

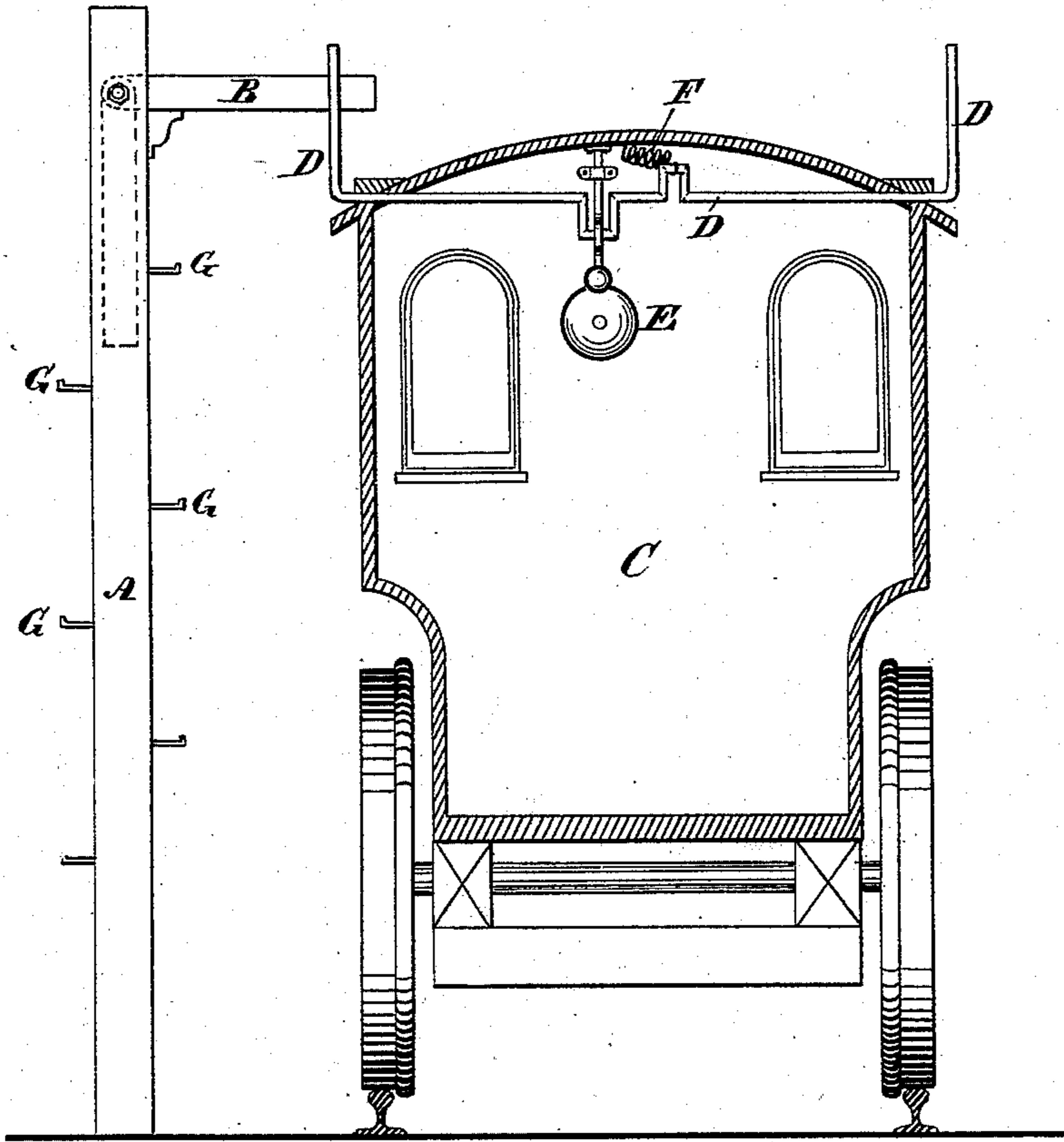
(No Model.)

A. F. MARTEL.

Devices for Preventing Collisions with Disabled Trains.

No. 229,048.

Patented June 22, 1880.



*Witnesses:*  
*John Grist*  
*Fred. J. Ropf*

*Inventor:*  
*A. F. Martel*  
*By Henry Grist*  
*Attorney.*

# UNITED STATES PATENT OFFICE.

ADELARD F. MARTEL, OF MONTREAL, QUEBEC, CANADA.

DEVICE FOR PREVENTING COLLISIONS WITH DISABLED TRAINS.

SPECIFICATION forming part of Letters Patent No. 229,048, dated June 22, 1880.

Application filed April 2, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, ADELARD FRANK MARTEL, of the city and district of Montreal, in the Province of Quebec, Canada, have invented

5 certain new and useful Improvements on Devices to Prevent Collision with Disabled Trains on Railways; and I do hereby declare that the following is a full, clear, and exact description of the same.

10 The object of this invention is to signal danger between stations from one train to an approaching train to prevent collision; and it consists in providing a car or engine-cab with a horizontal rock-shaft having extremities

15 bent at a right angle to strike a movable arm of posts placed at intervals between stations, whereby the said shaft on a running train will be rocked to operate a bell or other mechanism when the arm is adjusted horizontally

20 toward the line of railway, and thus alarm the engine-driver.

The drawing represents a sectional elevation of my devices to operate a bell in an engine-cab.

25 A represents a number of posts placed at intervals along on one side of the line of railway at a suitable distance from the rails, each post having an arm, B, pivoted at the top in such a manner as to be adjustable horizontally

30 toward the railway-track, and movable vertically or parallel to the rails when not in use, for the purpose herein described.

C is the interior of a car or engine-cab through which passes horizontally under the

35 roof a rock-shaft, D, having extremities bent to a right angle and extending so as to come into contact with the arm B when adjusted for that purpose.

Suitable connection is made with a crank or

40 other contrivance on the rock-shaft and a whistle, valve, brake mechanism, or bell, E, so that when the bent extremity of the shaft comes in contact with the arm B the shaft will be rocked and the bell or whistle sounded

to notify the engine-driver to look out for danger ahead, or by the application of the brakes stop the train. 45

F is a spring attached to a crank on the shaft D to cause it, after the alarm is sounded, to resume its normal position. 50

The use of the invention is as follows: When a train is stopped, by disablement or other cause, on the main line, a man is sent forward and rearward to the first or second post, and he, ascending the posts by the

55 steps G, unlocks the arm B and adjusts it horizontally. The bent extremity of shaft D of an approaching train will strike the arm and thus cause an alarm to be sounded or the moving train stopped, as previously described. 60

I am aware of means for signaling adapted for railways not liable to be impeded by snow obstructions, consisting of posts having arms connected by rods or cables to operate a station-signal ahead by means of a tripping-lever

65 on an engine, and also of an arm pivoted horizontally on top of a car to strike the projecting arm of a post, and such inventions are disclaimed by me.

I claim as my invention— 70

As an improved means of signaling danger between stations to running trains, a horizontal rock-shaft passing transversely through a car or engine-cab, said shaft having projecting extremities bent to a right angle, in combination with posts A, placed at short intervals between stations along the line of railway, each of said posts having an independent arm, B, at the top, movable into position to engage with the said bent extremities, which

75 yield and rock the shaft, whereby a bell or other mechanism connected therewith is operated to give alarm from one train to another, as set forth. 80

A. F. MARTEL.

Witnesses:

HENRY GRIST,  
FRED. J. ROSS.