S. B. MINNICH.

LIFTING JACK.

APPLICATION FILED JAN. 15, 1908.

904,551. Patented Nov. 24, 1908.

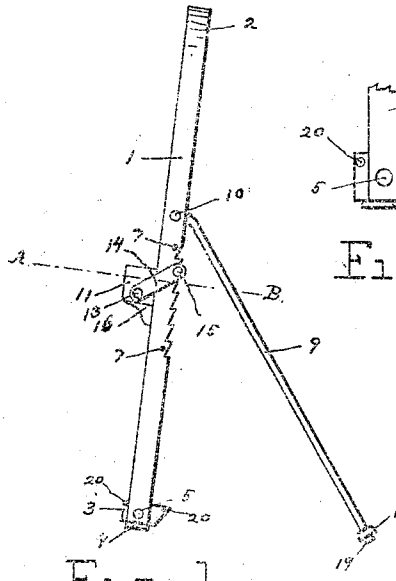


Fig 1

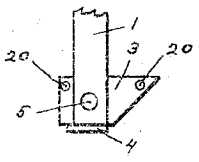


Fig 7

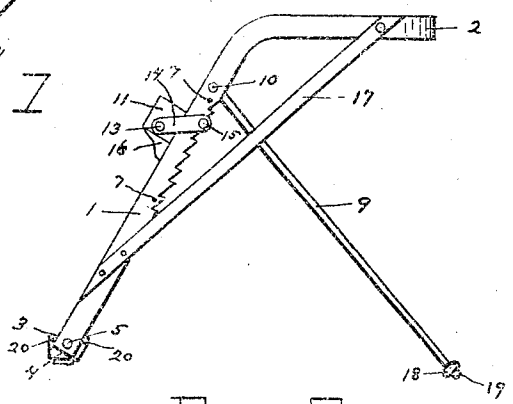


Fig 2

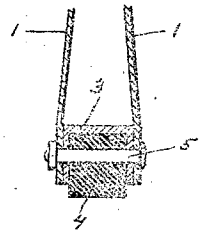


Fig 4

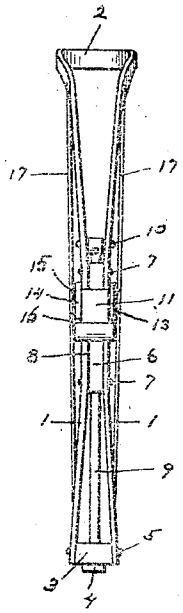


Fig 3

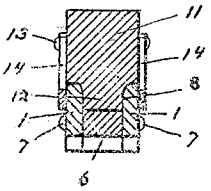


Fig 5

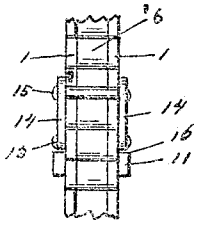


Fig 6

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LIFTING-JACK.

No. 904,551. Specification of Letters Patent. Patented Nov. 24, 1908.

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To all whom it may concern:

Be it known that I, SIMON B. MINNICH, a citizen of the United States, residing at Landisville, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Lifting-Jacks, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to wagon or lifting jacks and has for its object to produce a simple, cheap, durable jack, of great power, with ample range of adjustment and especially adapted to light wagons, and more simple of operation than the jack now in use as it can be entirely operated while the operator is in an erect position, without the necessity of stooping for the purpose of adjusting the jack under the wagon axle.

With these and other objects in view I have herewith illustrated and described my invention, but I do not confine myself to the exact construction as shown, as slight changes may be made in the construction without departing from the spirit of the invention, neither do I confine myself to any special material as my device may be constructed of any suitable material or a combination of different materials.

Corresponding figures indicate corresponding parts in all the figures of the drawing.

In the drawings: Figure 1, is a side elevation of the jack in a raised position, and illustrates the jack made with a straight lever. Fig. 2, is a side elevation of the jack in a lowered position, and illustrates the jack made with a curved lever. Fig. 3, is a front elevation of the jack illustrated in Fig. 2. Fig. 4, is a detailed view of the foot in section. Fig. 5, is a sectional view on the line A, B, of Fig. 1. Fig. 6, is a detailed rear view of a part of the lifting lever, showing the rack. Fig. 7, is an enlarged view of the shoe.

1, and 1, indicate the two sides of the main or lifting lever, which is formed by bending a piece of suitable material in the center to form the hand loop 2, then bringing its free ends together against the outer sides of a shoe 3, containing a rubber block 4, projecting therefrom, and secured within said shoe and between the ends of the main lever 1, 1, by the bolt 5, passed therethrough, while said shoe 3, is provided with the stops 20, to confine its action while freely swinging on the bolt 5, to give it a firm contact with the ground independent of the position of the lever.

At a suitable distance between the hand loop 2, and the shoe 3, between the inner sides of the lever sides 1, 1, is rigidly secured the rack plate 6, by the bolts or rivets 7, 7, in such a manner that the points of its teeth are flush with the rear edges of the levers 1, 1, and its back is below the front edges of said lever sides, thus forming a groove or recess 8, and the rear edges of said lever sides are cut or milled to correspond and register with the teeth of said rack.

Above the upper end of the rack 6, between the sides of the lever sides 1, 1, is pivoted one end of a brace or leg 9, by the pivot 10, while the other end of said leg is provided with the socket 18, containing a rubber block 19. Resting against and in slidable contact with the front edges of the lever 1, 1, is the adjustable bearing block 11, formed with the tongue 12, adapted to be engaged by the groove 8, and act as a guide for said bearing block 11. To the sides of said bearing block are secured by the bolt 13, passed therethrough the link straps 14, which embrace the outer sides of the lever sides 1, 1, and have their rear ends connected by the bolt 15, which is also adapted to engage the teeth of the rack 6, and retain the bearing block in the desired position. The sides of the bearing block are provided with bosses 16, which are designed for the links 14, to rest upon, while the block is being raised to a higher level and in this manner keep the bolt 15, from engaging with the teeth of the rack 6, until the block is released.

I have here shown my invention with two forms of main lever, that in Fig. 1, being straight and that in Fig. 2, having a backward bend from about the point where the leg is pivoted, and when made in this form I add more rigidity by the use of the brace bars 17, and 17, which are secured to the sides of the lever as shown and also serve as a guide and stay for the leg. The purpose of this form of back curved lever is to facilitate the use of the jack where the wagon body extends out some distance in the rear of the axle.

The operation of my device is so simple that it will suffice to say that the block having been set to a height to correspond to

the axle when the jack is in a lowered position, the lever is placed with the block under the axle, and is then pushed forward by the hand loop until nearly in a perpendicular position, where it is retained by the leg, until released by slightly raising the hand loop and at the same time pulling back on the leg, when it can be let down all the way or retained at any desired point by allowing the leg to drop and engage the floor or ground.

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

1. In a device of the class described, comprising a lifting lever formed of suitable material, bent in the center to form a hand-loop, and having its end portions brought together, and secured to each other, a leg pivoted to said lever near said hand-loop, and a step secured to the front of said lever below said hand-loop.

2. In a device of the class described, comprising a lifting lever formed with a rearwardly curved handle loop, braces secured at one end to the sides of said handle loop and at the other end to the sides of said lever near its lower end, a leg having one of its ends secured in a pivoted manner between the sides of said lever, means for preventing said lever from slipping upon the ground, means for providing an adjustable step upon said lever, and means for regulating and retaining said step in an adjustable manner upon said lever, for the purpose set forth.

3. In a device of the class described, comprising a lifting lever formed with a handle loop, side braces secured to said lever, a leg pivoted between said lever sides, a shoe embraced by the lower ends of said lever sides and secured thereto, a piece of resilient material retained within said shoe, means for providing an adjustable step upon said lever, means for guiding said step upon said lever, and means for regulating and retaining said step upon said lever in an adjustable manner, for the purpose set forth.

4. In a device of the class described, comprising a lifting lever formed with a handle loop, side braces secured to said lever sides, a leg pivoted between said lever sides, a socket formed upon the end of said leg, a resilient material contained within said socket, a receptacle containing a resilient material and secured to the bottom of said lever sides, a rack secured between said lever sides, teeth cut in the rear side of said rack, teeth formed on the rear edges of said lever sides and registering with the teeth in said rack, a step formed with a tongue on its rear side adapted to form a sliding contact with the inner sides of said lever sides, shoulders formed upon the sides of said step, links having their forward ends secured to the sides of said step, and their rear ends embracing said lever sides, a pin connecting the rear ends of said links and adapted to engage the teeth of said rack, for the purpose set forth.

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

SIMON B. MINNICH.

Witnesses:

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MABEL L. LEFEVRE.