

(No Model.)

E. A. KINLEY.  
CAR-BRAKE.

No. 473,319.

Patented Apr. 19, 1892.

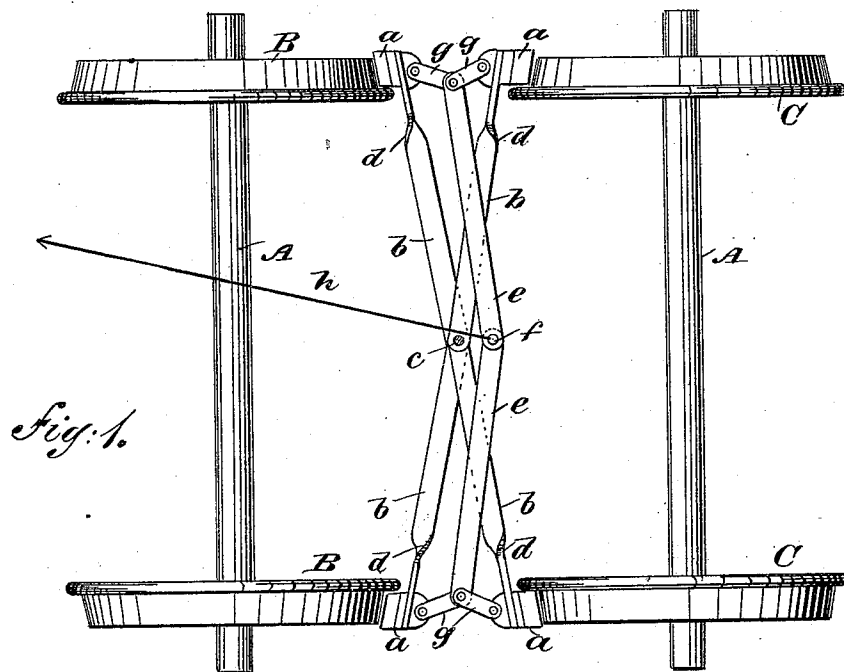


Fig. 1.

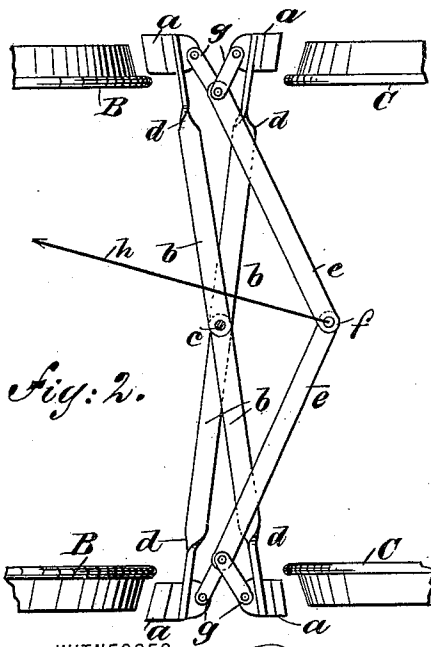


Fig. 2.

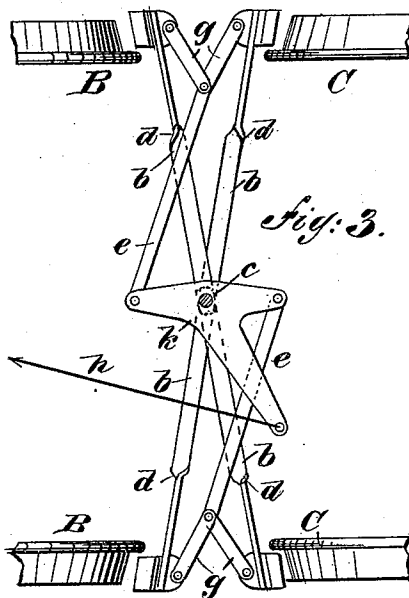


Fig. 3.

WITNESSES:

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EDWARD A. KINLEY, OF BREESPORT, NEW YORK.

## CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 473,319, dated April 19, 1892.

Application filed August 21, 1891. Serial No. 403,285. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD A. KINLEY, of Breesport, in the county of Chemung and State of New York, have invented a new and useful Car-Brake, of which the following is a full, clear, and exact description.

This invention has for its object to provide a car-brake which will be of simple construction and that will afford means to exert great pressure on four wheel-treads simultaneously by the moderate expenditure of manual force.

To this end my invention consists in the construction and combination of parts, as is hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the preferred form for the brake-rigging, with the parts adjusted to set the brake-blocks on four wheel-treads. Fig. 2 is a plan view of parts shown in Fig. 1 adjusted to remove the brake-blocks from the wheels, and Fig. 3 is a plan view of a modification.

A A are two car-truck axles, and B B C C wheels thereon, separated in pairs sufficiently to allow the brake mechanism to be introduced between their rims or treads. Other parts forming a truck are omitted to avoid complexity of parts; and it may be here stated that the improvement may be applied to any form of truck which will permit necessary space between the wheels that align in pairs.

Referring to Figs. 1 and 2, the brake-blocks *a* are secured on the outer ends of four similar carrier-bars *b*, which are lapped together where they meet, near the center of the truck, and pivoted on a supporting-bolt *c*, that depends from a portion of the truck-frame above. (Not shown.) The carrier-bars *b* are twisted at *d* and given a one-fourth bend, so as to allow the inner portions to lie in a horizontal plane and the part of each bar that extends exterior of the bend *d* to lie edgewise at a right angle thereto. As the carrier-bars *b* are disposed in X form, it is evident that the brake-blocks on two aligning bars will press in opposite directions, one block having contact with a front wheel and the other block ap-

proaching a rear wheel when the carrier-bars are spread at their outer ends.

Two centrally-pivoted toggle-levers *e* are provided, which are supported from above by an attachment of their pivot-bolt *f* upon a portion of the truck-frame. (Not shown.) The toggle-levers *e* are so relatively hung at their lapped inner ends as to locate the pivot-bolt *f* a short distance from the pivot-bolt *c*. Said levers, extending outwardly, have their outer extremities each pivoted to two short links *g*, that have their other ends toggle-jointed to the brake-blocks *a*. There is such a proportionate length given to the links *g* as will cause them to diverge at an obtuse angle when the brake-blocks *a* are engaged with the treads of the truck-wheels B B C C.

A draft-rod *h* is connected loosely to the bolt *f*, which rod is shown incomplete, but is designed to be extended and connected to any preferred form of mechanism whereby it may be actuated longitudinally. When the rod *h* is adjusted to throw the toggle-levers *e* away from the center bolt *c*, the links *g* will draw the brake-blocks *a* away from the wheels B C, as shown in Fig. 2.

In Fig. 3 the modification shown consists in the provision of a T-shaped lever *k*, which has its shorter limbs connected loosely with the inner ends of the toggle-levers *e*, the longer limb of said lever *k* being connected to the draft-rod *h*, whereby increased leverage is afforded to throw the brake-blocks *a* in forcible contact with the wheel-treads when draft force is applied to the rod. The other parts of the device are similar to that represented in Fig. 2, the carrier-bars being lapped and pivoted at *c* to the T-shaped lever *k*, so as to vibrate below it when the brake mechanism is manipulated to set or release the brake-blocks.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A car-brake consisting of transverse bars pivotally supported at their inner ends, brake-blocks held on the outer ends of said bars, transverse toggle-levers pivotally supported at their inner ends, links pivoted to the brake-blocks and the outer ends of the toggle-levers,

and means for actuating the toggle-levers, substantially as described.

2. The combination, with transverse bars lapping at their inner ends and pivotally supported thereat to swing horizontally, and  
5 brake-blocks held on the outer ends of said bars, of horizontal toggle-levers pivotally supported at their inner ends, links pivoted to the brake-blocks and the outer ends of the  
10 toggle-levers, and a draft-rod connected to the pivotal support of the toggle-levers, substantially as described.

3. The combination, with two pairs of transverse bars pivoted together at their inner ends,

and brake-blocks on the outer ends of said 15 bars, of a T-shaped horizontal lever mounted on the pivot of said bars, a pair of toggle-levers pivoted to the extremities of the short member of said T-shaped lever, links pivotally connecting the brake-blocks with the 20 outer ends of said toggle-levers, and a draft-rod pivoted to the long member of the T-shaped lever, substantially as shown and described.

EDWARD A. KINLEY.

Witnesses:

GEO. W. BELL,  
JOHN SEARLES.