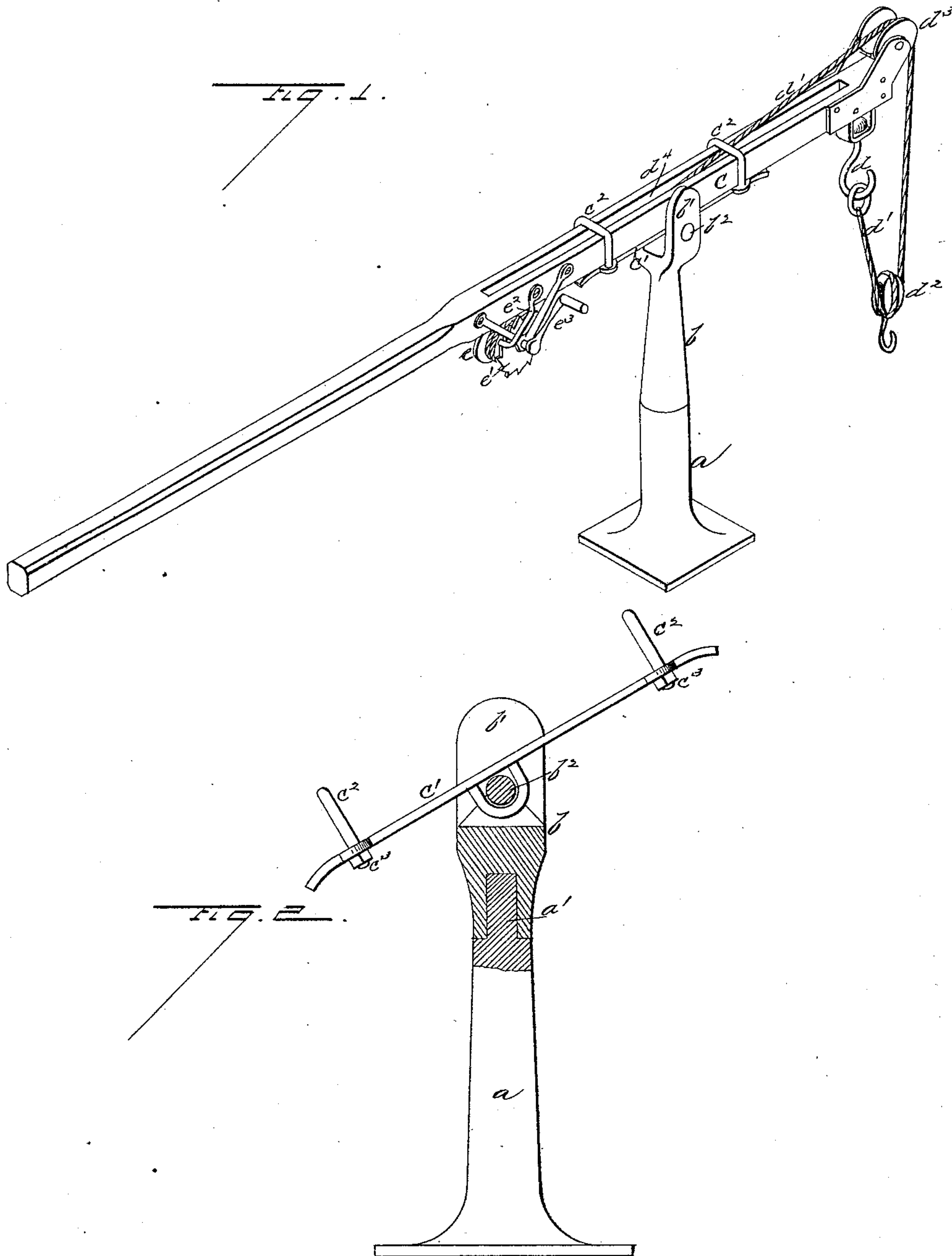


(No Model.)

N. WHITE.  
LEVER AND FULCRUM.

No. 336,189.

Patented Feb. 16, 1886.



Witnesses:

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# UNITED STATES PATENT OFFICE.

NICHOLAS WHITE, OF CHICAGO, ILLINOIS.

## LEVER AND FULCRUM.

SPECIFICATION forming part of Letters Patent No. 336,189, dated February 16, 1886.

Application filed August 5, 1885. Serial No. 173,601. (No model.)

*To all whom it may concern:*

Be it known that I, NICHOLAS WHITE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Levers and Fulcrums, of which the following is a specification, to wit:

This invention relates to levers and fulcrums; and it consists in certain peculiarities of the construction and arrangement of the same, substantially as will be hereinafter more fully described and claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of my device, and Fig. 2 is a sectional view of the swiveled fulcrum.

*a* represents a base or standard, of suitable size and form for the purpose in view, on the upper end of which is formed a spindle, *a'*, on which is swiveled the fulcrum *b*, having a socket in its lower end to receive the spindle, about which it is freely turned as required in the work. The upper end of the fulcrum is forked, as at *b'*, and through the forks is passed a bolt, *b''*, which acts as a pivot for the lever *c*. Upon the bolt is pivoted a bearing-plate, *c'*, and this is provided with one or more clasps or yokes for engaging the lever, as at *c''*, and these are tightened by means of nuts *c'''*, as in the drawings. The lever *c* is passed through the clamping-yokes upon the plate *c'*, and is adjusted back and forth, as required, to give the proper leverage, and when clamped down cannot slip out of position, while it is freely swung from side to side during the progress of work by means of the swiveled fulcrum, and is thus used with the greatest convenience.

The device is used in moving and lifting heavy weights, and is readily handled and taken apart for transportation. For most work a hook, *d*, upon the end of the lever will be found sufficient for attaching the weight to be lifted; but in some cases, especially where the work is to be lifted from or lowered into a position lower than the base of the fulcrum, such as in

setting curbs and heavy flagstones, an additional device is needed, and for this purpose I attach to the hook *d* a rope or chain, *d'*, having a block and hook, *d''*, for attachment to the work, and running over a guide-pulley, *d'''*, on the end of the lever, and thence through a slot, *d''''*, to the drum *e*, journaled on the lower side of the lever, and provided with a ratchet-wheel, *e'*, a pawl, *e''*, and a crank-handle, *e'''*, as shown. By this device it is easy to lift the stone and swing it to any position desired and lower it into place, as will be at once understood. If more leverage is required, it is of course easy to attach a sliding extension to the longer arm of the lever; but this is too well known and obvious to need further description here.

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

1. In a fulcrum for levers, a standard or support, in combination with a rest for the lever swiveled on the standard, and provided with a clamping device for securing the lever at any point, substantially as and for the purpose set forth.

2. The combination, with a lifting-lever, of a ratchet-drum secured upon it, and a tackle having one end secured to the end of the lever, and the other passed over guide-pulleys thereon to the drum, substantially as and for the purpose set forth.

3. The combination, with the standard *a*, having a spindle, *a'*, of the socketed fulcrum-head *b* thereon, the pivoted rest or plate *c'*, and the clamping-yokes *c''*, substantially as and for the purpose set forth.

4. The combination, with the fulcrum-standard *a*, swiveled head *b*, and the bearing-plate *c'*, of the lever *c*, provided with a hook, *d*, the rope *d'*, and ratchet-drum *e*, all constructed and arranged to operate substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

NICHOLAS WHITE.

Witnesses:

THOMAS HASSETT,  
W. C. McARTHUR.