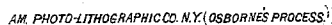


Jack-Screws and Clamps Combined.

Patented May 20, 1873.



UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN JACK-SCREWS AND CLAMPS COMBINED.

Specification forming part of Letters Patent No. **139,157**, dated May 20, 1873; application filed
January 13, 1873.

To all whom it may concern:

Be it known that we, THOMAS R. JACKSON, ASBERRY C. JACKSON, and CLAUDIUS SAMUEL WATSON, all of Sabine Pass, in the county of Jefferson and State of Texas, have invented a Combined Jack-Screw and Clamp; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of the improved implement. Fig. 2 is a section through the same, showing the cam-dogs, spring, pawl, and ratchet-wheel. Fig. 3 is a section taken through the implement in a plane at right angles to the sectional plane of Fig. 2.

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

The object of this invention is to combine a jack-screw or lifting-jack with a clamp, so that they may be interchangeably used, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents the serrated head of the jack, and A' the spurred foot-piece thereof, on both of which are formed jaws *a a*, the serrated clamping-surfaces of which are directed toward each other, as shown in Figs. 1 and 3. The head and foot pieces A A' are formed on the extremities of tubes B B, which are screw-threaded internally, and receive screws C C. The screws C C have a hub, *b*, formed on them, which turns in one end of a lever-handle, which is composed of two parallel plates, D D, and a handle, D'. Between the two plates D D a ratchet-wheel, E, is keyed on the hub *b* of the screws C, so as to turn with them. F represents an oscillating plate, which is pivoted, at *f*, between the two plates D D, and which is constructed with two pawls, *n n*, and a notch, *n'*. A spring, S, which is secured into the handle at *g*, is received into the notch *n'*, as shown in Fig. 2, and is acted on by one

or the other of two cam-headed levers, G G. These levers are pivoted, at *e e*, on opposite sides of the spring S, and are designed for pressing the free ends of this spring against one or the other of the bifurcations of the notch *n'* of pawl F.

To use the above-described implement as a lifting-jack the foot-piece A' is adjusted upon a solid foundation, and the head-piece is adjusted beneath the object to be lifted. The pawl-plate is then adjusted by drawing backward the handle of one of the levers G, so that the proper one of the pawls *n* will engage with the ratchet-wheel E; then, by vibrating the lever-handle, the tubes B B being prevented from turning, these tubes will slowly recede from each other on the screws C C.

If it is desired to lower the object again this may be done by reversing the pawl-plate F and vibrating the lever-handle as before.

To use the implement as a clamp—say for clamping two pieces of stuff together in joiners' work—the clamping-jaws *a a* are adjusted the proper distance apart by simply turning one or both of the tubes B B on the screws C. The clamps are then applied on the work, and tightened thereon by vibrating the hand-lever in the same manner as described when the implement is used for a lifting-jack.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The head and foot pieces A A' and their jaws *a a*, formed on screw-sockets B B, which are applied on screws C C, in combination with a lever-handle and pawls, substantially as described.

2. The right and left pawl-plate F, ratchet-wheel E, spring S, and cam-levers G, combined and applied to the lever-handle of the implement, substantially as described.

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Witnesses:

THOS. P. HARRIS,

WM. ALLISON.