

J. J. HARTMAN.

Wagon and Carriage-Brakes.

No. 133,643.

Patented Dec. 3, 1872.

Fig. 1.

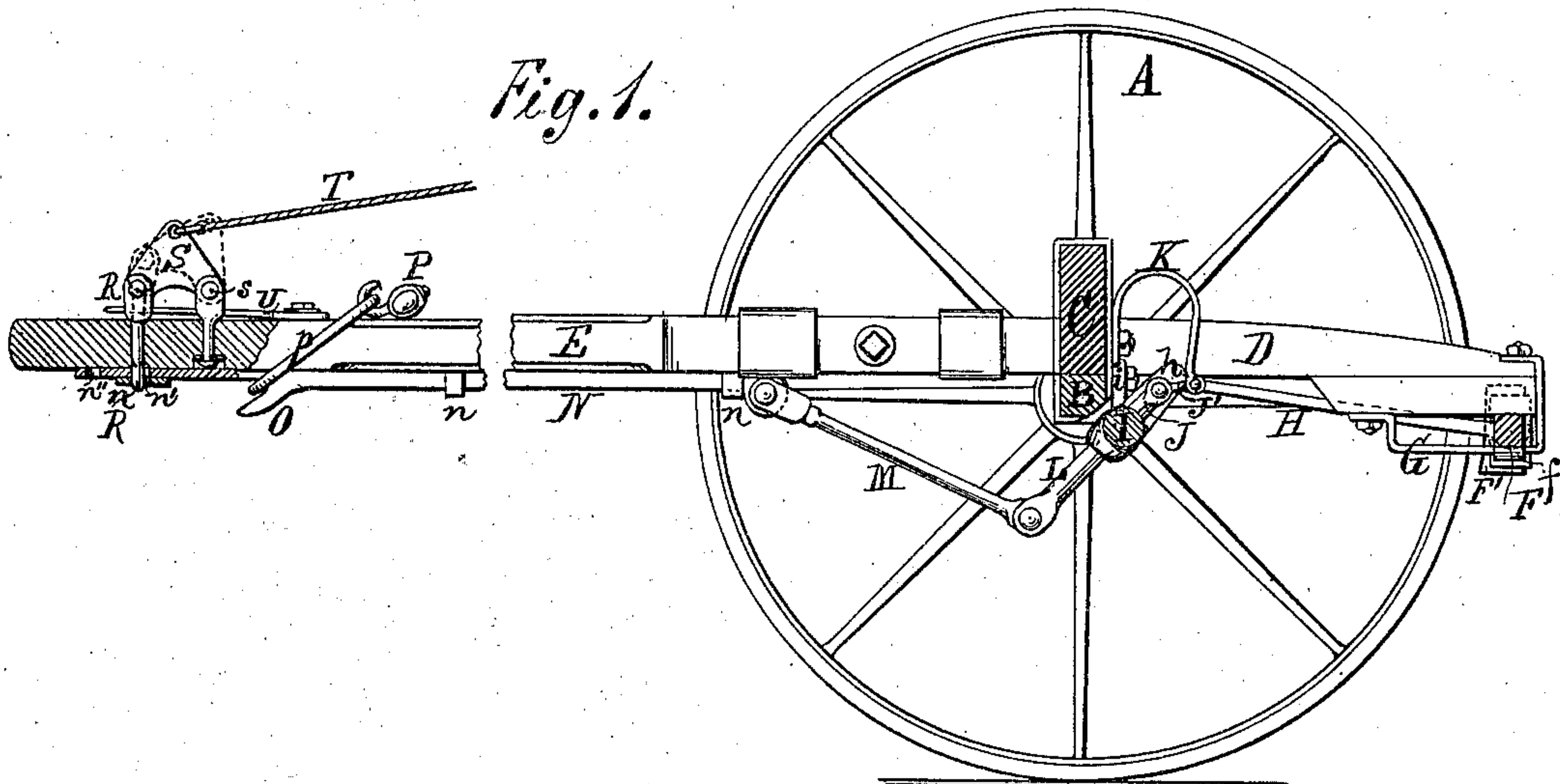
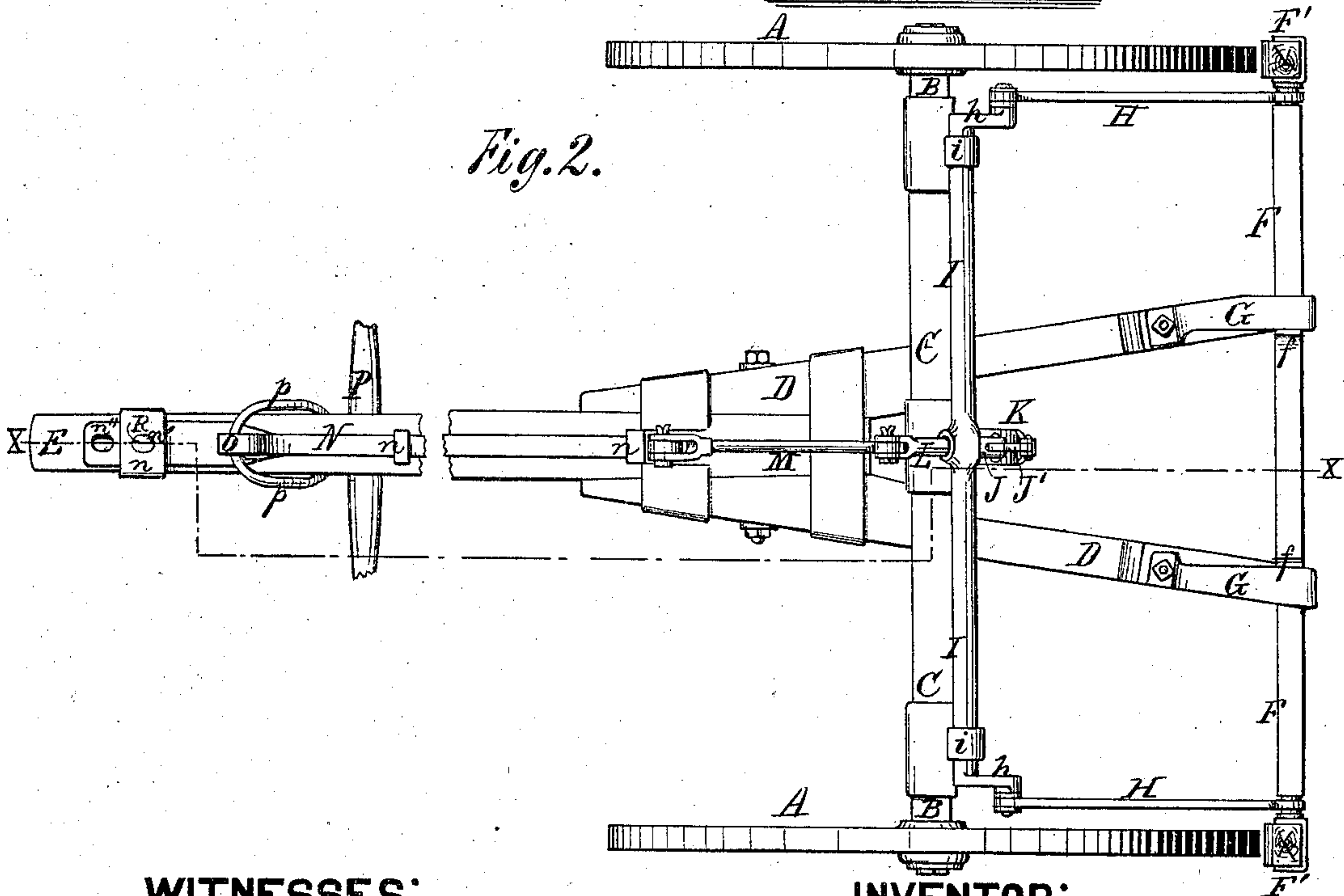


Fig. 2.



WITNESSES:

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JOHN J. HARTMAN, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN WAGON AND CARRIAGE BRAKES.

Specification forming part of Letters Patent No. 133,643, dated December 3, 1872.

To all whom it may concern:

Be it known that I, JOHN J. HARTMAN, of the city and county of St. Louis and State of Missouri, have invented certain Improvements in Wagon and Carriage Brakes, of which the following is a specification:

My invention relates more especially to an arrangement by which the driver is enabled to cause the holding back of the horses to apply the brake, the brake mechanism being otherwise locked so that the back pressure of the neck-yoke has no action upon it. The brake is locked by a spring-bolt connected to a bell-crank, and that is withdrawn by a cord extending to the driver to unlock the brake and allow the back pressure of the horses to put it in action. My invention also relates to the general arrangement and combination of parts forming the brake apparatus.

Figure 1 is a longitudinal section at the line *x x*. Fig. 2 is a bottom view of part of the wagon with my brake attached.

The brake in both figures is shown locked with shoes not in contact with the wheels.

A are the fore wheels of a wagon; B, the axle; C, the bolster; D, the hounds; and E, the tongue. F is the brake-bar sliding in guides G attached to the hounds. *f* are lugs on the brake-bar to prevent play endwise. H are connecting-rods extending from the brake-bar to cranks *h* upon crank-shaft I secured to the axle by journal-staples *i*. J is an arm at the midlength of the crank-shaft I, connected by a link, J', to a spring, K, by which the brake-shoes F' are drawn back from the wheels when the pressure of the horses ceases. L is an arm extending from the shaft I opposite to that, J, and connected by a rod, M, to a sliding rod, N, beneath the tongue. The rod N slides endwise in staples *n*. O is a hold-back lug on the rod N to receive the back pressure of the horses on the neck-yoke P. *p* is the neck-yoke ring, that embraces the end of the tongue and bears against the lug O. The forward end of the rod N passes through a strap or staple, *n*, and has bolt-holes *n'* *n''* to receive

a bolt, R, which passes through the tongue, and whose upper end is hinged to a bell-crank block, S, fulcrumed at *s* to the top of the tongue. The block S has at its upper corner a cord, T, passing to the driver, and by drawing on this cord the bolt R is raised and drawn from the hole *n'* or *n''*. U is a spring, by which the bolt R is forced down when released from the action of the cord.

The operation is as follows: Ordinarily, the brake is in the position shown in the figures, and is held in that position by the bolt R occupying the hole *n'*, so that the wagon may be backed without the back pressure on the rod N putting the brakes in operation. When the driver wishes to apply the brakes he draws back the cord U and so draws up the bolt from the hole *n'* and the back pressure of the horses forces back the rod N, and draws forward the brake-bar so that the shoes are forced against the wheels. When in this position the spring T acts on the bolt R and forces it down into the hole *n''* and holds the parts in the position to which they had been forced by the back pressure—viz., with the brake in action. When the driver would release the wheels from the brake he again draws the cord U and the bolt is drawn from the hole *n''*, and as the back pressure of the horses ceases the spring K forces the brake-shoes from the wheels and the bolt R again drops into hole *n'*.

I claim—

1. The sliding bar N provided with hold-back lug O, in combination with a spring-bolt, R, bell-crank S, and cord T, substantially as and for the purpose set forth.

2. The combination and arrangement of the brake-bar F, guides G, connecting-rods H, crank-shaft I, arms J L, spring K, rod M, sliding bar N, bolt R, bell-crank block S, cord T, and spring U, substantially as and for the purposes set forth.

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Witnesses:

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