



# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN BRAKE-LEVERS.

Specification forming part of Letters Patent No. 190,458, dated May 8, 1877; application filed December 18, 1876.

*To all whom it may concern:*

Be it known that I, ELISHA H. WHEELER, of Canton, Lewis county, Missouri, have invented certain new and useful Improvements in Wagon-Brakes; and I declare the following to be a full and exact description thereof, reference being had to the annexed drawings filed herewith, of which—

Figure 1 is a perspective of the wagon-brake. Fig. 2 is a sectional view, showing the segments, lever, spring, shuttle and flanges. Fig. 3 is a top view of the shuttle. Fig. 4 is a section of the lever, showing the teeth.

The same letters and figures refer to like parts in the different views.

The nature of my invention consists in the construction of a double-segment single-lever brake, provided with ratchet-teeth upon the inside surface of the outer segment, and in the construction of a shuttle carried by the lever between the two segments, so formed as to permit the teeth on the lever to engage the teeth of the segment on the forward movement of the lever, and to prevent them from coming in contact with the teeth of the segment on the return movement of the lever.

That others may make and use my invention, I will now more fully describe its construction and operation.

I make a segment, B, provided with collars E E and arm I I, upon which is formed the hub O, which is reduced, as seen at O', forming a shoulder, upon which is pivoted lever D. I then make segment A with ratchet-teeth upon its inner surface, which teeth are marked 3 3, and are formed on the flange 13. Upon the lower edges of segments A and B I make flanges 11 and 12, and upon the upper edge of segment B I make another flange. I then construct a shuttle, F, which conforms to the circle of the segments A and B, and is provided with a shoulder, 5, upon its inner side, at the rear end of the shuttle. This shuttle is placed between segments A and B, and rests on flanges 11 and 12, as seen in Fig. 2.

I then make a lever, D, with a hole at O'', to fit onto shoulder O', and provided with a lug, H, to which is attached a connecting-rod. Upon lever D is formed teeth 4 4, made to mate teeth 3 3 of segment A, and upon the upper part of lever D is riveted a spring, 8, as seen in Fig. 2. X X shows a washer, resting on shoulder O', to secure the lever in place.

The several parts being made as described, the shuttle being placed between the segments, the lever is passed through the opening in the shuttle, and is secured in place on hub O. The whole is then secured to the wagon-body by bolts passing through the segments at E E. The connecting-rod is then attached to lever D at lug H, and the lever D, being moved forward, carries with it the shuttle F by coming in contact with F<sup>2</sup>. When the lever arrives at the teeth 3 3 on segment A, the spring 8 forces the lever against segment A, and causes the teeth of the lever to engage the teeth of the segment.

When it is desired to release the brake, the operator, by a side movement, compresses spring 8, disengages teeth 4 4 from teeth 3 3, the lever falls into recess 2 of the shuttle and rests on shoulder 5, which prevents the teeth of the lever and segment coming in contact during the return movement.

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

1. Segment A, with its flanges 12 and 13, and ratchet-teeth 3 3 upon the inner side surface of the flange 13 at its forward end, in combination with segment B with its flanges 11 11.

2. The shuttle F, in combination with segments A and B, and lever D.

3. The spring 8, in combination with segments A and B, lever D, and shuttle F.

ELISHA H. WHEELER.

Witnesses:

J. M. JAMES,  
J. E. COOKSEY.