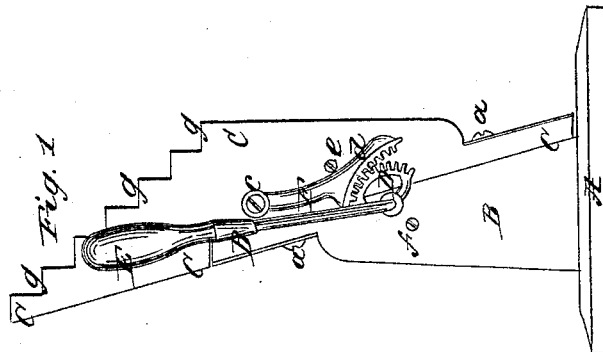
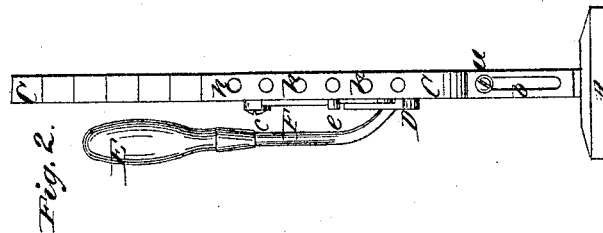
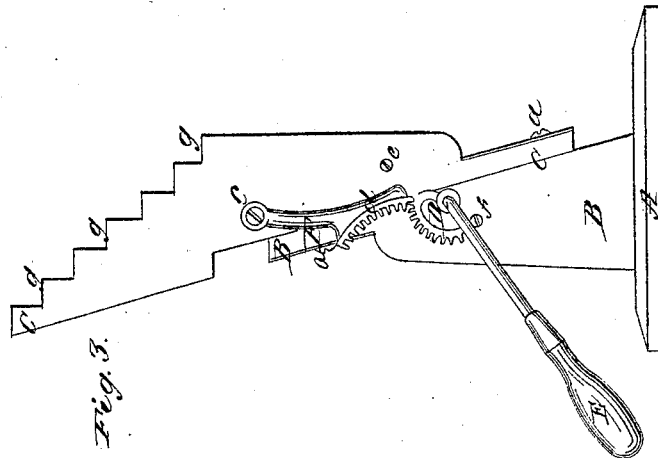


H. S. Shepardson,

Lifting Jack.

N^o 50,306.

Patented Oct. 3, 1865.



Witnesses

J. D. Patten
W. H. Hurler

Inventor

H. S. Shepardson,
By ally A. S. Stoughton

UNITED STATES PATENT OFFICE.

H. S. SHEPARDSON, OF SHELburne FALLS, MASSACHUSETTS, ASSIGNOR TO
H. S. SHEPARDSON & CO., OF SAME PLACE.

IMPROVED LIFTING-JACK.

Specification forming part of Letters Patent No. 50,306, dated October 3, 1865.

To all whom it may concern:

Be it known that I, H. S. SHEPARDSON, of Shelburne Falls, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Lifting-Jacks; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a side view of the jack run down to its lowest position. Fig. 2 represents an edge view thereof; and Fig. 3 represents the jack as run up and locked by the gear which moves it.

Similar letters of reference where they occur in the several figures denote like parts of the jack in all the drawings.

My invention consists in certain mechanism for running up the jack and for locking it and its load when up by the same mechanism.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents the base of the jack, and B a permanent upright secured thereto.

C is the movable portion of the jack, and united to the stationary or immovable portion B by set-screws *a* passing through slots *b* in the part C and into the part B, so that the part C may move up and down on the part B. On the part B there is pivoted a toothed arc, D, to which a handle or lever, E, is attached, so that said arc may be readily turned by it; and upon the part C is pivoted, as at *c*, an arm, F, that has a concave rack, *d*, upon it that can be thrown in and out of gear with the circular arc D, as may be required. When the jack is run down, as in Fig. 1, the arm F swings back until it comes against the stud *e*, where it stops, and is held with its rack *d* in gear with the arc D. When the part C is run up with

its load, as seen in Fig. 3, the arc D comes against a stud or stop, *f*, and in that position, the last tooth of the rack being in gear with the last tooth of the arc, the hand may be removed from the lever, and the part C will remain locked up until again let down by raising the lever E.

That the jack may be adapted to the raising of carriages (to which purpose it is most generally applied) and to the varying height of axles therein, the upper portion of the movable part C is stepped off, as at *g*, and below these steps are a series of holes, *h*, into any one of which a pin may be placed, so that under almost any circumstances a single sweep of the lever E and its toothed arc D will raise the load and lock it up, as above stated, for any practical purpose.

For raising very heavy bodies or weights the teeth of the arc, instead of having a radial pitch, as is common in gear-wheels, may be inclined more in a line under the weight that it sustains, and the teeth or cogs *d* of the arm F should be correspondingly inclined, and thus the superincumbent weight or pressure, instead of tending to throw the arm out of gear with the arc, would tend to hold them together, or at least render them passive.

Having thus fully described the nature, object, and purpose of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

In combination with the permanent portion B and the movable portion C of the jack, the toothed arc D and swinging toothed arm F, operating together for the purpose and in the manner substantially as herein described and represented.

H. S. SHEPARDSON.

Witnesses:

ARTHUR MAXWELL,
J. H. WILDER.