T. Shirer,

Lifting Jack,

No. 65,514, Patented June 4, 1867.

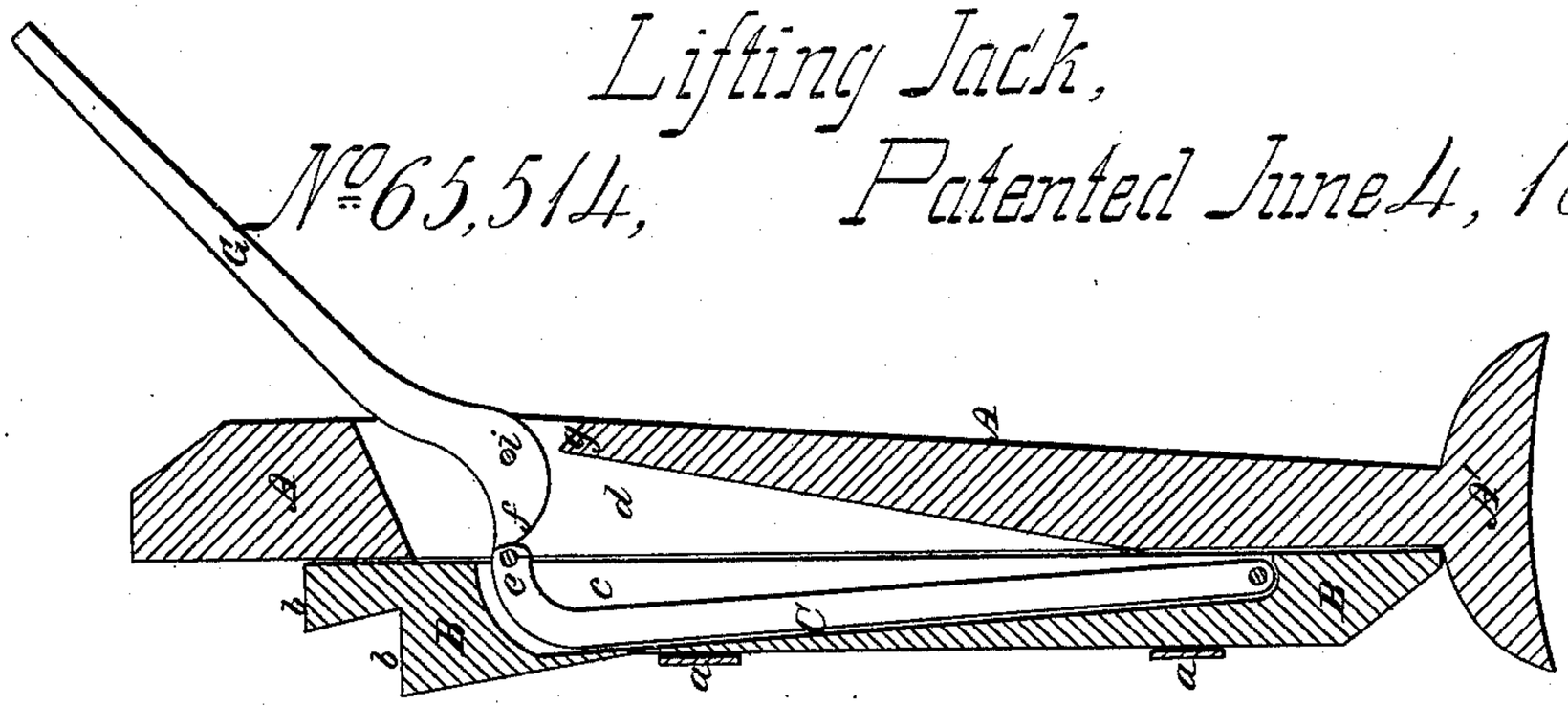

Fig. 1.

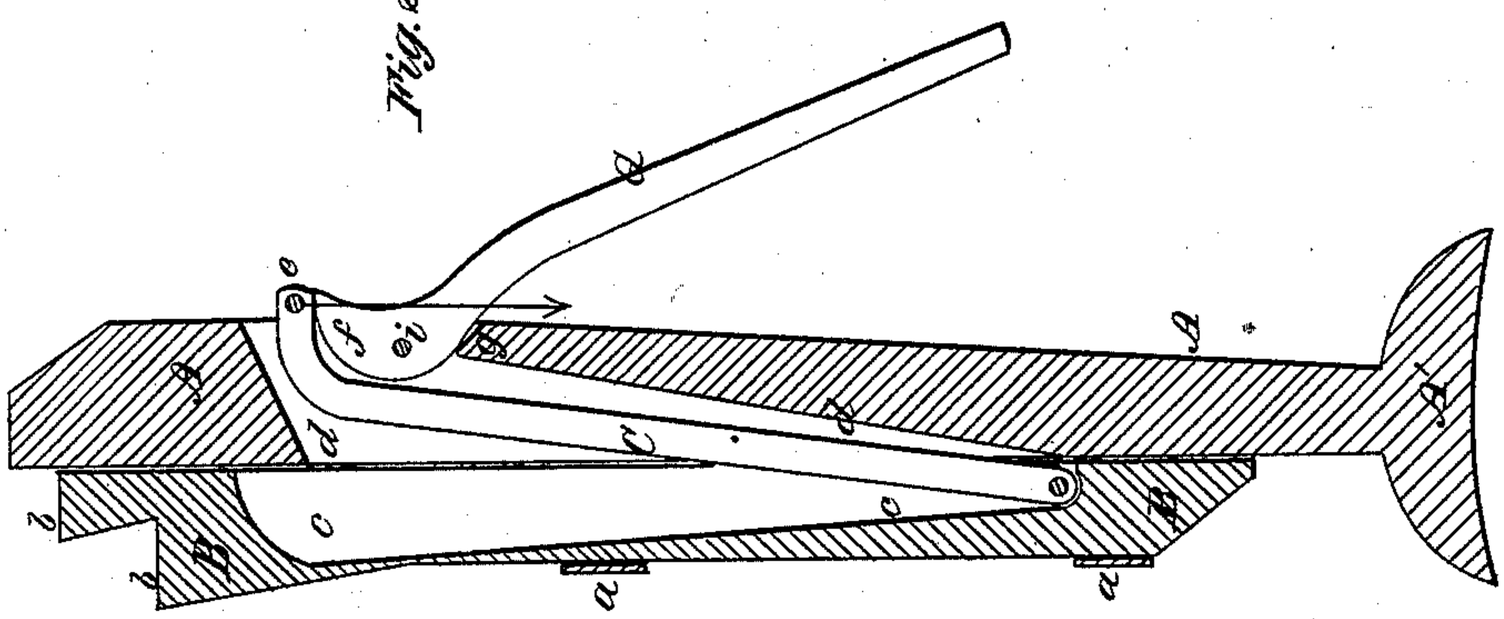

Fig. 2.

Fig. 3.

Witnesses.
Edw. Schafer
Walter Hinchman

Inventor
Silman Shirer
by his agents
Mann, Fenwick & Lawrence

United States Patent Office.

TILMAN SHIVER, OF NEWBURG, INDIANA.

Letters Patent No. 65,514, *dated June* 4, 1867.

IMPROVEMENT IN LIFTING-JACKS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, TILMAN SHIVER, of Newburg, in the county of Warrick, and State of Indiana, have invented a new and improved Lifting-Jack; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an elevation of one side of the jack, showing the lifting-bar elevated to its highest point.

Figure 2 is a sectional view of the jack, with the parts in the same position as shown in fig. 1.

Figure 3 is a sectional view of the same parts, showing the lifting-bar depressed to its lowest point.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a self-locking lifting-jack which shall be very simple in construction and operation, and by which a load can be elevated and sustained in an elevated position without the use of racks and pawls, hooks and chains, or other similar contrivances.

The nature of my invention consists in applying, to a standard of suitable length and strength, a sliding stepped lifting-bar, so as to slide freely up and down without displacement; and in connecting said bar to the short arm of a vibrating lever-handle by means of a strong rod, the upper end of which is curved or hooked in such manner that when the lifting-bar is elevated to its highest point the curved upper end of said rod will pass over the fulcrum of the lever, and thus lock the bar in the elevated position, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents a standard, which may be made of wood or metal, with a foot-stand, A′, for affording the required width of base. B is a lifting-bar, which is fitted to the straight edge of the standard A, and held in place by means of the straps *a a*, so that it will slide freely up and down. The upper enlarged end of this lifting-bar B is stepped, as shown at *b b*, for the purpose of adapting the jack to lift loads different heights. A recess, *c*, is made in the bar B, and a recess, *d*, is also made in the standard A for the purpose of receiving and allowing of the free vibration of a bar, C, as shown in figs. 2 and 3. This bar is strongly pivoted at its lower straight end to the lifting-bar B, near the lower end of the latter. The upper end of this bar C is curved outward, so that its extreme upper end is nearly at right angles to its straight portion. This curved end of said bar is pivoted by a pin, *e*, to the short segment *f* of a lever-handle, G, shown in figs. 2 and 3, which is pivoted at *i* to the upper portion of the standard A.

When the lifting-bar B is depressed, by raising the handle G the bar C will fall into the recess *c*, and the pivotal connection at *e* will fall inward, or within the spaces *c* and *d*. In the act of raising the "lifting-bar" B, the point *e* will move upward and outward, so as to fall outside of the fulcrum *i* of the handle G; thus, when the handle is brought to the position shown in fig. 2, with its segment *f* bearing upon the shoulder at *g*, the bar B will be locked in position, and any tendency to depress it will be resisted by the shoulder *g* and the handle G. To depress the lifting-bar B it is only necessary to raise the handle, and thus move the point *e* inward and downward.

One great advantage of my lifting-jack over others which are operated by levers, is that the lifting-bar B is elevated to its highest point by one downward stroke of the handle or lever G, and at the same time sustained firmly in such position. Then, by a single stroke of said handle the lifting-bar is unlocked and depressed, thus admitting of the manipulation of the jack with one hand, while the object to be elevated or depressed can be held and steadied by the other hand. The arrangement and construction of the handle G and bar C, herein described, relieves the stops *a a*, which guide the bar B, from strain in lifting a heavy load. as the downward pressure of the load tends to force the bar B inward, or toward the standard A.

The distinguishing feature of my lifting-jack is this: The lever G takes hold of the link or bar C at the top thereof, by which means the operator is enabled to pull up the part B of the jack by a downward thrust, which downward thrust is effected without stooping so as to bring the hands almost down to the ground, as in the operation of the lifting-jacks patented by S. G. Jones, January 23, 1855; R. W. Davis, April 14, 1857; and H. S. Shepardson, January 1, 1857; J. F. Hammond, August 21, 1866; N. Badgley, June 23, 1863; and others known to me. It is by having the bar C pivoted at its lower end, and curved over at its upper end, and fitting said bar in the recesses *c c* and *d d* of the parts A B of the jack, that the twofold advantage of lifting

the part B by taking hold of the top of the link or bar C, and of making said bar C self-locking when the weight is on the part B, is secured. The bar C has a lateral movement in the recesses *c c d d* sufficient for the purposes intended, as will be evident from figs. 2 and 3 of the drawings.

I do not claim lifting the part B by a lever, as this is old; but what I do claim as my invention, and desire to secure by Letters Patent, is—

The construction and arrangement of the laterally vibrating bar C, pivoted at its lower end to the part B, and at its upper end to the lever G, which is pivoted to the part A of the jack; the said parts A and B being recessed, as at *c d*, substantially as and for the purpose described.

TILMAN SHIVER.

Witnesses:
JOHN A. STOUT,
JAMES T. GRAY.