

O. FISK.

Improvement in Self-Acting Wagon-Brakes.

No. 130,364.

Patented Aug. 13, 1872.

Fig. 1.

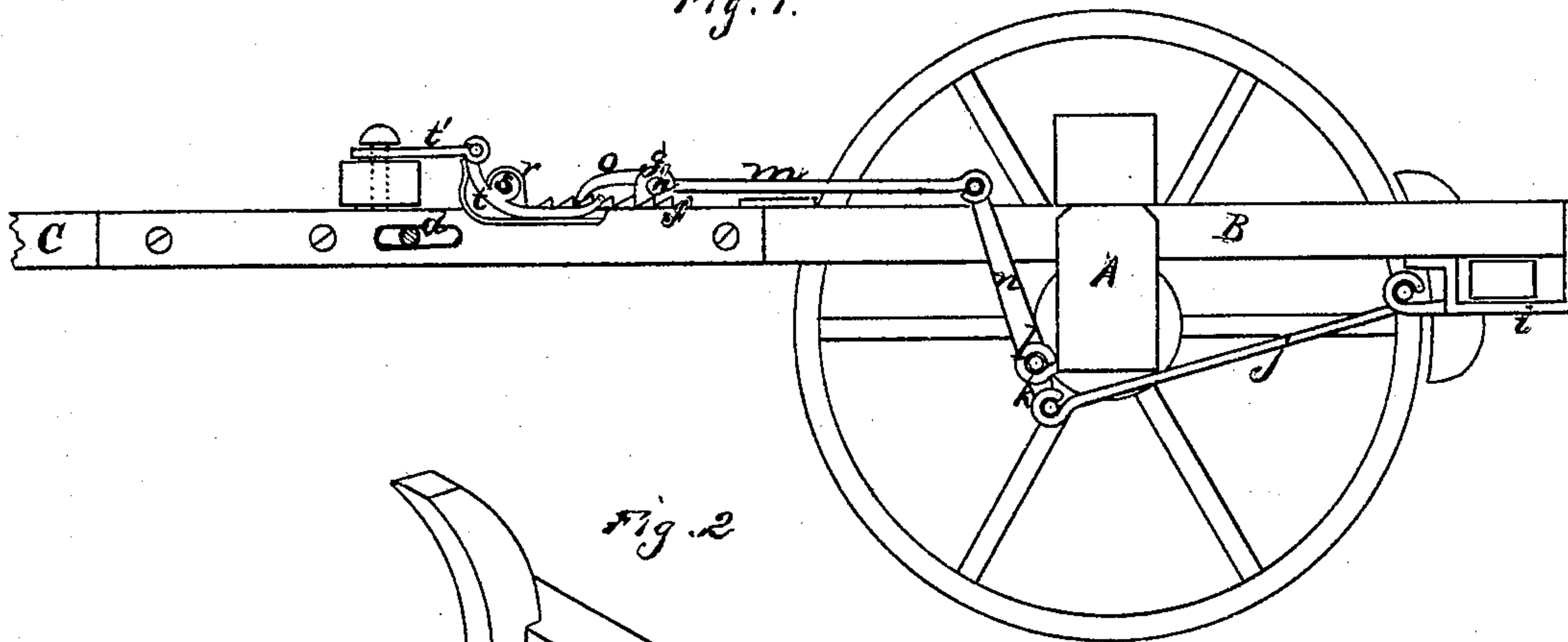
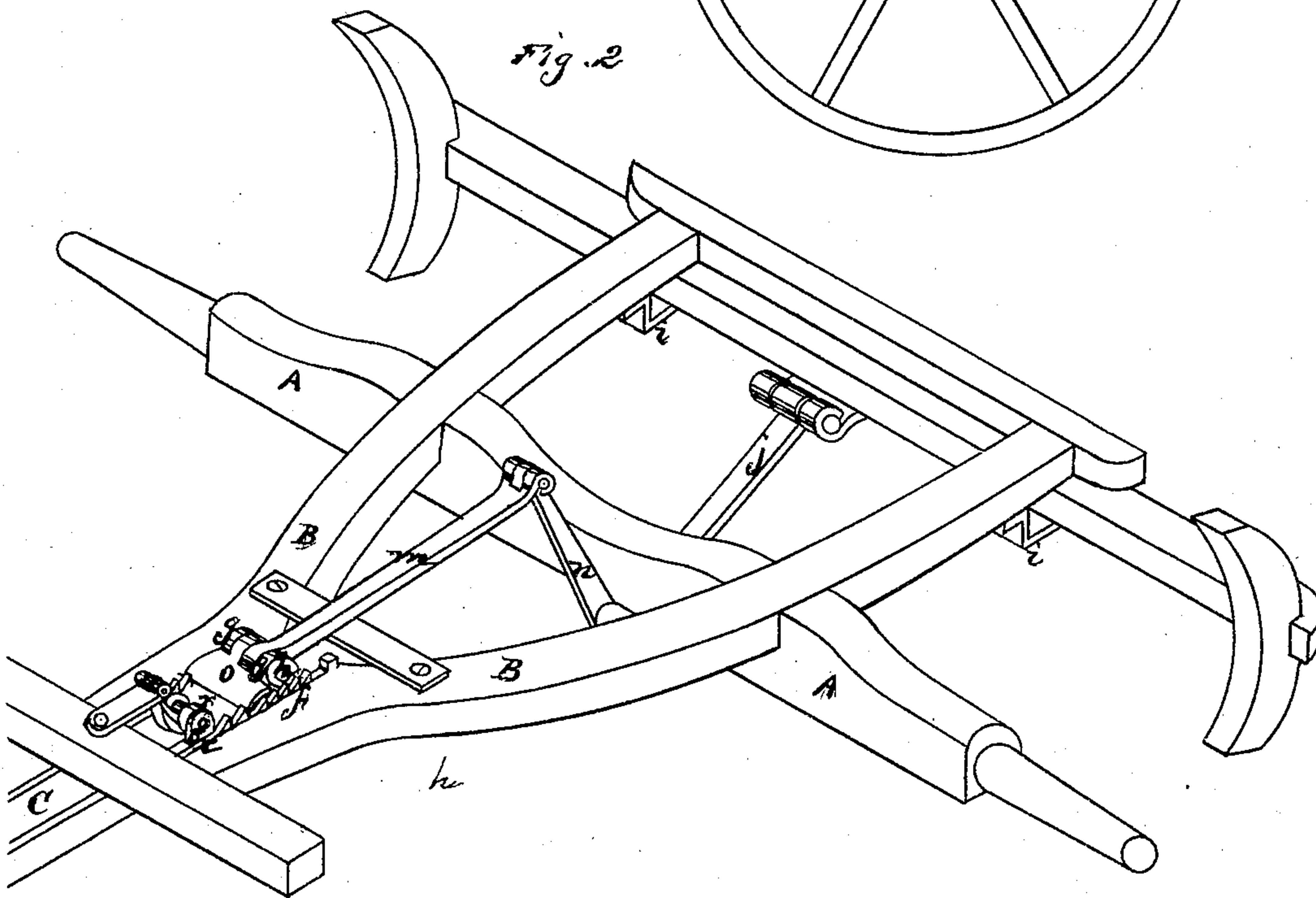


Fig. 2.



Witnesses

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OLIVER FISK, OF COULTERVILLE, CALIFORNIA.

IMPROVEMENT IN SELF-ACTING WAGON-BRAKES.

Specification forming part of Letters Patent No. **130,364**, dated August 13, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, OLIVER FISK, of Coulterville, Mariposa county, State of California, have invented Improvements in Self-Acting Wagon-Brakes; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates to that class of self-acting wagon-brakes in which the pole or tongue of the wagon is allowed sliding movement between the hounds in order to allow the holding back of the horses upon a side hill or incline, to apply the brakes to the wheels of the wagon. My improvements relate more particularly to a locking and unlocking device, which is operated by the same backward movement of the tongue, so that when the vehicle is descending an incline, the holding back of the horses will not only apply the brakes, but also lock the tongue when the brakes have been applied, and thus keep a steady and uniform strain upon the wheels as long as the wagon moves down hill. The forward pull of the horses will throw off the locking device, and consequently allow the brakes to be removed from the wheels upon arriving upon level ground.

In order to more fully illustrate and explain my invention, reference is had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a longitudinal section of the machine. Fig. 2 is a perspective view.

A represents the front axle of a wagon, and B the hounds. The pole or tongue C is slotted horizontally where the bolt *d* passes through it, so as to allow it to have a longitudinal movement back and forth between the ends of the hounds. The inner faces of the ends of the hounds, between which the rear end of the pole passes, are provided with a wear-plate, *e*, a section of which projects above the upper face of the hounds, and is formed into a ratchet, *f*; or, a ratchet can be secured directly to the upper face of the hounds upon each side of the pole, as desired.

Secured to each side of the pole so as to come between the ratchets *e*, is a lug, *g*, and a bolt or pin, *h*, passes through both lugs, as shown. The brake-beam passes transversely across the wagon below the rear end of the hounds, being suspended from their loops *i*. A rod, *j*, is hinged to its center and passes forward below the front axle, where it is secured to the short arm of a suspended lever, *k*. This lever is suspended upon journals or trunnions *l* to the axle, and its long arm, *n*, extends up between the hounds in front of the axle, and a rod or bar, *m*, connects its upper end with the bolt or pin *h* on the tongue. A plate or broad pawl, *o*, is also secured upon the bolt or pin *h*, so as to drop down in front after the manner of a pawl.

Now, as the wagon begins to descend a hill or incline, the pull back of the horses causes the tongue to move backward between the hounds. This movement pushes back upon the long arm of the lever *k*, so as to draw upon the brake-beam with the short arm and apply the brakes to the wheel. The same movement carries the pawl *o* back along the racks with which it engages, so as to hold the brakes to the wheels according to the hold back of the horses.

In front of the lugs *g*, which support the pawls *o*, are other lugs, *r*, through which a bolt or pin, *s*, similar to *h*, passes. A bell-crank, *t*, has its angle secured by this bolt or pin, so that one arm will pass down under the pawl between the two racks, while the other arm stands vertical, and is connected, at its upper end, to the double-trees, by a plate, *t'*.

The pin or bolt which secures the double-trees to the tongue works in a slot in the tongue, so that after the brakes have been locked and the wagon arrives again upon level ground, the pull of the horses draws the double-tree forward, and causes the bell-crank *t* to lift the pawl *o* from the teeth of the ratchets, thus allowing the tongue to be drawn forward and the brakes to be relieved.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The slotted tongue C, connected with the brake-beam by means of the rod *j*, double-act-

ing lever *k*, and rod *m*, in combination with the ratchets *f* and pawl *o*, substantially as and for the purpose described.

2. The bell-crank *t*, pivoted at its center and operated by the pull upon the double-trees to release the pawl *o*, substantially as and for the purpose above described.

In witness whereof I have hereto set my hand and seal.

OLIVER FISK. [L. S.]

Witnesses:

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