S. J. McDONALD.

WAGON BRAKE LEVERS.

No. 174,695. Patented March 14, 1876.

Fig. 1.

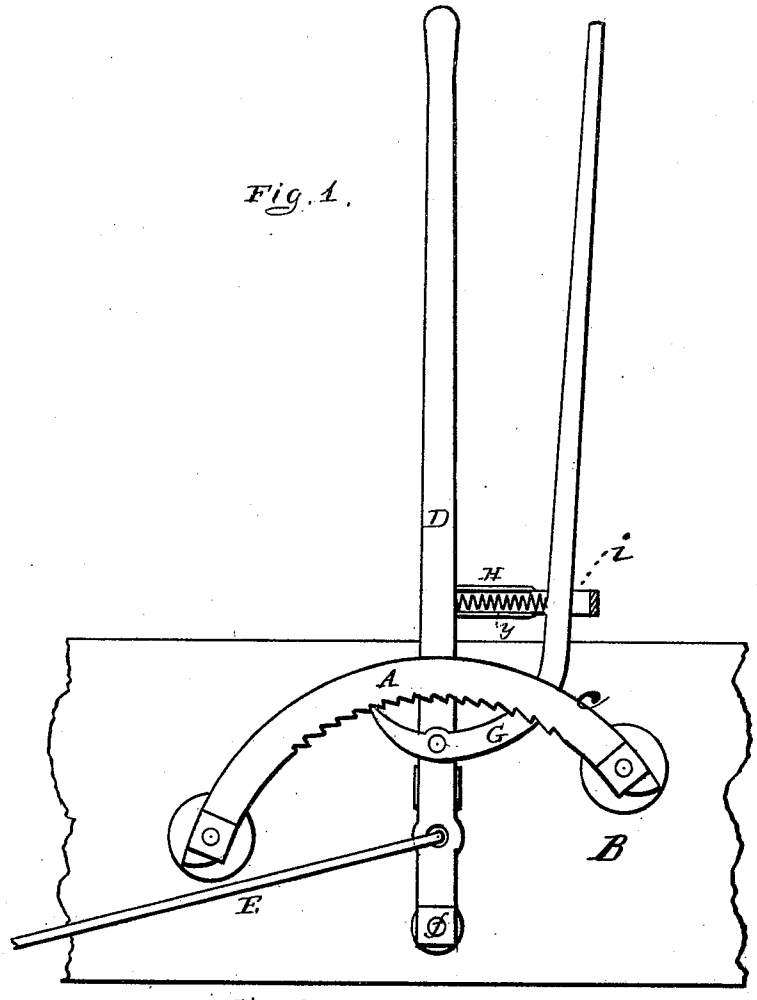
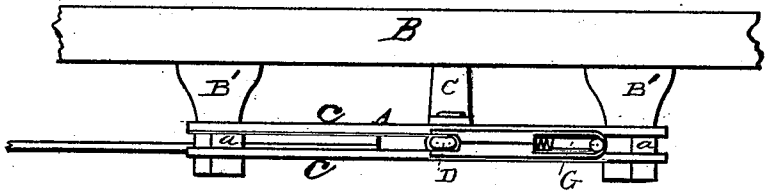



Fig. 2.




WITNESSES

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# UNITED STATES PATENT OFFICE.

SAMUEL J. McDONALD, OF GALLATIN, MISSOURI.

## IMPROVEMENT IN WAGON-BRAKE LEVERS.

Specification forming part of Letters Patent No. **174,695**, dated March 14, 1876; application filed May 15, 1875.

*To all whom it may concern:*

Be it known that I, SAMUEL J. McDONALD, of Gallatin, in the county of Daviess and State of Missouri, have invented a new and valuable Improvement in Wagon-Locks; 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 plan view of my device, and Fig. 2 is a top view of the same.

My invention relates to wagon-brakes; and it consists in the novel construction and arrangement of a locking-lever and shielded spring, operating in conjunction with a serrated disk, as hereinafter described.

A of the drawings represents an arc or disk consisting of two curved bars separated from each other by washers *a*, as shown on Fig. 2, and B represents the side of the wagon to which said disk is attached. This disk is connected with the wagon-body by means of bolts which pass through its sections together with the washer and the chains B′ B′. The bolts have a head on one of their ends and a nut and screw-thread on the other to provide for easy removal in case of breakage or other accident requiring it. Each section of the arc is serrated on its lower side.

C represents a plate bolted to the side of the wagon-body. It is arranged about midway between the chairs B, and has its upper end turned at right angles to the plane of the disk, and thereby forming a central support for the same.

The letter D represents my working-lever pivoted at *f*, and working in the space formed between the sections of the arc. E represents the brake-rod united to the lever D at its front end, and adapted for connection with any suitable brake at its rear. G represents a dog, having a curved and pointed lower end and a long handle, as represented on Fig. 1. This dog is pivoted to the lever D, as shown, and its extreme lower point is adapted for engagement with the serrations of the ark A. H represents a tubular shield attached to the working-lever, and at right angles therewith. Within this shield I arrange the coiled spring *y* in such manner that while one end rests against the lever the other presses against the handle of the dog, as shown on Fig. 1. To provide for the movements of the dog-handle, and to afford it support and guidance above the arc, so that it will not be readily bent outward or inward from the wagon-body, and thus be put out of order, I cut away the end of this shield so as to form it into a staple or bifurcation, *i*, between the ends of which and the tube proper said handle may be operated at will.

Whenever I desire to apply the brake to the wagon-wheel I press the working-lever forward. The dog will then engage with the teeth of the arc and thereby hold the brake in the position required, the spring serving to keep the dog at duty. To disengage the brake I press the handle of the dog toward the working-lever.

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

1. In combination with the arc A, composed of two spaced sections, *c*, serrated upon their under sides, the lever D and a curved pawl or dog, G, pivoted thereto, below the arc, both extended upward independently of each other between the said sections, and guided in their movements thereby, substantially as specified.

2. In combination with the concave serrated arc A, an operating lever, D, a connecting-rod, E, and a pawl, G, for holding the brakes down, the spring *y*, inclosed in an independent bifurcated shield, H, secured to the said lever, in a horizontal position between it and the pawl, substantially as set forth.

3. In combination with the spaced sections *c* of arc A brake-lever D, and pawl G, extending up between the said sections, the shield H above the arc, provided with bifurcation *i* in its free end for the reception and support of the dog-handle, substantially as set forth.

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

SAMUEL J. McDONALD.

Attest:

JAMES T. DUNN,
WM. M. RUSH, Jr.