(No Model.) 2 Sheets—Sheet 1.

J. W. LICKEY.

LIFTING DEVICE.

No. 489,610. Patented Jan. 10, 1893.

FIG. 1.

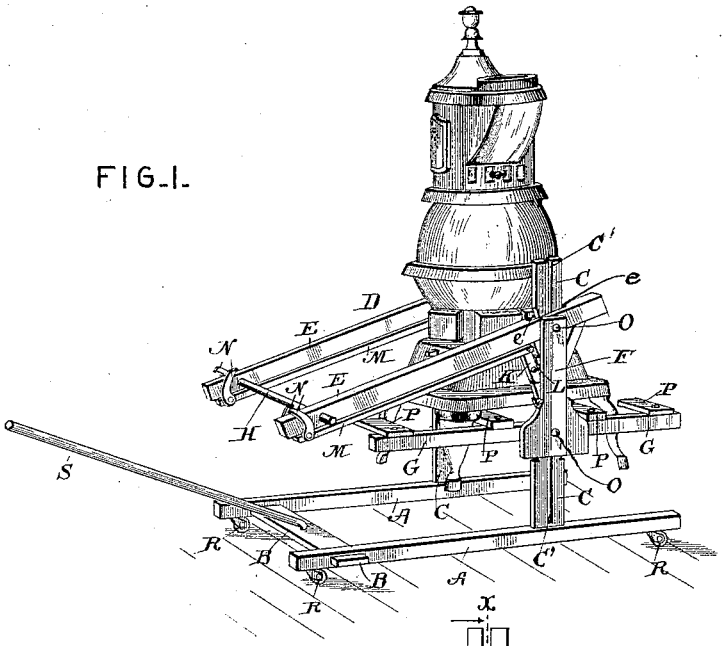
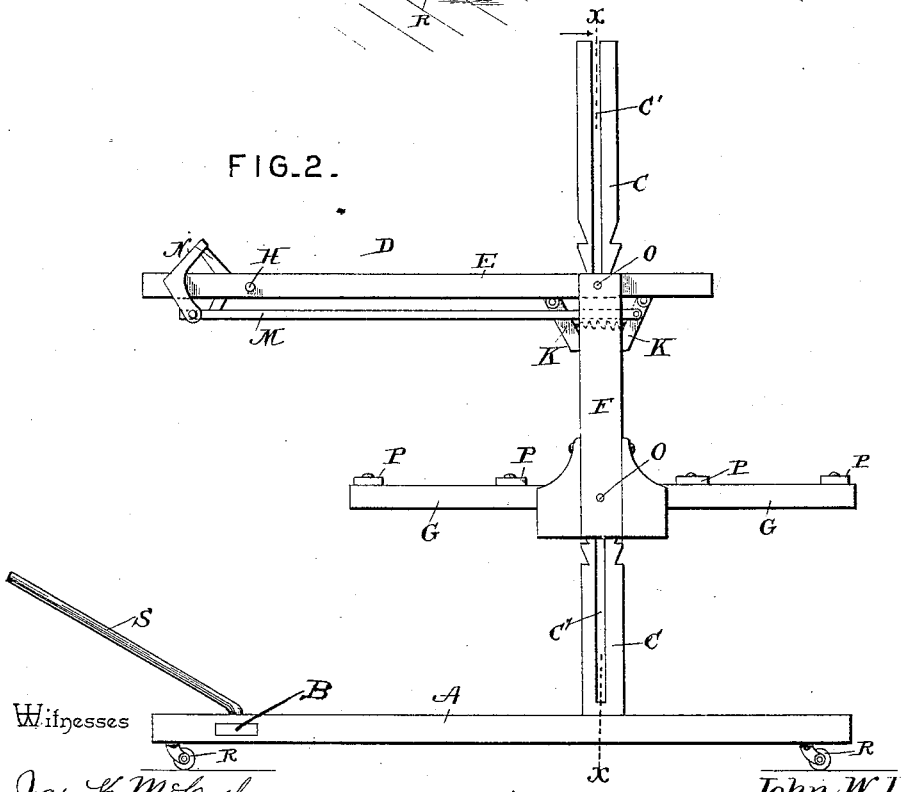


FIG. 2.



Witnesses

Jas. K. McCathran

D. E. Boyle.

Inventor

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(No Model.) 2 Sheets—Sheet 2.

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LIFTING DEVICE.

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FIG. 4.

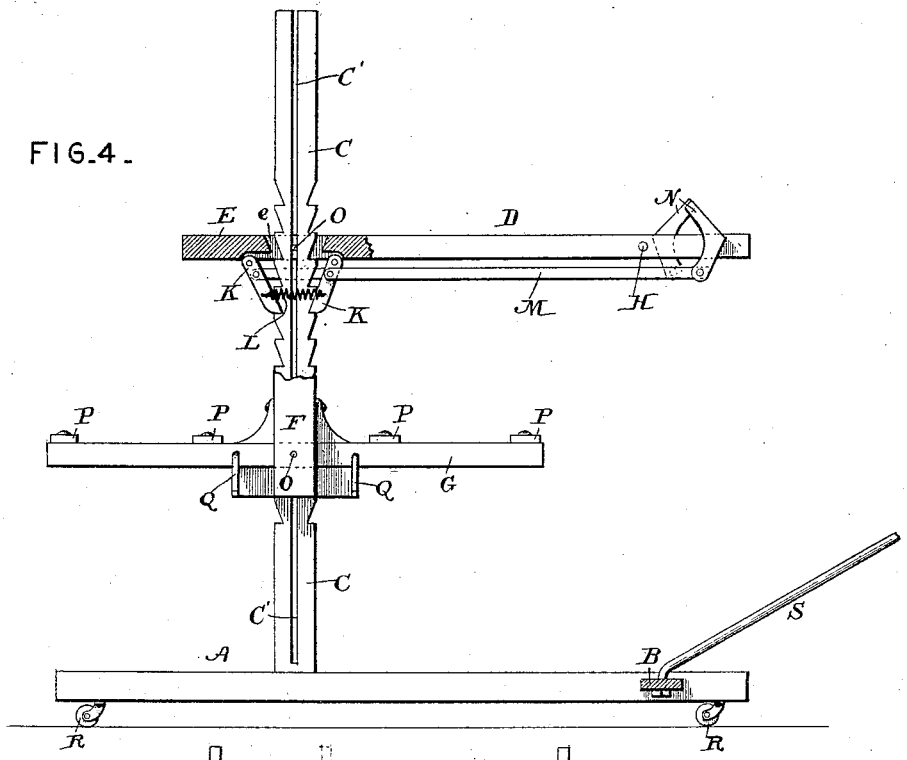
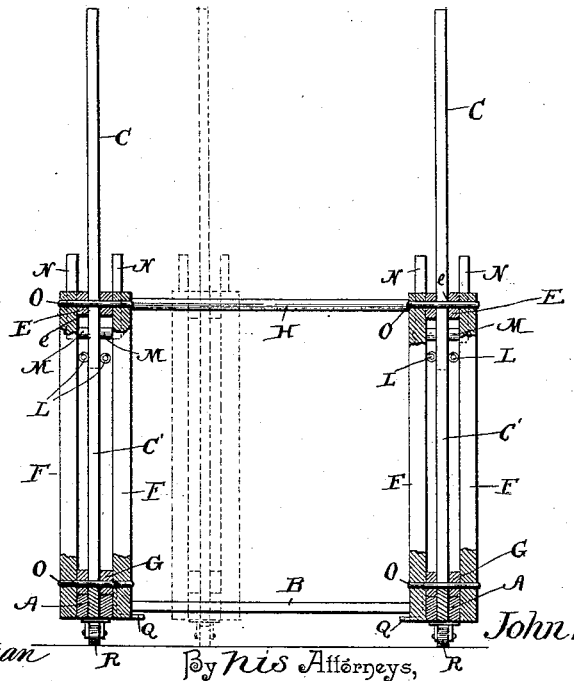


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN W. LICKEY, OF RUSHVILLE, ILLINOIS.

LIFTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 489,610, dated January 10, 1893.

Application filed September 17, 1892. Serial No. 446,217. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. LICKEY, a citizen of the United States, residing at Rushville, in the county of Schuyler and State of Illinois, have invented a new and useful Lifting Device, of which the following is a specification.

My invention relates to a lifting device designed for elevating stoves, boxes, articles of furniture, freight &c., the object in view being to provide means for moving such articles from place to place with facility.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings:—Figure 1 is a perspective view, showing a stove elevated by means of my lifting device. Fig. 2 is a side view of the lifting device. Fig. 3 is a transverse vertical sectional view, upon line *x x* of Fig. 2, looking rearward, and showing in dotted lines an adjusted position of one of the side frames, the lifting frames being lowered close to the floor. Fig. 4 is a longitudinal sectional view.

Like letters of reference indicate corresponding parts in all the figures of the drawings.

A A represent the parallel longitudinal base bars connected at one end by the transverse slide B, which fits in suitable openings in said base bars and by sliding therein enables said base bars to be adjusted laterally with relation to each other. Rising from these base bars are toothed uprights C C upon which are arranged the lifting frames D. These frames consist, essentially, of the operating levers E, provided near one end with an opening *e* to receive the upright to which it is attached and also pivotally connected adjacent to said opening by means of vertical hangers F to the horizontal supporting bar G. The operating levers are connected near their free ends by a transverse round H, which is adapted to slide in the openings formed in said levers to enable the lifting frames, which are carried by the uprights, to be adjusted laterally. Pivoted operating pawls K are connected in pairs to the operating levers, and are connected together in pairs by the actuating springs L, said pawls being arranged to engage the teeth upon opposite edges of the uprights. The pawls are connected by means of rods M to the bell-crank levers N, located respectively upon opposite sides of the operating levers in proximity to the connecting round, the upper arms of said bell-crank levers projecting toward each other to enable the operator to depress both of the bell-crank levers upon each operating lever simultaneously.

The uprights C are provided with vertical slots C′, in which slide transverse guide pins O, which are arranged transversely in the openings *e* of the operating levers. Said openings are of sufficient length to enable the operating levers to swing vertically at their free ends in order to enable the pawls successively to engage the teeth upon opposite edges of the uprights.

The supporting bars, which are adapted to extend along the sides of the article to be elevated, are provided with pivoted arms P, designed to be swung inwardly to engage under said article. These supporting bars are further provided with depending hooks Q, which may be brought close to the floor to pass under an article which rests closely thereupon, such as a box, or barrel.

In operation, when it is desired to elevate a stove, or other article, the lifting frames are depressed by withdrawing the spring-actuated pawls from engagement with the teeth of the uprights by depressing the upper arms of the bell-crank levers. After swinging the pivoted supporting arms under the article to be elevated, the free ends of the operating levers are elevated and depressed alternately to cause the pawls to engage opposite series of teeth, successively, as will be readily understood.

The base bars are provided, as shown in the drawings, with casters or wheels R, and to the transverse slide bar is attached a tongue S, to enable my improved lifting device to perform the functions of a truck in conveying articles from place to place.

Changes in the form, size and proportions of the parts and also in the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of my invention, and I reserve

the right to make such changes within the scope of my invention.

Having described my invention, what I claim, is:—

1. In a lifting device, the combination with uprights provided with opposite series of teeth, of the operating levers provided with elongated openings to receive said uprights, spring-actuated pawls arranged at opposite sides of said openings to engage opposite series of teeth upon the uprights, and means to withdraw said pawls from engagement with the teeth, substantially as specified.

2. In a lifting device, the combination with oppositely toothed uprights, of the operating levers provided with openings to receive said uprights, spring-actuated pawls to engage opposite series of teeth upon the uprights, and bell-crank levers connected respectively to the pawls and arranged in pairs, substantially as specified.

3. In a lifting device, the combination of the toothed uprights provided with longitudinal slots, the operating levers provided with openings to receive the uprights and having transverse guide pins arranged in said openings to slide in the slots, the spring actuated pawls carried by the operating levers, and means to retract said pawls simultaneously, substantially as specified.

4. The combination of toothed uprights, operating levers slidably mounted upon said uprights, and carrying spring-pressed pawls to engage the teeth thereof, and horizontal supporting bars G slidably mounted upon the uprights and connected to the levers by hangers, substantially as specified.

5. The combination with toothed uprights, operating levers slidably mounted thereupon and carrying spring-pressed pawls to engage the teeth, and supporting-bars suspended by hangers from the operating-levers, of arms P, pivoted to said supporting-bars and adapted to be extended to engage an article to be elevated, substantially as specified.

6. The combination with toothed uprights, and operating-levers slidably mounted thereupon, and carrying spring-pressed pawls of supporting bars G slidably mounted upon said uprights, and pivotally connected to the levers, and hooks Q carried by said bars to engage articles to be elevated, substantially as specified.

7. The combination of twin uprights provided with horizontal base portion, a transverse slide fitted into openings in said base portions whereby the uprights may be laterally adjusted, and lifting mechanism mounted upon the uprights, substantially as specified.

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

JOHN W. LICKEY.

Witnesses:
JOHN C. BAGBY,
JOHN S. BAGBY.