W. O. WILLIAMS.

WAGON-BRAKE.

No. 187,691. Patented Feb. 20, 1877.

Fig. 1.

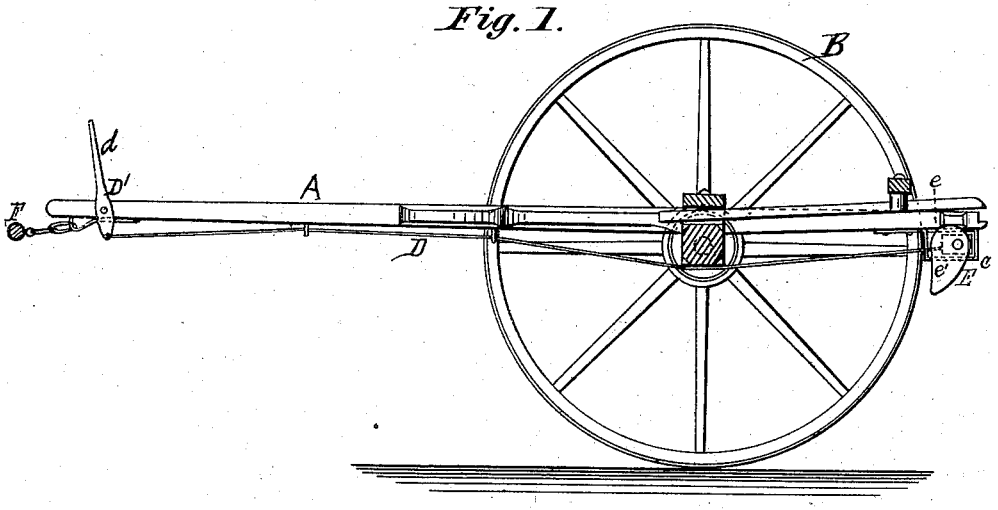
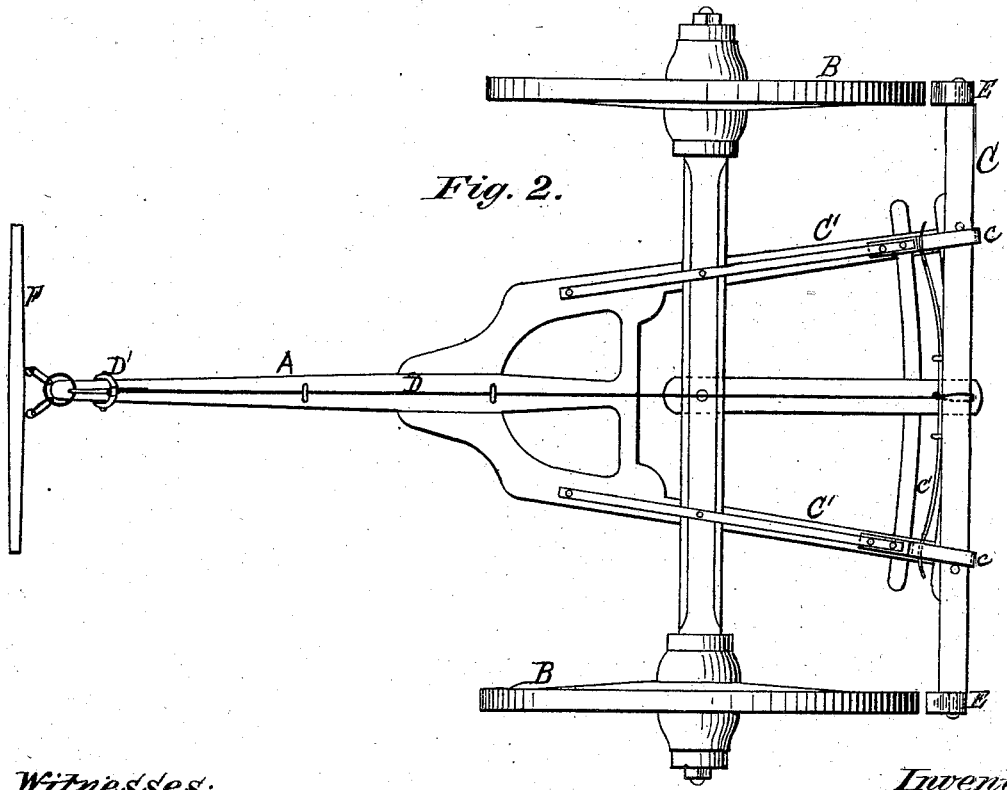


Fig. 2.



Witnesses:
Edwin James.
John K. Jones

Inventor:
William Oscar Williams.
per J. E. H. Holmead.
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM O. WILLIAMS, OF PIERREPONT MANOR, NEW YORK.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **187,691**, dated February 20, 1877; application filed January 21, 1876.

To all whom it may concern:

Be it known that I, WILLIAM OSCAR WILLIAMS, of Pierrepont Manor, in the county of Jefferson and State of New York, have invented certain Improvements in Wagon-Brakes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a longitudinal sectional view. Fig. 2 is a bottom-plan view.

My invention relates to that series of wagon-brakes which are automatic in operation; and consists in eccentrically pivoting to the brake-bar shoes so constructed that the top of the same shall be rounded, while the face next the wheel shall conform to the contour of the wheel, and in attaching the brake-bar, by means of a rod passing under the tongue, to a lever, which has its fulcrum in and extends above the tongue.

The construction and operation of my invention are as follows:

A is the wagon-tongue, and B B are the wheels, all constructed in the usual manner. C is the brake-bar, which rests and moves in bearings *c c*, attached to the under surface of the elongation C′ C′ of the hounds. D is a rod, which has one end fastened to the brake-bar C, and extends under the axle and tongue, the other end being attached to a lever, D′, fulcrumed in the forward end of the tongue A. The handle *d* of this lever extends above the tongue a sufficient distance to enable the neck-yoke to press against it when pushed back. To the ends of the brake-bar C are eccentrically pivoted the cam-shaped brake-shoes E E, which are made of any suitable material. These shoes are of a peculiar form and construction. The upper portion *e* of each shoe is rounded, while the face *e′* is curved, to conform to the contour of the wheel, as clearly shown in Fig. 1, so that when the brake-bar is pulled forward through the rod D and lever D′, the point *e* of the shoes first comes in contact with the wheel, and the wheel, still revolving, causes the shoes partly to revolve, until the face *e′* of the shoes bites against the wheels, which securely locks them.

Should the wheels be turned in the opposite direction, as in backing, the bite of the point *e* is so slight that it will interfere but very little with the free action of the wheel.

c′ is a spring, attached at its center to the brake-bar C, and having its ends resting against the side of the bearings *c c*. The tension of this spring is constantly exerted to keep the brake-bar away from the wheels. F is the neck-yoke, which is secured to the tongue by means of a ring and links.

When it is desired to brake the wagon the horses pull back the neck-yoke, which, in turn, presses against the lever D′, thereby causing the brake-bar C, through the rod D, to be drawn toward the wheels, and the brake-shoes E E to lock them.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

A wagon-brake consisting of the lever D′, rod D, spring *c′*, brake-bar C, having shoes E E pivoted thereto, said shoes being cam-shaped, and so arranged that when the brake is thrown on, the shoes shall first strike the wheels at their points *e e*, and then, through the revolution of wheel, be fully brought in contact therewith, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

W. OSCAR WILLIAMS.

Witnesses:

GEO. A. HUGGINS,

A. L. BAKER.