(No Model.)

I. N. GOODNIGHT.

FIRE EXTINGUISHER.

No. 388,773. Patented Aug. 28, 1888.

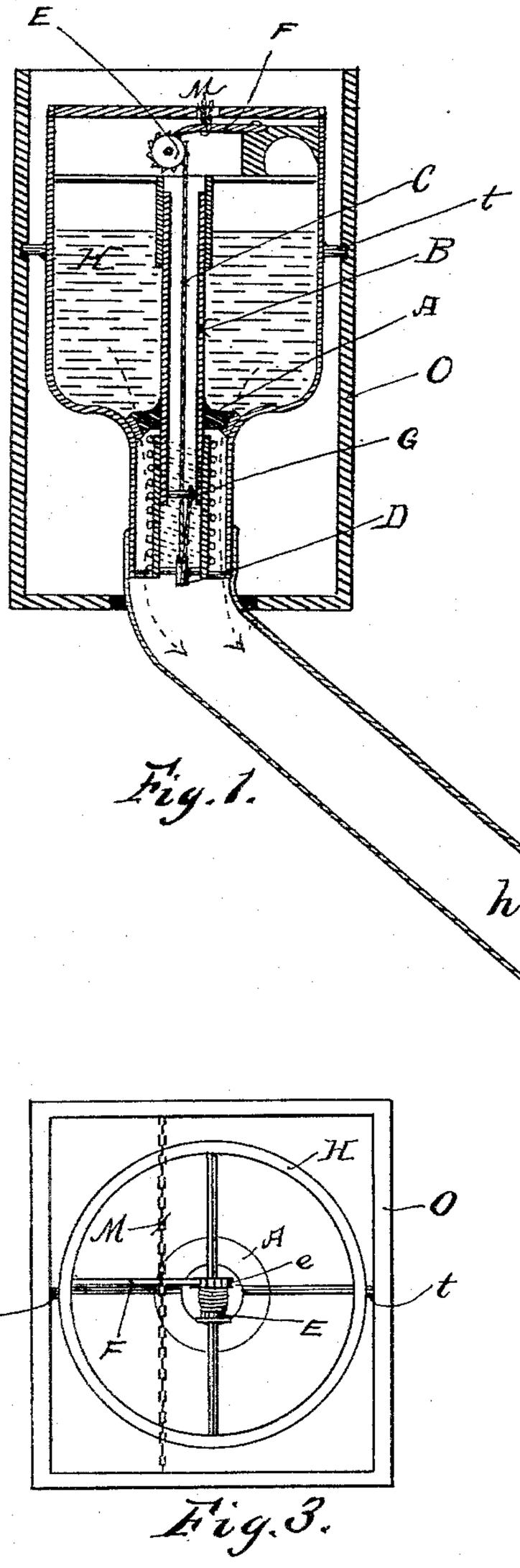


Fig. 1.

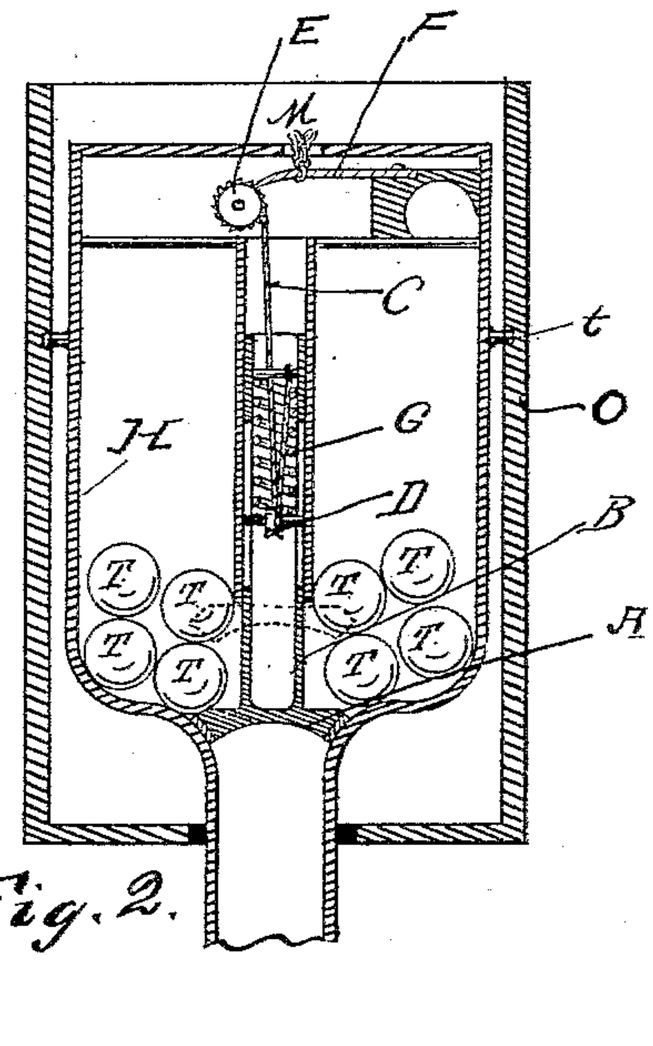
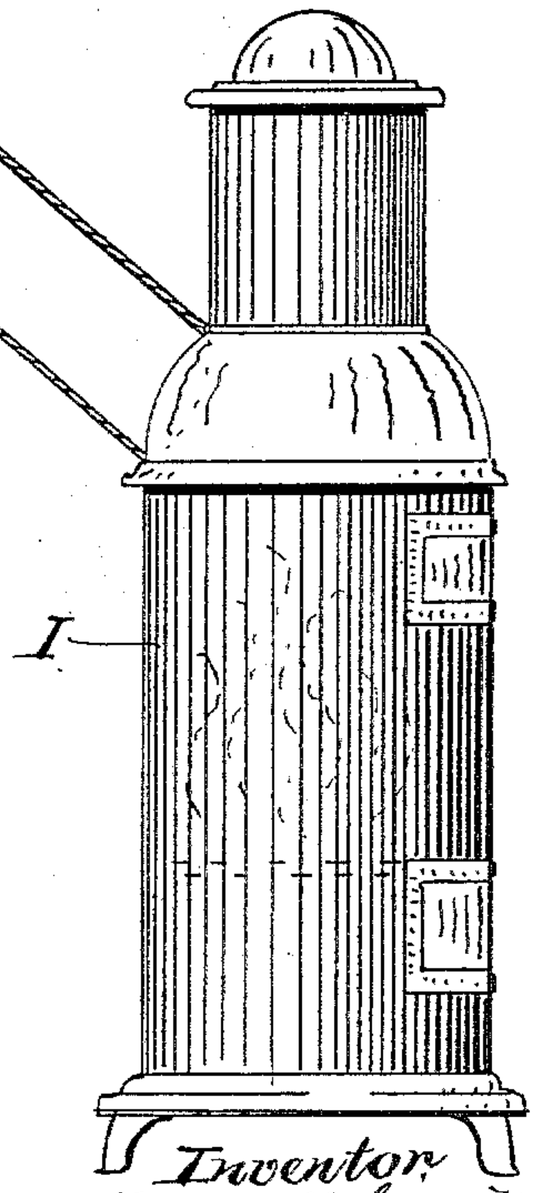


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

ISAAC N. GOODNIGHT, OF KEMPTON, ASSIGNOR OF ONE-HALF TO J. T. LINEBACK, OF FRANKFORT, INDIANA.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 388,773, dated August 28, 1888.

Application filed February 17, 1887. Serial No. 227,990. (No model.)

To all whom it may concern:

Be it known that I, ISAAC N. GOODNIGHT, a citizen of the United States, residing at Kempton, in the county of Tipton and State of Indiana, have invented certain new and useful Improvements in Fire-Extinguishers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention is attached to stoves in railroad cars; and the object is to extinguish the fire in the stove in case of accident to the car.

In the accompanying drawings, Figure 1 represents a vertical sectional view of my invention connected with the stove; Fig. 2, a vertical sectional view of a modification of my invention, and Fig. 3 a top view of my device, as shown in Fig. 1.

Similar letters refer to similar parts throughout the several views.

O is a stationary case or frame elevated above the stove.

H is a reservoir within the case, and is attached to the case by the pins *t* in such a manner as to allow the reservoir to swing freely on the pins. The reservoir is connected with the stove I by the flexible tube *h*, and the connection is closed at will by the valve A at the mouth of the tube and bottom of the reservoir. This valve A is attached to the tube B and moves with it. The tube B is held by suitable guides, so as to insure a proper adjustment of the valve. The connection between the reservoir and stove is closed by the valve A, which is held firmly against the mouth of the tube *h* in the following manner: The cord or chain C is fastened to the tube B, and passes down and around the fixed pulley D, and thence up through the tube B to the drum E, over which it is wound and held at any desired tension by the pawl F. When the cord C is loosened, the valve is instantly opened by the spring G, which is so arranged as to be constantly pressing on the valve with a tendency to open it.

M is a chain attached to the pawl F and attached at each end to the sides of the frame O.

The practical operation of my device is as follows: The case or frame O is attached to and partakes of the motion of the car. When the valve A is closed and the reservoir H filled with water or other extinguishing agent, the principal weight will be below the center of suspension *t*, and will cause the reservoir to maintain a vertical position. When an accident occurs and the car is thrown from the track, the frame O, turning with the car, and the reservoir, remaining in a vertical position, will cause the chain M to force the pawl F off of the ratchet *e* on the drum E, thereby loosening the cord or chain C. The valve will thus be opened by the spring G, and the water will flow into the stove, extinguishing the fire. The chain M is made slack enough to allow for any ordinary tipping of the car. In the modification drawn in Fig. 2 the spring, pulley, &c., are placed higher up, in order to leave the mouth of the tube *h* free for the passage of the glass grenades T, which may be used in the place of water.

The tube B, to which is attached the valve A, will, in practice, be so constructed and arranged that it may be automatically raised to a considerable height to permit a genade to pass out between the valve into the flexible tube *h*.

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

1. The combination, with the car and the stove I, of a fire-extinguisher comprising the following elements, viz: the frame O, secured to the car above the stove, the reservoir H, pivoted within said frame, the tube *h*, communicating with the reservoir and stove, the sliding tube B, valve A, attached to said tube and held down to close communication between the reservoir and stove by cord or chain C, fixed pulley D, drum E, pawl F, and the spring G, to operate upon the valve to press it open when the cord C is loosened

by the movement of the car, all constructed and arranged substantially as shown and described.

2. The swinging reservoir H, pivoted within the frame O, secured to the car, the stove I, and the tube *h*, connecting the stove and reservoir, in combination with the valve A, the cord C, pulley D, drum E, and ratchet F, all for holding the valve closed, and the chain M and spring G for automatically opening the valve, all substantially as shown and described.

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

ISAAC N. GOODNIGHT.

Witnesses:

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