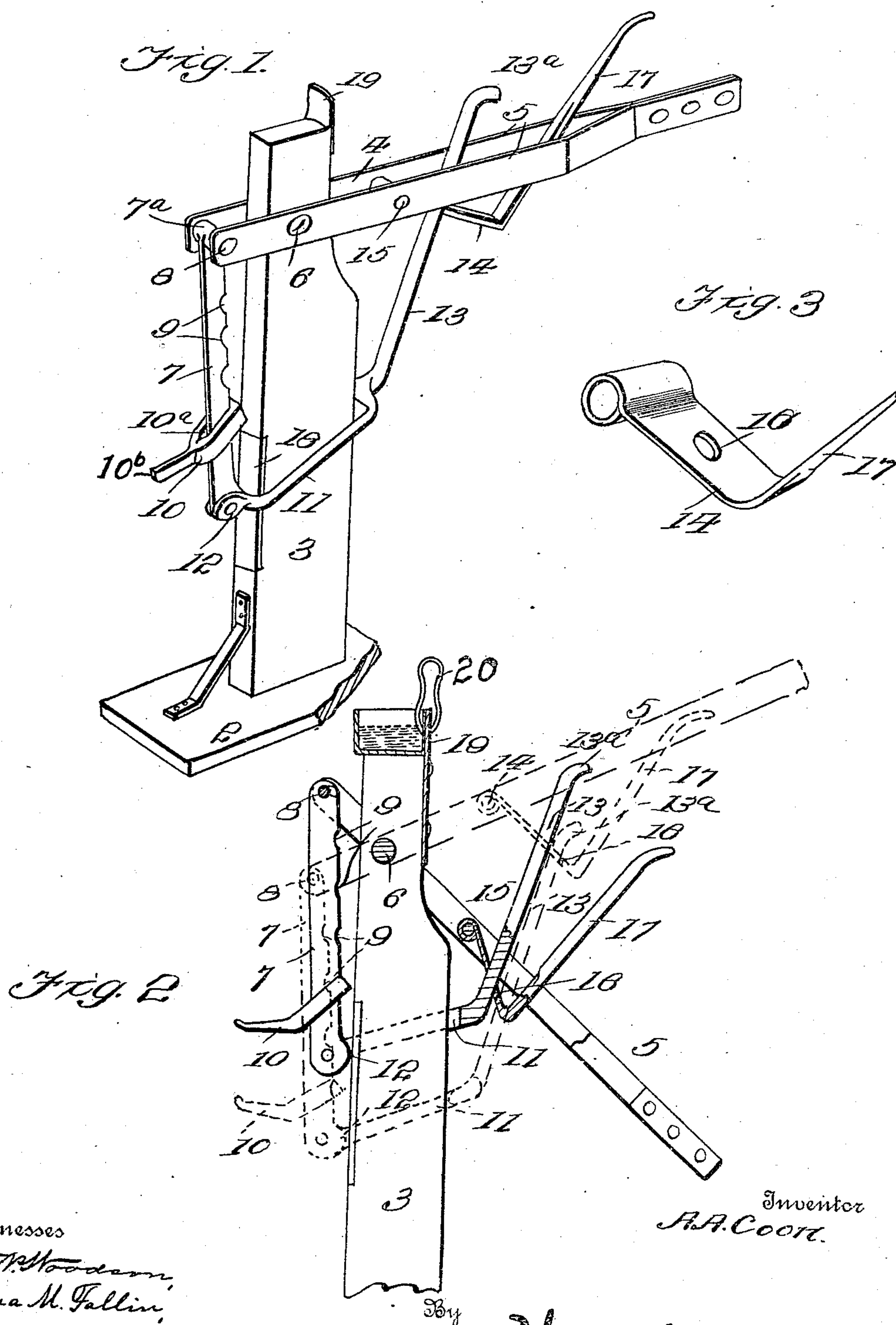


951,057.

A. A. COON.
WAGON JACK.
APPLICATION FILED SEPT. 7, 1909.

Patented Mar. 1, 1910.



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ALBERT A. COON, OF HUTSONVILLE, ILLINOIS.

WAGON-JACK.

951,057.

Specification of Letters Patent.

Patented Mar. 1, 1910.

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To all whom it may concern:

Be it known that I, ALBERT A. COON, a citizen of the United States, residing at Hutsonville, in the county of Crawford and State of Illinois, have invented certain new and useful Improvements in Wagon-Jacks, of which the following is a specification.

This invention relates to hoisting apparatus, and particularly to hand-operated lifting jacks of the kind usually employed for greasing wagon axles.

The object of the invention is to provide a wagon jack having a very wide range of movement, which enables the operator to stand in an upright position when lifting, thereby lessening the fatigue incident to operating devices of this character when a number of wheels are to be greased. This wide range of movement also permits my wagon jack to be applied to vehicles of different heights, as wagons, plows, cultivators and the like, and my invention further provides a device in which the lifting bar may be readily and quickly adjusted to accommodate it to various conditions, and in which the lifting bar is automatically locked at any height desired.

Another object of the invention is to improve the construction of jack claimed in my Patent No. 928,587, dated July 20, 1909, by mounting the holding clamp or clutch on the handle, whereby a downward pull on the lifting bar tends to elevate the rear end of the handle, thus taking an equal part of the strain off of the link and clutch or clamp, thus causing the weight of the load to be supported entirely on the fulcrum bolt.

For a full understanding of the invention and the merits thereof, and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of my improved wagon jack; Fig. 2 is a fragmentary side elevation thereof, partly in section; and Fig. 3 is a perspective detail view of the clamping plate detached.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to these figures, 2 designates a

base, and 3 a post or upright thereon. A handle 4 is pivoted to the post at its upper end, this handle being composed of two spaced bars 5 which are bent toward each other at their outer end and connected to each other in any suitable manner. A fulcrum bolt or pivot pin 6 passes through the bars near one end thereof, and through the post 3. Pivoted to the extremity of the handle and between the side bars thereof, is the lifting bar 7, the upper end of this bar being provided with the outwardly projecting integral washers or hubs 7^a which fill the space between the ends of the bars 5. This obviates the bending of the ends of the handle at the pivotal point, and holds these side bars apart so that there is no danger of their being accidentally bent inward and thus binding upon the pivot bolt 8. The lifting bar 7 is formed on its inner side edge with a plurality of notches 9, and mounted upon the lifting bar, so as to easily slide thereon, is the foot 10 having therein the elongated slot 10^a which is longer than the width of the lifting bar, so that when the foot is horizontal, it may be easily shifted up or down upon the lifting bar. It will be seen, however, that when the foot is angularly arranged relatively to the lifting bar, the rear wall of the slot 10^a will engage in one of the notches, thus holding the foot at any position upon the lifting bar to which it may be placed. The extremity of the foot is formed with an angular prolongation 10^b designed to be inserted beneath the axle or other body to be lifted.

Pivotaly mounted upon the lower end of the lifting bar by means of ears 12, is an elliptical link 11 which loosely surrounds the post 3 and is freely movable upon the post. The rear end of this elliptical link is formed with an upwardly and outwardly extending prolongation 13 having the form of a rod whose end is bent at right angles, as at 13^a. This prolongation extends up between the side bars 5 of the handle. Pivoted between the side bars of the handle by a pivot pin 15 is a clamp plate or clutch 14. This is freely movable upon its pivot pin 15, and is provided with an opening 16 slightly elliptical in form, through which passes the extension or rod 13, the bent end 13^a preventing the clamp plate or clutch from being lifted off

of the extension 13. The extremity of the clamp plate 14 is formed with an angular upwardly and outwardly extending handle 17 by which it may be operated. It will be seen that the elliptical perforation 16 in the clamp plate is of such size as to permit the clamp plate to slip easily upon the extension or rod 13 when the clamp plate or clutch is held in a position at right angles with said extension 13, but that when the clamp plate is allowed to move into an angular position with reference to the extension 13, the plate will bind upon the rod and lock the handle 4 to the extension 13, thus preventing any relative movement between the handle and the lifting bar, thus holding the handle in any depressed position and the lifting bar in any position to which the handle has raised it. It will be seen that the greater the downward pressure upon the foot 10, the greater will be the clamping action of the clamping plate upon the rod. The downward pressure upon the foot 10 will act to force the lower end of the lifting bar inward, and thus the outer end of the elliptical link 11 will strike against the front face of the post 3. To prevent wear upon the post 3, I provide the shield 18 which is attached to the front edge of the post and with which the link contacts when the device is in operative position.

The upper extremity of the post 3 is provided on its rear face with an upwardly projecting curved plate 19 which projects beyond the upper end of the post and by which means a grease can may be supported upon the post. These grease cans are usually cylindrical, and the can is secured upon the post by means of a clamp 20 formed of a length of wire or sheet metal which is bent upon itself to form resilient arms adapted to extend within the grease can and to hold the same upon the post. This arrangement is of particular value, as it supports a grease can in a most convenient position for use.

The operation of my invention will be evident from the description. The foot 10 may be primarily adjusted to any desired position upon the lifting bar by raising it from engagement with any one of the notches and shifting it along the bar into engagement with another notch. After the adjustment of the foot has been made, and the foot has been inserted beneath a wagon axle or other object to be lifted, the handle is depressed, the clamping plate being held into practical parallelism with the side bars of the handle so that the extension 13 will slip easily through the perforation in the clamping plate. When the object has been elevated to the desired position, the clamp is released, whereupon it will bind upon the extension 13 and hold the different members of the elevating mechanism locked relatively to each other.

It will be seen that with the device as above described, the weight upon the foot is transmitted entirely to the fulcrum bolt and that the locking plate is under comparatively slight strain. It will also be seen that the handle of the clamping plate 14 is in particularly convenient position relative to the hand of the operator, and that it moves up and down with the handle 4 so that the operator can, with one hand, lift the handle, and can, with the same hand, easily hold the clamping link out of action until the object has been lifted to the extent desired.

Having thus described the invention, what I claim is:—

1. A wagon jack including a post, a handle pivoted to the post, a lifting bar pivotally supported on one end of the handle, a link pivoted at one end to the lower end of the lifting bar and having a free upwardly extending rod projecting from its other end, and a gravity clamping plate pivotally carried on the handle and engaging said rod.

2. A wagon jack including a post, a handle pivoted to the post, a lifting bar pivotally supported on one end of the handle, an elliptical link pivoted at one end to the lower end of the lifting bar and surrounding the post, the other end of the link having projecting therefrom an upwardly and outwardly extending rod, and a clamping plate pivotally carried on the handle and having a perforation slightly larger than the rod, through which said rod passes.

3. A wagon jack including a post, a handle pivoted to the post, a notched lifting bar pivotally supported on the handle, a foot shiftably mounted on the lifting bar and engageable with any one of the notches, an elliptical link pivoted at one end to the lower end of the lifting bar and surrounding said post, a rod attached to the link and upwardly extending therefrom, and a clamping plate pivotally carried on the handle and having a perforation slightly larger than the rod, through which the rod passes.

4. A wagon jack including a post, a handle formed of opposed side bars extending on either side of said post and pivoted thereto, a lifting bar pivotally supported on the handle, said bar being notched on its inside edge, a projecting foot having a slot extending through it, through which the lifting bar passes, a link pivoted at one end to the lower end of the lifting bar and surrounding the post, an upwardly and outwardly extending rod rigidly attached to the link, and a clamping plate pivotally mounted on the handle and having a perforation through which said rod passes, said perforation loosely fitting the rod.

5. A wagon jack including a post, a handle pivoted to the post, a lifting bar pivot-

ally supported on the handle, a link pivoted
at one end to the lower end of the lifting
bar, an upwardly extending rod attached to
the other end of the link, and a clamping
5 plate pivotally mounted on the handle and
having a perforation through which said
rod passes, the end of said plate being
formed with an upwardly and outwardly

extending handle, whereby it may be ma-
nipulated.

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

ALBERT A. COON. [L. S.]

Witnesses:

FRANK KOPTA,
A. W. ANDERSON.