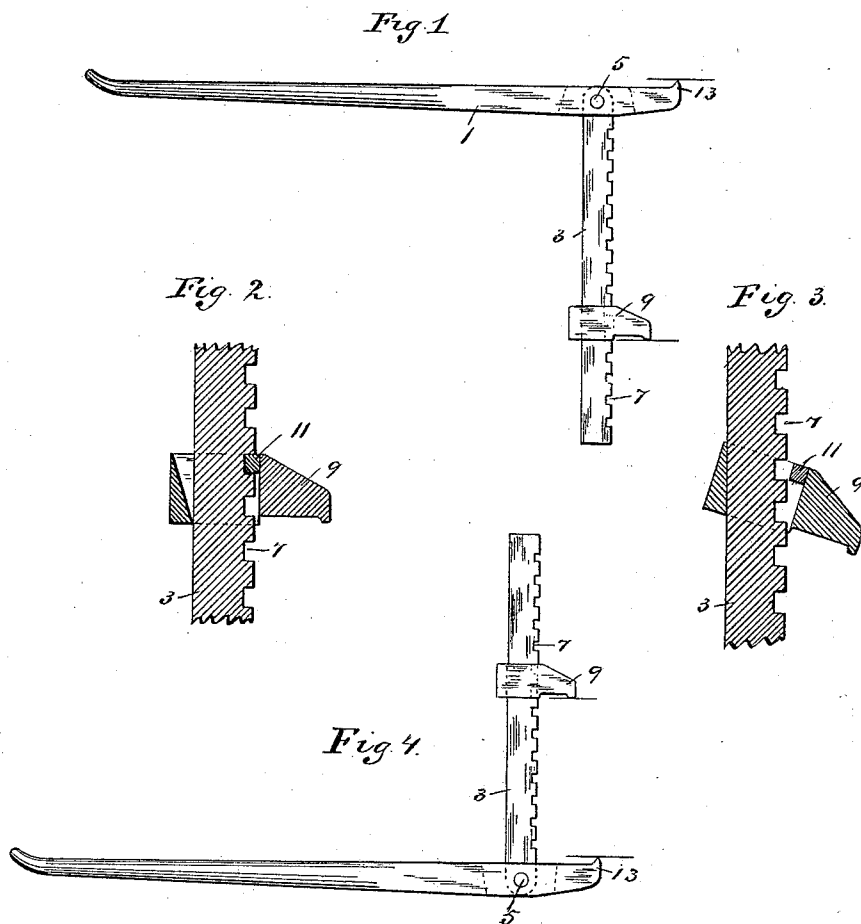


(No Model.)

T. A. KIRKLAND.  
COMBINED JACK AND CLAMP.

No. 391,801.

Patented Oct. 30, 1888.



Witnesses.

Arthur P. Lothrop.  
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# UNITED STATES PATENT OFFICE.

THOMAS A. KIRKLAND, OF ST. PAUL, MINNESOTA.

## COMBINED JACK AND CLAMP.

SPECIFICATION forming part of Letters Patent No. 391,801, dated October 30, 1888.

Application filed April 14, 1888. Serial No. 270,669. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. KIRKLAND, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented a certain new and useful Combined Jack and Clamp, of which the following is a specification.

My invention relates to improvements in lever jacks and clamps; and the objects of my invention are to provide a simple and inexpensive jack which can readily, by reversing the position of the parts, be changed into a clamp. It is of special value for use in moving the cross-head to take down the main rod of an engine-cylinder and in removing and putting in metallic packings.

In the drawings forming part of this specification, Figure 1 represents my invention arranged for use as a jack; Fig. 4, the same arranged for use as a clamp. Figs. 2 and 3 are detail drawings showing the manner in which the adjustable jaw is held in place and the manner of changing its place on the rack or notched bar.

In the drawings, 1 is the lever; 3, the rack-bar, pivoted to the lever at 5 and freely moving in a slot therein. 9 is the adjustable jaw, which slides as a sleeve along the rack-bar 3, and is held in any desired place by a steel lip, 11, which engages in the notches 7 of the rack-bar and resists the pressure exerted by the lever 1. The opening through the sleeve is enlarged at one end, so as to permit the sleeve to be thrown forward, as shown in Fig. 3, to disengage the lip 11 from the notches 7, in which position the sleeve may be moved freely over the bar.

For use as a jack the parts are fitted together as shown in Fig. 1. If the objects to be forced apart are too close to admit of the insertion between them of fulcrum or jaw end 13 of lever 1 and the jaw 9, the pointed end of the lever can be used to pry these objects

apart and the jaws of the jack then be placed between. The objects having been forced apart by the lever, the movable jaw can then be shifted along, as shown in Fig. 3, to another notch in the rack-bar, and the operation repeated as desired.

When my device is to be used as a clamp, the pin 5 is taken out, and the rack-bar 3 removed from the slot in lever 1 and inserted from the other side of the lever. The adjustable jaw 9 is then removed from the rack-bar 3 and slipped on it again in a reversed position. The position of parts in place is then as shown in Fig. 4. Used as a clamp, the device is placed so that the jaws 9 and 13 embrace the objects to be clamped. The lever, then being moved, closes the jaws. The movable jaw 9 is then shifted, as described above, and the operation repeated as desired. The action of the device as a clamp is the converse of its action as a jack, and the position of the respective parts is reversed in changing from one adaptation to the other.

I claim as my invention—

The combined jack and clamp comprising, in combination, the lever 1, having its fulcrum end adapted to be applied directly to the object to be moved, the rack or notched bar 3, pivoted to the lever 1 and adapted to be reversed from one side of the lever to the other, and to project from the lever from its fulcrum face or side when the device is to be used as a clamp and from its opposite side when the device is to be used as a jack, and the slidable sleeved jaw 9, arranged upon the bar 3 with its fulcrum face toward the lever when the device is to be used as a clamp and in a reverse position when the device is to be used as a jack, substantially as described.

THOMAS A. KIRKLAND.

Witnesses:

WM. CARROLL,  
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