J. B. NICHOLS.

Running-Gear for Wagons.

No. 208,627. Patented Oct. 1, 1878.

Fig. 1.

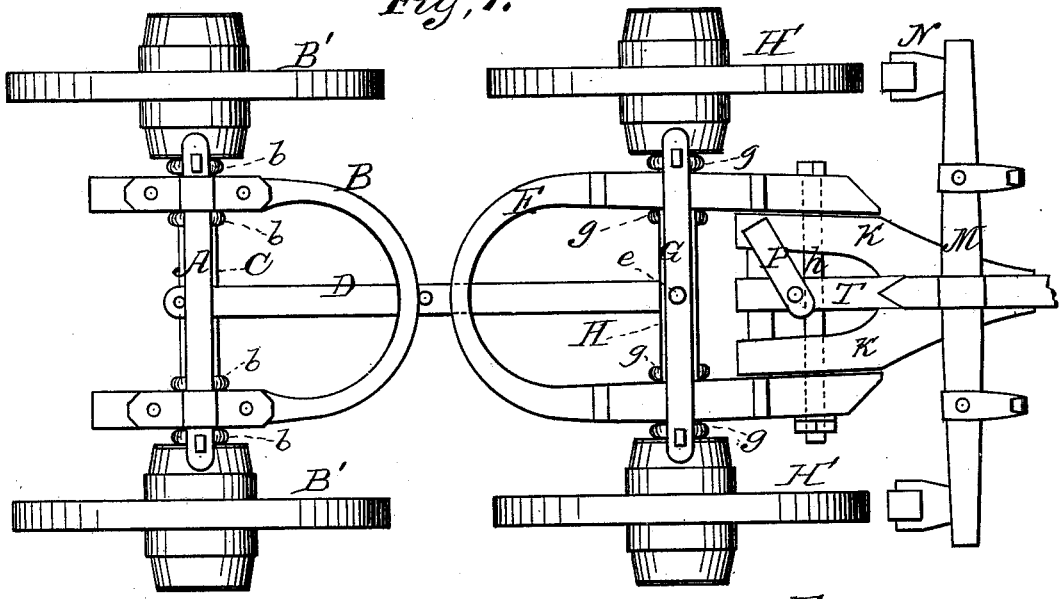


Fig. 2.

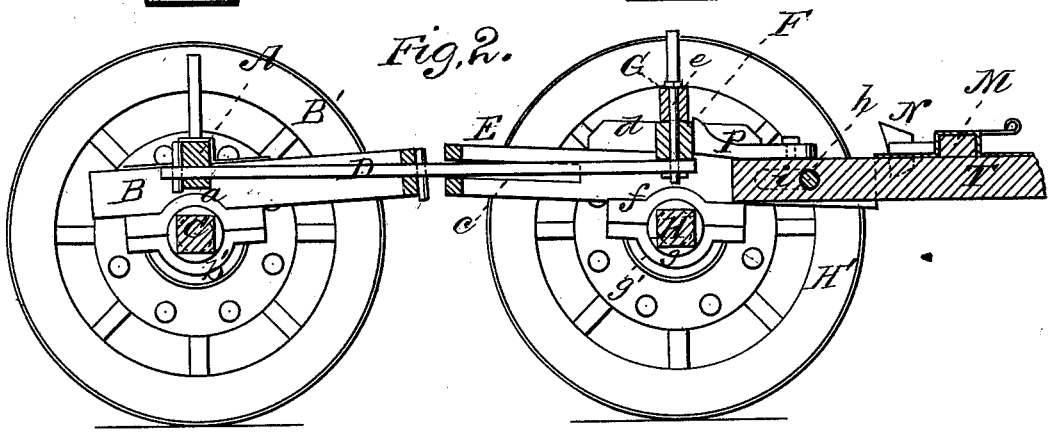


Fig. 3.

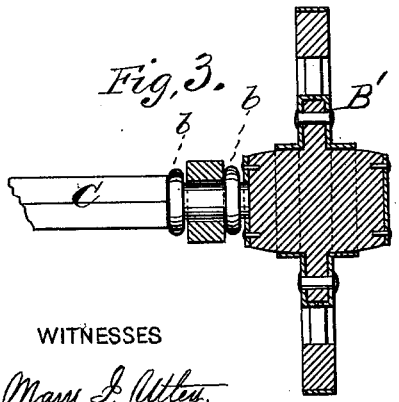
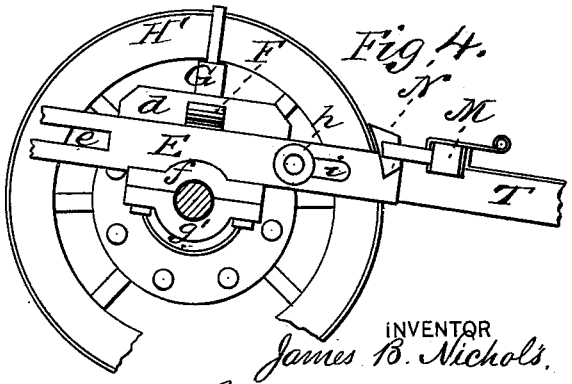


Fig. 4.



WITNESSES

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JAMES B. NICHOLS, OF EVENING SHADE, ARKANSAS.

IMPROVEMENT IN RUNNING-GEAR FOR WAGONS.

Specification forming part of Letters Patent No. **208,627**, dated October 1, 1878; application filed August 24, 1878.

To all whom it may concern:

Be it known that I, JAMES B. NICHOLS, of Evening Shade, in the county of Sharp and State of Arkansas, have invented a new and valuable Improvement in Wagons; 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 top view of my invention. Fig. 2 is a longitudinal section of the same, and Figs. 3 and 4 are details.

This invention has relation to improvements in wagons and in means for applying brakes to wagons automatically.

The nature of the invention consists, mainly, in combining with the fore wheels of a vehicle an endwise-movable tongue, a double-tree, carrying on its ends the brake-shoes, and a rotary stop, which, being set against the bolster-support, holds the shoes off from the periphery of the wheels, and, being set off therefrom, permits the tongue to yield rearwardly in the act of descending a hill and jam the said shoes against the wheels, as will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates the rear bolster of my improved vehicle, to the under side of which are rigidly secured the curved rear hounds, B. These latter have recessed into their under sides bearings *a*, in which are journaled those portions of a metallic axle, C, included between the collars *b*, that prevent the said axle from playing endwise. The shaft C is prevented from escaping from the bearings *a* by means of the caps *b'*, and carries on each of its ends a rear transporting-wheel.

The reach D is secured to the rear bolster, A, and extends through the rear hounds a suitable distance. Its front end extends through a slot, *c*, in the rear curved end of the fore hounds, E, and is secured by a king-bolt to a transverse bolster-support, F. This latter is secured to the hounds E by means of the cleat-plates *d*, having under notches to receive the ends of the said support, and rigidly bolted to the said hounds. Upon the support is placed the fore bolster, G, confined thereto by the king-bolt *e*, extending through the bolster, the support, and reach. Upon the under side of the hounds E are rigidly secured the bearings *f*, in which the front shaft, H, having the restraining-collars *g*, is journaled, and it is maintained in said bearings by the caps *g'*. This shaft carries on its ends the rigidly-secured transporting-wheels H', and turns therewith.

The front spaced ends of the fore hounds have each a horizontal slot, *i*, formed in them, in which are engaged the ends of a bolt, *h*, extending through the tongue-hounds K and rear portion of the tongue, the said bolt being prevented from being displaced endwise by means of a head, or its equivalent, formed or secured upon each end.

The tongue T and tongue-hounds are rigidly braced to each other, and not only swing upon the bolt *h*, as is usual, but also play endwise between the fore hounds of the vehicle. Across the tongue is rigidly secured a double-tree M, the ends of which reach out to the periphery of the front wheels, and are provided each with a shoe, N. In descending inclines the animals in holding back naturally bear against the tongue, causing it to yield rearwardly and carry the shoes N against the front wheels, which, being prevented from turning, slide upon the roadway, and by the friction thus created prevent the vehicle from rapidly descending the incline. Should only one of the wheels be engaged by the shoe, as when the direction of the roadway is changed upon an incline, both wheels will still be locked, for the reason that the shaft turns and the wheels are rigidly secured to it, and that the locking of the shaft arrests both wheels when it is not desired to apply the brakes, as in descending slight inclines a rotating stop, P, pivoted near the rear end of the tongue, is turned until its free end abuts against the bolster-support F, thus arresting the backward movement of the said tongue, and consequently preventing the shoes from coming in contact with the wheels.

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

1. In a wagon-brake, the combination, with the slotted fore hounds, E, the tongue-hounds

K, and tongue T, provided with the stop P, pivoted thereto, and adapted to engage the bolster-support F, of the double-tree M, rigidly secured to the tongue, and having the brake-shoes N and the transporting-wheels H′, substantially as specified.

2. The hounds E, having the slots *i* in their front ends and the bearings *f g* upon their under sides for a rotating axle, substantially as specified.

3. The combination, with the hounds E, having bearing-plates *f* upon their under sides, of an axle, H, seated in said plates, provided with collars *g*, and having squared ends, the transporting-wheels H′, applied on said ends, and the caps *g′*, holding the axle to its bearings, substantially as set forth.

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

JAMES BELL NICHOLS.

Witnesses:

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A. R. HIPP.