(No Model.)

J. W. MASSEY.

POWER JACK.

No. 315,309. Patented Apr. 7, 1885.

Fig 1.

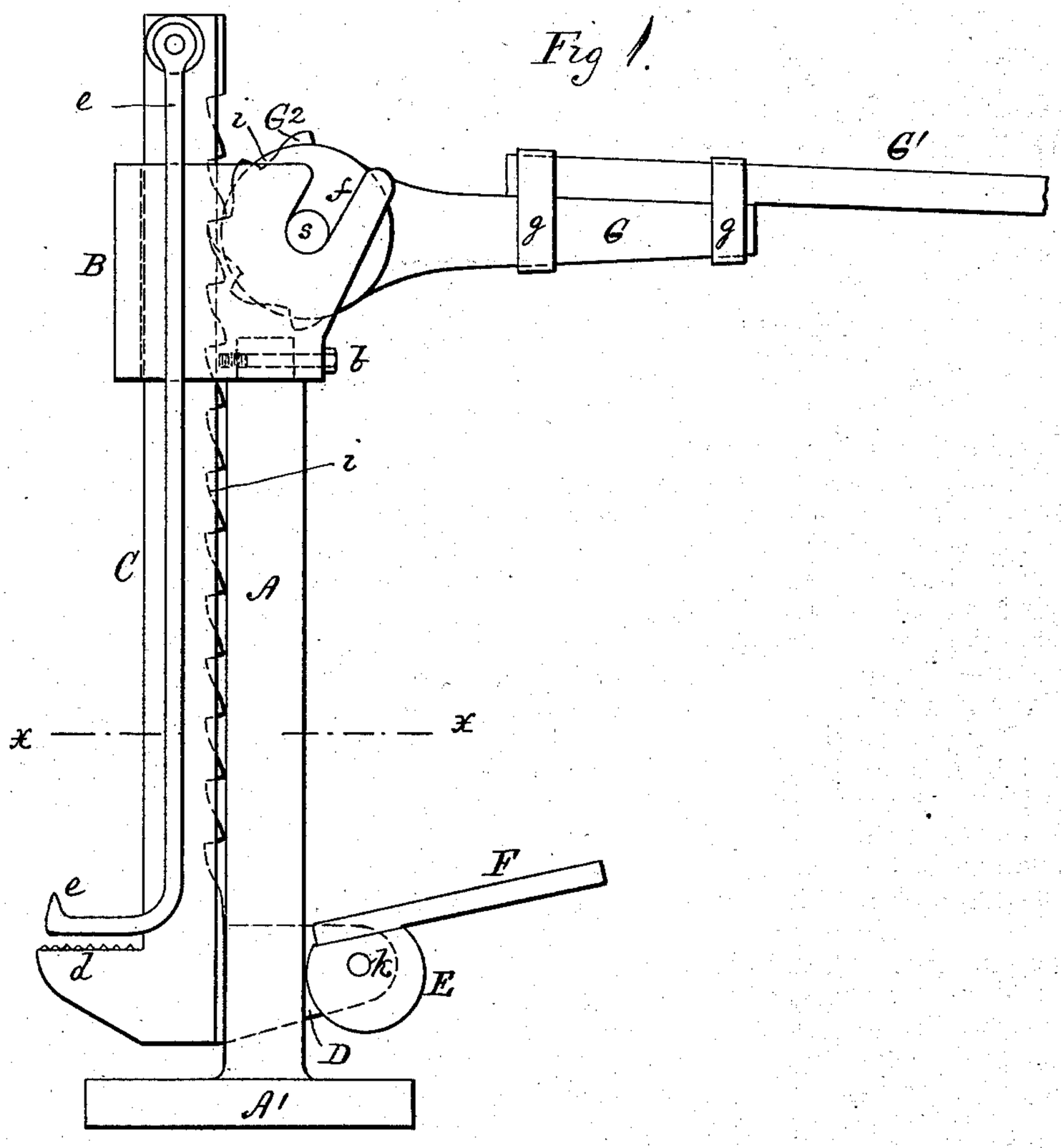


Fig 2.

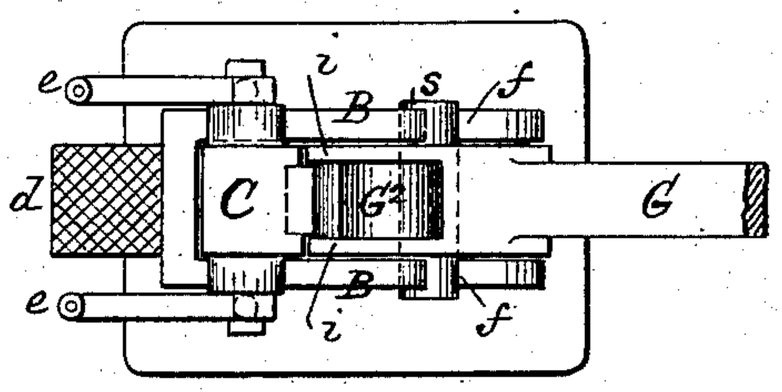
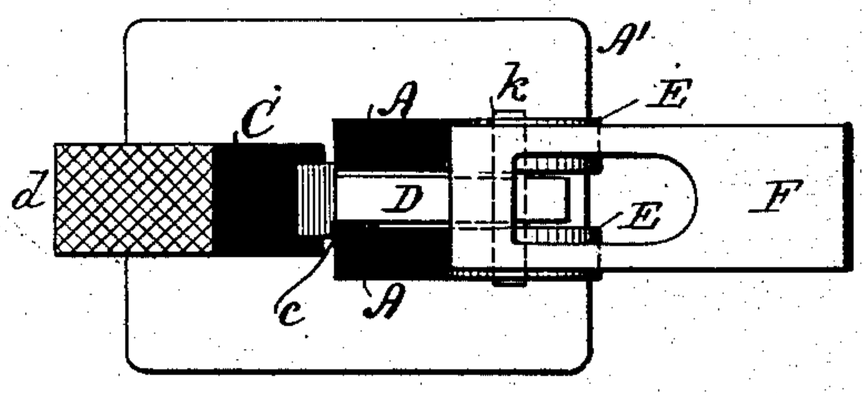


Fig 3.



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JOHN WASHINGTON MASSEY, OF SHUQUALAK, MISSISSIPPI, ASSIGNOR TO HIMSELF, MADISON EDWARDS, OF GHOLSON, MISSISSIPPI, AND THOMAS JEFFERSON EDMONSON, OF BIRMINGHAM, ALABAMA.

POWER-JACK.

SPECIFICATION forming part of Letters Patent No. 315,309, dated April 7, 1885.

Application filed August 29, 1884. (No model.)

To all whom it may concern:

Be it known that I, JOHN WASHINGTON MASSEY, of Shuqualak, in the county of Noxubee and State of Mississippi, have invented a new and Improved Power-Jack, of which the following is a full, clear, and exact description.

This invention relates to power-jacks for various uses, including the leveling of buildings, laying flooring, rolling logs, &c., and is designed as an improvement upon the jack for which Letters Patent No. 291,370 were granted to me, conjointly with Madison Edwards as assignee, January 1, 1884; and the invention consists of certain constructions, arrangements, and combinations of parts, all as hereinafter described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a side view of a power-jack embodying my invention. Fig. 2 is a plan of the same; and Fig. 3, a transverse section on the line *x x* in Fig. 1, omitting certain swinging hooks attached to the rack-bar.

A is a longitudinally-slotted main post mounted upon and which may be cast in the same piece with a base-plate, A′.

B is a bracket or head-piece fitted by a lower socket on or over tenon-like projections on top of the two sides of the slotted or double post A, and secured thereon by one or more bolts, *b*, which provides for removal of the bracket in order to fit the rack-bar C to its place. This rack-bar is guided by and fitted to slide through the bracket B on the rear side of the post A, and is provided at its lower end on its face or rack side with a bar or plate, D, which passes through the slot *c* of the post, and carries on its front end certain holding-eccentrics E E, to prevent back slip of the rack. By this construction the slotted main post A also serves, conjointly with the bracket B, to guide and steady the rack-bar. The rear projection, *d*, at the lower end of the rack-bar adapts the jack to be used for lifting vertically objects situated near the ground, and also adapts it to various uses in a horizontal position. The hooks *e*, which are pivoted to the rack-bar, serve to admit of the jack being used for rolling logs upon a saw-mill carriage, or upon the ground, where a cant-hook or other lever cannot be conveniently used.

G G′ is the working-lever of the jack. The portion G of said lever carries the toothed head or pinion G^2, which engages with the teeth on the rack-bar, and said lever portion virtually forms a tail-piece from said pinion, *s* being the shaft or fulcrum arranged to fit within inclined slots or slotted cheeks *f* of the bracket B, so that when said fulcrum *s* stands at the inner ends of said slots to engage the pinion with the sliding rack-bar the moving of the lever downward or backward will cause the bar C to be raised or forced outward to give the necessary lift or thrust. The other or outer portion, G′, of the operating-lever is united by one or more clips, *g*, with the tail-piece or portion G, and may readily be fitted thereto or unshipped therefrom, or another outer lever portion of any desired length be substituted for it, as circumstances may require. The outer ends of the slots *f* are left open, so that the entire lever G G′ and toothed head G^2 may be removed to facilitate transportation or packing away. The toothed head G^2 and the rack-bar C are both similarly strengthened by shrouds *i*, arranged on opposite sides of the teeth for half their depth, (more or less.) The eccentrics E E, which are fitted to turn by a shaft, *k*, connecting them, within a bearing in the forward portion of the plate or bar D, and so that the peripheries of said eccentrics are in proximity to the faces of the side pieces of the slotted post A, have secured on them a treadle-lever or presser, F, to which pressure may be applied, either by hand or by foot, to bring the eccentrics in binding contact with the post A, whereby back slip of the rack-bar C will be prevented and the jack be firmly held or locked to its thrust more securely than can be attained by ratchet-pawls, and the locking device will be in a measure self-operating, any increased backward thrust only strengthening the lock. By releasing pressure from the treadle or presser F, or slightly lifting on it before starting the rack-bar outward or moving it inward,

said eccentrics will in nowise interfere with the sliding movement of the rack-bar.

The general operation of the jack, so far at least as the working of the rack-bar and toothed-headed lever is concerned, is similar to that described in my former Letters Patent, hereinbefore referred to.

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

1. The combination of the slotted post A, the sliding rack-bar C, the bar or plate D, attached to the rack-bar and arranged to pass through the slot in said post, one or more turning eccentrics, E, carried by the plate or bar on the opposite side of the post to that of the rack-bar, and the treadle-lever or presser F, applied to control the motion or adjustment of the eccentrics, substantially as specified.

2. In a rack-and-pinion power-jack, the combination, with the sliding rack-bar C, and the bracket B, having inclined slots *f*, of the compound lever G G′, having its sections united by one or more clips, *g*, the toothed head or pinion G^2, fast on the inner end of the one lever portion G, and the fulcrum or shaft *s*, essentially as shown and described.

JOHN WASHINGTON MASSEY.

Witnesses:

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