B. E. SMITH.

LIFTING DEVICE.

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1,067,381.

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Fig. 1.

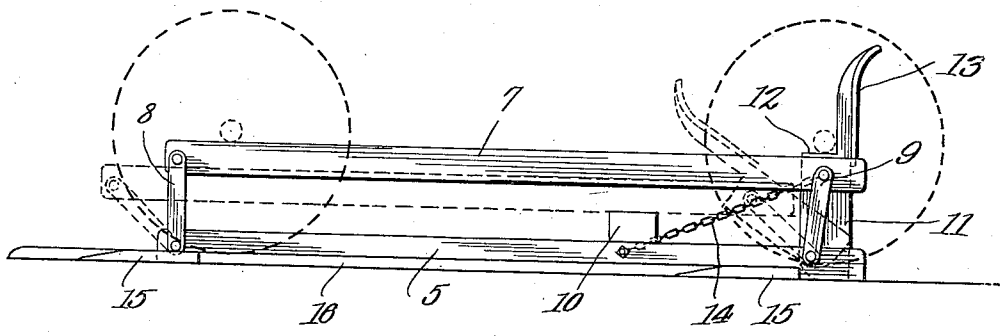
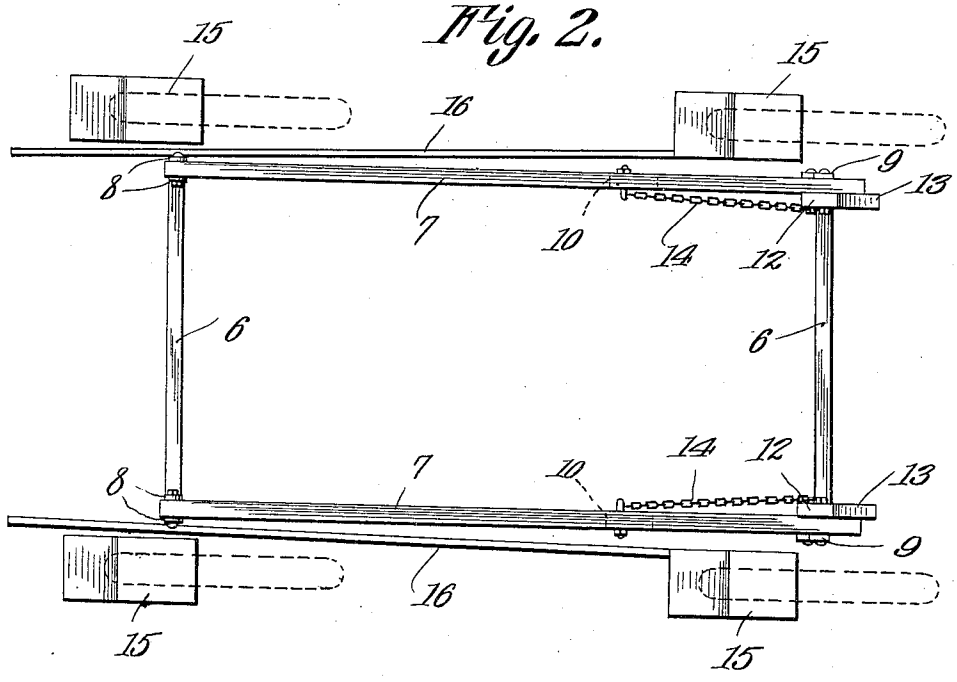


Fig. 2.



WITNESSES

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LIFTING DEVICE.

1,067,381. Specification of Letters Patent. Patented July 15, 1913.

Application filed November 26, 1912. Serial No. 733,672.

To all whom it may concern:

Be it known that I, BERNARD E. SMITH, a citizen of the United States, residing at Pondcreek, in the county of Grant and State of Oklahoma, have invented certain new and useful Improvements in Lifting Devices, of which the following is a specification.

The lifting device which is the subject of the present invention is designed for use in garages, sheds and other places where automobiles and other motor vehicles are stored when not in service, the object of the device being to lift the machine off the floor or ground so as to take all weight off the tires. This action is effected automatically by means of a novel combination and arrangement of parts to be hereinafter described and claimed, reference being had to the accompanying drawing in which—

Figure 1 is a side elevation of the device, partly broken away, and Fig. 2 is a plan view thereof.

Referring specifically to the drawing, 5 denotes two laterally spaced parallel sills of suitable length which serve as the supporting base of the lifting device to be presently described. The sills are connected by end cross bars 6 and are mounted on the floor of the shed or other building in which the machine is to be stored. Above each sill 5 is located a horizontal lifting bar 7 connected at one end by means of pivoted links 8, to the corresponding end of the sill, and at its other end, by a pivoted link 9, to the corresponding end of the sill. These links swing in a vertical plane, in view of which it will be evident that the lifting bar is raised or lowered when it is pushed in the direction of its length. The downward movement of the lifting bars is limited by stop blocks 10 mounted on the sills. That end of the lifting bars 7 to which the links 9 are connected and the corresponding end of the sills 5, are also connected by pivoted standards 11, the pivots of said standards and the links 9 coinciding. The standards 11 are on the inside of the sills and the lifting bars, and the links 9 are on the outside thereof. The standards have shoulders 12 and upward extensions 13, said shoulders being so located that they come slightly above the top of the lifting bars 7 when the latter are in elevated positions and the standards are perpendicular. The standards project above the lifting bars when they are lowered as well as when elevated. Chains 14 connected to the sills 5 and the lifting bars 7 limit the forward movement of the latter. Adjacent to the sills 5, on the outside thereof, and at each end, are blocks or elevations 15 which incline at one end to the floor, and between these blocks and the sills, guide rails 16 are mounted on the floor.

Fig. 1 shows in dotted lines the normal position of the parts, the lifting bars 7 being down and the links 8 and 9, and the standards 11, being inclined rearward.

In operation, the machine is driven or pushed up the blocks 15. When the front axle of the machine strikes the abutments formed by the standard extensions 13, the lifting bars are pushed forward, whereby, through the link connections, said bars are also caused to rise until they engage the rear axle of the machine, and the shoulders 12 engage the front axle, this action taking place when the lifting bars are at the limit of their upward movement. At the same time the wheels pass off the blocks 15, so that the machine is now held suspended by the lifting bars, with the wheels off the floor. It will be noted that the links 8 and 9 are not parallel. The links 9 are inclined forward and the links 8 are perpendicular when the lifting bars are at the end of their upward movement, which prevents the links 9 from swinging back to lower the machine, and forward swing of said links is prevented by the chains 14. When the links 9 pass the perpendicular, the weight of the machine pulls the lifting bars forward and swings the links 8 into perpendicular position. This throws the wheels clear of the blocks. The front axle of the machine is supported on the shoulders 12, and the rear axle rests on the corresponding end of the lifting bars. The rails 16 guide the wheels to the blocks 15.

The device herein described is simple in construction and efficient in operation, and it therefore effectively serves the purpose for which it is designed.

I claim:

A lifting device comprising a support, a pair of horizontal lifting bars above the support, pivoted links connecting the ends of the bars to the support, and standards

having a pivotal connection with one end of the links and the corresponding end of the support, the pivots of the standards coinciding with the pivots of the links at said end of the bars and the support, said standard having a shoulder and an extension rising therefrom above the bars.

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

BERNARD E. SMITH.

Witnesses:
C. S. INGERSOLL,
BLANCHE BURRIGHT.

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