

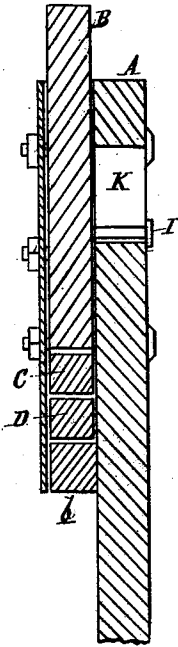
(No Model.)

F. S. HARTZELL.  
Lifting Jack.

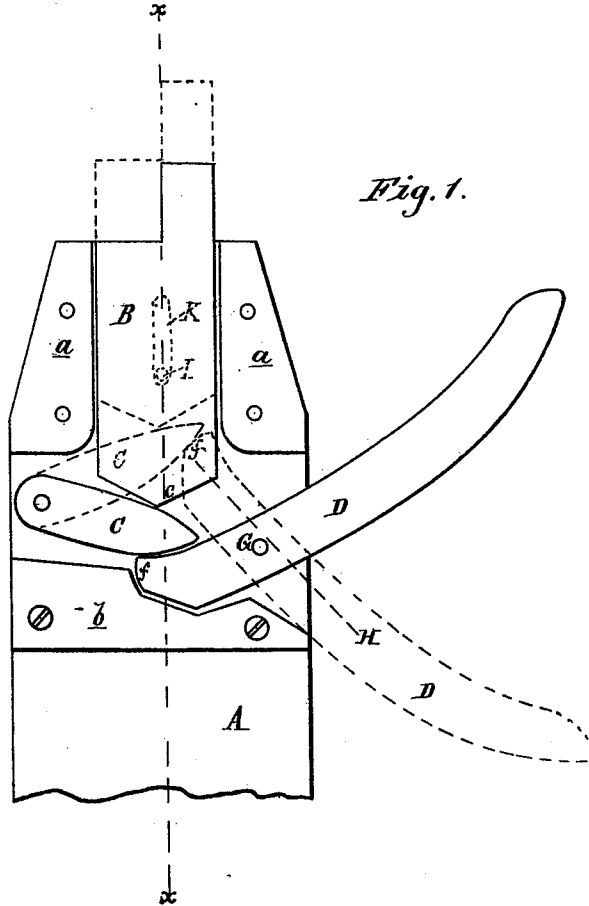
No. 229,406.

Patented June 29, 1880.

*Fig. 2.*



*Fig. 1.*



WITNESSES:

*Henry N. Miller*  
*L. Sedgwick*

INVENTOR:

*F. S. Hartzell*  
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# UNITED STATES PATENT OFFICE.

FRANCIS S. HARTZELL, OF BEAN, PENNSYLVANIA.

## LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 229,406, dated June 29, 1880.

Application filed May 15, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS S. HARTZELL, of Bean, in the county of Bucks and State of Pennsylvania, have invented a new and Improved Lifting-Jack, of which the following is a specification.

The object of this invention is to provide a simple and convenient lifting-jack that operates without pawl, ratchet, or rack, or other of the usual attachments.

The invention consists of an adjustable head-block provided with a rounded or V-shaped lower extremity, and vertically adjustable between guides in a hollow case or standard; and it consists, further, of a wedge-shaped key pivoted in said case with its thin end extending between the lower extremity of the head-block and the rounded head of the operating-lever, so that when the said block is raised by the action of the said lever the said key operates to lock the parts in position.

Figure 1 is a front elevation of the device with the front plate removed. Fig. 2 is a sectional side elevation of the same on line *ax*, Fig. 1.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents a box or hollow standard, within the upper part of which are the vertical guides *aa*, and within which, at about the center of its height, is a transverse block, *b*.

B is the adjustable head-block fixed between the guides *aa*, the lower end of said block being rounded, or, in this instance, sloping from the sides downward to the center, as shown at *c*.

Within the case A, and at one side of it, is pivoted the wedge-shaped key C, the beveled end of said key C being extended beneath the lower extremity of the head-block B, and in contact therewith. In the other side of the case A, and at a point a little below the fulcrum of the key C, the lever D is pivoted on the pivot or fulcrum G, the handle of said lever D projecting outward and upward at the side of the device, while the rounded or curved head of the said lever D is adjusted below and in contact with the free end of the key C, so that the curved or beveled lower face of the

head of the said lever D, while the block *b* is cut away on its upper edge to admit and support the head of the lever D from below.

In operating this device the handle of the lever D is pressed downward, thereby raising the head-block B until the point of contact between the head of the said lever D and the key C is shifted from its primary position, as shown in full lines, Fig. 1, to the curved end *f* of the said lever D, as shown in dotted lines, Fig. 1, whereby the direction of the line of resistance or pressure of the block B is changed from its primary vertical plane to an inclined plane that falls outside of the fulcrum G of the lever D, as shown in dotted lines at H, whereby the said block B is firmly held or locked in position.

This device has the advantage over other lifting-jacks in durability and simplicity of parts and in cheapness of construction.

When the said head-block B is elevated to any desired position below the lock made by the lever D and key C it may be secured there by means of the screw-stud I, which is attached to the said block B, and moves up and down in the slot K.

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

1. A lifting-jack constructed substantially as herein shown and described, consisting of the case A, adjustable head-block B, provided with rounded or V-shaped lower extremity, pivoted wedge-shaped key C, and lever D, provided with rounded head, as set forth.

2. In a lifting-jack, as a means for adjusting and locking the head-block B, the wedge-shaped key C, and lever D, in combination, substantially as herein shown and described, whereby the line of pressure upon the head-block is changed from the vertical to an inclined plane, as set forth.

3. In a lifting-jack, the pivoted wedge-shaped key C, substantially as herein shown and described, whereby the pressure of the operating-lever is transmitted from below to the head-block and the direction of the pressure changed, as set forth.

FRANCIS S. HARTZELL.

Witnesses:

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HENRY K. TRUMBORE.