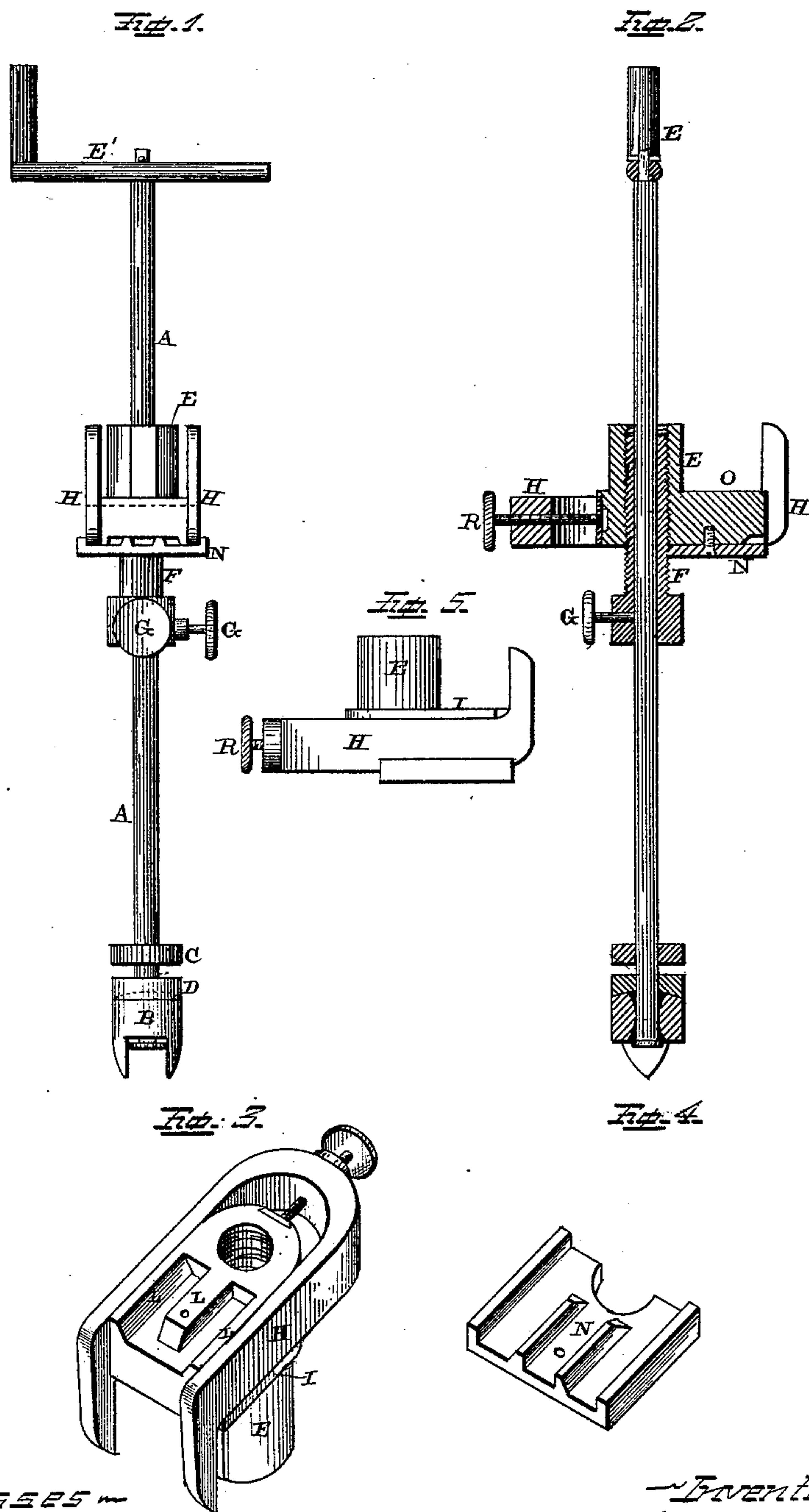


(No Model.)

G. WOLLET.  
Lifting Jack.

No. 234,105.

Patented Nov. 2, 1880.



Witnesses

Wm. M. Mortimer.  
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att'y.



# UNITED STATES PATENT OFFICE.

GEORGE WOLLET, OF WILLIAMSPORT, PENNSYLVANIA.

## LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 234,105, dated November 2, 1880.

Application filed September 25, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE WOLLET, of Williamsport, in the county of Lycoming and State of Pennsylvania, 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 invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in jacks for raising and supporting the main rods, side rods, or cross-rods of stationary engines and locomotives while the straps are removed for filing and lining the brasses thereof; and it consists, first, in a base or support having suitable projections or spurs on its lower end to keep the jack from slipping while being used, and which base has its upper end made convex, and a central longitudinal opening made through it, which tapers from the center toward each end, whereby the jack is given a lateral play in all directions; second, in the combination of a stem, having a flange formed on it near its lower end, a loose collar which slides vertically on the stem below the flange, and which has its under side concave, and a base or support through which the lower end of the stem passes, and which base has its upper end made convex, so as to conform to the shape of the under side of the collar, whereby the jack can be inclined in any direction without changing the position of the base or support; third, in combination with the stem, a supporting-collar, which is made vertically adjustable thereon, and which has its upper portion made screw-threaded, whereby the supporting-sleeve can be adjusted vertically upon the collar by turning the stem around by means of its handle, without the necessity of moving the collar; fourth, in the arrangement and combination of parts, which will be more fully described hereinafter.

The object of my invention is to allow the stem A of the jack a free lateral or universal movement in every direction, and to enable the supporting parts which form the jack to be adjusted with greater ease.

Figure 1 is a side elevation of my invention

complete. Fig. 2 is a vertical section of the same. Figs. 3 and 4 are perspectives of different parts of the supporting-sleeve. Fig. 5 is a side elevation of the sleeve and clamping device.

A represents the stem of the jack, and B the base or support, through which the lower end of the stem passes, and which base or support is provided on its lower end with suitable spurs or projections to keep the jack from slipping while being used. The upper end of this base or support is made convex, and the opening through its center is enlarged from the center toward each end, whereby the stem A is allowed a free lateral movement in any direction.

When a single spur or projection is formed on the base B in order to prevent it from slipping, the top of the base need not be made convex, as the base will then pivot on this one projection. Above this pivot there will be a flange that is made convex on its bottom, so as to prevent the pivot from being forced too deep into the floor or ground, and to allow the stem to incline in any direction without too great friction. The lower end of the stem, after passing through this base or support, is upset or otherwise made so that the base cannot come off, whereby the two parts are secured permanently together. By passing the lower end of this stem entirely through this base or support and enlarging each end of the opening through the base, the stem can be turned freely around and inclined in any direction without in any manner affecting the base.

Formed on the stem, at any suitable distance above the base, is a flange or rigid collar, C, and placed upon the stem, in between this flange and the top of the base or support, is the loose collar D, which has its under side made concave, so as to correspond with the convex end of the base or support. This stem is made sufficiently long below the flange C to pass through the movable collar D and base or support B, and to allow the collar and base a free vertical movement upon its lower end. The collar C bears upon the top of the base or support and receives the entire weight of the jack, and assists, by forming a joint upon the top of the base or support, to support the jack



rigidly in any position into which it may be adjusted without the slightest danger of bending or cramping the stem A.

By means of the parts above described the jack can be turned and leaned toward any object which may be near it, and thus avoid the necessity of having to change the base or support by moving the jack.

Passing down over the top of the stem A, which is provided with a suitable crank or handle, E', at its upper end, for turning it around, is a supporting-collar, F, which can be adjusted vertically upon the stem, and secured in any desired position by means of one or more set-screws, G. - Upon the upper end of this collar, which may extend up any desired distance above the set-screws, is cut a screw-thread, so that the sleeve E can be adjusted vertically upon the collar by simply turning the stem by means of its crank, without the necessity of loosening the screw and adjusting the collar vertically upon the stem. This construction will be found a great convenience, for frequently the sleeve needs but a very slight adjustment, which can be obtained much more readily by revolving the stem than can be done by adjusting the collar upon the stem.

The sleeve upon which the metallic clamping device H moves is formed of the two parts, as shown in Figs. 3 and 4, and which parts are secured together by means of a screw or bolt, so that the clamping device can have a horizontal endwise movement between them.

The upper part of the sleeve is provided with the flange I along its edges, so as to catch over the top of the clamping device, and with suitable flanges, L, upon its under side, where it bears upon the top of the flanged plate N, which forms the bottom part of the sleeve. Upon one side of this upper part of the sleeve is formed the extension O, for the purpose of forming a bearing-surface upon which the rods of the engine rest when the braces are being fitted or operated upon. The clamping device is moved back and forth between the two parts of the sleeve by means of a set-screw, R, the inner end of which screw R is swiveled in a plate which is dovetailed into the rear end of the upper part of the sleeve. By means of this set-screw R the clamping device can be moved back and forth at the will

of the operator, so as to clamp the rod or other part of the engine that is being held by the jack tightly against the vertical screw-threaded part of the sleeve.

Having thus described my invention, I claim—

1. A jack provided with a base or support which has a longitudinal central opening made through it, which opening is enlarged toward each end from its center, in combination with the stem which passes through the opening, substantially as shown.

2. In a jack, the combination of a stem, a base or support having its upper end made convex, and having an opening made through its center, which opening is enlarged toward each end, and a collar or bearing upon the stem, substantially as described.

3. In a jack, the combination of the stem provided with a flange or rigid collar, a movable collar having a vertical play upon the stem, and a base or support having an opening through it which is enlarged toward each end from the center, the parts being arranged to operate substantially as set forth.

4. In a jack, the combination of a stem, a collar which is vertically adjusted thereon and provided with set-screws for securing it in any desired position, and a sleeve which is vertically adjustable upon the collar by means of the screw-thread, substantially as specified.

5. In a jack, the combination of the stem, the vertically-adjustable collar placed thereon and provided with suitable clamping devices, and an internally-threaded screw-sleeve, which is adjustable upon the collar and provided with a clamping device, substantially as shown and described.

6. The supporting-sleeve, made in two parts, and having the clamping device moving endwise between them, the two parts of the sleeve being provided with suitable flanges to keep the clamping device in position, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 21st day of September, 1880.

GEORGE WOLLET.

Witnesses:

H. H. BLAIR,  
EDWARD C. JOHNSON.