(No Model.)

G. A. BROWN.

SHIELD OR COVER FOR HEATERS AND STOVES FOR USE ON RAILWAY CARS.

No. 383,615. Patented May 29, 1888.

Fig. 1.

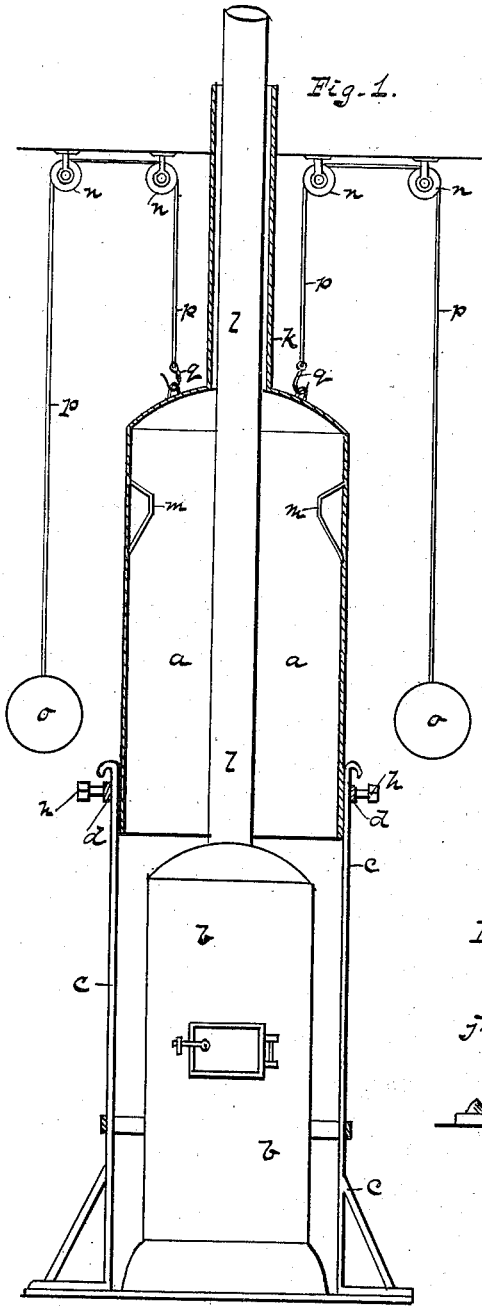


Fig. 3.

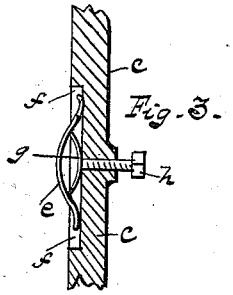


Fig. 2.

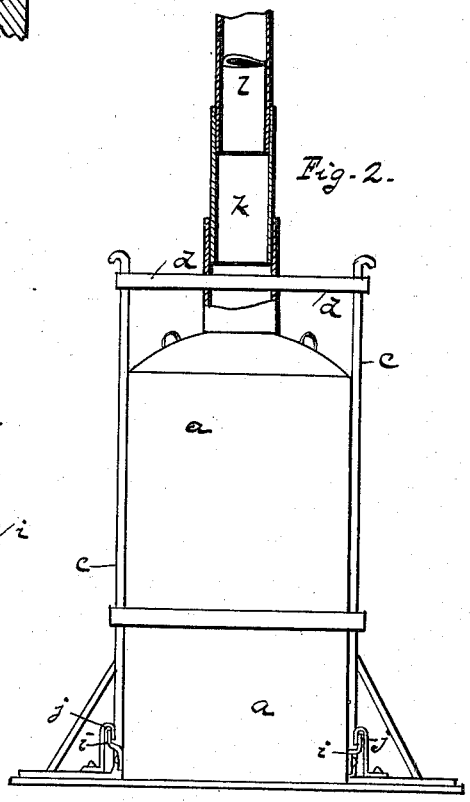
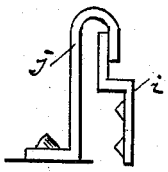


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SHIELD OR COVER FOR HEATERS AND STOVES FOR USE ON RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 383,615, dated May 29, 1888.

Application filed May 16, 1887. Serial No. 238,417. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. BROWN, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Safety Apparatus for Car and other Heaters; 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved safety-shield for car and other heaters, the object being to provide an apparatus to be used in connection with a car-heater that will prevent the same from setting fire to the cars in case of a wreck or collision; and with this end in view my invention consists in a shield suspended above the heater in a manner that when an accident takes place the same will drop over the heater and be secured in that position, together with certain details of construction and combination of parts, as will be fully set forth hereinafter.

In the accompanying drawings, Figure 1 is a side sectional elevation of my improved safety apparatus, shown in connection with a car-heater, the same being constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a sectional elevation of a modification of one of the temporary supports used for suspending the shield above the heater. Fig. 4 is a side elevation of one of the spring-catches for securing the shield when the same has fallen from its elevated position.

To put my invention into practice, I provide a cylindrical shield or cover, *a*, open at the bottom and closed at the top, the diameter of which is larger than that of the car-heater *b*, so as to leave an intervening space between the two. This shield *a*, I suspend above the heater *b* by means of three or more vertical standards, *c*, secured rigidly to the floor of the car and bound together by two or more annular rings, *d*, which further secure the standards *c* in the proper position. Near the top of each of these standards *c*, I place a frictional temporary support for the shield *a*, such as shown at Fig. 3 on the drawings, which consists of a bowed spring, *e*, placed in a recess, *f*, formed in the inner side of the standards *c*, and backed by a smaller spring, *g*, bent in an opposite direction. These springs *e g* are operated by a set screw, *h*, bearing against the smaller spring, *g*, by which means the required degree of pressure may be brought to bear against the sides of the shield *a*, in order to support the same above the heater *b*. At the base of the shield *a*, I secure several hooks, *i*, which engage with a similar number of spring-catches, *j*, secured to the floor of the car when the shield *a* has dropped. At the top of the shield *a*, I secure a pipe, *k*, which encircles the draft-flue *l* of the heater *b*. This pipe *k*, I construct in sections, telescoping the one with the other, in order that the same may not project above the roof of the car when the shield *a* is suspended above the heater *b*. On the inner surface of the shield *a*, I arrange a suitable number of braces, *m*, which will retain the heater *b* in its proper position in the shield *a*, should the car be overturned. To the ceiling of the car I secure several pulleys, *n*, over which are suspended two weights, *o*, by means of cords *p*, attached by hooks *q* to the shield *a*. This arrangement is used to lift the shield *a* above the heater *b*, and is disengaged from the same after the friction-springs have been properly adjusted.

In operation the shield *a* is suspended above the heater *b*, as shown at Fig. 1 on the drawings. The friction-springs are given the required degree of pressure against the sides of the shield. Should a collision of the cars take place, the sudden jar will drop the shield *a* to the floor of the car and be retained in that position by the spring-catches *j i* below, thus effectually preventing the fire in the heater from escaping.

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

1. In a safety apparatus for railway-car and other heaters, the combination of the vertically-movable shield *a*, friction devices for

holding the said shield suspended, the vertical standards *c*, the braces *m*, fixed to the interior of the shield, the hooks *i*, and spring-catches for holding the shield over the heater after the shield falls, substantially as specified.

2. The combination of a heater, a shield to cover the same, the vertical standards *c*, friction-holders for sustaining the shield elevated, the braces *m*, the holding-down devices *i j*, and the pulleys and loaded cords for elevating the shield, all substantially as specified.

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