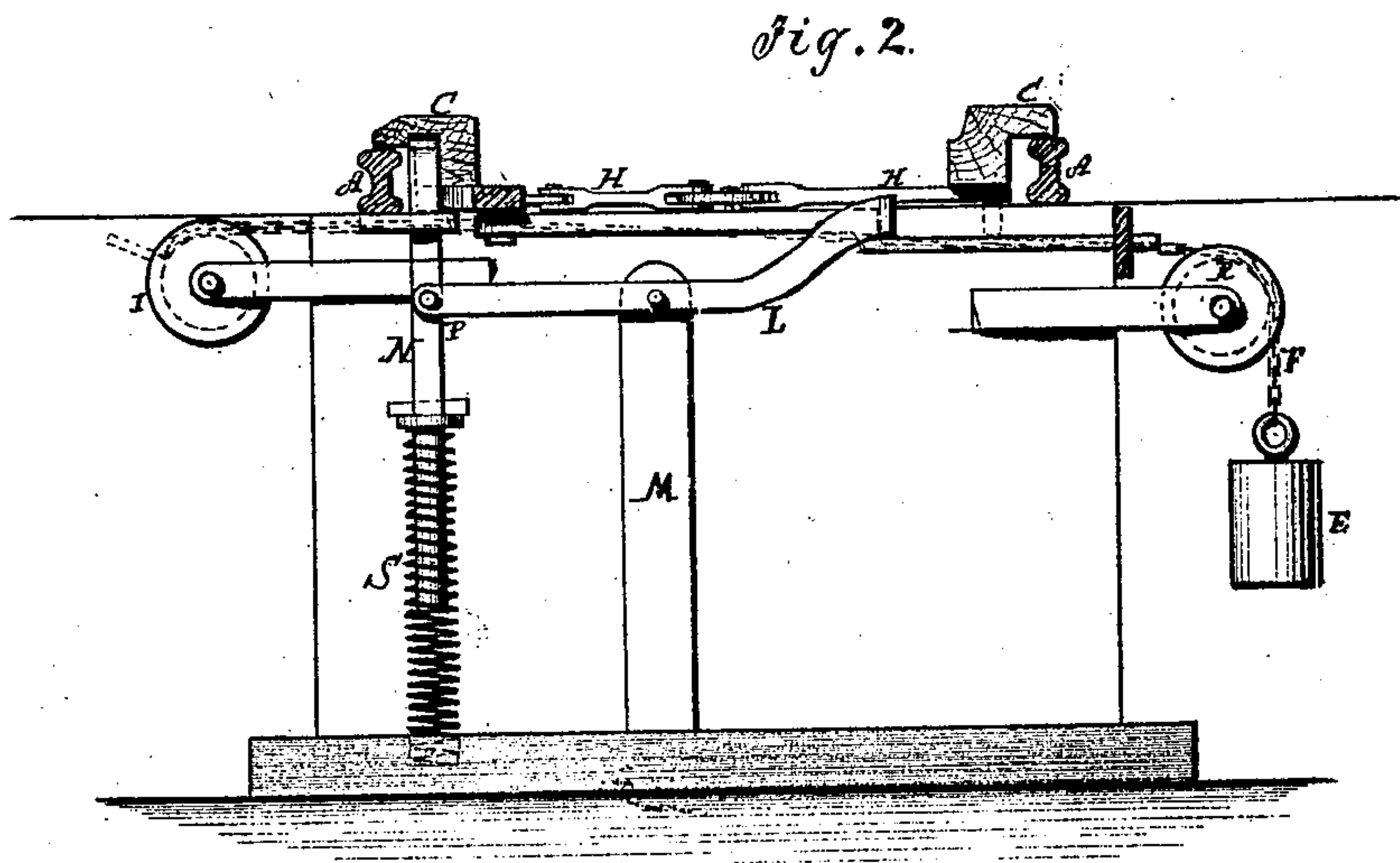
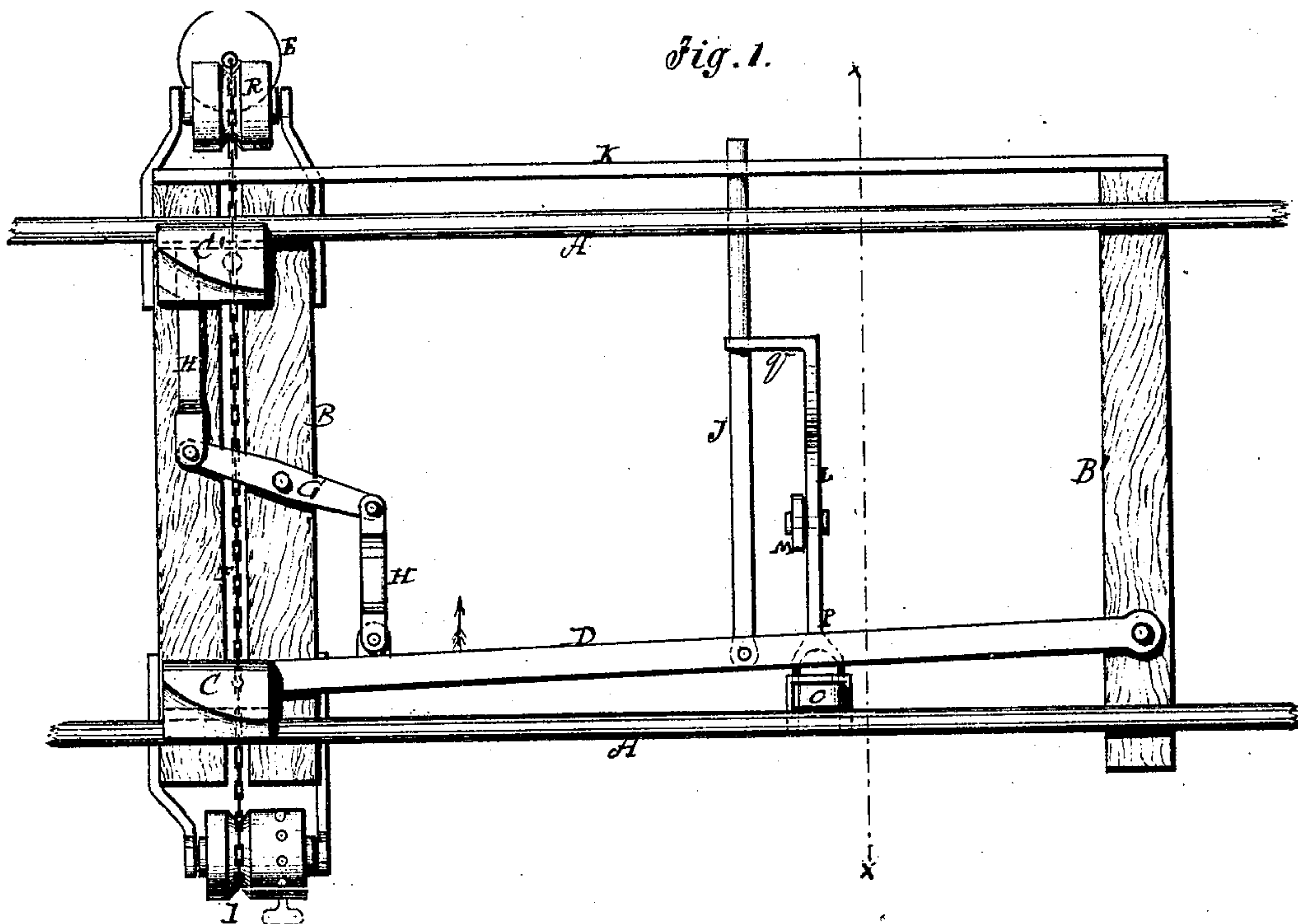


*Donaldson Reavely & Francis,*

*Choke Block for Railways.*

*No. 98,358.*

*Patented Dec. 28. 1869.*



**Witnesses:**

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# United States Patent Office.

JOHN DONALDSON, GEORGE REAVELY, AND JAMES FRANCIS, OF GALASHIELS, SCOTLAND.

Letters Patent No. 98,358, dated December 28, 1869.

## CHOKE-BLOCK FOR RAILWAYS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, JOHN DONALDSON, GEORGE REAVELY, and JAMES FRANCIS, of Galashiels, Roxburghshire, Scotland, have invented a new and useful Improvement in Choke-Blocks for Railroads; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in operating choke-blocks on the tracks of railroads for preventing the movement of cars when it is designed to have them remain stationary; and

The invention consists in the arrangement hereinafter described.

In the accompanying drawing—

Figure 1 represents a top or plan view of the apparatus.

Figure 2 is a vertical cross-section, through the line *x x*.

Similar letters of reference indicate corresponding parts.

This invention is designed to prevent railroad-cars which are placed on switches or side tracks, from moving or being moved on to the main track before they are wanted. For this purpose, we place choke-blocks on the track rails, which remain on the rails until the wheel of a locomotive or of a car operates the mechanism with which the blocks are connected, and removes them.

A A represent the rail of the side track.

B B' represent the ties.

C C' are the choke-blocks.

D is the choke-block rail, which is pivoted to the sleeper or tie B'.

This rail D has a lateral movement imparted by a weight and chain, E F, when the blocks are to be removed from or on to the rail.

The adjustment is such that the weight E, by means of the chain, draws constantly upon the rail B, the tendency of which is to remove the blocks.

The blocks are connected together by means of the sway-bar G and the connecting-bars H H.

When the rail D is moved in the direction of the arrow, the effect is to remove both blocks from the rails A.

The chain F is attached to the pulley I, which is provided with a series of holes, in which there may be a weighted lever, to render the choking-device self-setting, if desired.

The choke-rail D is held in position, when the

blocks are in place on the rails, as seen in the drawing, by means of the catch-bar J, which is attached to the bar D at one end. The other end passes through the guide-piece K.

L is a catch-lever, whose fulcrum is on the stand M. This lever is attached to the key-bar N, whose upper end, O, rises above the rail, and receives the flange of the car-wheel.

The pressure of the car-wheel depresses the end P, of the lever L, and throws its other end, Q, which is bent at right angles, up from a shoulder in the catch-bar J.

This allows the rail D and the blocks to be acted upon by the weight E.

R is a pulley, over which the chain F passes. This allows the locomotive or car to go on to the switch or side track for any required purpose.

After the cars are placed thereon, the bar J is shoved inward, which again places the choke-blocks on the rail, and prevents the return of the cars.

The key-bar is forced upward by a spiral spring, S, with a force which will only yield to the heavy pressure of a car-wheel, so that the choke-blocks cannot be removed by the strength of one man.

Accidents not unfrequently occur from the starting of freight or other cars from side tracks, either accidentally or designedly. By this arrangement, the cars are securely blocked or choked on the track, and must remain there until a locomotive or car enters for them.

Having thus described our invention,

We claim as new, and desire to secure by Letters Patent—

1. In combination with the rails of a railroad-switch or "siding," the choke-blocks C C', so arranged and connected that they are automatically removed from the track by the pressure of the the car or locomotive-wheel, substantially as described.

2. The arrangement of the rail D, sway-bar G, with its connections, the bar J, lever L, and the key-bar N, substantially as described, for the purpose set forth.

The above specification of our invention, signed by us, this 21st day of August, 1869.

JOHN DONALDSON.  
GEORGE REAVELY.  
JAMES FRANCIS.

Witnesses:

COLIN JAMES, *Stalker, Galashiels.*  
WM. BUCHAN, *Galashiels.*