C. T. WARREN.

AUTOMATIC WAGON-BRAKE.

No. 186,776. Patented Jan. 30, 1877.

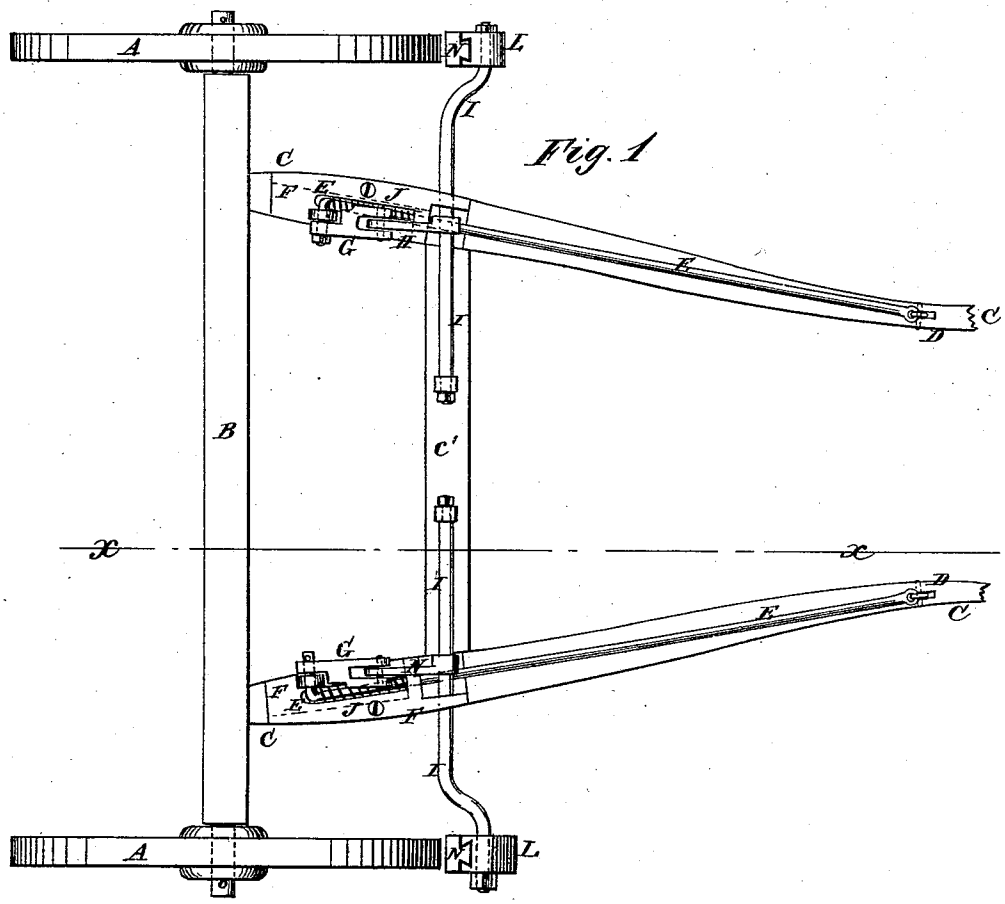


Fig. 1

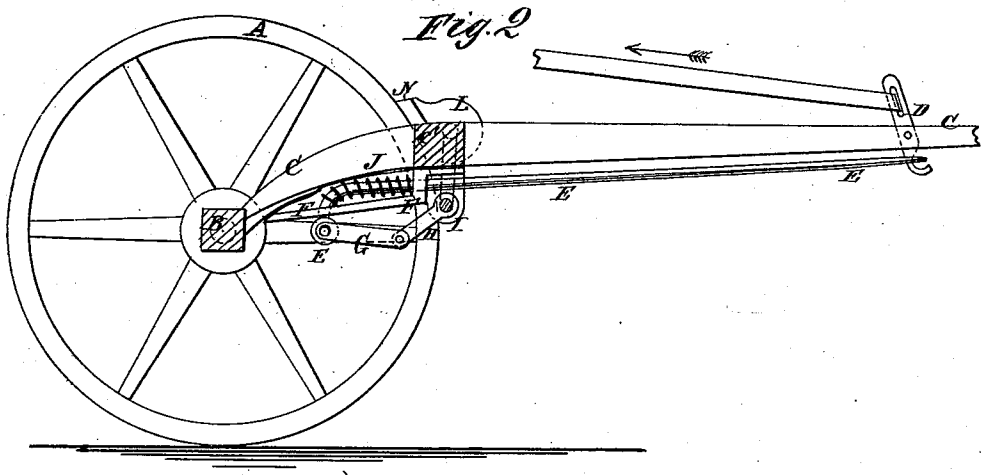


Fig. 2

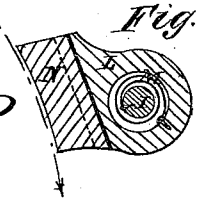


Fig. 3

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UNITED STATES PATENT OFFICE.

CHARLES T. WARREN, OF ATLANTA, GEORGIA.

IMPROVEMENT IN AUTOMATIC WAGON-BRAKES.

Specification forming part of Letters Patent No. **186,776**, dated January 30, 1877; application filed October 14, 1876.

To all whom it may concern:

Be it known that I, CHARLES T. WARREN, of Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Improvement in Automatic Wagon-Brake, of which the following is a specification:

Figure 1 is an under-side view of the fore wheels, the fore axle, and the shafts of a buggy to which my improvement has been applied. Fig. 2 is a vertical longitudinal section of the same, taken through the line *x x*, Fig. 1. Fig. 3 is a sectional view of the brake-shoe.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved brake for vehicles, which shall be so constructed that it will be applied to the wheels by the operation of holding back, and which, at the same time, will allow the vehicle to be backed without applying the brake, and which shall be simple in construction, convenient in use, reliable in operation, and not liable to get out of order.

The invention will first be described in connection with the drawing, and then pointed out in the claims.

A represents the fore wheels. B represents the fore axle, and C represents the shafts of a buggy. D is a short lever, which passes through and is pivoted to the forward part of the shaft C, and to the upper end of which the holdback or breeching strap is to be attached. To the lower end of the lever D is attached the forward end of a rod, E, the rear end of which passes into a guard block or box, F, attached to the lower side of the shaft C, in the rear of its cross-bar *c'*. The rear end of the rod E is curved downward, and to it is pivoted the rear end of a short connecting-rod, G, the forward end of which is pivoted to the end of a rearwardly-projecting crank-arm, H, rigidly attached to or formed upon the rod I.

The combined length of the connecting-rod G and crank-arm H is a little greater than the distance between the rod I and the rear end of the rod E, when the said rod E is pushed back to its limit, so that the forward movement of the rod E may always turn the rod I.

The rod E is held back by a spring, J, coiled around its rear part. The forward end of the spring J rests against a shoulder of the block F, and its rear end is attached to, or rests against, the rear end of the said rod E.

The rod I works in bearings attached to the cross-bar *c'* of the shafts C, and upon its outer end is formed a crank, upon which is placed the brake-shoe. The brake-shoe may be made in the form of a block, L, as shown in Fig. 3, which is placed upon the crank end of the rod I, and connected with it by a spring, M, so arranged as to hold the brake-shoe back to its proper position to the wheel A, in readiness to be applied by the crank-shaft when required to be used, and which will allow the said brake-shoe to be turned back by the friction of the wheel A when rolling backward.

The brake-shoe L may be supplied with a detachable face-block, N, of any suitable material. The brake may be applied to a tongue or pole in substantially the same way as to shafts.

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

1. A brake-shoe holder, L, connected with the crank end of a rock-shaft, I, by the internal coil-spring M, arranged as and for the purpose set forth.

2. The combination of the holdback-lever D, rod E connected therewith at the front end, and bent, as shown, at the rear end, the connecting-rod G and the shaft I, having crank H, with the brake-shoes attached to the cranked ends of shaft I, as and for the purpose specified.

CHARLES T. WARREN.

Witnesses:

J. M. CLAY,

CHARLES THORN.