

(No Model.)

2 Sheets—Sheet 1.

S. S. WEINBERG.  
FIRE EXTINGUISHER FOR CAR STOVES.

No. 424,743.

Patented Apr. 1, 1890.

Fig. 1

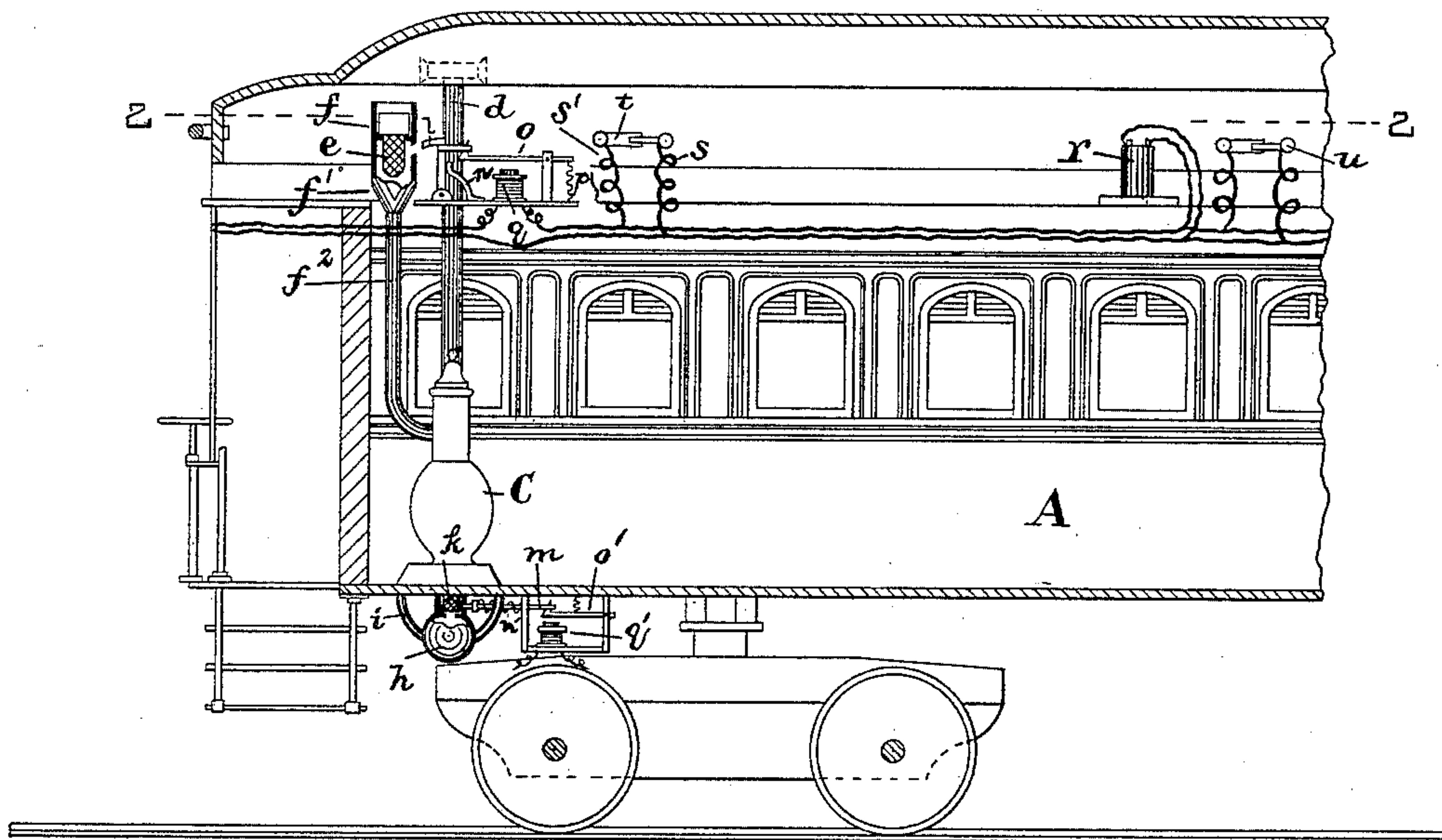
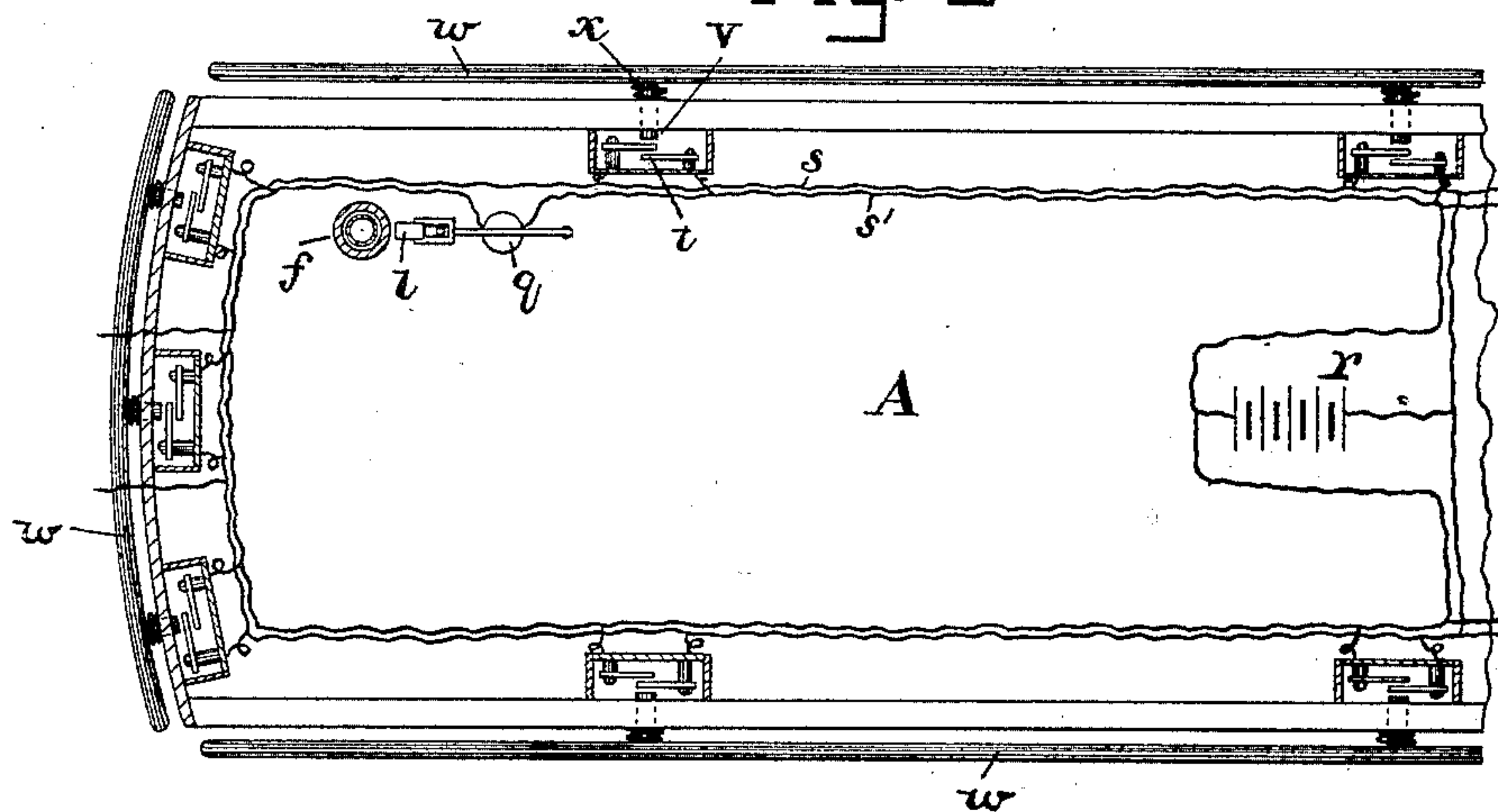


Fig. 2



WITNESSES:

Otto H. Ehlers.  
John E. Morris.

**INVENTOR:**

S. I. Weinberg

BY *Chas B. Mann*  
ATTORNEY.

(No Model.)

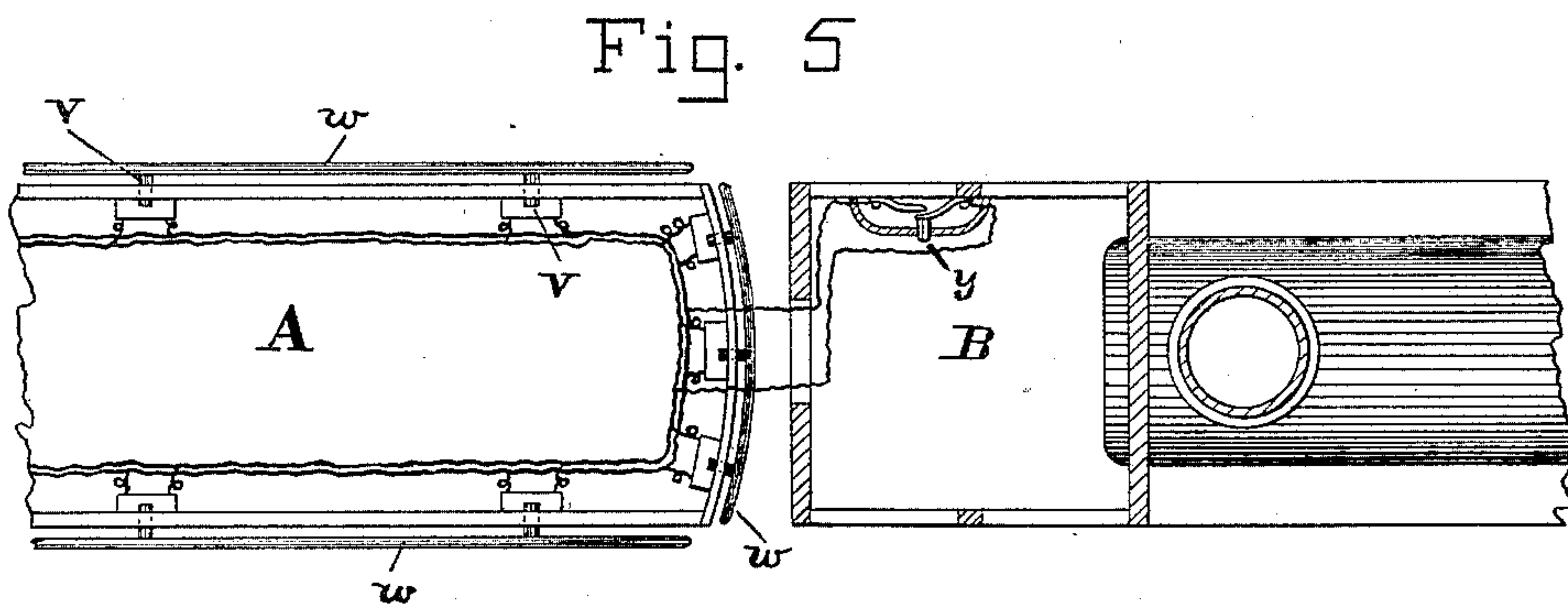
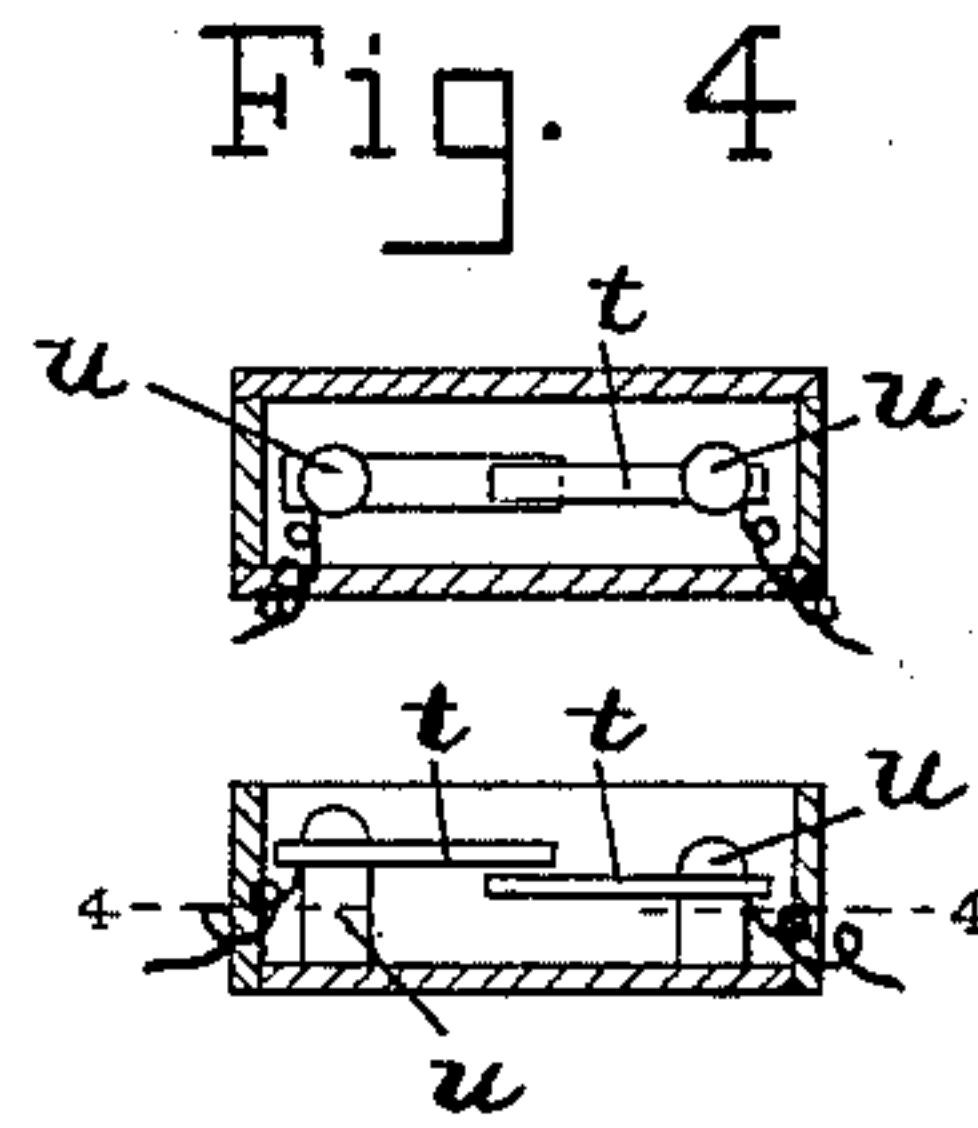
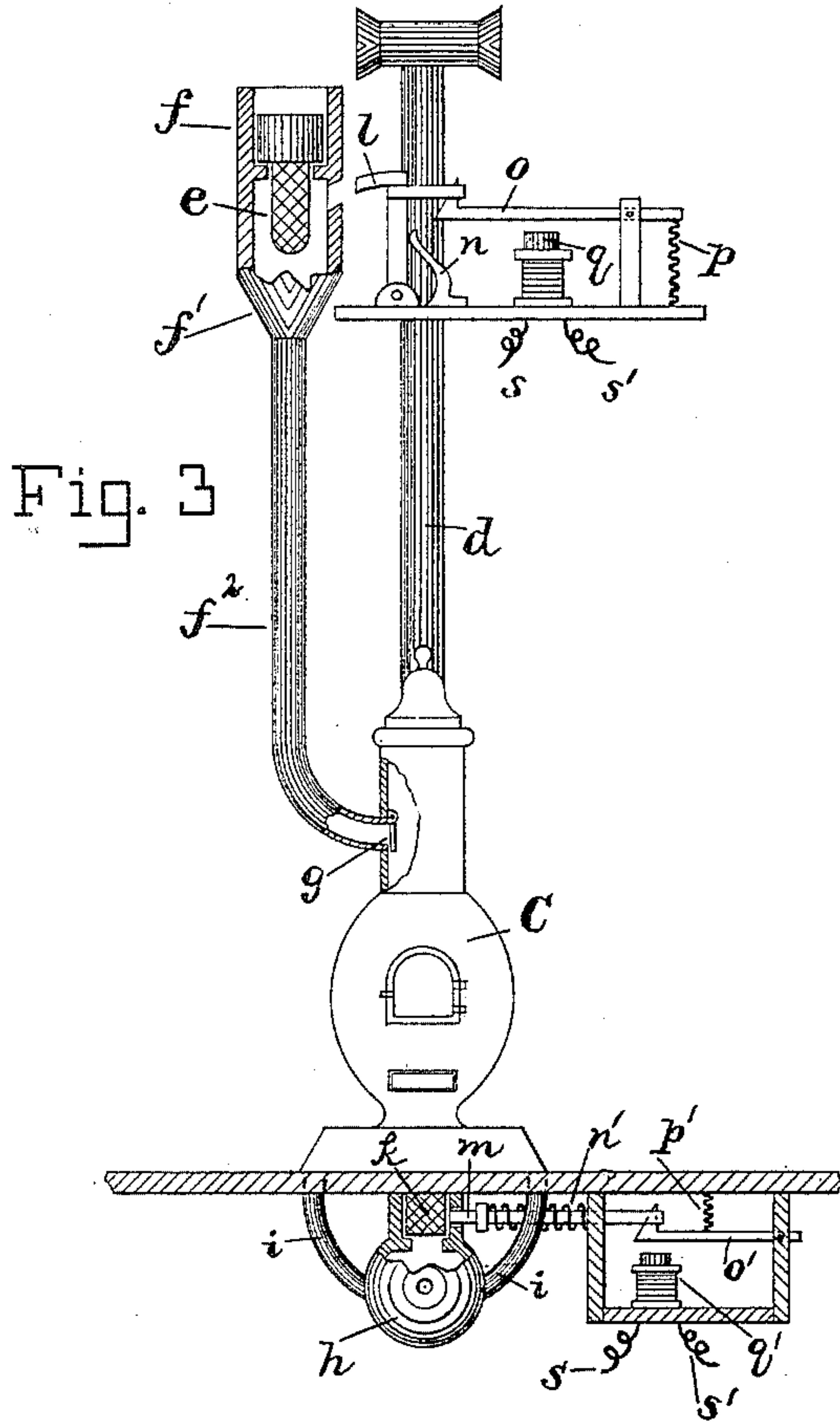
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# UNITED STATES PATENT OFFICE.

SAMUEL S. WEINBERG, OF BALTIMORE, MARYLAND.

## FIRE-EXTINGUISHER FOR CAR-STOVES.

SPECIFICATION forming part of Letters Patent No. 424,743, dated April 1, 1890.

Application filed November 22, 1889. Serial No. 331,175. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL S. WEINBERG, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Fire-Extinguishers for Car-Stoves, of which the following is a specification.

This invention relates to a fire-extinguisher for car-stoves.

10 The object of the invention is to provide means for extinguishing the fires in car-stoves, which means will be operated automatically upon the occurrence of certain accidents—such as collisions or derailments—and the operation of which also may be under the control of the engineer.

The invention is illustrated in the accompanying drawings, in which—

20 Figure 1 is a vertical longitudinal section of part of a car with a stove and my improvements. Fig. 2 is a horizontal section through the top part of a car on the line 2 2. Fig. 3 is a view of a car-stove and the principal parts of the extinguisher. Fig. 4 shows two views of one of the circuit-closers. Fig. 5 shows a part of a car and part of a locomotive in section, and the wiring which connects the circuit-closers on the car with a push-button in the cab of the locomotive.

30 The letter A designates the car; B, the cab of the locomotive; C, the stove or heater of any desired pattern or any well-known kind, and *d*, the stove smoke-pipe.

35 I provide a glass receptacle *e*, adapted to be readily broken and support it in an inclosure *f* at a point elevated above the stove. The inclosure may have a funnel-shaped bottom *f'*, and a pipe *f*<sup>2</sup> leading down therefrom and entering the stove. The lower end of this 40 pipe is closed or guarded by a flap-valve *g* to prevent the entrance of dust or cinders. A fire-extinguishing solution is to be contained in the glass receptacle *e*, and when the latter is broken said solution will flow down the pipe 45 *f*<sup>2</sup> past the flap-valve *g* and into the stove and put out the fire. A spring-actuated hammer will break the receptacle.

50 I also employ a fire-extinguisher to contain, separately, an alkaline solution and an acid which are to be mixed and directed into the stove when the contingency arises calling for their use.

The letter *h* designates a receptacle for the alkaline solution, having two curved pipes *i* connecting with the bottom of the stove. In 55 the top of this receptacle *h* is supported a glass acid-receptacle *k*. When this is broken, the acid will mix with the alkali and produce carbonic-acid gas, like ordinary chemical fire-extinguishers, and the gas and liquid spray 60 will be forced out of the pipes *i* into the stove and put out the fire. A spring-actuated punch-rod *m* will break the receptacle.

The pivoted hammer *l* to break the glass receptacle *e* and the sliding punch *m* to break 65 the acid-receptacle *k* are each forced or actuated by a spring *n n'*. A pivoted hook *o o'* in each case engages with the hammer or punch and normally holds it back against the pressure of the said actuating-spring. A spring *p* 70 *p'* retains the pivoted hook in engagement. An electro-magnet *q q'* is supported in such position with respect to each pivoted hook that when an electric current flows through the magnet it will draw the hook and disen- 75 gage it from the hammer or punch, whereupon the latter devices will strike the glass receptacles and break them.

The circuit-closers *t* consist of two bronze plates overlapping each other, and each sup- 80 ported on a stud *u*.

A push-stud *v* passes through the car-wall, and a bar or rail *w* on the outside is attached to the push-stud. One rail *w* may be thus attached to several push-studs *v*. A spring *x* 85 normally keeps the push-stud outward and prevents its end from pressing the two bronze plates *t* together, and thereby closing the circuit.

A battery *r* is on each car, and one plate of 90 each of the circuit-closers *t* on the car is connected by one of the wires *s s'*, leading from one pole of the battery *r*. The other plate of each of the circuit-closers *t* is connected by a wire leading to one of the electro-magnets 95 *q q'*. The wire passing from this electro-magnet leads to the other electro-magnet, from which the other wire *s s'* passes to the other pole of the battery *r*. The space between the pair of plates of each circuit-closer *t* provides 100 an open circuit.

I prefer to place the rails *w* at the top of the car and at the end and sides thereof, as shown, By this arrangement, when a collision occurs

or a car leaves the track or rolls over, the fire-extinguishers will be actuated automatically. I also run the wires to the cab of the locomotive and connect them with a circuit-closing push-button *y*. By this arrangement the engineer may, on perceiving that a wreck is imminent, operate all the fire-extinguishers.

Having described my invention, I claim—

1. The combination of a car-stove, a fire-extinguisher, a pipe leading from the fire-extinguisher to the stove, a spring-actuated device to operate the fire-extinguisher, a battery, circuit-closers, wires connecting the battery circuit-closers and the said spring-actuated device and making an open circuit, and a bar or

rail *w*, having a push-stud coacting with said circuit-closers.

2. The combination of a car-stove, a fire-extinguisher below the stove, having a glass receptacle, a pipe leading from the fire-extinguisher to the bottom of the stove, a device to break the said glass receptacle, and electromagnetic mechanism to operate said breaking device.

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

SAMUEL S. WEINBERG.

Witnesses:

JOHN E. MORRIS,  
JNO. T. MADDOX.