of the rods I extending into the grooves F' in their edges, as shown in Figs. 1, 3, and 4. If an accident is imminent, an employé, by moving the lever K, withdraws simultaneously the rods I from the doors, and the springs E'', by means of the slides D and engaging-pins D', push the stoves forcibly through the doorways (the doors F being unlocked, interposing no obstacle) out of the car, thus freeing the car from danger of conflagration. As above described, the miter-joints in the stove-pipes facilitate this movement.

In order that the movement of the stoves in the entire train may be controlled from the

engine, a connection on the general principle of the atmospheric brake may be applied to the train.

5 In Fig. 1, L represents a tube beneath the car and running longitudinally therewith, and provided with a branch tube, L', connecting with the cylinder N, said cylinder being provided with a piston, N', connected by a piston-rod, P, to the lever H.

10 Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

15 1. In a railway-car, the combination of a stove adapted to slide transversely with the car, a spring arranged to force the stove normally, by means of suitable connections, toward the outside of the car, a swinging door normally locked and placed next said stove, and a lever and suitable intermediate mechanism, 20 whereby said door may be unlocked and the spring allowed to project the stove from the car, substantially as and for the purpose set forth.

2. The combination of the stove B, provided with the base B' and flanges B'', the plate C, 25 provided with the depression C', grooves C'', and slots C''', the tube E, provided with the spring E', block E', and slide D, the engaging-pin D', lever K, and rod I, substantially as and for the purpose described. 30

3. The combination of the stoves B, each provided with the base B', flanges B'', and funnel b b'', having a miter-joint at b', the plates C, slotted at C'', engaging-pins D, springs E'' and blocks E', tubes E, doors F, rods I, bent, 35 as described, at I' and I'', lever H, and actuating-lever K, substantially as and for the purpose set forth.

CHARLES W. LITTLEFIELD.

Witnesses:

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PATRICK J. HANLEY,
JOHN M. GARLAND.