

(No Model.)

H. G. MURRELL.
OVERHEAD TRACK.

No. 377,044.

Patented Jan. 31, 1888.

Fig. 1.

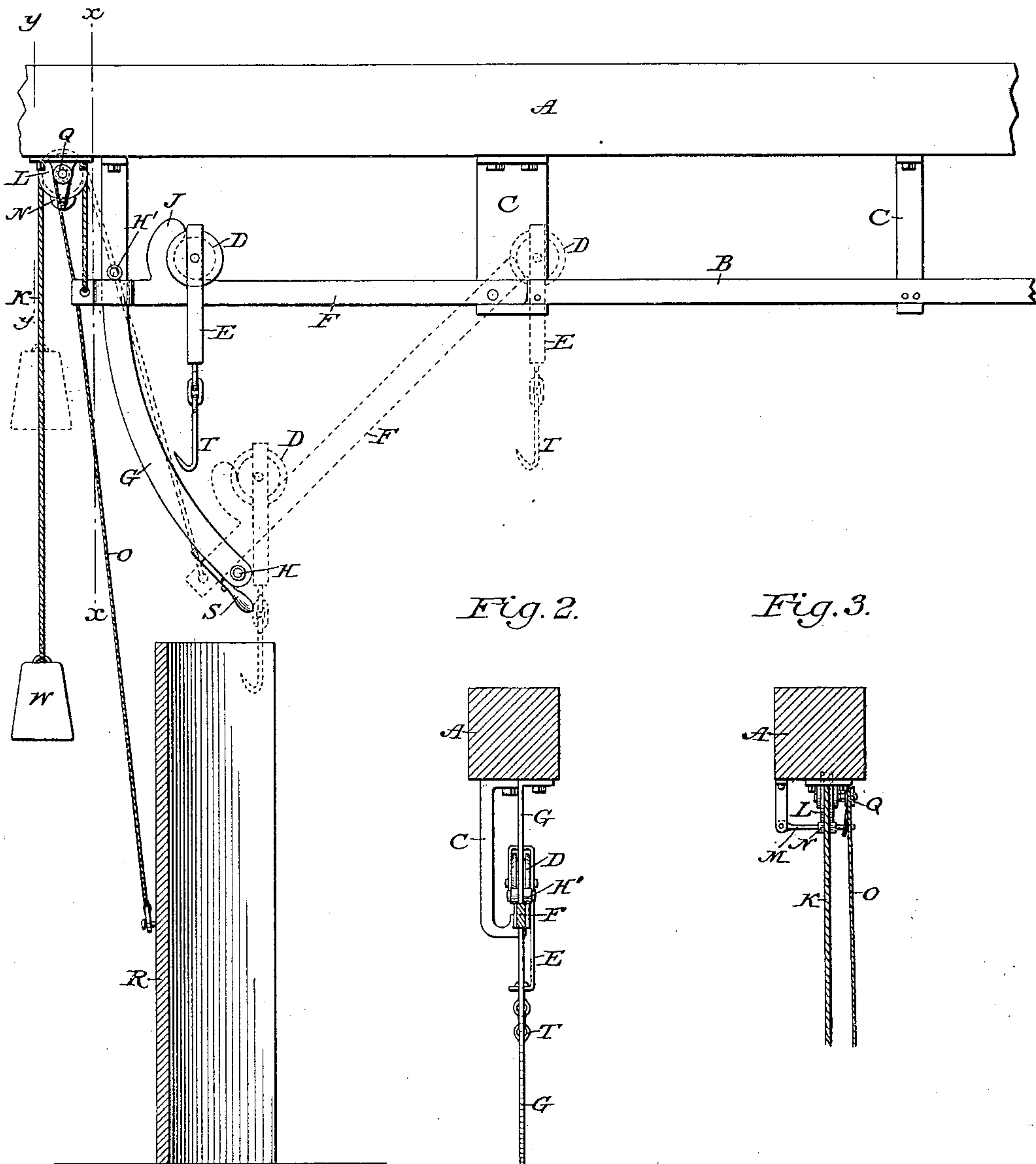


Fig. 2.

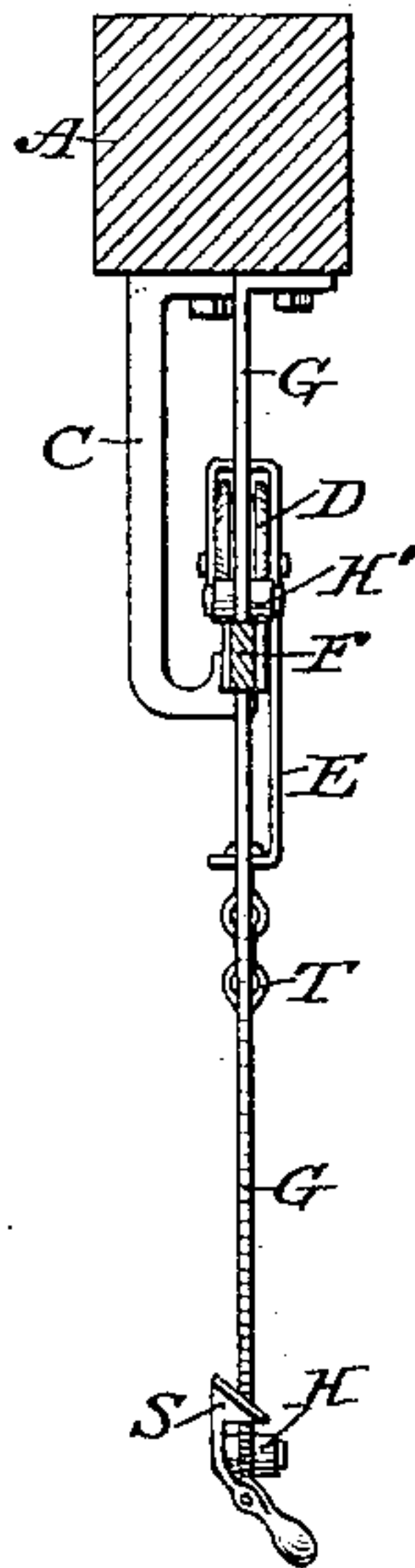
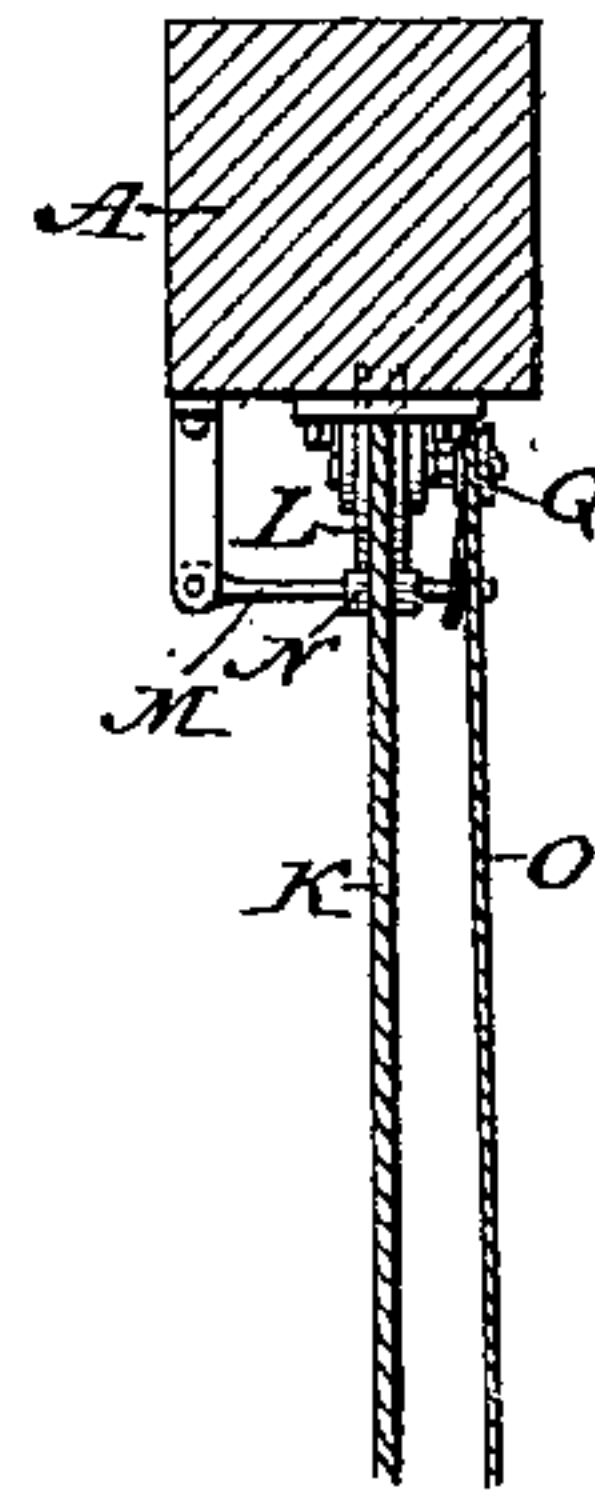


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

HENRY G. MURRELL, OF NEW YORK, N. Y.

OVERHEAD TRACK.

SPECIFICATION forming part of Letters Patent No. 377,044, dated January 31, 1888.

Application filed May 7, 1887. Serial No. 237,402. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. MURRELL, of the city, county, and State of New York, have invented certain new and useful Improvements in Single-Rail Overhead Conveying-Tracks for Warehouses, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a side elevation of the terminus of a single-rail overhead track having my invention combined therewith; Fig. 2, a transverse section in line *x x* of Fig. 1, giving an elevation and end view of the track and drop-rail; and Fig. 3, a section in line *y y* of Fig. 1, illustrating the brake device for the drop-rail.

My invention relates to the overhead tracks used in warehouses, and especially in meat-packing establishments, to facilitate the conveyance of heavy articles by means of wheels or rollers running upon said rails provided with hooks from which to suspend the article. It consists in the combination, with the main rail upon which the wheel for the conveying hook or carriage travels, and with a terminal drop-rail arranged to form an extension thereof, and which is hinged to admit of being dropped at one end at an inclination therefrom, whereby the conveying hook or carriage may be brought down to a comparatively low level without leaving the rail, of a segmental supporting frame or bar to guide the drop-rail in its movements, and also of a counterbalance-weight to prevent its too rapid fall and a brake to prevent its too rapid rise and a catch to confine it, all as hereinafter fully described.

The object of my invention is to facilitate the removal of the articles from the conveying hook or carriage running upon the rail by providing a ready means for lowering the same into easy reach from the floor.

In the accompanying drawings, A represents the ceiling-beam in a warehouse or other building; B, a single conveying-rail suspended from the beam in the customary manner upon hanging brackets C C.

D is a conveying wheel or roller grooved to fit the track, and from whose axle depends an arm, E, whose upper end is bent over the

wheel, so as to afford a bearing therein for both ends of the axle-pin. From this arm depends the meat-hook T, or other equivalent device, upon which may be suspended a quarter of beef or other article to be conveyed along the overhead rail B. The rail B, wheel D, suspension-arms E E, and hook T are devices in common use, and may be of any approved description.

F represents a terminal rail adapted to form a continuation of the main overhead rail B and to guide and support in a similar manner the wheel D. This terminal rail F is hinged at one end to a beam or other suitable point of support in close proximity to the end of the main rail B, or in such position as that its opposite end is left free to swing in a vertical plane and to drop from the level of the rail B to an angle of forty-five degrees, more or less, therewith, as shown in dotted lines, Fig. 1. The hinged drop-rail F is so proportioned in length as to permit its outer free end to drop far enough to permit the article suspended upon and carried by the hook T and wheel D running thereon to be readily lifted and released from the hook by a person standing on the floor. The free end of the drop-rail F is formed with an eye or slot therein to receive a segmental guide-bar, G, which is secured at its upper end to the ceiling or beams overhead, so as to depend in position to guide and steady the drop-rail in its vertical movement, and to furnish, by means of stop-pins H' and H at the upper and lower ends of the bar, respectively, a support for the rail when it has reached its lowest and highest positions.

It is evident that instead of passing a single guide-bar through an eye in the drop-rail F the drop-rail may be made to play between two parallel vertical guide-bars, the interval between them serving as an elongated slot in which the bar is free to vibrate.

A stop, J, is secured upon the upper side of the drop-rail near to the eye therein, the stop being preferably so curved and proportioned as to partially embrace the conveying-wheel D when it runs against it, as illustrated in Fig. 1.

A counterbalancing-weight, W, is attached to the free end of the drop-rail F by means of a rope, K, led over a friction-wheel, L, mounted

in a suitable hanger overhead, and the movements of the rail are controlled by means of a brake-lever, M, carrying a shoe, N, to bear against the periphery of the friction-wheel and upon the weight-rope, the brake lever and shoe being left free to drop automatically away from the friction-wheel by gravity and to be drawn up into engagement therewith by means of a cord, O, running over a pulley, Q, and extending to within reach of a person standing near the lower end of the guide-bar G. A pivoted latch or catch, S, is fitted at the lower end of the guide-bar to engage and hold the rail when it has been dropped to this level.

When the conveying-wheel is to be used for transporting dressed carcasses, a vertical partition, R, may be placed near the end of the drop-rail for the purpose of preventing the quarter of meat from swinging as it is lifted from the conveying-hook, and to steady it as it is taken up upon the shoulders of the person who is to carry it off.

In the use of my invention, in connection with the transportation and delivery of dressed meat in a slaughter-house, when the piece of beef has been conveyed to the point of delivery, the conveying-wheel D is run out upon the drop-rail F against the stop J, the rail being held meanwhile in its longitudinal position by means of the weight W and the brake N.

By releasing the brake the rail F is allowed to drop under the load thereon (which overbalances the weight W) until its free end is arrested by the stop-pin H and engaged by the latch S. The quarter is now in the right position to be readily lifted and adjusted to be carried off. The rail F, when relieved of its load, is held by the latch S, so that the weight W remains upheld until the operator, by means of the cord O, has applied the brake N to the weight-rope K and its pulley L and released the catch S.

Under the influence of the weight W the rail, when released, will be lifted to its horizontal position and there arrested by the stop-pin H', and the conveying-wheel D may then be run back again upon the main track.

It is evident that any of the well-known brake devices may be applied to restrain or regulate

the movement of the drop rail F as equivalents for the brake N, operating upon the pulley L, and weight-cord K, as herein described.

I claim as my invention—

1. The combination, with the horizontal rail in an overhead railway and with a terminal drop-rail hinged to swing in a vertical plane as an extension of the horizontal rail, of a fixed vertical bar guiding and steadying the movements of the drop-rail, substantially in the manner and for the purpose herein set forth.

2. The combination, with the horizontal rail in an overhead railway, of a drop-rail hinged to swing in a vertical plane as an extension of the horizontal rail, a fixed vertical bar guiding the play of the drop-rail, and a weight attached by a cord to the free end of the drop-rail and operating to counterbalance and elevate the end of the rail automatically to its horizontal position, substantially in the manner and for the purpose herein set forth.

3. The combination, with the horizontal rail in an overhead railway, of a drop-rail hinged to swing in a vertical plane as an extension of the horizontal rail, a cord attached to its free end, a pulley over which the cord is carried, a weight attached to the cord to counterbalance the free end of the rail and automatically elevate it to its horizontal position, and a brake controlling the cord and weight, substantially in the manner and for the purpose herein set forth.

4. The combination, in an overhead single-rail railway, with its horizontal rail, a conveying-wheel running thereon, a terminal drop-rail hinged at one end to form an extension of the horizontal rail, a weight counterbalancing the free end of said terminal drop-rail, and a vertical bar guiding its play, of a catch at the lower end of the guide-bar to engage the drop-rail and hold it, substantially in the manner and for the purpose herein set forth.

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

HENRY G. MURRELL.

Witnesses:

A. N. JESBERA,
M. E. FINLEY.