

No. 626,086.

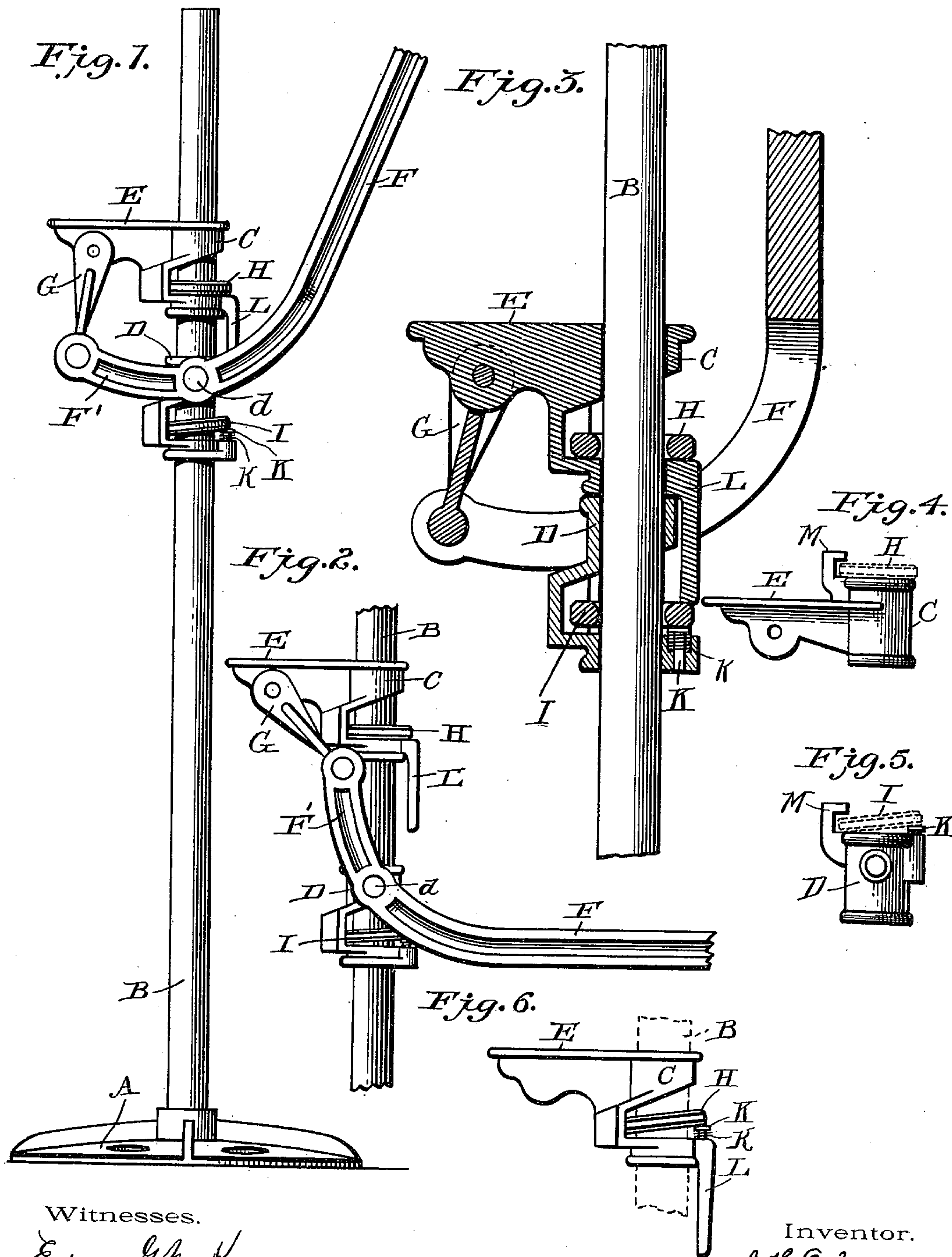
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J. H. OSBORNE.

LIFTING JACK.

(Application filed Sept. 19, 1898.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

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LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 626,086, dated May 30, 1899.

Application filed September 19, 1898. Serial No. 691,342. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. OSBORNE, a citizen of the United States, and a resident of Anderson, in the county of Madison and State of Indiana, have invented certain new and useful Improvements in Lifting-Jacks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a side elevation of my improved lifting-jack with lever in raised position. Fig. 2 is a similar view of a portion of jack with the lever depressed. Fig. 3 is a vertical section of a portion of the jack. Figs. 4, 5, and 6 are detail views showing modified forms of sleeve.

This invention is designed to provide a lifting-jack of improved character; and it consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

Referring to the accompanying drawings, the letter A designates a suitable base which supports a vertical post or standard B. Mounted loosely upon the said post or standard, one above the other, to move loosely thereon are two sleeves C and D, the upper one C of which carries the lift or jack plate E.

F is an operating-lever which is formed with a bifurcated upturned end portion F', which embraces the post or standard and which is fulcrumed intermediately to lateral studs *d* of the sleeve D. Connecting the upper end of the portion F of the lever with the under side of the lift or jack plate E is a link G.

Both of the sleeves C and D are cut away at their central portions and are offset laterally, substantially as shown, to form seats, respectively, for clutch-rings H and I, which fit loosely, but somewhat closely, around the post or standard. The lower ring I rests at one side upon the upper end of a pin K, which is held up by a spring *k*, and on the lower portion of the upper sleeve C, in line with the said pin, is a depending lug or finger L, which is designed, as hereinafter more fully described, to come in contact with the ring I

and depress it against the action of the spring-actuated pin. The upper ring H is simply seated around the post or standard within the sleeve C.

The operation of the jack is as follows: When the lever F is moved downwardly, the upper sleeve C, with its jack or lift plate, by the straightening movement of the link G is moved upwardly on its post or standard, thereby elevating the vehicle-axle or other object to be raised until the lever comes to the horizontal position shown in Fig. 2. The lower end portion of the link G then comes in contact with the back of the standard and prevents further downward movement of the lever. During this operation and while the lever remains in horizontal position, and also while it is being moved back to vertical position, the spring-pin K is holding the ring I in canted or oblique position upon the standard, thereby causing it to bind thereon or clutch it in a manner, as will be readily seen, to prevent the sleeve D from moving down on said post or standard, it being in fact impossible for said sleeve to slip on the standard when the ring I is in this position. Upon the upward movement of the lever if the ring H be left free the sleeve C will simply move down on the post or standard. If the lever comes to its full vertical position, the finger or lug L comes into contact with the ring I and depresses it against the action of the spring-pin to a position in which its vertical axis coincides with the vertical axis of the post or standard, which releases the "bite" or clutch of said ring and permits the sleeve to be readily slipped down on the standard.

If during the upward movement of the lever the ring H be pressed upwardly at one side with the finger so as to cause it to bite the post or standard, the sleeve C will remain stationary and the sleeve D will climb up to it, so that by so holding this ring and working the lever in the manner of a pump-handle the entire arrangement will climb the post or standard with a step-by-step movement. It will also be noticed that in any position of the lever the entire arrangement may be revolved upon the post or standard to bring the lever into the desired position.

If desired, the upper ring H may be used with a spring in the same manner as the lower

one, in order to avoid the necessity for raising said ring with the finger to secure the step-by-step climbing movement. Or said ring may be omitted if it is not desired to retain the step-by-step movement.

In Figs. 4 and 5 I have illustrated modified forms of the sleeves C and D. In the construction shown in these figures the two sleeves, instead of being cut away centrally to form seats for the respective rings H and I, are provided at their upper ends each with a recessed lug M to seat said rings. In this construction the finger L is omitted from the upper sleeve, as the lower end of the said sleeve will contact directly with the lower ring I to depress it against the action of its spring lifting-pin.

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

1. In a lifting-jack, the combination with a post or standard, of the two sleeves mounted loosely thereon, the clutch-rings carried by the said sleeves and encircling said post or standard and adapted to assume oblique positions thereon, the bifurcated upwardly-bent lever and the link connecting the upwardly-bent end of the lever with an extension of the upper sleeve, substantially as specified.

2. In a lifting-jack, the combination with a post or standard, of the two sleeves mounted loosely thereon, one above the other, the upper sleeve having a jack or lift plate which

forms a lateral extension of said sleeve, the clutch-rings carried by the said sleeves, the spring-pin carried by the lower sleeve and upon which the clutch-ring of the lower sleeve rests, the upper sleeve being arranged in certain positions, to contact with the said ring and depress it against the action of the said pin, the bifurcated lever embracing the post or standard and fulcrumed to the lower sleeve, and a link connecting the upturned end of said lever with the said jack or lift plate, substantially as specified.

3. In a lifting-jack, the combination of the post or standard, the two sleeves loosely mounted thereon, the upper of said sleeves having a jack or lift plate extension, the clutch-ring carried by the lower sleeve, the spring-pin upon which said ring rests, said upper sleeve being adapted when in a certain position to contact with the said ring and depress it against the action of said pin, the bifurcated or slotted lever fulcrumed to the lower sleeve and having the upturned end portion, and the link which connects the said upturned end portion with the plate extension of the upper sleeve, substantially as specified.

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

JOHN H. OSBORNE.

Witnesses:

SAMUEL P. MOORE,
ISAAC JOYNER.