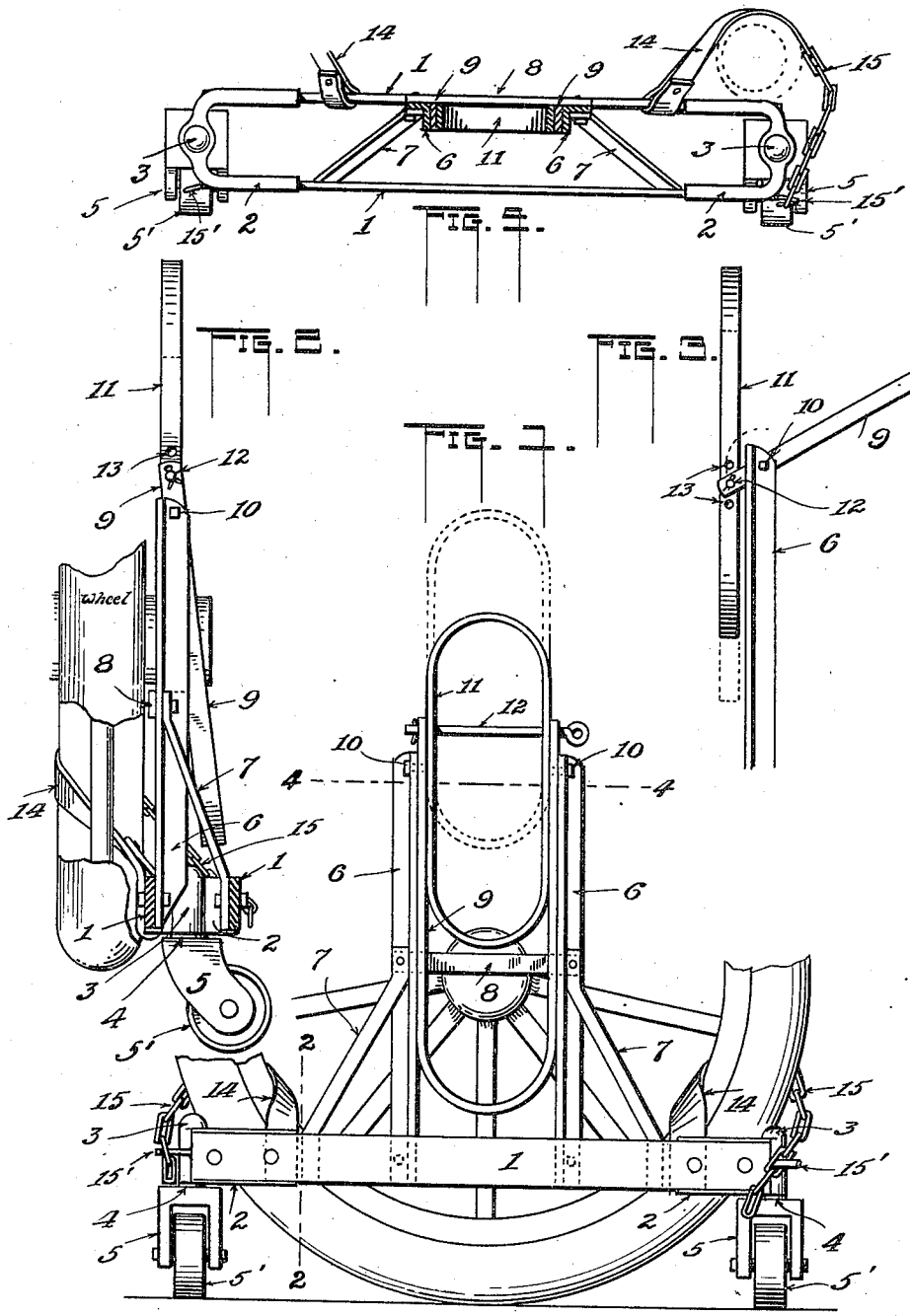
E. J. LEMAN.

JACK.

APPLICATION FILED JAN. 29, 1918.

1,310,499. Patented July 22, 1919.



Inventor:
Edward J. Leman,
By L. M. Thurlow
Atty.

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWARD J. LEMAN, OF MORTON, ILLINOIS.

JACK.

1,310,499. Specification of Letters Patent. Patented July 22, 1919.

Application filed January 29, 1918. Serial No. 214,269.

To all whom it may concern:

Be it known that I, EDWARD J. LEMAN, citizen of the United States, residing at Morton, in the county of Tazewell and State of Illinois, have invented certain new and useful Improvements in Jacks; and do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in jacks. It relates more particularly to a jack for automobiles, one of them being placed at each wheel of the vehicle for engaging and lifting the same.

One of the objects is the provision of a jack having a part adapted to be changed in position whereby to adapt the jack for use with wheels of any diameter.

Another object is the provision of a jack having a portion adapted to be inverted whereby to engage a wheel hub positioned at any distance above the ground or floor surface upon which the vehicle stands.

Another object is the provision of a novel means of clamping the vehicle wheel to the jack.

Other objects and advantages will appear in the following specification, aided by the accompanying drawing, which shows one embodiment of the invention, it being understood that slight changes may be made such as will lie within the meaning and intent of said invention.

Figure 1 shows an elevation of my improved jack, showing a wheel and the manner of its attachment thereto.

Fig. 2 is a side elevation of the jack, showing the base portion in transverse section on line 2—2, Fig. 1.

Fig. 3 is a portion of what is shown in Fig. 2, showing certain parts in a different position; and,

Fig. 4 is a plan of the jack, certain parts being shown in section on line 4—4, Fig. 1.

The base of the jack consists of two parallel members 1, whose ends are suitably secured to U-shaped castings 2 comprising sockets 3 for receiving the stems 4 of a caster-wheel structure 5 carrying wheels 5′, it being understood that the form of the frame and castings described and shown is merely preference as other forms may as readily be employed, the whole forming what I shall term a platform or base.

6 6 indicate two substantially parallel bars preferably of angle iron, in order to provide for great stiffness and rigidity, which are suitably secured at one of their ends to one frame member 1, uprising therefrom to form a support or standard for lifting means to be described presently.

7 7 are braces secured at one end to said uprights 6 and at their other ends to the frame member 1 opposite that to which the uprights are attached, the whole making a thoroughly rigid structure assisted by a cross bar 8 attached at its ends to said uprights.

9 is a lever preferably of a U-form whose greatest width across its extremities is substantially equal to the space between the uprights.

10, 10 indicate pivot members which extend through the uprights and the said extremities. The extremities extend beyond the pivots 10 and support a wheel-engaging member 11 which consists of a loop of metal snugly fitting between the extremities of the lever 9, a pin 12 extending through the same and said extremities as clearly shown in Fig. 1.

It is observed that the pin extends through the loop at such a point that said loop has a long and short extension to engage the wheel hub, for example. In Fig. 1 the full lines show one of its positions which position is that of engaging a wheel of small diameter or where the hub is nearer to the ground surface than will be the case with a larger wheel. In the position shown in broken lines in the figure last named the short end of the loop is lowermost whereby to engage a hub that stands a greater distance above the ground.

By the use of this form of device for engaging the hub the jack is adapted for use with any car so that special jacks are, therefore, not required for wheels of different diameters, and without necessarily shifting the member with respect to the lever. Merely inverting the member is all that is required.

13 indicates one or more holes in the member 11 by which said member may be adjusted with respect to the lever 9 if desired whereby to provide for greater differences in the height of the hubs than provided by the swing of the said lever carrying said member.

In Fig. 3 the member 11 is shown in a lowered position, the lever 9 being raised for that purpose. In Fig. 2 the hub has been engaged by the member 11 and the lever 9 depressed to raise the wheel from the ground, it being understood that when the lever 9 has been "pushed home," for instance against the cross member 8, the wheel will be positively held raised without danger of dropping since the pin 12 and the pivot member 10 will be brought into line or at least in such position that there can be no retrograde movement.

I provide a simple method of clamping the wheel to the jack which is desired in order that the said jack and wheel shall be practically a unit when the weight is raised.

14 indicates a strap of suitable material looped about the member 1 to which the uprights 6 are secured, each having at its free ends a chain 15, for example, or other suitable part, which after having been passed through the wheel is carried around its rim and tire and hooked upon an extension 15′ at the end of the frame member 1 lying farthest from the wheel. When the wheel is resting upon the ground the chains but loosely inclose it. But when the wheel is raised as shown in Fig. 2 the strap and its chain, or equivalent attachment, will be drawn tight resulting in a firm clamping of the wheel to said jack. This provides a very efficient and positive clamping means which coöperates with the member 11.

The jack is of a form that can be used to quickly take the weight of the car from the tire and by being provided with casters it may be readily shifted from place to place on garage floors and can readily be turned end for end as upon a turntable. It is required in order to thus manipulate the vehicle that the caster-wheels be provided for the jack and that the jack and wheel be very firmly clamped to one another or as though a unit by means of the strap 14 and its chains 15.

Having thus described my invention, I claim:

1. A jack including in its construction, a base, a standard uprising therefrom rigid with respect thereto, a lever pivoted between its ends to said standard, and a member having the form of a loop adapted to receive into it at either end the object to be lifted, said member being pivoted between its ends to said lever, adapted to be inverted, its pivot point lying nearer one end than the other whereby by inversion it will engage objects of two different elevations.

2. A jack including in its construction, a base, a standard uprising therefrom rigid with respect thereto, a lever pivoted between its ends to said standard, and a member having the form of a loop adapted to receive into it at either end the object to be lifted, said member being pivoted between its ends to said lever, adapted to be inverted, there being a series of holes in said member lying nearer one of its ends, means to engage one of the holes of the member and said lever, forming the pivot, said member adapted to be swung end for end whereby its short end or its long end may be engaged with an object to be lifted.

3. A jack for raising and moving objects comprising in its construction a base, supporting-caster wheels for the same, a standard uprising from said base, lifting means pivoted upon the standard adapted to engage and raise the object to be lifted and suspend it, and a flexible portion attached at one end to the base adapted to engage around said object to be lifted and moved and adapted to engage at its free end a part of the base, the object when in the act of raising being tightened within said flexible portion and drawn toward and clamped by the same to said base.

In testimony whereof I affix my signature, in presence of two witnesses.

EDWARD J. LEMAN.

Witnesses:
L. M. THURLOW,
L. O. EAGLETON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."