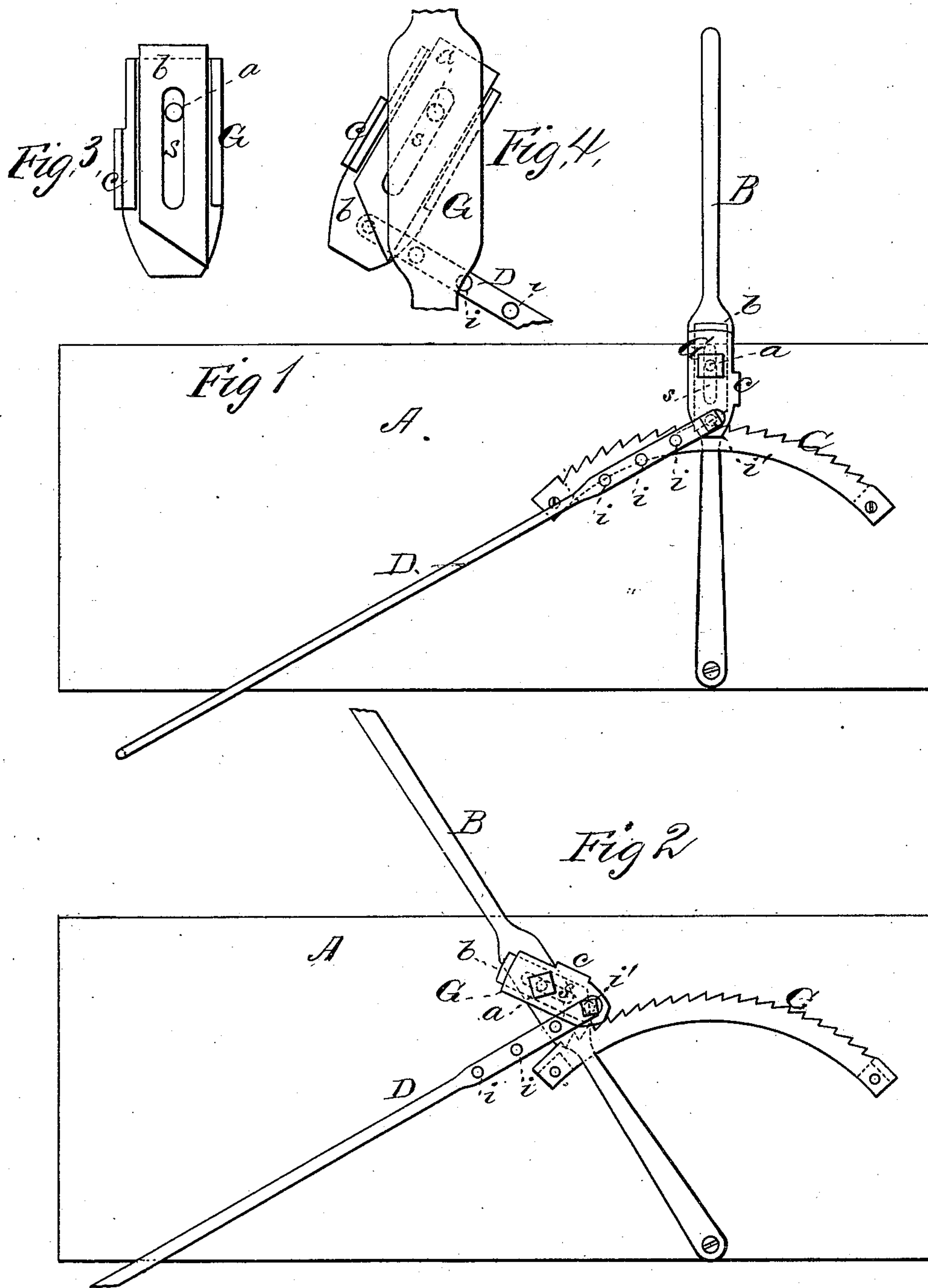


T. C. LAWRENCE.
Wagon-Brake Lever.

No. 202,557.

Patented April 16, 1878.



WITNESSES
Villette Anderson
F. J. Chase

INVENTOR
Theodore C. Lawrence,
by E. W. Anderson
ATTORNEY

UNITED STATES PATENT OFFICE.

THEODORE C. LAWRENCE, OF LADOGA, ASSIGNOR OF ONE-HALF HIS RIGHT
TO JAMES T. MACK, OF CRAWFORDSVILLE, INDIANA.

IMPROVEMENT IN WAGON-BRAKE LEVERS.

Specification forming part of Letters Patent No. 202,557, dated April 16, 1878; application filed
November 24, 1877.

To all whom it may concern:

Be it known that I, THEODORE C. LAWRENCE, of Ladoga, in the county of Montgomery and State of Indiana, have invented a new and valuable Improvement in Wagon-Brakes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of this invention in the position of brakes applied. Fig. 2 is a similar view with the brakes off. Figs. 3 and 4 represent details of the parts.

This invention has relation to improvements in wagon-brakes; and the nature of the invention consists in the combination with a curved ratchet applied to the wagon-body, and a brake-lever pivoted below said ratchet to the body, of a swinging pawl-box pivoted to said lever, and carrying an endwise-movable pawl, and a connecting-rod pivoted to the pawl-box and secured to the shoe-supporter or shoe, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates the side of a wagon-body; B, the brake-lever, pivoted to the same below the curved ratchet C; and D, the connecting-rod, the rear end of which is secured in the usual manner to the shoe-bar, suspended across the wagon-body, under the same and behind the front wheels, and carrying the brake-shoes. The front of this connecting-rod has spaced perforations *i*, by means of which and a screw or other bolt, *i'*, it is adjustably connected to a vertically-vibrating pawl-box, G, secured, by means of a pivot, *a*, to the brake-lever B about the curved ratchet C. This box carries a longitudinally-slotted pawl, *b*, that has free endwise movement within certain limits in the said box, and is prevented from escaping therefrom by means of the said pivot *a*, that passes through the slot *s* in the pawl. This pawl gravitates naturally into engagement with the ratchet.

The pawl-box has upon its front vertical edge a spur, *c*, projecting inward toward the wagon side, and bearing, when the brakes are applied, against the corresponding edge of the brake-lever. This spur serves as a stop, and prevents the box from swinging to the rear beyond the brake-lever.

The brakes are applied by throwing the lever B to the front, during which operation the beveled end of the pawl passes freely over the ratchet, and only bites thereon when the necessary pressure has been applied to the wheels and the lever is released.

The brakes are released by a simple backward movement of the lever, the effect of which is to throw the pawl-box into the position shown in Fig. 2, thereby raising the pawl free from the ratchet, and, of course, releasing the brakes.

The brake-lever works in a longitudinal slot of the ratchet, and is thereby guided in its movements.

I am aware that an oscillating pawl operated by means of a spring to engage the curved ratchet of the brake has heretofore been employed, and this I do not claim.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the curved ratchet C and the brake-lever B, of the pawl-box G, having reciprocating gravitating pawl *b*, and connecting-rod D, substantially as specified.

2. The combination, with the curved ratchet C and the brake-lever B, of the swinging pawl-box G, having stop *c* and gravitating reciprocating pawl *b*, and a connecting-rod adjustably pivoted to said box, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THEODORE C. LAWRENCE.

Witnesses:

THOS. B. BELL,
HENRY B. HULETT,