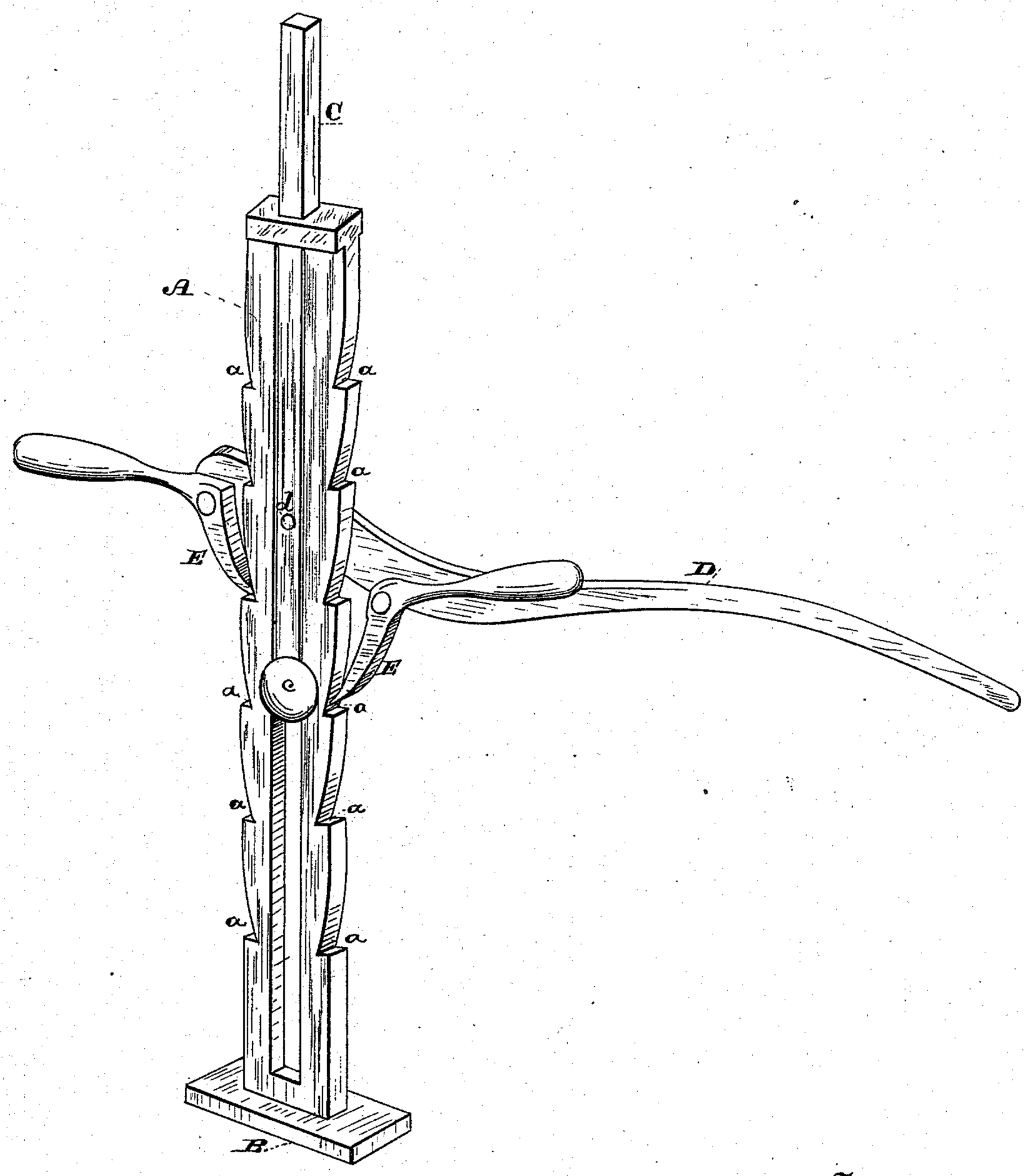
(No Model.)

I. ROSE.

LIFTING JACK.

No. 288,367. Patented Nov. 13, 1883.



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UNITED STATES PATENT OFFICE.

IRA ROSE, OF SALINAS, CALIFORNIA.

LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 288,367, dated November 13, 1883.

Application filed September 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, IRA ROSE, of Salinas, county of Monterey and State of California, have invented an Improvement in Lifting-Jacks; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to that class of lifting-jacks in which, by means of a vibrating lever which operates pawls in engagement with a ratchet, said lever and its standard are raised.

My invention consists in a novel arrangement of the stationary ratchet-standard with the sliding standard, whereby by the operation of the lever and pawls the two are firmly held together and the jack rendered more rigid and capable of supporting greater weight.

The object of my invention is to provide a simple, effective, and strong lifting-jack for wagons, &c.

Referring to the accompanying drawing, the figure represents a perspective view of my lifting-jack.

A is a slotted standard, which may be made integral, or, preferably, of two bars bound together above and below and supported upon a base, B. The outer edges of this standard are made with ratchet-teeth *a*, as shown. Between these bars, or rather in the slot of the standard A, is the sliding standard or bar C. This consists of a bar having the same thickness as standard A, and fitting snugly in its slot, and yet adapted to slide up and down readily. It is guided and held in its place by means of the disks *c*, but one of which is shown in the figure, the other being on the opposite side. These disks are secured properly to the lower end of the standard C, and bear upon the faces of the standard A.

Pivoted at *d* to the sliding standard C is the main operating-lever D, the ends of which project on each side of its pivot-point and the standard A.

E shows the pawls pivoted to the lever D and engaging with the ratchet-teeth *a* of the standard A. These pawls are made elbow-shaped, the free arm being made heavier, in order to keep the other arm in engagement with the teeth. Now, when the weight is over and upon the standard C, by vibrating lever D the pawls on each side engage alternately with the teeth, and thus carry up both lever and standard C and raise the weight. One pawl acts as a fulcrum until the other engages with one or two notches higher, when it acts as a fulcrum for the first one. By raising the weighted ends of the pawls they are disengaged from the teeth, and the sliding standard may be readily and rapidly moved up and down, which is of great convenience in nicely adjusting the device under the weight, so as to make the power come on the downstroke of the lever. The guide-disks *c* hold the sliding standard well in its place between the sides, or in the slot of the permanent standard.

I am aware that lifting-jacks are known wherein the principle of raising or elevating is similar to mine, and that in these devices there is a vibrating lever carrying weighted pawls, which, by engaging with a ratcheted standard, raise said standard, or themselves and lever, according as the standard or the lever is vertically adjustable; but in one of these cases the lever itself is the weight-lifting power, and subjects the weight to the unnecessary motion of its own vibration, it having no vertically-adjustable standard; and in the other case, besides the undesirable feature of causing the ratcheted standard to ascend while the pawls remain in the same plane, the two standards are arranged face to face, which is not an element of strength or rigidity, because the weight has a tendency to separate or part them, and there is nothing to counteract this tendency; but in my jack I have practically three bars in line, the center one, braced from both sides, being that upon which the weight rests, and there can be no tendency to part them; but even should there be some such slight tendency, the operation of the pawls on opposite sides causes an inward forcing and resisting or opposing pressure, which has a tendency to brace the jack and hold the three bars rigidly and firmly together, whereby great strength, combined with lightness, may be given the implement.

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

In a lifting-jack, the slotted permanent standard A, having teeth *a* on its outer edges, the sliding lifting-standard C, fitted within the

slot of standard A, and the guide disks or plates *c*, secured to sliding standard C, and holding it in place, in combination with the vibrating lever D, pivoted to said sliding standard, and the weighted pawls E, pivoted to the lever D, and engaging on each side or edge of the standard A with its teeth *a*, substantially as herein described.

In witness whereof I have hereunto set my hand.

IRA ROSE.

Witnesses:
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