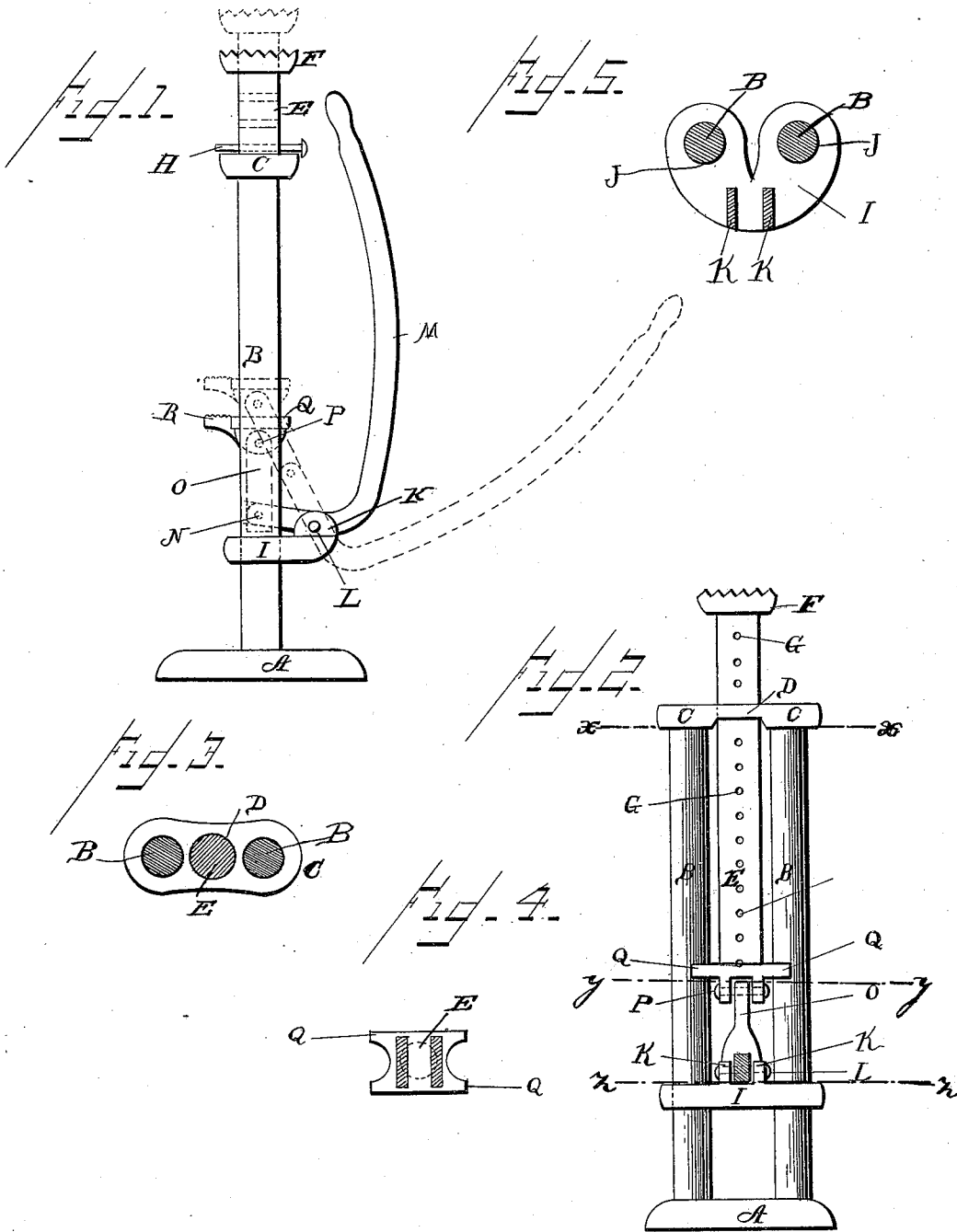


(No Model.)

S. C. HALL.
WAGON JACK.

No. 433,862.

Patented Aug. 5, 1890.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SAMUEL CLIFFORD HALL, OF RACINE, WISCONSIN.

WAGON-JACK.

SPECIFICATION forming part of Letters Patent No. 433,862, dated August 5, 1890.

Application filed February 6, 1890. Serial No. 339,385. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL CLIFFORD HALL, a citizen of the United States, and a resident of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Wagon-Jacks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved wagon-jack. Fig. 2 is a front elevation of the same. Fig. 3 is a transverse sectional view on line *xx* in Fig. 2. Fig. 4 is a similar view on line *yy*, same figure, looking from beneath; and Fig. 5 is a similar view on line *zz*, same figure.

Like letters of reference denote corresponding parts in all the figures.

My invention relates to lifting-jacks of the type commonly known as "wagon-jacks;" and it consists in the improved construction and combination of parts of a device of that class, as will be hereinafter more fully described and claimed.

Reference being had to the accompanying drawings, the letter A designates the base of the jack, upon which are secured two vertical and parallel posts or uprights B B, which are connected at their upper end by the yoke or cross-piece C, having a central aperture D for the passage of the lifting-bar E. The latter is provided at its upper end above the cross-piece C, with a head or enlargement F, forming a bearing for the load which is to be lifted, and has a series of transverse bolt-holes G for the insertion of a bolt or pin H, the object of which is to hold the lifting-bar and its superimposed load in position while the fulcrum-block is being raised and readjusted in operating the device. This fulcrum-block I is preferably of the shape illustrated in Fig. 5 of the drawings, having two apertures J J for the insertion of the parallel uprights B B, upon which the block may slide up and down. The laterally-projecting part of the block has two parallel lugs or ears K K, through which a bolt or hinge-pin L is in-

serted, forming a fulcrum for the elbow-lever M. The long arm of said lever has a handle for operating it, while its inner short arm, which is bent approximately at right angles, is hinged at N to the lower end of a short arm or bar O, the upper end of which is hinged at P to the lower end of lifting-bar E between the parallel uprights B B. This lower end of bar E is provided with a guide-plate Q, having lateral projections partly encircling the parallel uprights, so as to form guides for the lifting-bar on its up and down movements, and thereby prevent its lower end from undue lateral play between the uprights. If desired, this guide-plate Q at the lower end of the lifting-bar may be provided with a laterally-projecting shoe or bearing R, adapted to support and lift a load at a lower level than the lifting-head or bearing F at the upper end of the lifting-bar.

From the foregoing description, taken in connection with the drawings, the manner of operating my lifting-jack will readily be understood. The wagon-axle (or other object to be lifted) is placed either upon the head F or bearing R, as may be found most convenient, lever M being in the upright position shown in full line on the drawings, and by then depressing the outer end of the lever the lifting-bar, with its superimposed load, is raised. The bolt H is then inserted through the bolt-hole nearest above the cross-piece or yoke on top of the uprights, so as to form a bearing against this and prevent the lifting-bar from slipping down while the lever is brought back into its normal upright position. At the same time the movable fulcrum-block I is raised by sliding it up the proper distance upon the uprights, in which position it will "bind" upon said uprights, slightly tilting to one side as the lever is being depressed ready for the next lift. In other words, during each operation of working the lever and raising the load this fulcrum-block I will be held in its place upon and between the two uprights by binding on them with the edges of its apertures J J as the the block is tilted slightly to one side in hinging lever M down. In this manner the load is lifted step by step, and with the expenditure of a minimum of power until it has reached the desired elevation.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

5 The hereinbefore-described improved lifting or wagon jack, comprising the base, parallel uprights connected by a cross-piece at their upper ends, movable fulcrum-block having apertures through which the parallel uprights are inserted and provided with lugs or ears for the elbow-lever, apertured lifting-
10 bar having a head or bearing at its upper end, the pin or bolt adapted to be inserted transversely through the apertures in said bar, the guide-plate at the lower end of the
15 lifting-bar and adapted to form a secondary

bearing on said bar, the elbow-lever for operating the device, and a short arm or bar connecting the short arm of said lever pivotally with the guide-plate at the lower end of the lifting-bar, all constructed and combined 20 substantially in the manner and for the purpose set forth.

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

SAMUEL CLIFFORD HALL.

Witnesses:

JNO. W. KNIGHT,
ERASTUS C. PECK.