H. M. WOODFORD.

Wagon Brake.

No. 229,575. Patented July 6, 1880.

Fig. 1.

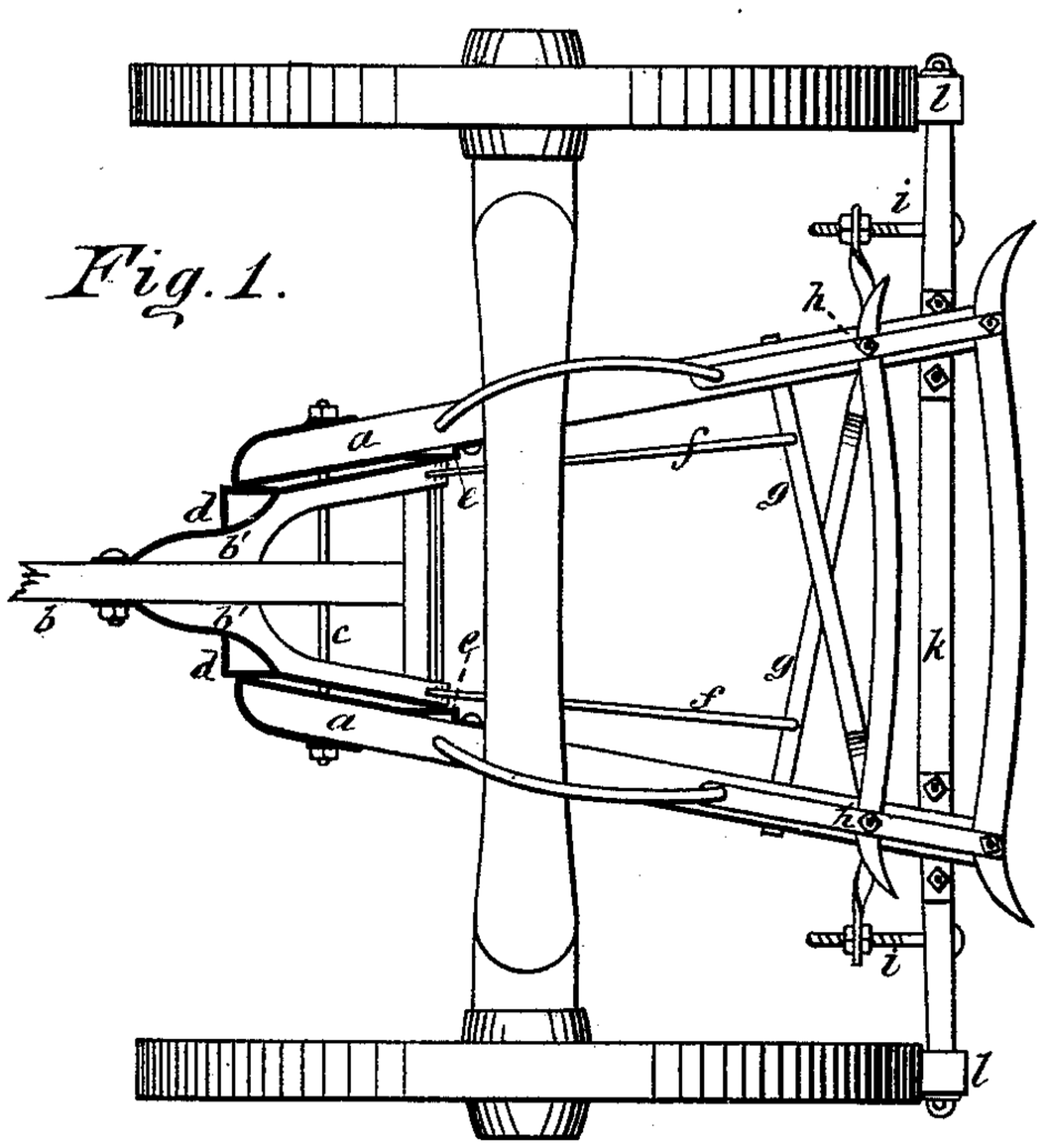
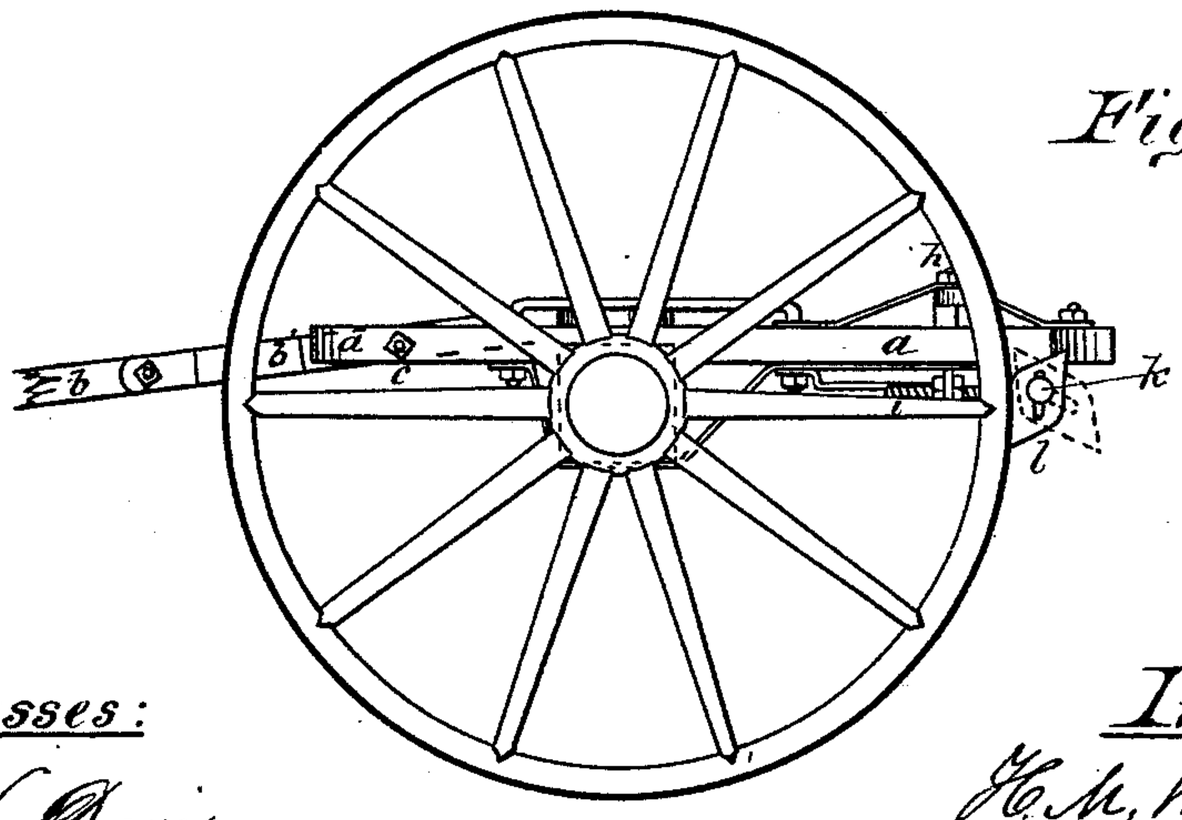


Fig. 2.



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UNITED STATES PATENT OFFICE.

HERVEY M. WOODFORD, OF MARCELLUS, NEW YORK.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 229,575, dated July 6, 1880.

Application filed February 21, 1880.

To all whom it may concern:

Be it known that I, HERVEY M. WOODFORD, of Marcellus, Onondaga county, State of New York, have invented certain new and useful Improvements in Wagon-Brakes, of which the following is a specification.

The purpose of my invention is to furnish an efficient wagon-brake that can readily be applied to any ordinary wagon already constructed without changing the hounds, to be actuated automatically by the team in descending hills, and be thrown out of action in backing.

Heretofore in devices for this purpose the hounds have had to be made straight for the pole to slide between them, and there was a want of steadiness and an indirect action upon the wheels which was objectionable, and which is remedied by my improvement. I also provide a brake-shoe that is reversible, having two wearing-surfaces, either of which can be brought into action so as to increase its durability.

The following description of the construction and operation of the parts refers to the accompanying drawings.

Figure 1 is a plan of the device; Fig. 2, a side elevation.

The inclined bracing-hounds *a* are like those generally in use in lumber-wagons for heavy draft. The tongue *b* and its fixtures are united therewith by a horizontal bolt, *c*, that passes through them. The holes through the pole and brace *b'* are oblong, so as to allow the pole to slide back and forth between the hounds. Upon the sides of the braces *b'*, between them and the hounds, I affix metal side pieces extending out in wedge form at *d*, so that the side next the end of the hound is parallel with the line of the pole to slide back upon the inner face of the hounds, as seen in Fig. 1, and in rear thereof there is upon the inner face of the hounds similar wedge-formed pieces *e*. These wedge-formed pieces *d e* hold the pole steadily in line laterally between the inclined hounds *a* while sliding back and forth.

To the rear ends of the braces *b'* there are connecting-rods *f*, that hook into holes in the levers *g g*, which cross between the hounds, as seen in Fig. 1. These levers have their fulcrums at *h*. The short arms of these levers are united by adjustable rods *i* with a sliding bar, *k*, that projects across from side to side just in rear of the periphery of the wheels, having on its ends friction-shoes *l*. The adjustable connecting-rods *i* have screws and nuts to regulate the distance between the sliding bar, and levers *g* to adjust the shoes *l* properly to the wheels. The shoes *l* are pivoted upon a bolt in each end of bar *k*, that passes through a slot in the shoe, (see Fig. 2,) where the outline profile of the shoe is shown resting against the wheel in the act of braking when the wheel is advancing. If the wheel is turned backward by backing, the shoe is thrown into the position shown by the dotted lines and the wheel freed from its action.

The shoe has its front and rear sides alike in form, so that either can be turned toward the wheel with like results, thus doubling the effective wear of the shoe.

The hounds *a* are securely braced at their rear ends, and the levers, &c., are below the reach. By this construction the shoes are brought squarely up to the periphery of the wheels, and are braced against lateral strains by sliding bar *k*. The whole structure is rendered firm and secure by the construction and combination of the several parts.

Having thus fully described my improved brake, I claim—

1. The combination of the angular slideways *d e* with the inclined hounds, for steadying the pole and firmly holding it in place, as and for the purposes specified.

2. The combination of the cross-levers *g*, affixed to the hounds in rear of the axle, with the slide-bar *k* and pole, as and for the purposes specified.

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Witnesses:

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