(No Model.)

M. O. PARKER.

APPARATUS FOR EXTINGUISHING FIRES AND LIGHTS IN RAILWAY CARS.

No. 378,938. Patented Mar. 6, 1888.

Fig. 1.

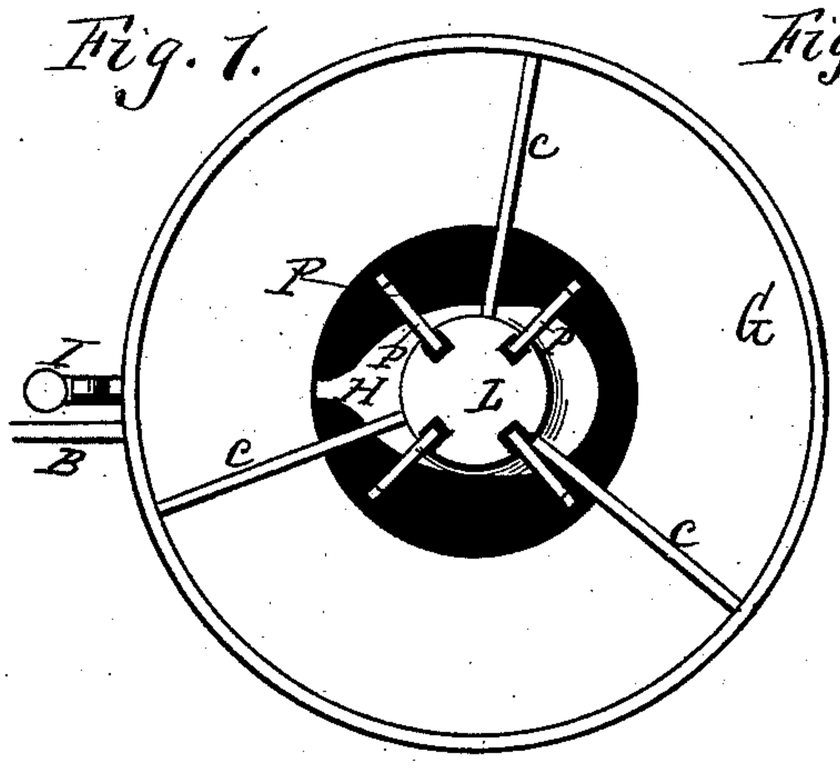


Fig. 2.

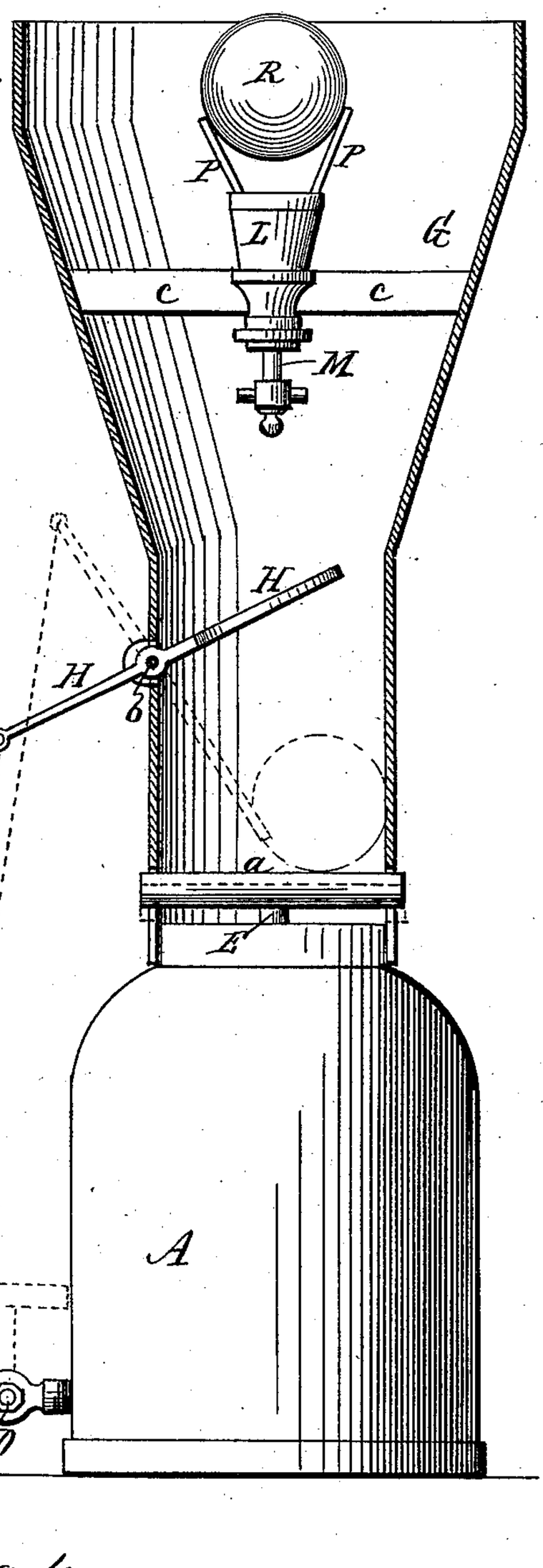


Fig. 3.

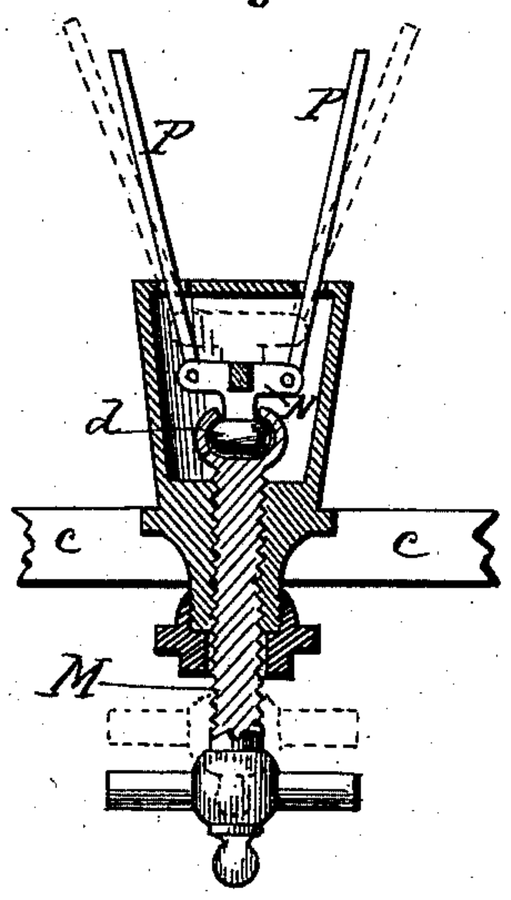
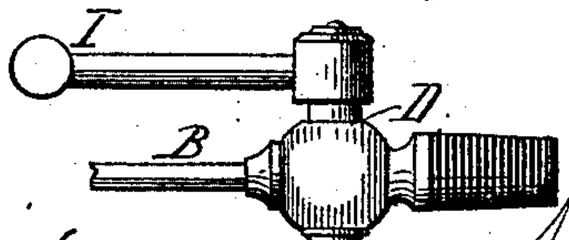


Fig. 4.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR EXTINGUISHING FIRES AND LIGHTS IN RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 378,938, dated March 6, 1888.

Application filed March 26, 1887. Serial No. 232,594. (No model.)

To all whom it may concern:

Be it known that I, MELVIN O. PARKER, of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in Apparatus for Extinguishing Fires and Lights in Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

My improvement relates to means for extinguishing fires and lights in railroad-cars, to prevent burning of the cars in case of accident, and is of that kind where a fire-extinguisher is connected by a pipe with the stove or lamp, which, in case of the overturning or displacement of the car, floods the fire with gas. The invention consists of the construction and arrangement hereinafter more fully described and definitely claimed.

In the drawings, Figure 1 is a plan view of the apparatus. Fig. 2 is an elevation, partly in section, of the same. Fig. 3 is an enlarged vertical section of the device for holding the weight. Fig. 4 is a plan view of the cock for turning on the gas.

A indicates an ordinary fire-extinguisher containing the chemicals for generating the gas; also the usual glass bottle of acid, to be broken when used. This extinguisher is connected by a pipe, B, with the stove C, a fragment only of which is shown in the drawings. The pipe has a stop-cock, D, with a two-way plug of ordinary construction, for letting on the gas. It also has a plunger, E, such as is ordinarily used in this class of extinguishers, which plunger rests on the glass bottle, and when forced down breaks the bottle and liberates the acid.

G is a funnel, placed on top of the extinguisher, being usually open at the top. At the bottom of the funnel the cross-head *a* of the plunger rests in slots at the sides of the funnel, so as to have a free movement up and down.

H is a lever, pivoted at *b* in the side of the funnel, the inner end projecting across the interior of the funnel, and the outer end projecting out some distance beyond the funnel.

I is a T-shaped cross-head attached to or forming a part of the plug of the cock, and K is a chain, cord, or other connection attached to the lower end of the cross-head and extending up and attached at the opposite end to the lever H.

L is a bearing attached to three or more stays, *c c c*, in the upper end of the funnel.

M is a screw that screws up through the bearing.

N is a swivel-head attached to the upper end of the screw by a joint, *d*, that allows the screw to turn without turning the head.

P P P are a set of arms jointed to the head N and extending out through slots or holes in the top of bearing L. When the screw is turned up, the arms P P will be forced out through the cap and will be expanded, as indicated by the dotted lines in Fig. 3, and when the screw is turned down the arms will be drawn in and be contracted.

R is a weight, preferably in the shape of a ball, which rests in the cavity formed by the projecting arms P P.

The operation is as follows: The cross-head I is turned down, so as to rest on the floor or other support, as indicated by full lines, Fig. 2, in which case the stop-cock is closed. The lever H is also elevated so that its inner end stands upward. In this condition, if the car is overturned or deflected so as to dislodge the weight R, said weight will fall down the funnel, first striking the lever H and tripping the same, so as to raise the cross-head I and open the cock, and then striking the top of the plunger E and forcing it down, so as to break the acid-bottle in the extinguisher. The gas generated then has free passage through pipe B to the stove C, and will extinguish the fire. The cross-head I is of such length that it exactly gages the proper opening and closing of the cock by striking the floor or other support in one position and the side of the extinguisher in the other, as indicated in the full and dotted lines, Fig. 2. The movement of the arms P P out and in enlarges or contracts the cavity inclosed by them, so that the weight can be made to stand higher or lower therein and be dislodged more or less easily. It is desirable to adjust the weight so that it will drop readily in case of accident, but retain its place during sudden and violent rockings of the car in turning curves, &c. On some roads the curves are more abrupt than on others, and the oscil-

lations are greater. By means of this adjusting arrangement the ball can be gaged exactly to the necessities of the case.

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

1. The combination, with the extinguisher A and funnel G, of the pipe leading from the extinguisher to the stove, the cock in the pipe, the cross-head attached to or forming a part of the cock, the rock-lever mounted in the funnel, the chain connecting the cross-head and rock-lever, the said cross-head forming a gage to limit the throw of the cock, and the weight in the funnel mounted so as to be dislodged by the tipping of the car, as described.

2. The combination of the bearing L, provided with holes in its top, the screw M, rest-resting therein, the head N, swiveled in the top of the screw, and the arms P P P, jointed to head N and passing through the holes of the bearing, as shown and described, and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MELVIN O. PARKER.

Witnesses:
R. F. OSGOOD,
P. A. COSTICH.