

(No Model.)

G. W. BLAKE.
Horse Stopping Attachment for Wagons.

No. 232,441.

Patented Sept. 21, 1880.

Fig: 1.

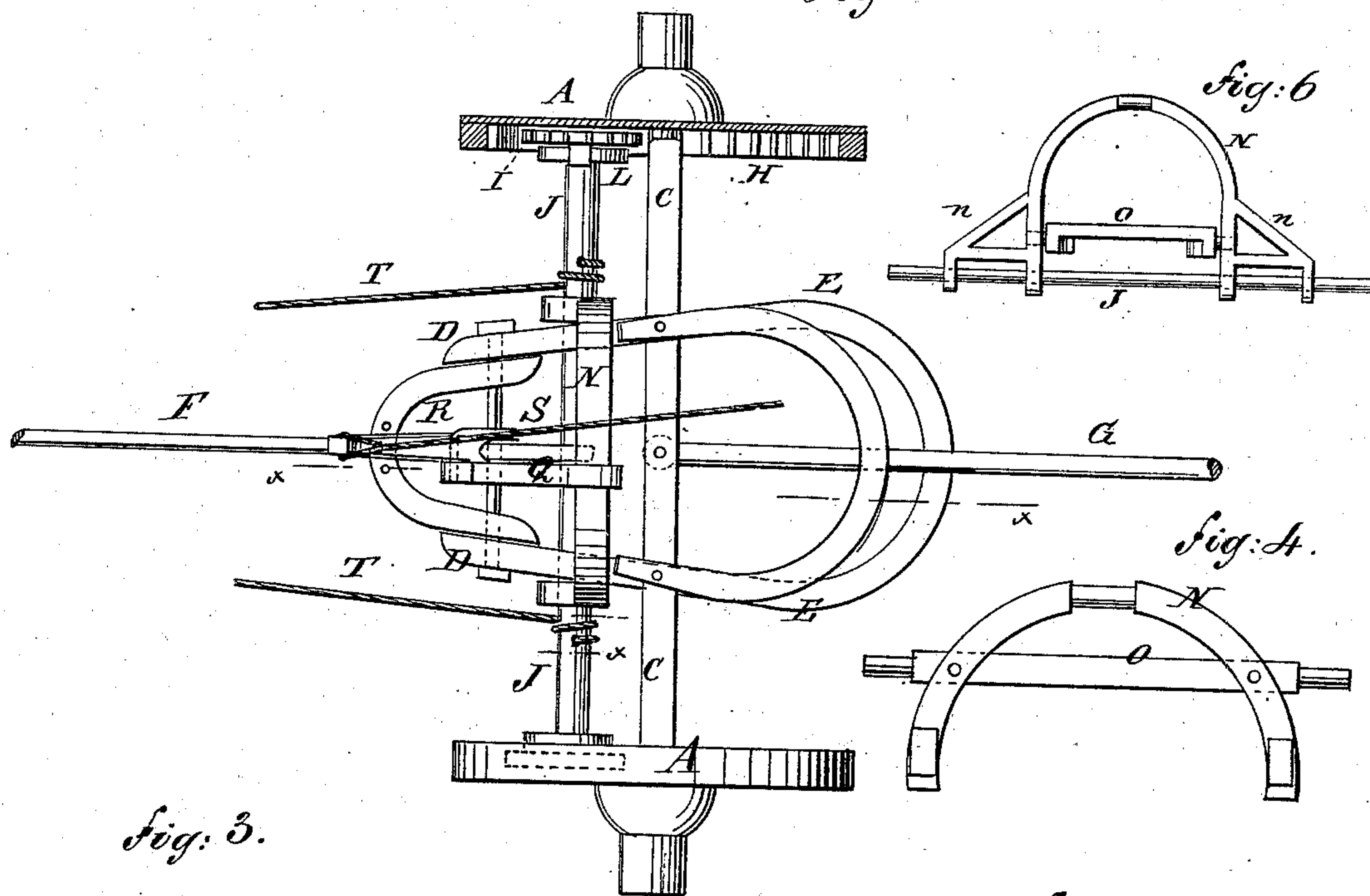


Fig: 6.

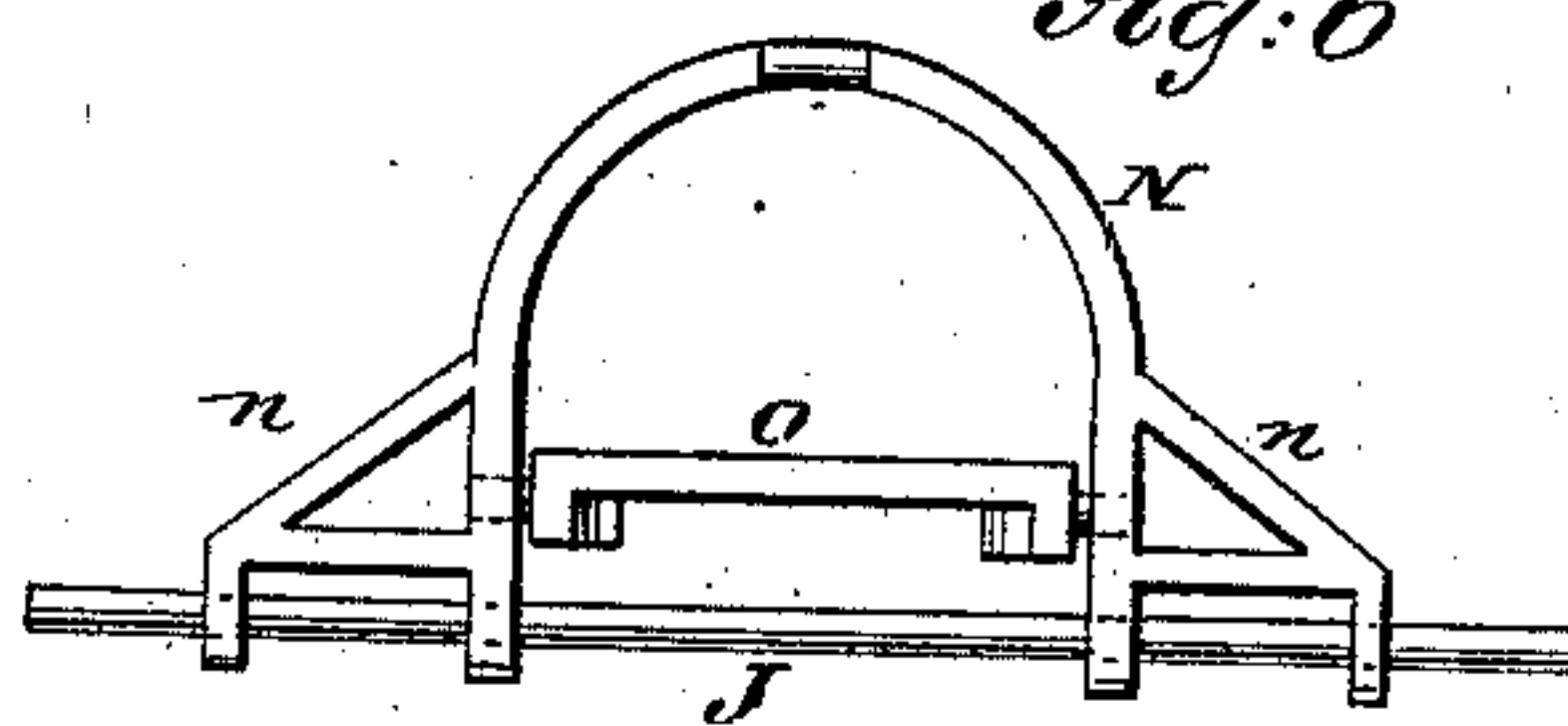


Fig: 4.

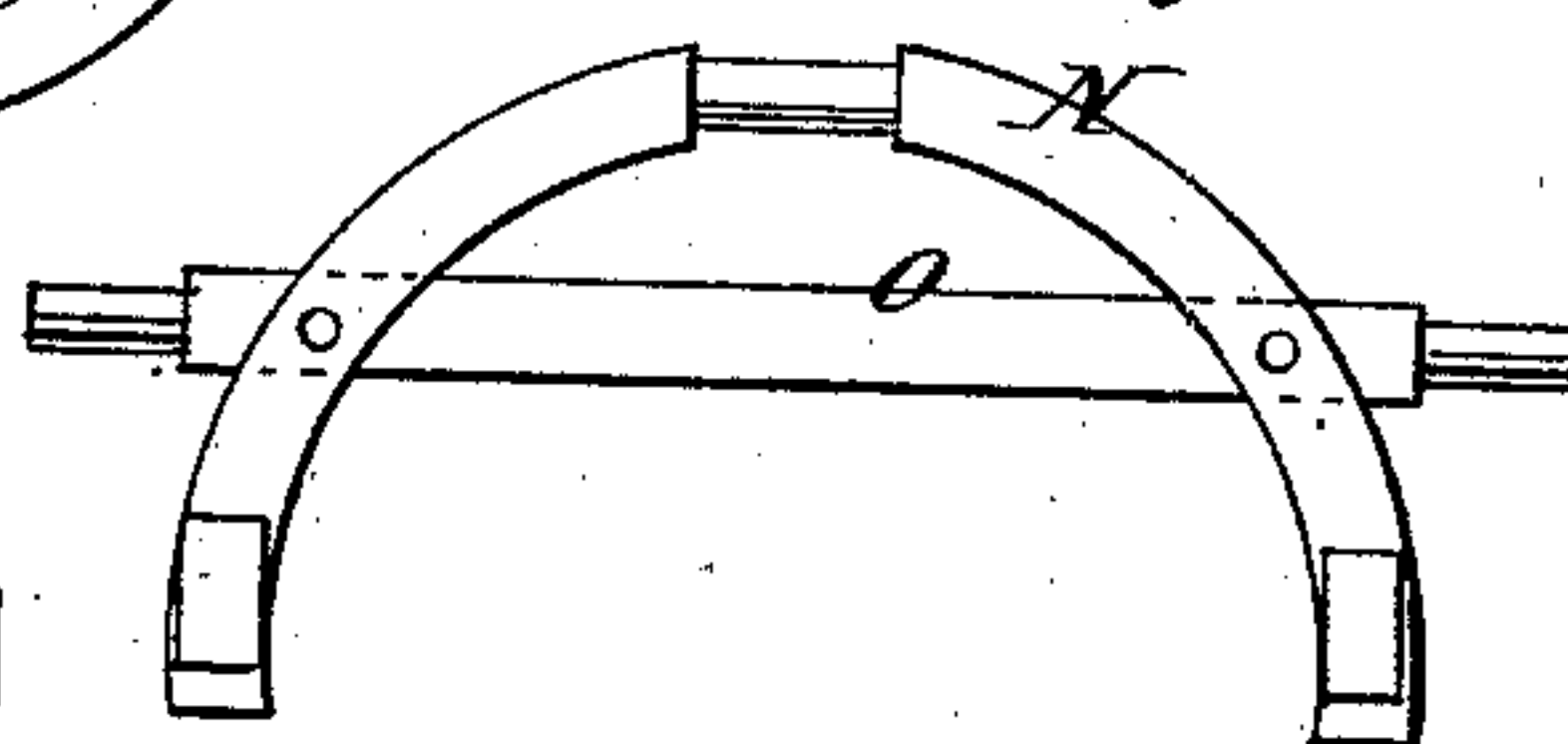


Fig: 3.

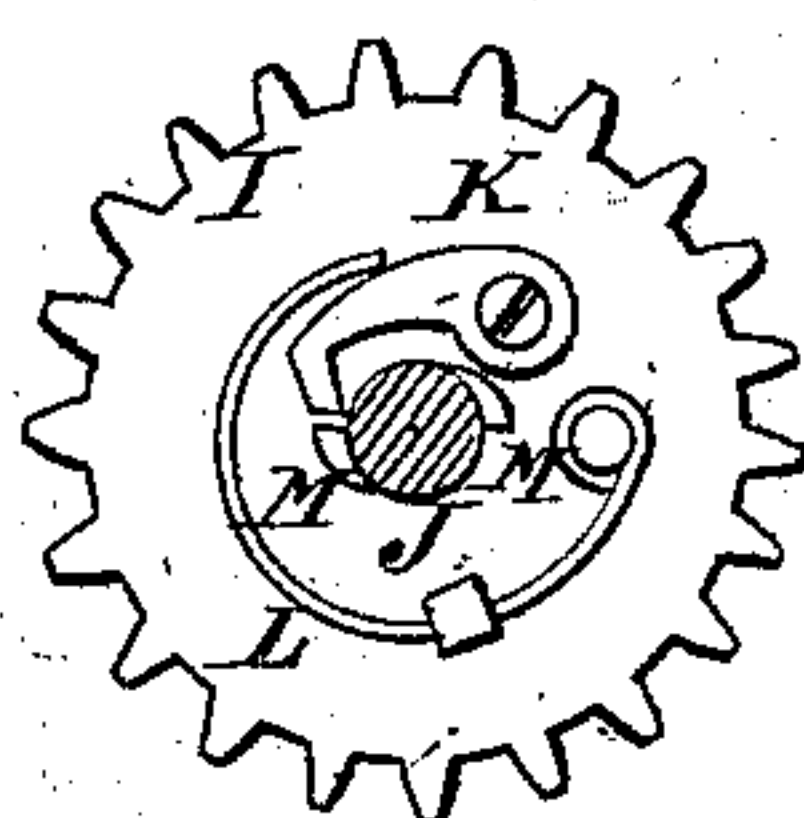


Fig: 2.

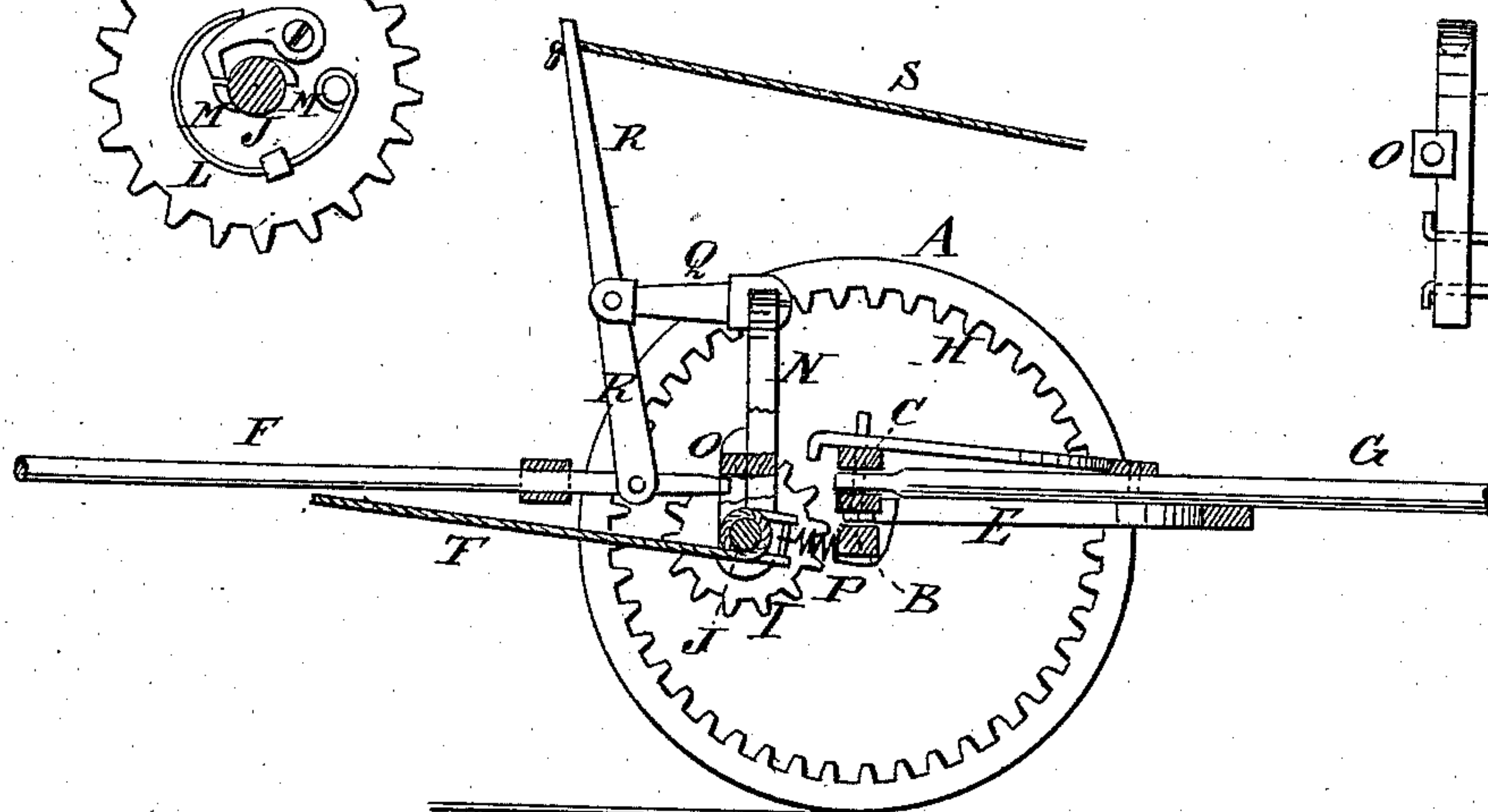
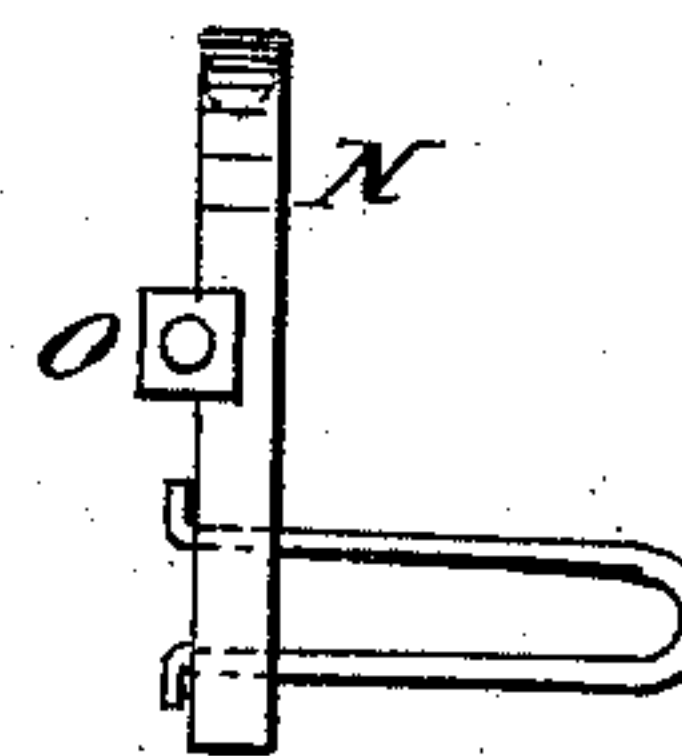


Fig: 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GEORGE W. BLAKE, OF PORT TOWNSEND, WASHINGTON TERRITORY.

HORSE-STOPPING ATTACHMENT FOR WAGONS.

SPECIFICATION forming part of Letters Patent No. 232,441, dated September 21, 1880.

Application filed April 3, 1880. (No model.)

To all whom it may concern:

Be it known that I, GEORGE WASHINGTON BLAKE, of Port Townsend, in the county of Jefferson and Washington Territory, have invented a new and useful Improvement in Horse-Stopping Attachments for Wagons, of which the following is a specification.

Figure 1 is a plan view of the improvement. Fig. 2 is a sectional side elevation taken through the line *x x x*, Fig. 1. Fig. 3 is a side elevation of one of the small gear-wheels. Figs. 4 and 5 show a modification of the bracket. Fig. 6 shows another modification of the bracket.

The object of this invention is to furnish horse-stopping attachments for wagons so constructed that the momentum of the wagon may be utilized for stopping the horses.

The invention consists in the combination, with the forward part of the running-gear of a wagon, of a mechanism consisting of gear-wheels, shaft, U-bar, pivoting-bar, springs, connecting-rod, lever, and cords, as will be hereinafter fully described.

Similar letters of reference indicate corresponding parts.

A represents the forward wheels of a wagon; B is the forward axle; C is the sand-board; D are the forward hounds; E are the rear hounds; F is the tongue, and G is the reach, all of which parts are constructed in the usual manner.

To the hubs of the wheels A are attached internally-toothed gear-wheels H, into the teeth of which mesh the teeth of the small gear-wheels I.

The gear-wheels I are placed upon the ends of a shaft, J, and are connected with it by pawls K, pivoted to the gear-wheels I, and held down by springs L to engage with ratchet-teeth M, formed upon the said shaft J, to prevent the mechanism from being locked or broken when the team turns to the right or left and one wheel turns forward and the other backward.

The shaft J works in bearings in the ends of the U-bar or bracket N, the arms of which are pivoted to the ends of a short cross-bar, O, attached to the forward hounds, D, so that the gear-wheels I may be thrown into gear with the gear-wheels H by moving the bend

of the U-bar or bracket N to the rearward. The shaft J is drawn back to throw the gear-wheels I out of gear with the gear-wheels H by springs P, of rubber or other suitable material, attached at one end to the end of bracket N and at the other end to the rear hounds, E.

To the bend of the U-bar N is pivoted the rear end of a short connecting-rod, Q, the forward end of which is pivoted to the lever R. The lower end of the lever R is pivoted to the rear part of the tongue F, to the forward hounds, D, or to the bolt that connects the said tongue and hounds.

To the upper end of the lever R is attached the end of a cord, S, which extends back to the wagon, and is secured in such a position that it may be conveniently reached and operated by the driver to throw the gear-wheels I H into gear.

To the shaft J are attached the ends of cords T, which pass forward, and are designed to be connected with the bits of the horse and also passed around the nose of the horse.

With this construction, should the horses become frightened or otherwise unmanageable, the driver pulls upon the cord S, which throws the gear-wheels I into gear with the gear-wheels H, revolves the shaft J, and winds up the cords T, drawing back the horses' heads until they are stopped. As the cord S is released the springs P draw back the shaft J, throwing the gear-wheels I H out of gear.

In the modification shown in Fig. 6 braces *n* are formed upon the outer sides of the arms of the bracket N, in the ends of which revolve the end parts of the shaft J, so that the said shaft J may be firmly supported against lateral strain.

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

1. The combination, with the running-gear of a wagon, of a mechanism consisting of the gear-wheels H I, the shaft J, the U-bar N, the pivoting-bar O, the springs P, the connecting-bar Q, the lever R, and the cords S T, substantially as herein shown and described, whereby the momentum of the wagon can be utilized for stopping the horses, as set forth.

2. The combination, with the shaft J, that

carries the gear-wheels I, of the U-bar N and the pivoted cross-bar O, substantially as herein shown and described, whereby the gear-wheels I can be thrown into gear with the
5 gear-wheels H, as set forth.

3. The combination, with the U-bar N and the pivoted cross-bar O, that carry the gear-wheel shaft J, of the connecting-bar Q and

the lever R, substantially as herein shown and described, whereby the U-bar N can be made 10 to throw the gear-wheels I H into gear, as set forth.

GEORGE WASHINGTON BLAKE.

Witnesses:

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