T. Stewart.

Car Brake.

No. 30,006. Patented, Sept. 11, 1860.

Fig: 1.

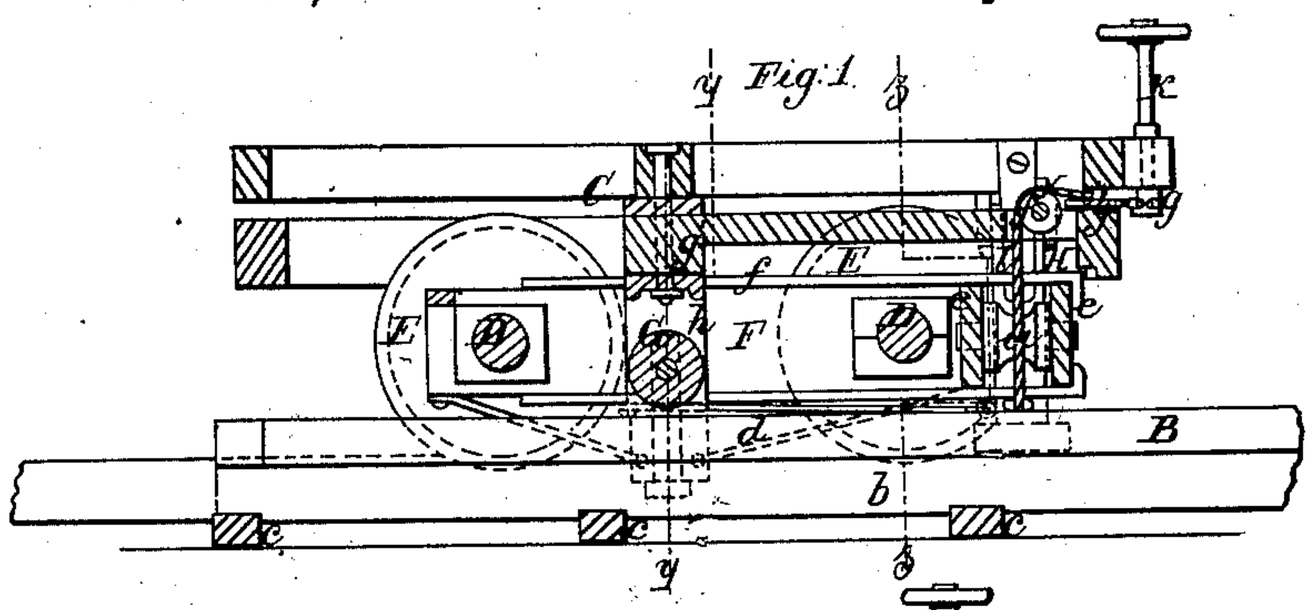


Fig: 2.

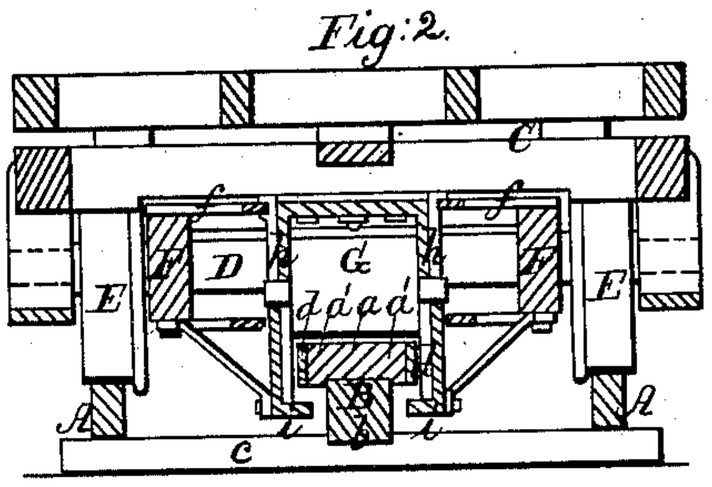


Fig: 3.

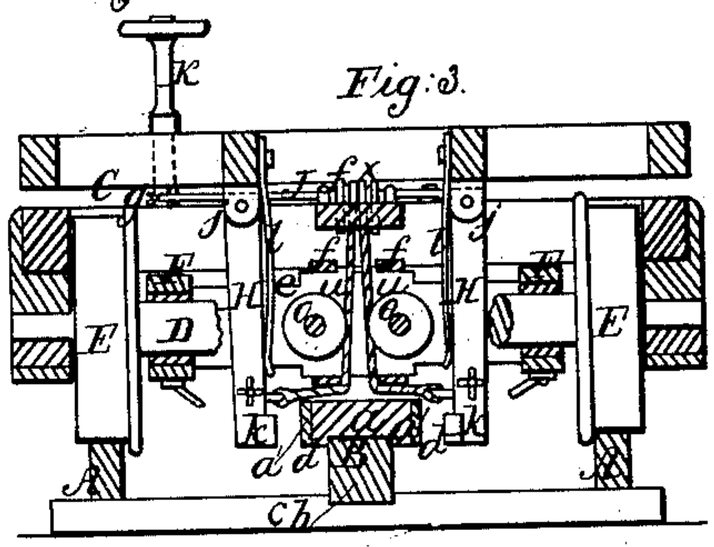
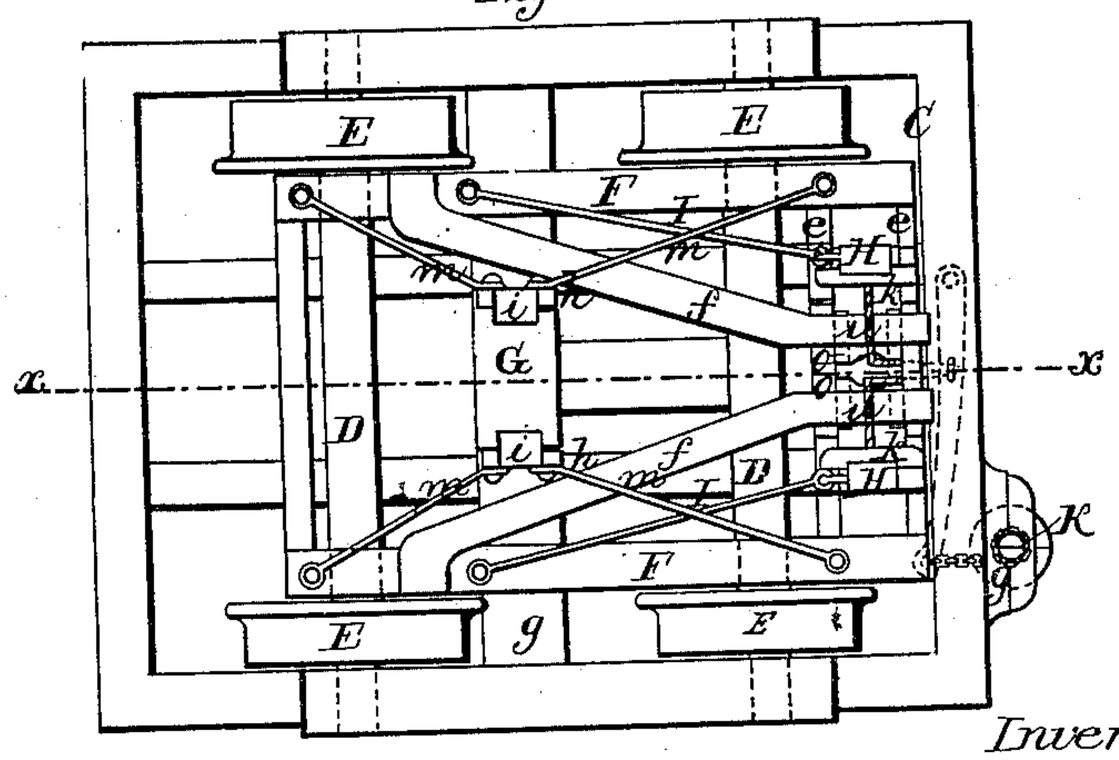


Fig: 4.



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UNITED STATES PATENT OFFICE.

THOMAS STEWART, OF PITTSBURG, PENNSYLVANIA.

SAFETY-GUARD FOR RAILROADS.

Specification of Letters Patent No. 30,006, dated September 11, 1860.

To all whom it may concern:

Be it known that I, THOMAS STEWART, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Safety-Guard and Brake for Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention taken in the line *x*, *x*, Fig. 4; Fig. 2 a transverse vertical section of the same taken in the line *y*, *y*, Fig. 1; Fig. 3 a transverse vertical section of the same taken in the line *z*, *z*, Fig. 1; Fig. 4, an inverted plan of the same.

Similar letters of reference indicate corresponding parts in the several figures.

This invention has for its object, firstly, the preventing of the throwing of the cars from the track by obstructions or other causes as well as the sustaining of the cars in case of the breaking of a wheel or axle; secondly, in a novel and improved brake for expeditiously braking up the cars by a moderate application of power.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, A, represent the rails of a rail-road track which may be laid as usual, and B, is a central rail parallel with A, A, but more elevated. This central rail B, is of T form, its tread or horizontal flanch *a*, being sufficiently wider than its vertical part *b*, to form a projection *a'*, at each side of *b*, as shown clearly in Figs. 2 and 3. This central rail B, may be constructed of wood and firmly bolted to the sleepers or cross ties *c*, on which the rails A, A, are secured and the edges of the projection *a'*, are faced with metal plates *d*.

C, is a car truck which is provided with two axles D, D, having wheels E, attached as usual, and F, F, are two parallel bars which are fitted on the axles D, connected at their front ends by traverse pieces *e*, and braced by oblique bars *f*.

To a central traverse bar *g*, of the truck C, there are attached two pendants *h*, *h*, between which a roller G, is fitted, the journals of the roller having their bearings in the pendants *h*, *h*. Each pendant *h*, has a hook *i*, attached to it, said hooks projecting under the edges *a'*, *a'*, of the flanch *a*, of the central rail B, as shown clearly in Fig. 2. The roller G, when the truck is supported by its four wheels E, is just above the surface of the central rail B.

To the truck there are attached by joints *j*, two pendants H, H, which extend down between the traverse pieces *e*, *e*, of the bars F, F, and have each a shoe K, at their lower end, said shoes being directly opposite the edges *a'*, of the flanch central rail B. Each pendant H, has a spring *l*, bearing against its inner side, said springs having a tendency to keep the shoes *k*, off from the edges *a'*, of the rail B, as will be fully understood by referring to Fig. 3. To the lower part of each pendant H, a rod I, is attached, said rods being also connected to the bars F, and serving as braces to the pendants. The pendants *h*, *h*, are also braced from the bars F, by rods *m*. The lower ends of the pendants H, H, have each a cord or chain, *n*, attached to them. These cords or chains *n*, pass up between rollers *o*, *o*, which are fitted between the traverse pieces *e*, *e*, and said cords or chains are connected at their upper ends and pass over a roller $f^{\times}$, and are attached to a lever J, on the truck, said lever being connected to an ordinary hand rod K, by a cord or chain *g*.

From the above description it will be seen that in case of the breaking of a wheel or an axle of the truck, the roller G, will fall on the central rail B, and support the truck, and it will also be seen that the hooks *i*, will prevent the car being thrown from the track. In order to brake up the car the hand rod K, is turned and the pendants H, thereby actuated so that their shoes *k*, *k*, will be pressed against the edges *a'*, of the bar *a*, of rail B.

By this arrangement a very simple and effectual means is obtained for guarding against the throwing of the car from the track and also against the breaking of a wheel or axle. A simple and efficient brake is also obtained which when applied has a tendency to keep the car secured to the track.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

The arrangement of the central roller G, rail B, pendants *h*, and hooks *i*, with the wheels E, rails A, pendants H, H, springs *l*, *l*, rods I, bars F, F, rollers *o*, *o*, $f^{\times}$, lever J, and rod K, all as herein shown and described.

THOMAS STEWART.

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