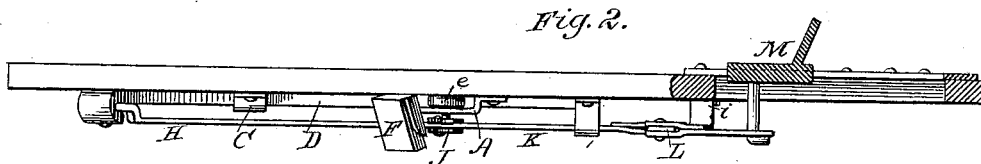
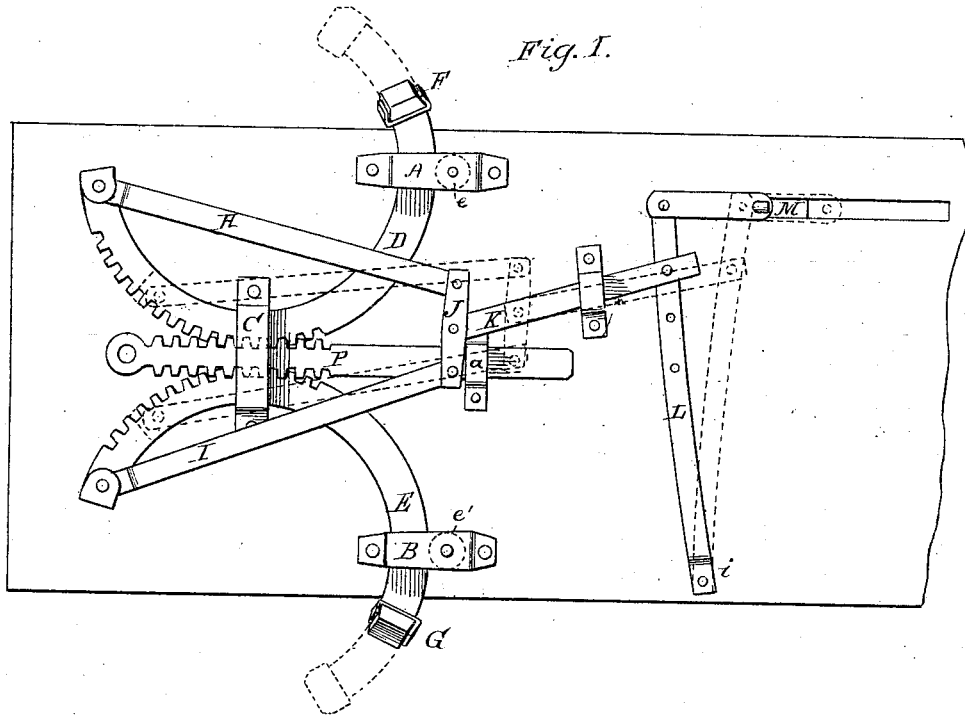


F. A. KEENE & C. VAN ORDER.
Wagon-Brake.

No. 201,423.

Patented March 19, 1878.



WITNESSES:
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UNITED STATES PATENT OFFICE.

FRED. A. KEENE AND CYPRIAN VAN ORDER, OF MARENGO, IOWA.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. 201,423, dated March 19, 1878; application filed February 20, 1878.

To all whom it may concern:

Be it known that we, FRED. A. KEENE and CYPRIAN VAN ORDER, of Marengo, Iowa county, and State of Iowa, have invented a new and Improved Wagon-Brake; and we hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan view of our brake as applied to the bottom of the wagon-body, and Fig. 2 a side view.

The object of our invention is to provide a safe, sure, and economical wagon-brake; and it consists of two semicircular brake-bars having the brake-shoes attached directly thereto, in combination with certain operating devices, as hereinafter more fully described and claimed.

In order that those skilled in the art may make and use our invention, we will proceed to describe the manner in which we have carried it out.

In the said drawings, A B C are three guiding-loops bolted to the bottom of the wagon-bed—A and B longitudinally, and C transversely, as shown.

Two semicircular brake-bars, D E, lie in these loops, their peripheries approaching each other closely in loop C, and on their outer ends they have clamped brake-shoes F G. To the opposite end of the brake-bars are pivoted two rods, H I, which are also pivoted to a cross-head, J, which is centrally pivoted on a rod, K, connected with a lever, L.

The lever L is pivoted at *i* near the edge of the wagon-body, and its opposite end is linked

to a sliding treadle, M, or foot-piece, conveniently located to be operated by the driver. When the foot-piece M is pushed forward the inner ends of the brake-bars are forced forward and the brake-shoes forced outward, as shown in dotted lines.

On pivots in loops A B are friction-rollers *e e'*, against which the rims of the brake-bars bear to facilitate their movement.

As a modification of our device, we propose to place cog-teeth on a segment of each brake-bar, and between them place a toothed bar, P, having corresponding teeth, all interlocking and held within the loop C, and the bar P being guided by the small loop *a*, and provided with means for direct attachment to lever L.

It is evident that the movement back and forth of the toothed bar will, by means of the toothed segments, throw the brake-bars in and out.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The semicircular brake-bars D E, in combination with the shoes F G, substantially as and for the purpose described.

2. The semicircular brake-bars, in combination with rods H I, cross-head J, rod K, lever L, foot-piece M, and loops A B C, provided with friction-rollers *e e'*, as set forth.

FRED. A. KEENE.
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Witnesses:

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