

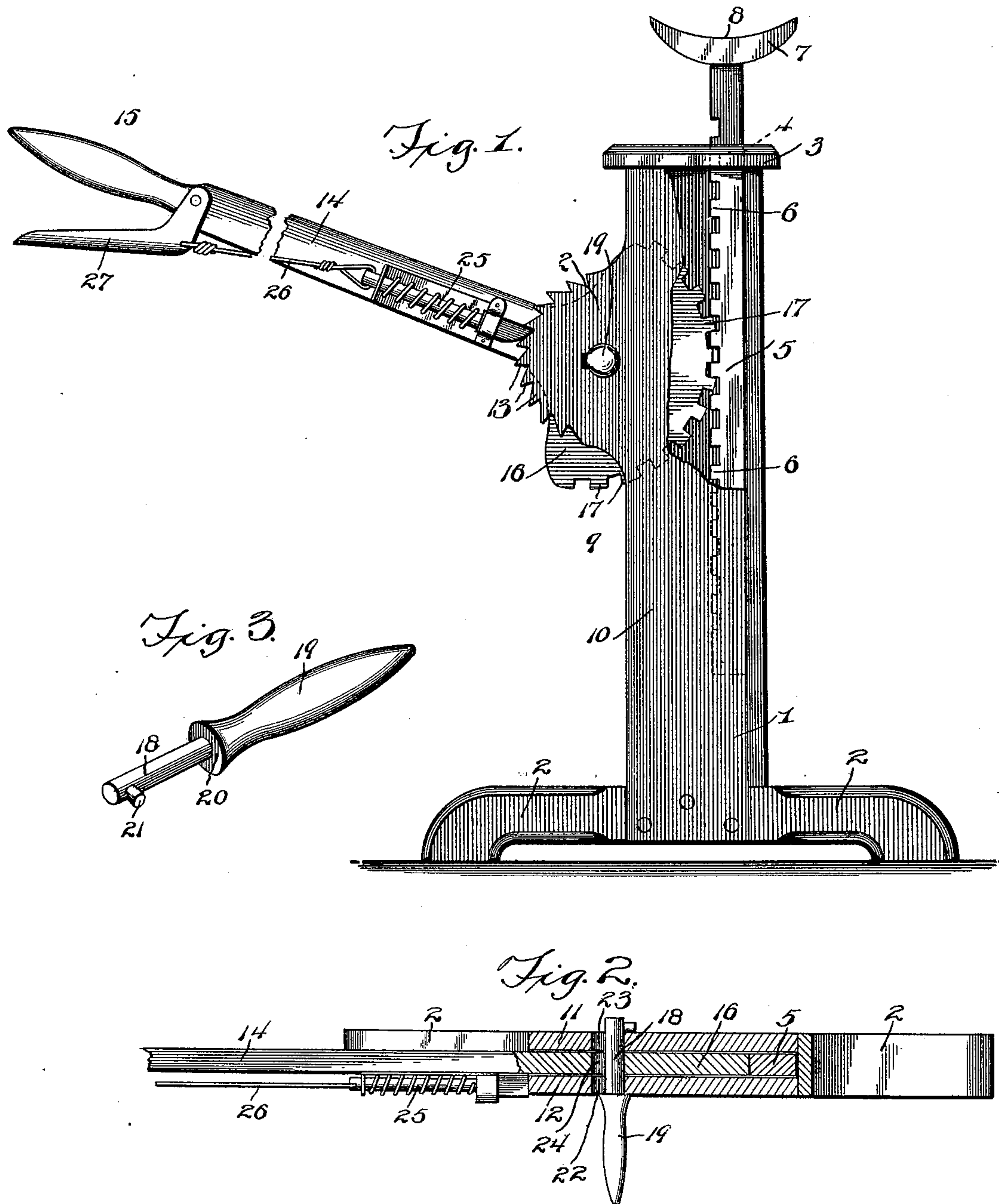
No. 641,679.

Patented Jan. 23, 1900.

U. DIETZ.  
WAGON JACK.

(Application filed June 30, 1899.)

(No Model.)



Witnesses.

Ralph A. Shepard  
Chas. S. Hoyer.

By his Attorneys,

Uriah Dietz Inventor

C. A. Snow & Co.



# UNITED STATES PATENT OFFICE.

URIAH DIETZ, OF BANGOR, PENNSYLVANIA.

## WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 641,679, dated January 23, 1900.

Application filed June 30, 1899. Serial No. 722,446. (No model.)

*To all whom it may concern:*

Be it known that I, URIAH DIETZ, a citizen of the United States, residing at Bangor, in the county of Northampton and State of Pennsylvania, have invented a new and useful Wagon-Jack, of which the following is a specification.

This invention relates to wagon-jacks; and the objects sought to be obtained by the present device are strength, durability, and simplicity of structure, as well as convenience in operation, and also to provide means for quickly disassociating and reassembling the lifting-bar-actuating lever and thereby afford means for reducing the entire device to compact form for storage or transportation and subsequently uniting the several parts in operative relation without requiring skilled ingenuity to accomplish such organization.

The invention consists of the construction and arrangement of the several parts which will be more fully hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a wagon-jack embodying the invention and shown broken away in part. Figure 2 is a horizontal section taken through the pivotal point of the operating-lever. Fig. 3 is a detail perspective view of a removable pivotal device for the operating-lever.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a hollow or box-supporting standard which has oppositely-extending feet 2 connected to the lower portion thereof which provide a base-rest of elongated narrow form to avoid taking up width space, but serve efficiently for the purpose intended. These feet 2 may be either made separately and suitably attached to the lower end of the standard 1 or be cast integral with the latter through one side of a cap 3 on the top of said standard. A vertical opening 4 is formed for the operative movement of a vertically-disposed lifting-bar 5, which has rack-teeth 6 in one edge thereof. The edge of the said lifting-bar 5, opposite that having the rack-teeth 6, bears against the outer end of the standard 1 and contacts with the inner surface of the latter. On the upper end of the lifting-bar 5 a head or rest 7 is secured and has its upper

engaging edge 8 preferably concaved, so as to conform to the curvature of an axle or other analogous device against which it may be placed. The standard 1 is closed at all points except at the inner end, and the inner edges 9 of the opposite sides 10, at their upper portions, have inwardly-extending enlargements or segments 11 and 12, the segment 12 being provided with teeth 13 of ratchet form.

An operating-lever 14 is employed in connection with the improved device and has a handle or grip 15 at its rear end and a segmental head 16 at its opposite end, with teeth 17 on the curved edge thereof, which mesh with the teeth 6 of the lifting-bar 5. This lever is held in pivotal connection with the upper inner portion of the standard 1, and the preferred form of such connection comprises a shank 18, extending from a handle 19, a shoulder 20 being formed at the point where the said shank connects with the handle, and projecting from the said shank, near its free end, is a stud 21, disposed in a plane at right angles to said shank. To receive this pivotal device, keyhole-slots 22 and 23 are formed in the enlargements or segments 12 and 11, respectively, and a similar slot 24 is also cut through the segmental head 16 of the lever 14. The said head 16 of the lever is first turned to bring the slot 24 thereof in alinement with the slots 22 and 23, and the shank, with its stud, is passed through the said alined slots and turned by gripping the handle 19 until the stud 21 is out of alinement with the reduced portion of the slot 23 in the enlargement or segment 11, as clearly shown by Fig. 2. When this preferred pivotal device is arranged as just described, the shoulder of the handle 19 will bear against the exterior surface of the segment 12, and the distance between the said shoulder 20 and the stud 21 is about equal to the distance between the exterior surfaces of the enlargements or segments 11 and 12 and so that the said stud will bear against the outer surface of the enlargement or segment 11 adjacent the keyhole-slot 23 therein with sufficient friction to prevent loose movement of the pivotal device and guard against displacement of the same. The slot 24 is located in the segmental head 16 at such a radial distance from the line of teeth 17 on the curved edge of said



head as to hold the latter in continual mesh with the teeth 6 of the lifting-bar 5 when the pivotal device is in operative relation or engagement with the parts, as stated. Furthermore, the projection of the segmental head 16 into the standard 1 is of such distance as to hold the said lifting-bar 5 against the front end of the standard 1, and, as shown by Fig. 2, the opening between the opposite sides 10 of said standard is just large enough to permit the parts working therein to have free operative movement without undue lateral play. By this means guiding and supporting devices for the lifting-bar 5 are entirely dispensed with, and the entire construction is thereby materially simplified and cheapened and the cost of manufacture reduced to a minimum. The lever 14 also supports a spring-actuated dog 25, which normally engages the ratchet-teeth 13 in the enlargement or segment 12, and said dog is operable through the medium of a connecting wire or rod 26, running to a grip 27, pivotally attached to the said lever 14.

25 In the operation of the device the lifting-bar 5 is elevated by applying a downward pressure to the lever 14, and the degree of adjustment in this direction is sustained by the dog 25, engaging one of the ratchet-teeth 13 in the enlargement or segment 12, it being unnecessary to release the dog to permit such downward movement of the lever, as will be readily understood. In lowering the lifting-bar 5 the dog 25 is held disengaged through the medium of the grip 27 and the lever at the same time elevated. A very sensitive adjustment of the lifting-bar in either direction can be obtained, thus making the jack particularly useful for elevating carriage-axles or such devices of vehicles generally for the purpose of lubrication or other manipulation. The lock established between the dog 25 and the teeth 13 of the enlargement or segment 12 is very positive, will resist considerable strain in view of the extent or width of the material in advance of the said teeth, and which is vastly superior to the ordinary construction embodying projec-

tions or lateral extensions, which become easily broken and are very sensitive to fracture when falling or suddenly brought in contact with an obstruction.

By removing the pivotal device the lever 14 is disconnected and can be stored with the standard in compact form or for transportation. The jack can by this means be made less bulky, and when it is desired to use the jack the parts can be quickly reassembled.

Though it is intended that the jack be particularly used for elevating wagon or vehicle axles, it will be understood that it is equally well applicable for other purposes, and changes in the proportions, size, and minor details of construction can be resorted to without in the least departing from the spirit of the invention or sacrificing any of the advantages thereof.

Having thus described the invention, what is claimed as new is—

In a device of the character set forth, the combination of a standard having opposite sides with enlargements or segments projecting rearwardly from the upper portions thereof, one of said enlargements or segments having ratchet-teeth formed on its edge, a toothed lifting-bar movably mounted in said standard, an operating-lever having a segmental head pivotally supported between the enlargements or segments of the sides and provided with teeth meshing with those of the lifting-bar, said head holding the lifting-bar in vertical position against the inner surface of the front end of the standard, and the width of the opening in the latter being just large enough to permit the operation of the segment and bar, and a spring-actuated dog mounted on said lever for engagement with the ratchet-teeth on one of the enlargements or segments.

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

URIAH DIETZ.

Witnesses:

FRED J. DIETZ,  
HELEN STIER.