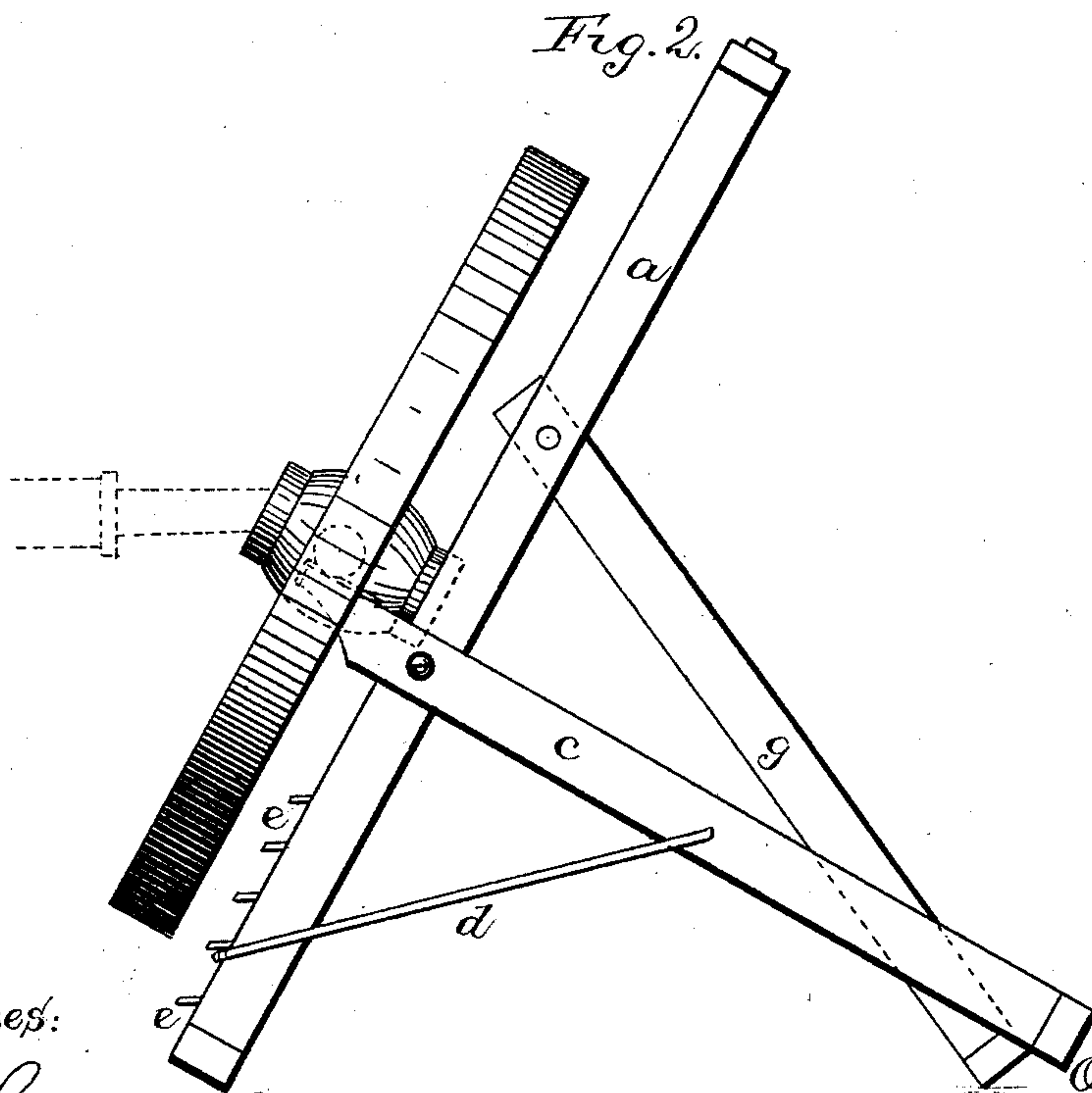
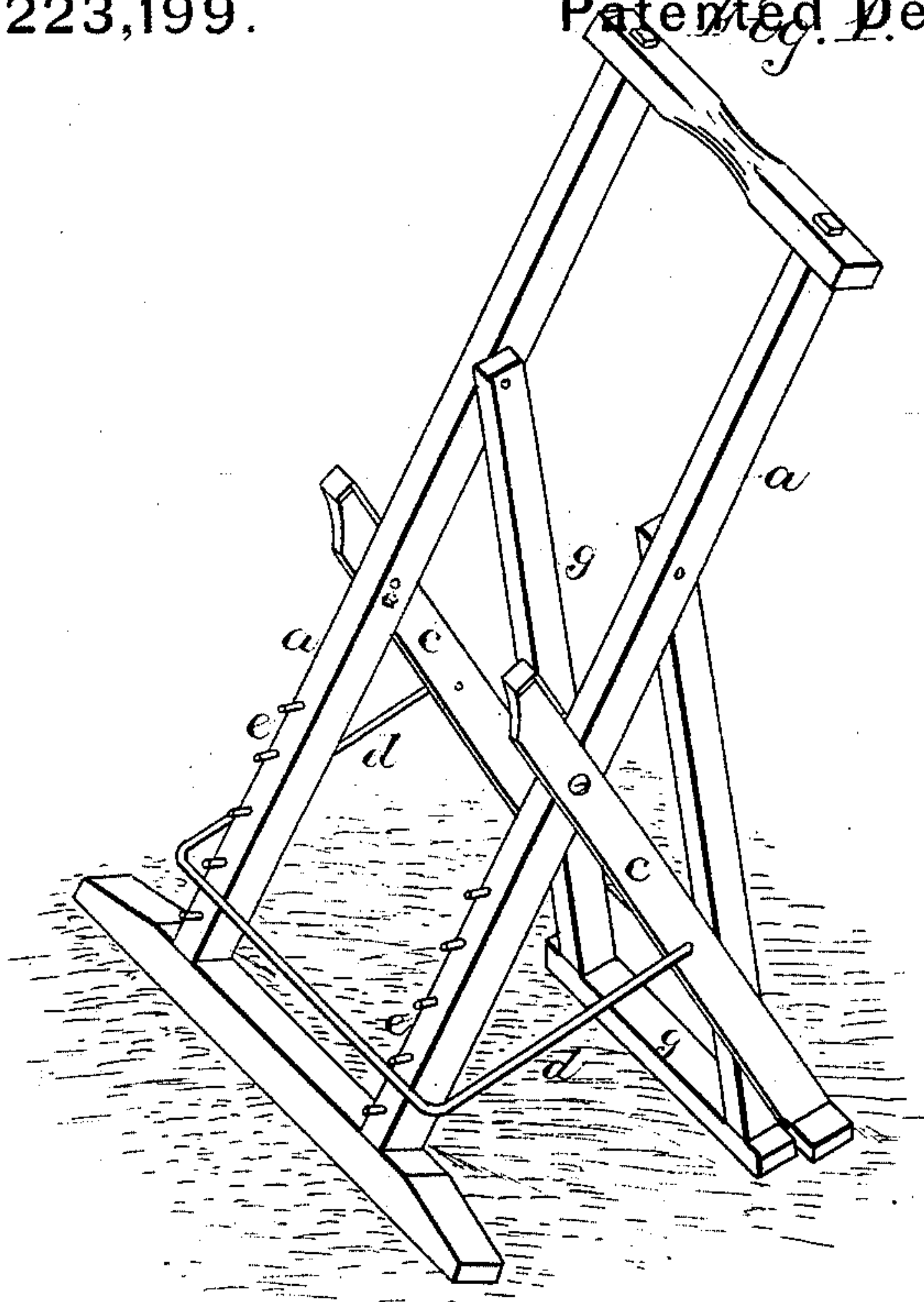


O. WARD.  
 Device for Taking Wheels off Vehicles.  
 No. 223,199. Patented Dec. 30, 1879.



Witnesses:

*J. W. Garner*  
*Wm. M. Mortimer*

Inventor:

*Owen Ward*  
*per*  
*F. A. Lehmann,*  
*att'y.*

# UNITED STATES PATENT OFFICE.

OWEN WARD, OF MOUNT PLEASANT, ASSIGNOR OF ONE-THIRD OF HIS  
RIGHT TO WM. T. MILLER, OF PENNVILLE, INDIANA.

## IMPROVEMENT IN DEVICES FOR TAKING WHEELS OFF VEHICLES.

Specification forming part of Letters Patent No. **223,199**, dated December 30, 1879; application filed  
October 27, 1879.

*To all whom it may concern:*

Be it known that I, OWEN WARD, of Mount Pleasant, in the county of Jay and State of Indiana, have invented certain new and useful Improvements in Devices for Taking Wheels Off from Vehicles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in devices for taking wheels from vehicles; and it consists in the arrangement and combination of parts, whereby wheels can be taken from vehicles of all kinds for the purpose of greasing the spindle without getting the hands dirty, as is the case with the ordinary lifting-jacks, as will be more fully described herein-after.

Figure 1 is a perspective of my invention; and Fig. 2 is a side elevation of the same, showing how the wheel is held and the axle supported while the spindle is being oiled.

*a* represents a suitable rectangular frame, the sill of which is intended to rest on the ground or floor just outside of the bottom of the wheel. This frame is tall enough to extend above the tops of all ordinary wheels a suitable distance, and the top bar of it forms a hand-hold for the purpose of guiding the frame in its movements. Pivoted to this frame below or near its center is a second frame, *c*, which forms a lever for lifting the wheel and pulling it off the axle. The two short ends of this lever-frame project beyond the face of the frame *a* far enough to get a firm hold under two of the spokes of the wheel, and are covered with leather or other soft material, so that the ends will not readily slip off and will never mar the varnish. After the wheel has been drawn off from its spindle it is held upon these two ends, as shown in Fig. 2. Fastened to this lever-frame is the bent iron rod *d*, which moves up and down over the outer face of the frame *a*, and holds the lever-frame *c* at any desired angle by catching under the pins *e*.

Pivoted to the inside of the frame *a*, at a point considerably above the pivots of the lever-frame *c*, is the brace *g*, which holds the frame *a* at any desired angle or inclination while the frame is holding the wheel. The operation of this part of my invention is as follows:

The nut having been taken off, the frame *a* is placed on the ground or floor by the side of the wheel to be removed, and the frame is inclined to or from the wheel by catching hold of the top of the frame. The outer end of the lever-frame is then taken hold of, and the two short ends are made to catch under two of the spokes of the wheel. The frame *a* is then drawn backward at its upper end, and the outer end of the lever-frame is then depressed until the rod *d* catches under one of the pins *e*. With the foot or one hand the lower end of the brace *g* is then moved outward until the end of the spindle is almost out of the hub, when the frame will stand alone, supporting the wheel and the wheel holding up the end of the axle, as shown in Fig. 2. After the spindle has been cleaned and greased the upper end of the frame *a* is moved toward the vehicle, the rod *d* loosened, and then the wheel is pushed upon the spindle by pushing the upper end of the frame forward. By this means no lifting-jack is needed, and the dirtiest wheel can be removed and replaced upon any vehicle by a single person without his touching the wheel with one of his fingers.

Having thus described my invention, I claim—

The combination of the frame *a*, lever-frame *c*, pivoted thereto, rod *d*, and brace *g*, whereby a wheel can be taken from and returned to its spindle without being touched by the hand, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 20th day of October, 1879.

OWEN WARD.

Witnesses:

JOHN RHODES,  
W. T. MILLER.