

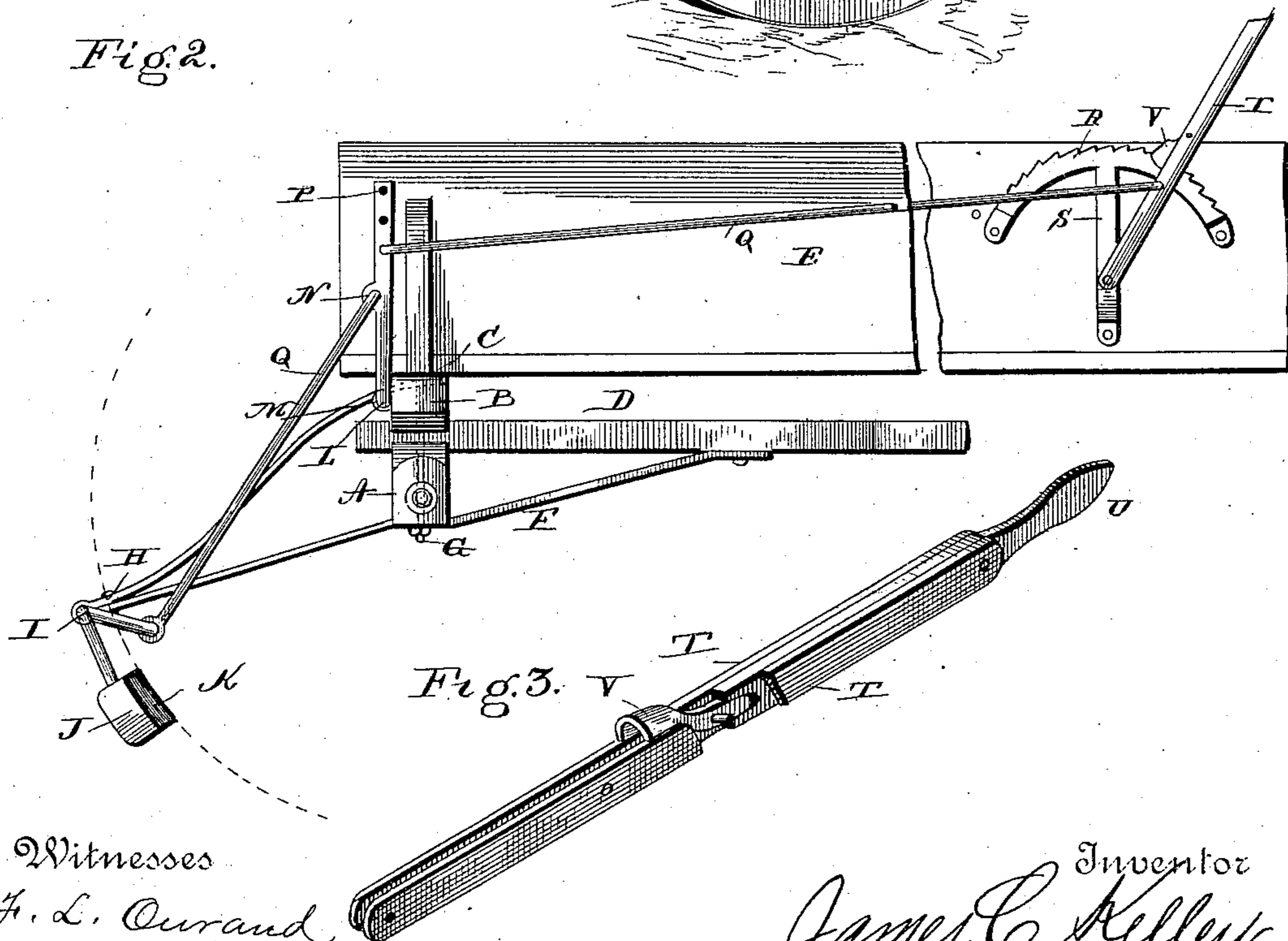
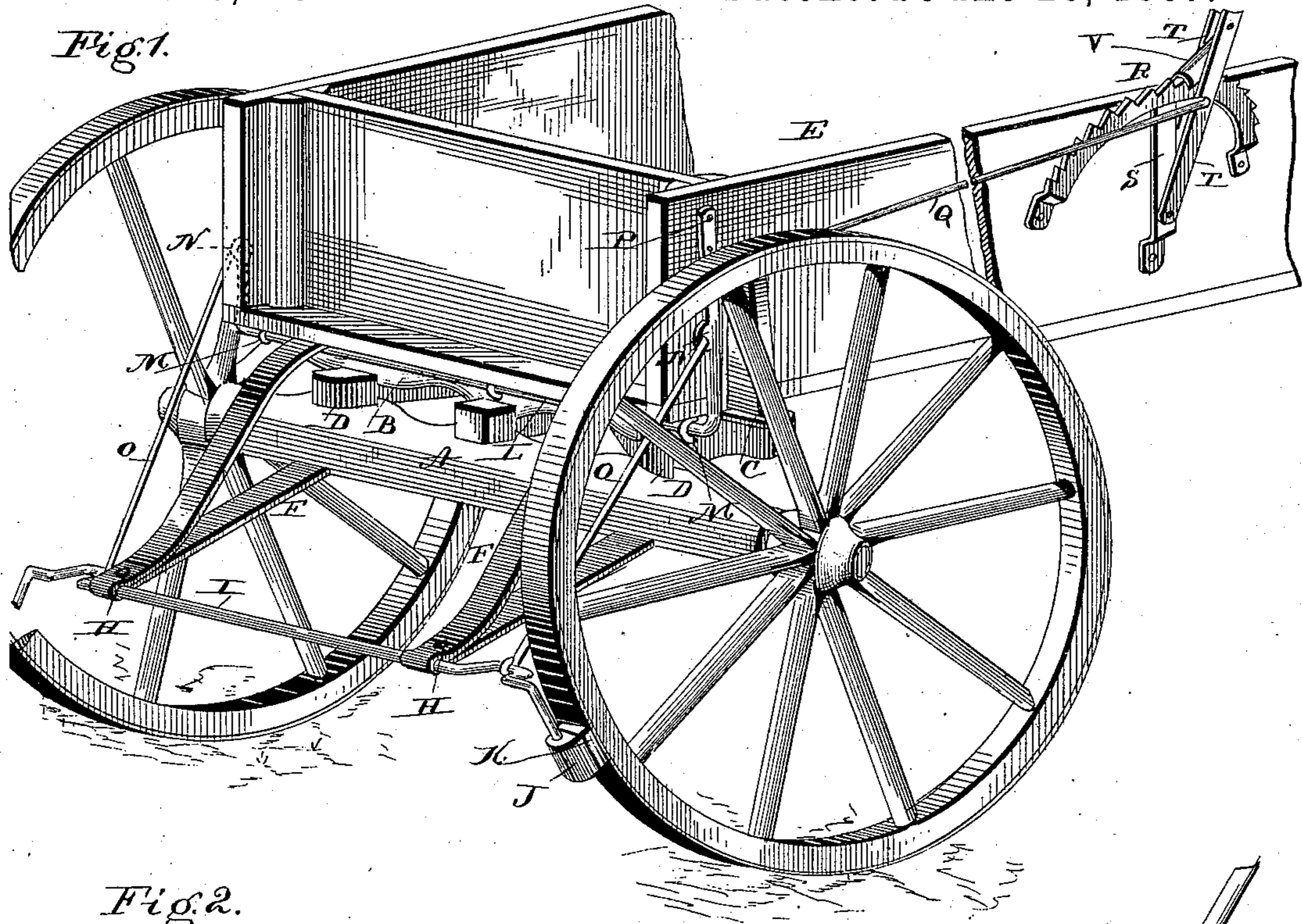
(No Model.)

J. C. KELLEY.

WAGON BRAKE.

No. 365,603.

Patented June 28, 1887.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JAMES C. KELLEY, OF STOCKDALE, KANSAS.

## WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 365,603, dated June 28, 1887.

Application filed February 12, 1887. Serial No. 227,317. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES C. KELLEY, a citizen of the United States, and a resident of Stockdale, in the county of Riley and State of Kansas, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved brake and that much of a wagon as is necessary to illustrate the application of the same. Fig. 2 is a side view of the same; and Fig. 3 is an enlarged view of the detent and trip-lever, a portion of the tilting lever being broken away to expose said parts.

Like letters of reference indicate corresponding parts throughout all the figures.

My invention has relation to wagon-brakes; and it consists in the improved construction and combination of parts constituting the same, as will be hereinafter fully set forth.

The object of my invention is to produce a wagon-brake which can be so attached to the rear axle of a wagon as to cause the friction-blocks to bear against the rear edge of the wheel, thereby providing for connecting the brake-shaft to the tilting lever by a system of links and levers, which shall diminish the number of pounds pressure necessary to be exerted upon the tilting lever in applying the brakes; also, to so construct the tilting lever as to render it unnecessary to provide a trip-cord or individual trip-lever for operating the detent. These objects I attain as illustrated in the accompanying drawings, in which—

A signifies the rear axle of an ordinary heavy wagon; B, the bolster, with its usual metal cap-plate, C; D, the rear hounds, and E a common form of box.

In attaching my brake to these parts brackets F are employed, which consist of strips of iron bolted at their forward ends to the under side of the hounds, whence they extend rearward, and are bolted to the under side of the axle by the usual bolts, G, which hold the bol-

ster and hounds to said axle, this portion of said brackets serving in the place of the usual braces from hounds to axle. From these bolts they extend a distance to the rear, where they are folded over upon themselves and bolted together by bolts H to form bearings for the brake-shaft I. From these bearings said strips extend obliquely upward, and are passed between the plates C and the bolster, and retained there by the bolts G. The brake-shaft outside of its bearings at each end is formed into a double crank, and beyond the double crank it is bent downwardly to form means for attachment of the friction-blocks, each of which consists of a cast-iron shoe, J, secured directly to the brake shaft, and a sole, K, of some tough friction-producing material, riveted to said shoe. To the rear side of the bolster is journaled a rock-shaft, L, by means of the staples M. The ends of the rock-shaft are bent up, and these projections provided with eyes N, in which the upper ends of the links O are secured, while their other ends are secured to the double cranks. That projection of the rock-shaft which is at the side of the box on which the tilting lever is secured is produced beyond the eye O, and provided with adjustment-perforations P, by means of which a varied "purchase" may be obtained upon said portion in operating the brakes. From any one of these perforations a connecting-rod, Q, extends along the side of the box to the tilting mechanism, which is composed of the segmental rack R, secured by its ends and by a vertical central ray, S, to the box, and the tilting lever, which is composed of two side pieces, T, pivoted one on each side of the segmental rack to the ray S, near its lower end. Between the upper ends of these side pieces is pivoted the trip-lever, whose upper end or handle, U, serves also as the handle of the tilting lever, and whose lower end is bifurcated to engage with the detent V. Said detent is likewise pivoted between the side pieces, T, and has its upper end pointed to fit into the bifurcation of the tilting lever. Its lower end is folded laterally, producing wings which bear against the sides of the rack as the detent rides over the teeth.

The operation of the brakes is evident. To

throw them on the tilting lever is pushed forward, and vice versa; but the operation of the detent in connection therewith is as follows:

In applying the brakes, the hand is placed upon the common handle U of the levers, and as they are pressed forward said pressure causes the detent to bear upon the rack, and immediately upon the brakes being sufficiently applied the detent takes its place in one of the notches of the rack and holds the brakes to the wheels. In releasing the brakes, the pull upon the handle U first trips the detent, and then acts upon the brakes. By this arrangement no springs or extra handles are necessary for the manipulation of the detent, which, as may be seen, acts promptly and readily, being ever subject to the action which controls the tilting lever.

Having thus fully described my invention, I claim —

1. In a wagon-brake, the combination, with the rear axle, of supporting brackets connected

thereto, a brake shaft journaled in said brackets at the rear of the axle, said shaft having double cranks formed thereon near its ends, and having its ends bent downwardly to receive the friction-blocks, substantially as specified. 25

2. In a wagon-brake, the combination, with the supporting - brackets, brake - shaft, and links, of the rock-shaft having bent-up portions at its ends, in which are formed eyes to receive said links, one of said bent portions being provided with an extension beyond the eye, in which are formed adjustment-perforations, the connecting-rod, and tilting mechanism, substantially as shown and set forth. 35

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JAMES C. KELLEY.

Witnesses:

R. D. WILLIAMS,

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