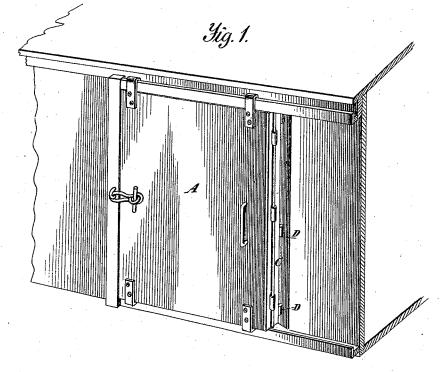
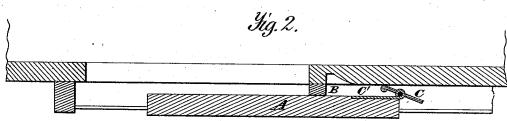
## G. B. KITELEY.

CAR-DOORS.

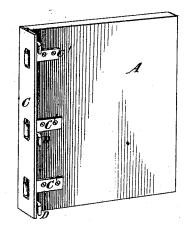
No. 184,971.

Patented Dec. 5, 1876.





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Witnesses: A. Ruppert, V. J. Hutahimon Inventor.

D.P. Holloway + 6.

## UNITED STATES PATENT OFFICE.

GREGORY B. KITELEY, OF LOUISVILLE, KENTUCKY.

## IMPROVEMENT IN CAR-DOORS.

Specification forming part of Letters Patent No. 184,971, dated December 5, 1876; application filed November 7, 1876.

To all whom it may concern:

Be it known that I, GREGORY B. KITELEY, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Spark Excluder for the Doors of Freight Cars, of which the following is a specification:

The purpose of this invention is to prevent the entrance of sparks into the doors of freight-cars, especially for the protection of such as are employed in the transportation of cotton, hay, and other inflammable substances.

In the annexed drawing, making a part of this specification, Figure 1 is a perspective view of a section of a freight-car, showing the door with my spark-excluder attached. Fig. 2 is a horizontal section of the door, and Fig. 3 is a perspective view of a door detached.

The same letters are employed in all the figures in the indication of the same parts.

A is the ordinary sliding door of a freightcar, sliding in grooved ways, the edges of which protect sufficiently against the admission of sparks at the top and bottom of the door, as also a recess, which receives the front end of the sliding door, serves to exclude them when the door is closed and fastened. The point of danger is the rear end of the door. This I protect by an automatic flap, C, which is attached to the rear end of the door by hinges C', which have their pintles in the middle of the flap. A beveled recess is formed in

the frame of the door at the rear end, with a bar, B, which lies vertically along the rear edge of the doorway. Points D are attached to the edge of the flap next the car. These points, as the door is closed, run under the bar B, and swing the flap until it stands at right angles to the plane of the door resting against the rear edge of the door, and also against the face of the bar B, thus closing the crack at the rear edge of the door, and preventing the entrance of sparks.

When the door is opened the points, striking against the beveled face of the recess adjacent to the bar, will cause the flap to swing until it stands parallel to the plane of the door and side of the car, so that, being made of sheet metal, and thin, it will not interfere with the closing of the door or the opening thereof.

What I claim as my invention, and desire to secure by Letters Patent, is—

The automatic flap C, hinged to the door A, and acting in combination with the bar B, for the exclusion of sparks, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GREGORY B. KITELEY.

Witnesses:
J. F. WELLER,
JOHN DUFFY.