(No Model.)

J. EGGE.

VEHICLE BRAKE.

No. 454,519. Patented June 23, 1891.

Fig. 1.

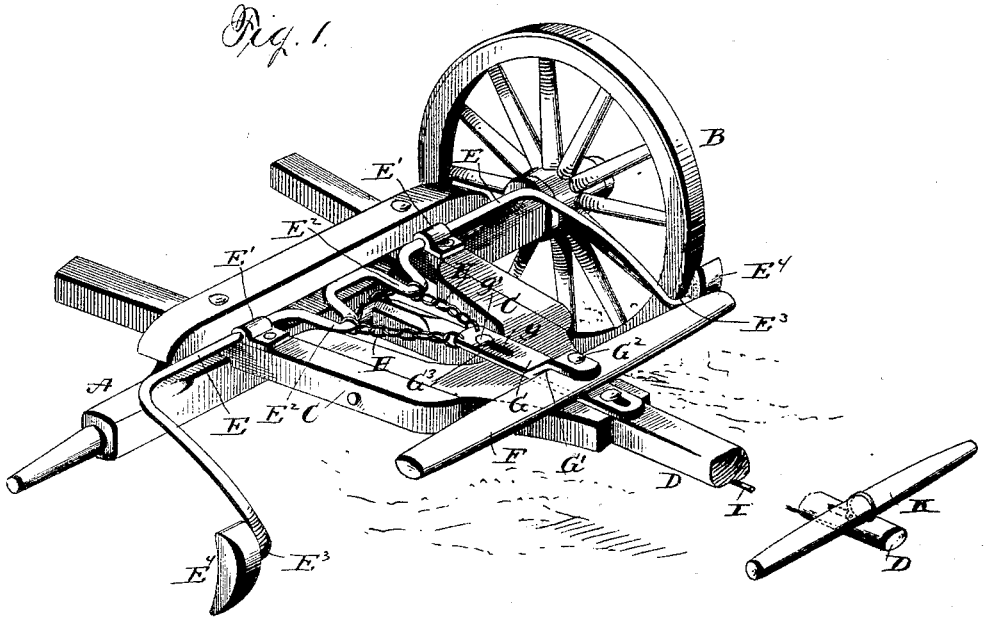


Fig. 3.

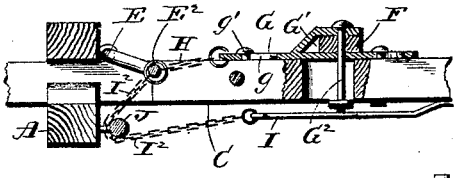
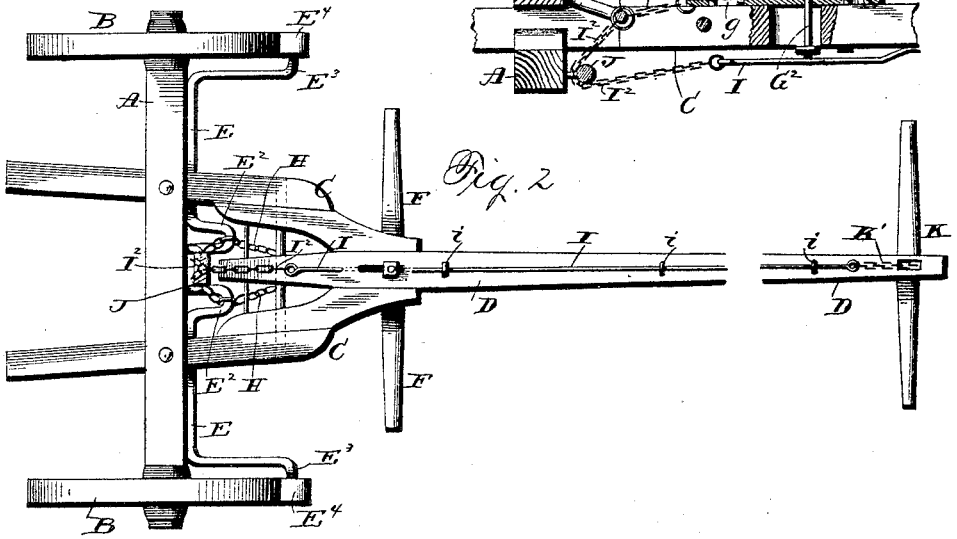


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH EGGE, OF WRIGHTSTOWN, MINNESOTA.

VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 454,519, dated June 23, 1891.

Application filed March 23, 1891. Serial No. 386,083. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH EGGE, a citizen of the United States, residing at Wrightstown, in the county of Otter Tail and State of Minnesota, have invented certain new and useful Improvements in Vehicle-Brakes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in automatic vehicle-brakes; and it has for its object to generally improve upon the construction and render more efficient in operation this class of appliances.

To these ends and to such others as the invention may pertain the same consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating like parts throughout the several views, in which—

Figure 1 is a perspective view of a portion of the running-gear of a wagon with my improved form of automatic brake applied thereto. Fig. 2 is a top plan, and Fig. 3 is a detail in vertical section.

Reference now being had to the details of the drawings by letter, A designates the axle, B B the front wheels, C C the hounds, and D the pole, of the wagon, all of which parts are of ordinary and well-known construction.

E is a shaft constructed of heavy rod or bar iron. This rod extends transversely across the upper face of the hounds C parallel with the axle B and a slight distance in advance thereof, being sleeved within suitable bearings E′ upon the upper faces of the hounds, and the intermediate portion is bent to form the cranks E^2 E^2, which cranks, when turned downward, occupy the space between the hounds, as shown. At points adjacent to the inner faces of the wheels B the rod or shaft E is bent downward at a slight angle and extended to the peripheries of the wheels, having the extreme ends of the shaft provided with short horizontal arms E^3, which overlap the edges of the wheels and are provided with suitable brake-shoes E^4.

The evener or doubletree F is pivoted at its center within the space G′, provided for its reception upon the plate G, by means of a suitable pivot or bolt G^3 passed vertically therethrough. The rearwardly-extended portion G^3 of the plate G is provided with a longitudinal slot or opening *g*, and the plate is held in place upon the upper face of the rear end of the pole by means of a bolt *g*′, passed vertically through the slot *g* and extended through an opening formed in the pole. The rear end of the plate G is attached to the cranks E^2 of the shaft E by means of chains H H, and the rear end of the rod I, which is loosely sleeved within keepers *i* upon the under face of the pole, is also connected with the cranks E^2 by chains I^2, said chains being passed over a friction-pulley J in advance of the axle. The neck-yoke K is attached at its longitudinal center to the end of a chain K′, said chain being passed through an opening in the end of the pole and having its opposite end attached to the front end of the rod I.

The operation of the brake is simple and readily understood. When the wagon is moving over a level road or up an incline, the power applied to the doubletree will serve to move the plate G forward to its extreme limit, and as the neck-yoke is resting upon the pole loosely the chain which connects the neck-yoke with the rod I is slack, thus permitting the cranks E^2 to be turned by the forward movement of the plate G so as to release the brake-shoes from their engagement with the wheels. When an incline is reached, the holding back of the horses will serve to force the plate G back, thus slackening the chains H, which connect the said plate with the crank-shaft, and at the same time the tightening of the chain connected with the neck-yoke will serve to pull the rod I forward, and by thus tightening the chains I^2 the shaft E is turned so as to apply the brake.

Having thus described my invention, what I

claim to be new, and desire to secure by Letters Patent, is—

1. The combination, with the running-gear, crank-shaft carrying brake-shoes at its ends, the movable rod I, retained within keepers *i* upon the under side of the pole, the friction-roller J in advance of the axle, the chains I^2, connecting the rear end of the said rod I with the crank-shaft, said chains being passed over the friction-roller, the neck-yoke, and connections between the yoke and the rod I, and the slotted plate G, having a limited longitudinal movement on the pole, substantially as shown and described, and for the purpose specified.

2. The combination, with the axle, the hounds, the pole with its neck-yoke, and the double crank-shaft journaled in boxes on the hounds over the axle and carrying brake-shoes at its free ends, of the plate G, slotted and free to play in the direction of its length on the pole, the evener pivoted to an extension of said plate, said pivot free to slide in a slot in the pole, the rod I, movably held beneath the pole and connected with the neck-yoke, the roller J in front of the axle, and the chains connected to the plate G and to the crank-shaft and passed over said roller, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH EGGE.

Witnesses:
FRANK WILLSON,
W. L. NORTHFOSS.