C. W. PARKER.

JACK FOR AUTOMOBILES.

APPLICATION FILED AUG. 8, 1913.

1,107,833. Patented Aug. 18, 1914.

Fig. I.

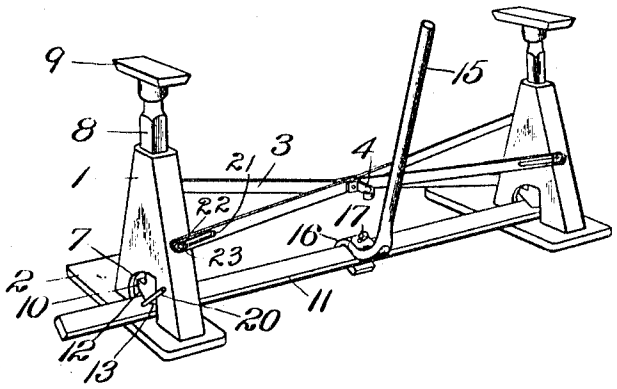


Fig. II.

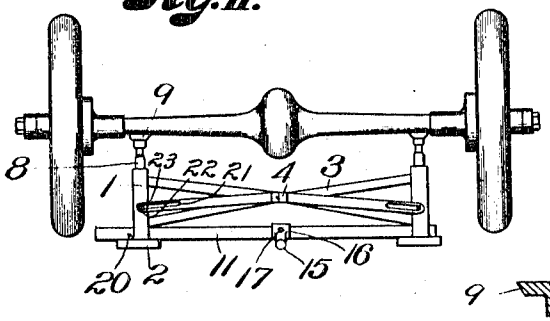


Fig. III.

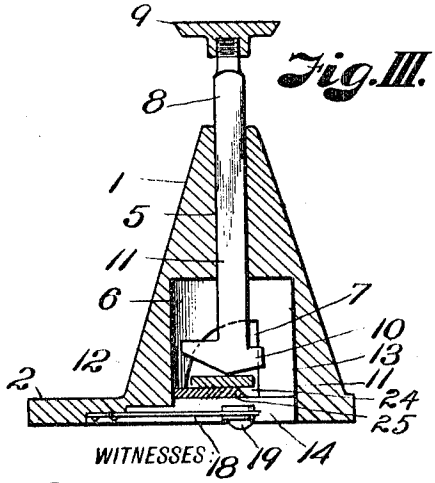
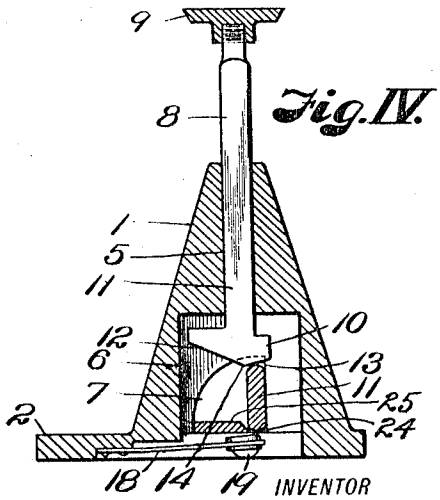


Fig. IV.



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JACK FOR AUTOMOBILES.

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To all whom it may concern:

Be it known that I, CHARLES WILSON PARKER, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Jacks for Automobiles; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to jacks, and more particularly to a jack for use with automobiles, the principal object of the invention being to provide a device of that character whereby both of the rear or fore-wheels of an automobile may be lifted from the floor simultaneously, in order to facilitate cleaning or repairs, or to support the wheels above the floor in order to save the tires.

In accomplishing this object I have provided improved details of structure, the preferred form of which is illustrated in the accompanying drawings, wherein:—

Figure I is a perspective view of a jack constructed according to my invention. Fig. II is an end view of the jack, showing its application to the rear axle of an automobile. Fig. III is a central, vertical section of one of the jack stands. Fig. IV is a similar view showing the parts in functional position.

Referring more in detail to the parts:—1 designates the stands within which the lifting members of the jack are carried, and which are arranged in pairs and spaced in order that the lifting members may contact the rear axle of an automobile at the proper points. The stands are provided with bases 2, having sufficient area to give the jack a sound foundation, and are connected by brace members 3, preferably consisting of heavy strap metal, having connection at the center, and provided with a hook 4, whereby the jack lever may be held in upright position when not in use; the ends of the brace members being preferably provided with slots 21, through which screws 22 are projected into the stands 1 to hold the straps thereto by means of washers 23, thereby providing for longitudinal adjustment of the stands to adapt them for use with different articles and under varied conditions.

Each of the stands 1 has a vertical channel 5 and a chamber 6 at the bottom of the channel, which extends through the bottom of the stand and has laterally opening ports 7 through which the lifting bar 11 is projected, the front edges of the ports being perpendicular to form a bearing for the bar when the latter is in supporting position, and the rear edges thereof being curved to allow the bar to turn, as will presently be described. Slidably mounted in the channel 5 is a standard 8 having a bearing plate 9 at its upper end which is preferably made separate from the standard and attached thereto by screw threads, and having a head 10 at its lower end, which is supported on the cross-bar 11 that extends between the stands and is projected freely through the ports 7 therein. Each head 10 is provided with a major incline 12 and minor incline 13 on its under face, which are so arranged that the standard is normally supported on the point 14 and so that the bar 11 will rock against the major incline 12 when the lever 15 is moved in the forward direction, in order to bring the edge of the cross-bar against the major incline and lift the standards 8, and so that when the bar has passed the point 14, it will lie between the minor incline and the forward edge of the port 7, thereby locking the standard in elevated position, owing to the bar being held against forward movement by the forward edge of the port 7, and against rearward movement by the minor incline 13.

In order to hold the lower edge of the bar in functional position, I provide a trap 24 at the front lower corner of each chamber 7 by building up a shelf 25 at the bottom

of the chamber, so that the bar will normally lie on the shelf, but, when raised, will drop into the trap (Fig. IV) so that its lower edge is held against backward movement.

The lever 15 has a looped part 16 which is adapted to lie over the bar 11 and grip same so that when the lever is operated the bar is rocked on its edge and actuates the lifting standards, one of the lips of the hook being provided with a set screw 17 whereby the lever may be locked to the bar if necessary or desirable.

In order to adapt the jack for easy placement, or for moving same over the floor of a garage, I provide each of the bases 2 with a stiff spring 18, having a ball caster 19 in its free end; the spring being sufficiently stiff to support the jack under ordinary conditions, but adapted to yield when leverage is exerted, in order to throw the bases onto a flat floor, and provide a better foundation for the jack. The bar 11 is provided with pins 20 which are adapted to bear against the outer faces of the stands 1 in order to limit longitudinal movement of the bar and retain same within the standards while allowing free pivotal movement thereof.

In using the device, presuming the parts to be constructed and assembled as described, the entire device may be moved into position beneath the rear axle of an automobile and the lever actuated to rock the bar 11. When the bar is rocked, its rear edge contacts the major inclines 12 of the paired standards and lifts same simultaneously, so that the plates 9 rise against the axle and lift the axle and the machine. When the standards have been lifted sufficiently to carry the wheels of the machine off of the floor, the edge of the bar passes over the points 14 and locks between the points and the edges of the ports 7, and as it approaches its vertical position its lower edge drops into the traps 24 and is held against backward movement, so that the machine will be held firmly in elevated position until the jack is operated to lower same.

It is apparent that in order to lower the jack it is only necessary to push the lever sufficiently to pass the bar over the point 14 and then lower the parts easily by holding back on the lever 15. When the jack is free of a load the springs 18 support the standards so that the jack may be moved readily over the floor, although the springs will yield, as heretofore stated, in order that the stands may seat solidly on the floor, and provide a stable foundation. Should the automobile, or other object which it is desired to raise, have an obstruction that will interfere with the use of the lever in its normal position, the lever may be removed and applied to one of the projecting ends or other part of the bar.

It is apparent that by using a lever bar for lifting the standard, should the bar or ends of the standards become worn, the bar may be moved longitudinally to bring a new, unworn part into position for engaging the standards. It is also apparent that should the floor upon which the jack is placed be uneven, either end may be adjusted vertically, independently of the other, by turning the plate 9 on its screw threaded connection with the standard, and that the stands may be brought closer together or spaced farther apart, by sliding the slotted straps 3 on the screws 22 by which they are held to the stands.

While I have described the jack as adapted for use with automobiles, I do not wish to be understood as limiting the use exclusively to that combination, as it is quite apparent that the jack may be used for any purpose to which it may be adapted.

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

1. A jack comprising a stand having a chambered lower end provided with side openings, a bar extended through said openings, and a standard adapted for travel in the stand and having oppositely inclined planes on its end adapted for operative contact by the bar, for the purpose set forth.

2. A jack comprising spaced stands each having a supporting base and a transverse opening at its lower end, means for spacing said stands, a bar seated on said bases and adapted for adjustment within the openings in said stands, standards slidably mounted in said stands and having inclined lower ends bearing on said bar, and means for rocking the bar to raise and lower said standards.

3. In a jack, a stand comprising a chambered part having a raised shelf spaced from one edge of the chambered part to form a downset seat, a standard slidably mounted in the standard, and a bar normally supported on said shelf and adapted for pivotal movement to lift the standard and for movement into and from the seat, substantially as set forth.

4. In a jack, a stand comprising a chambered part having side ports and a downset seat, a standard slidably mounted in the stand and having oppositely inclined faces at its lower end forming a bearing point, a bar normally supported on the shelf, and means for rocking said bar into contact with one of the inclined faces of the standard to lift the standard and for lock-

ing engagement with the other inclined face and with said seat substantially as set forth.

5. In a jack, a stand comprising a chambered part having lateral ports, and a shelf backset from the front of the ports to form a seat, a bar supported on said shelf and adapted for pivotal movement to set in said seat, and a standard having a head at its lower end provided with oppositely inclined faces adapted for lifting and locking contact with said bar, respectively.

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

CHARLES WILSON PARKER.

Witnesses:

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