(No Model.)

J. A. WILKS.

LIFTING JACK.

No. 459,805. Patented Sept. 22, 1891.

Fig. 1.

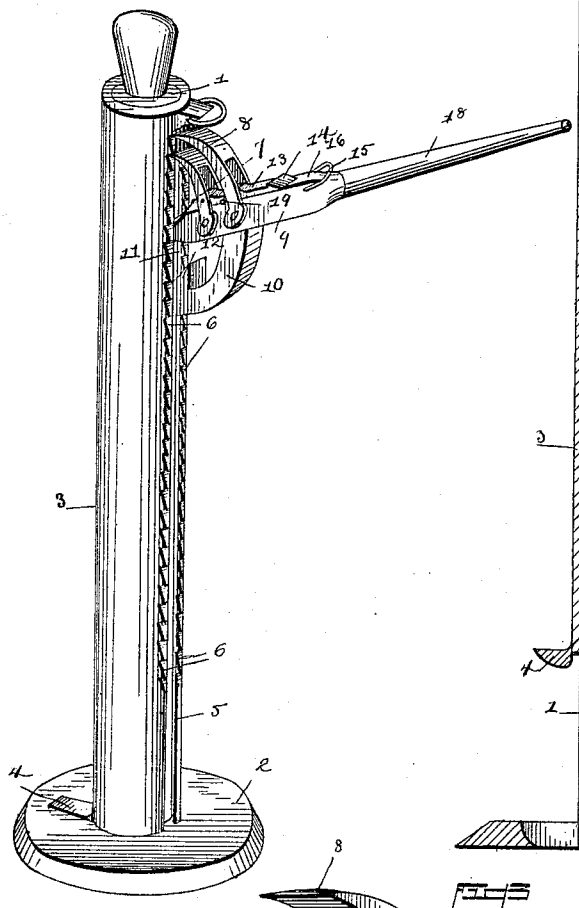


Fig. 2.

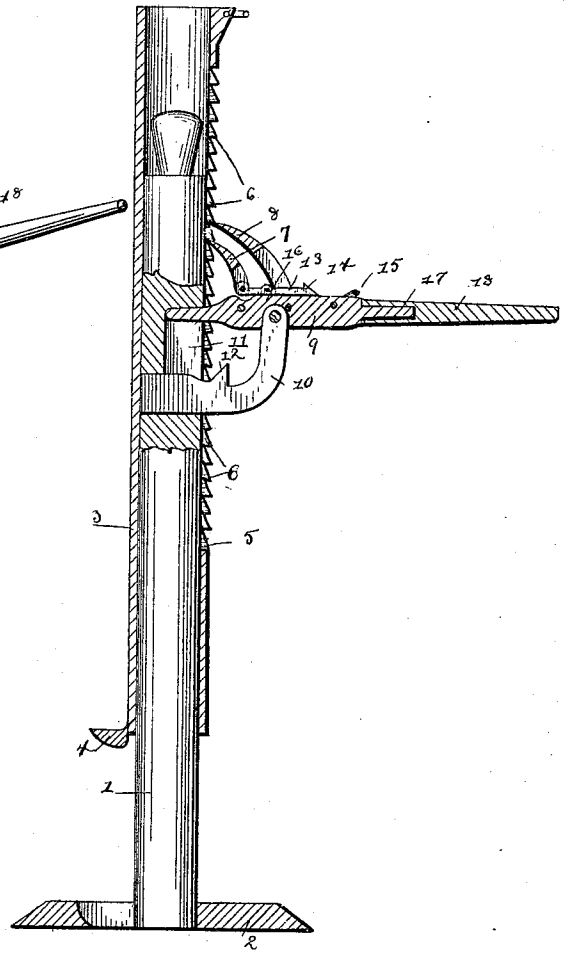
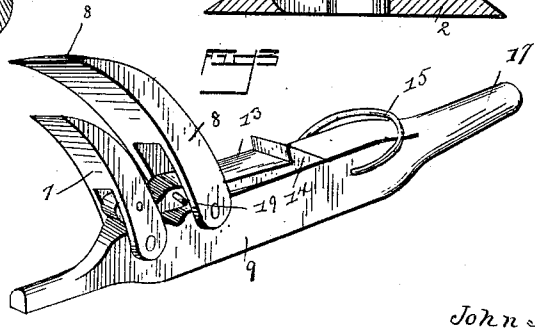


Fig. 3.



Witnesses

Chas. L. Ford.

S. F. Riley

Inventor

John A. Wilks

By his Attorneys,

C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN A. WILKS, OF SPRINGDALE, ARKANSAS.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 459,805, dated September 22, 1891.

Application filed June 18, 1891. Serial No. 396,755. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WILKS, a citizen of the United States, residing at Springdale, in the county of Washington and State of Arkansas, have invented a new and useful Lifting-Jack, of which the following is a specification.

The invention relates to improvements in lifting-jacks.

The object of the present invention is to provide for lifting rails of railroad-tracks a jack which will be simple and inexpensive in construction and which will be so arranged that dirt will not choke up the working parts and interfere with the operation.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a lifting-jack constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view. Fig. 3 is a detail view in perspective of the operating lever and pawls.

Referring to the accompanying drawings, 1 designates a round standard, provided at its lower end with a foot 2 and having sliding vertically on it a cylindrical section 3, which is provided at its lower end with a foot or step 4, adapted to engage a rail and lift the same as the cylindrical section 3 moves vertically on the standard or post 1. The cylindrical section is provided with a vertical slot 5, extending from the bottom to within a short distance of the top, and arranged on opposite sides of the slot 5 are downwardly-shouldered teeth 6, adapted to be engaged by pawls 7 and 8 of a lever 9. The lever 9 is fulcrumed on an arm 10, extending from the standard 1, and the pawls 7 and 8 are pivoted on opposite sides of the pivotal point of the lever 9 and alternately engage the teeth of the cylindrical section to lift the same. The pawl 7 is the shorter, and is arranged on the inner side of the pivotal point of the lever, and it engages the teeth 6 on the downward stroke of the lever, and the pawl 8 is the longer and is arranged on the outer side of the pivotal point, and it lifts the cylindrical section on the upward stroke of the lever. The stroke of the lever is limited by a recess 11 of the standard, and a shoulder 12 of the arm 10 and the inner end of the lever 9 is arranged to engage the upper wall of the recess 11 on the downward stroke, and it engages the shoulder 12 of the arm on the upward stroke. The cylindrical section 3 is returned or lowered and the pawls are disengaged from the teeth by a bar 13, which has its inner end pivoted in a bifurcation of the pawl 7, and it extends through a bifurcation of the pawl 8, and it is provided at its outer end with a tooth 14, which is engaged by a link 15 when the lever is at the end of its upward stroke, and on the downward stroke the pawls are withdrawn from engagement and the cylindrical section is permitted to drop. The pawls 7 and 8 have their inner ends bifurcated, and the arms 10 extend upward and form an elbow which gives the lever sufficient swing. The upper end of the cylindrical section is provided with a ring to enable the section to be lifted independently of the operating-lever. The foot of the standard is recessed to receive the foot or step of the section to allow the upper face of the foot or section 4 to lie flush with the upper face of the foot 2.

The lever is constructed of two sections, and consists of a permanent portion 16, which is provided with a projection 17, and a removable portion or handle 18, which is provided with a socket to receive the projection 17.

It will be seen that the jack is simple and inexpensive in construction and that the operative parts are arranged at the top of the post and are not liable to become choked with dirt.

The pawl 8 is held at a proper distance from the pawl 7, so as to regularly engage the teeth of the cylindrical section by a transverse pin 19, extending through the bar 13 and forming projections on opposite sides of the same to engage the inner side of the pawl and prevent the same dropping too far.

What I claim is—

1. In a lifting-jack, the combination of the standard, the section sliding on the standard and provided with teeth, an arm extending from the standard, a lever fulcrumed on the arm, the pawls pivoted to the lever and ar-

ranged on opposite sides of the fulcrum-point of the lever and adapted to alternately engage the said teeth of the sliding section, the bar pivoted to the inner pawl, and the link secured to the lever and adapted to engage the bar to withdraw the pawls from engagement with the cylindrical section, substantially as described.

2. The combination of the standard provided with a recess 11, having its upper wall forming a shoulder, the arm extending from the standard and provided with a shoulder 12, the cylindrical section sliding on the standard and provided with a longitudinal slot and having teeth arranged on opposite sides of the slot, the lever fulcrumed on the arm and having its inner end arranged to engage the upper wall of the recess 11 and the shoulder 12, the pawls pivoted to the lever on opposite sides of the fulcrum-point, and means for withdrawing the pawls out of engagement with the section, substantially as described.

3. In a lifting-jack, the combination of the standard, the section sliding on the standard and provided with teeth, an arm extending from the standard, a lever fulcrumed on the arm, the pawls pivoted to the lever and arranged on opposite sides of the fulcrum-point of the lever and adapted to alternately engage the said teeth of the sliding section, the bar pivoted to the inner pawl, and means for locking the bar so as to hold the pawls out of engagement, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN A. WILKS.

Witnesses:
S. M. ROBINSON,
JNO. P. STAFFORD.