

(No Model.)

2 Sheets—Sheet 1.

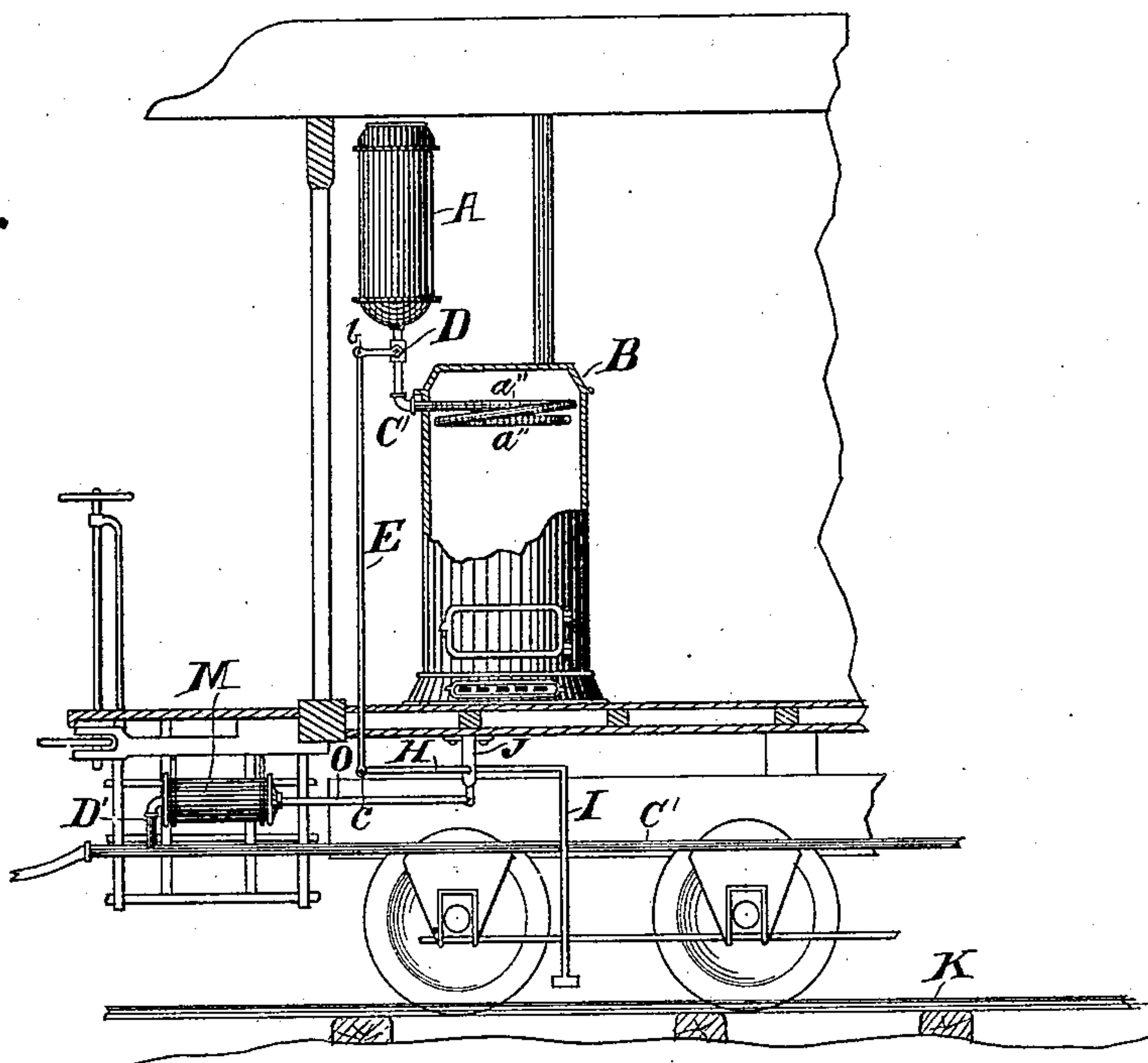
D. R. GALEHER.

FIRE EXTINGUISHER FOR THE STOVES OF RAILWAY CARS.

No. 389,924.

Patented Sept. 25, 1888.

Fig. 1.



Witnesses.
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(No Model.)

2 Sheets—Sheet 2.

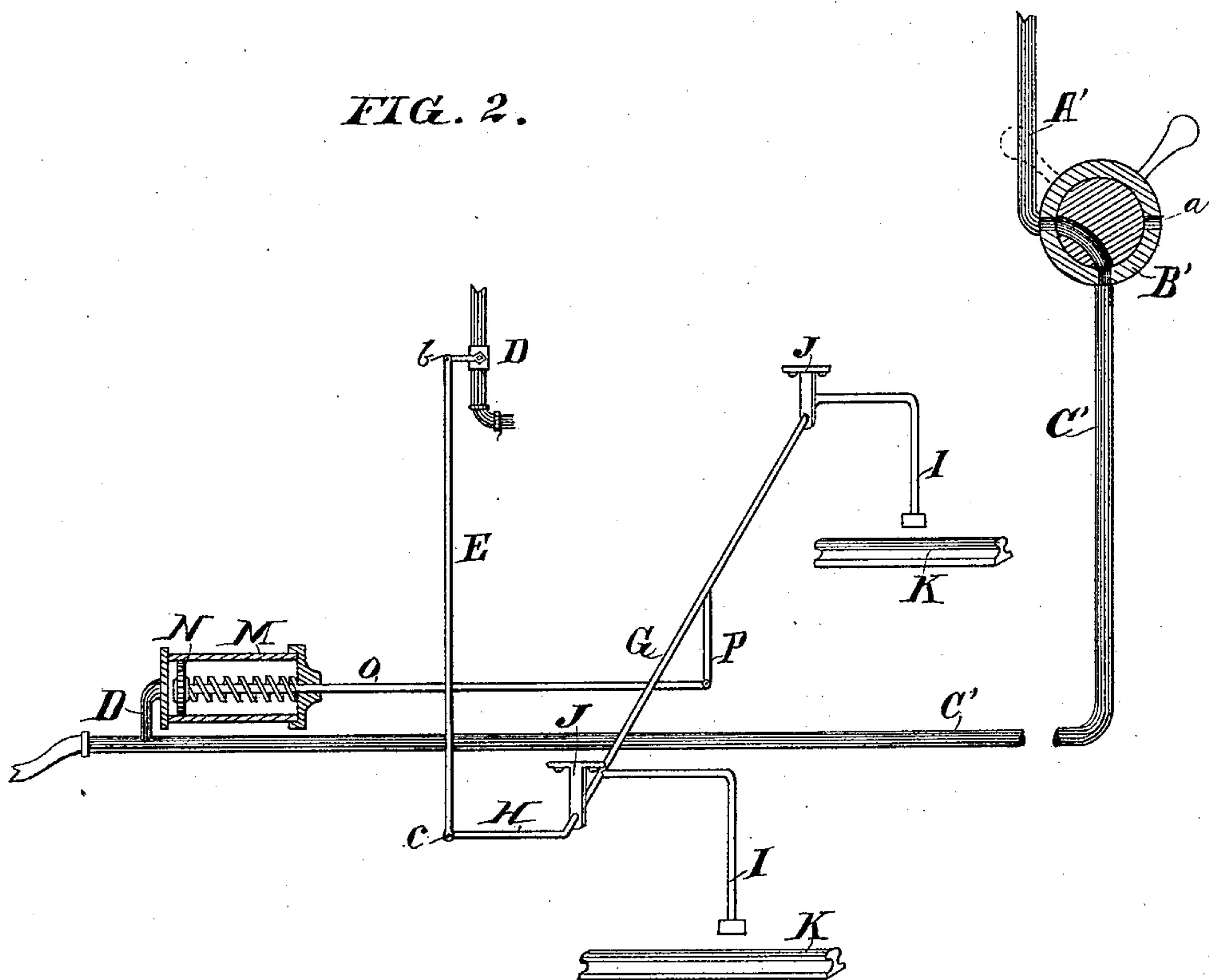
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FIG. 2.



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UNITED STATES PATENT OFFICE.

DANIEL R. GALEHER, OF MILWAUKEE, WISCONSIN.

FIRE-EXTINGUISHER FOR THE STOVES OF RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 389,924, dated September 25, 1888.

Application filed December 10, 1886. Serial No. 221,197. (No model.)

To all whom it may concern:

Be it known that I, DANIEL R. GALEHER, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Fire-Extinguishers for the Stoves of Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to provide a device by which the fire in the stoves of railroad-cars may be automatically extinguished when the cars are accidentally derailed or thrown from their tracks, which said device may also be controlled by the engineer from the locomotive.

In the drawings, Figure 1 represents a longitudinal vertical section of one end of a car provided with my fire-extinguishing device, showing the upper part of the stove in section. Fig. 2 is a perspective view of the operating mechanism of the device removed from the car.

Like parts are represented by the same reference-letters in both views.

A is a water-reservoir, which is located above the stove B, with which it communicates through the water-pipe C and water-controlling cock D. The discharge end of the pipe C terminates within the stove above the fire in one or more circular bends, *a a*, which are provided with numerous discharging-apertures. The handle of the cock D is connected with operating mechanism beneath the car by the rod E and pivots *b* and *c*.

The automatic operating mechanism consists in the rod or shaft G, provided with arms H and I I. The shaft G is supported near its ends by the brackets J J, which brackets are rigidly affixed to the respective sides of the car. The projecting ends of the arms I terminate above the railway-rails K K in such a position that they will (in case the car is derailed) strike upon the rail or road-bed and be thereby thrown upward. By the upward movement of the arms I I the shaft or rod G is turned in its bearings and

the arm H is thrown downward, whereby a downward motion is communicated to the handle of the cock D by the rod E, and the cock is opened. When the cock is thus opened, the water therein flows of its own gravity through the pipe C into the stove, thereby extinguishing the fire.

To provide for controlling the cock D from the locomotive of the train, I employ an air-cylinder, M, piston N, and piston-rod O. The rod O is connected to the shaft G by the arm P. Air is admitted to the cylinder M in front of the piston N from an ordinary air compressor or reservoir, such as is used with air-brakes, located in the locomotive through the air-pipe A', air-cock B', air-tube C', and branch D'. When desirous to open the cock D, the engineer turns the handle of the air-cock B' from the vertical position to the position shown, when the air is permitted to pass from the air-reservoir, through said air-cock B', pipe C', and branch D', into the cylinder M, whereby the piston N is forced backward, thus communicating a rearward movement to the arm P through the rod O, whereby the rod G is turned, the arm H and rod E are moved downward, and the cock D is opened, when the water flows of its own gravity, as stated, into the stove. When desirous to close the water-cock D, the handle of the air-cock B' is turned into the position indicated by the dotted lines, whereby the air in the cylinder M exhausts therefrom through the port *a'* of the cock B', when the piston N is forced back to the position shown by the spiral spring E', whereby motion is communicated through said piston-rod O and the communicating rods and levers to said water-cock, and the same is closed.

I have shown and described my device as applied to but one stove; but the same device is provided for all the stoves in the train in substantially the same manner.

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

1. In a fire-extinguisher for railway-cars, the combination of the water-reservoir A, located above the stove, stove B, perforated spirally-coiled water-pipe C, water controlling

cock D, connecting-bar E, arm H, rod G, and contact-arms I I, substantially as set forth.

2. In a device for extinguishing fire in the stoves of railway-cars, the combination, with
5 mechanism for operating the water-controlling cock, consisting of the arm P, rod G, arm H, and rod E, of the piston-rod O, cylinder M, piston N, spring E', air-controlling cock B', and air-ducts communicating between said

cylinder and said air-controlling cock, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

DANIEL R. GALEHER.

Witnesses:

C. T. BENEDICT,

O. L. HOFFMANN.