(No Model.)

J. L. MARTIN.

STUMP PULLER.

No. 326,310. Patented Sept. 15, 1885.

Fig. 1.

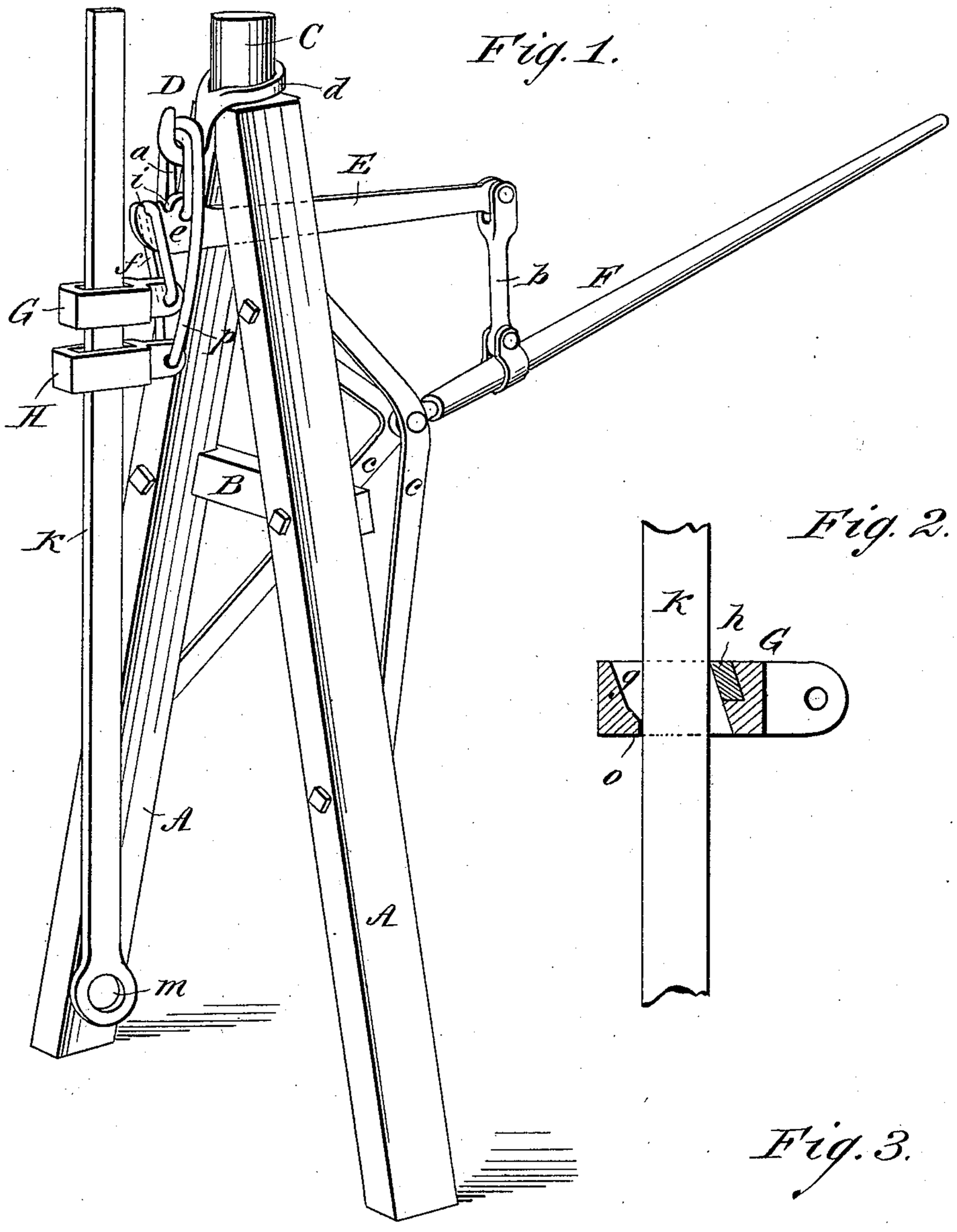
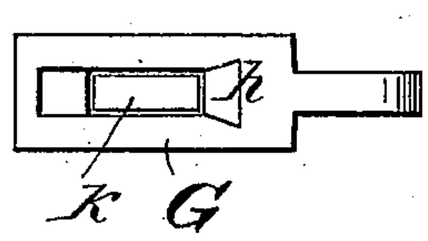


Fig. 2.

Fig. 3.



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STUMP-PULLER.

SPECIFICATION forming part of Letters Patent No. 326,310, dated September 15, 1885.

Application filed July 20, 1885. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. MARTIN, of Decker's Point, in the county of Indiana and the State of Pennsylvania, have invented a new and Improved Stump-Puller, of which the following is a full, clear, and exact description.

My invention relates to that class of apparatus used for extracting stumps and elevating rocks; and the invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and specifically pointed out in the claims.

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

Figure 1 is a perspective view of my improved form of stump-puller. Fig. 2 is an enlarged view of a portion of the lifting-bar and one of the grips, the grip being shown in section; and Fig. 3 is a plan view of the bar and one of the grips.

The main supporting-frame of my stump-puller is composed of two converging standards, A A, that are united at their upper ends and braced by a bar, B. In uniting the upper ends of the standards A A, I prefer to bevel off the upper part of the inner surfaces of the standards, so that when the two beveled faces are brought in contact, so as to rest the one against the other, a proper inclination will be given to the standards.

The outer faces of the standards are cut away to form the perpendicular post C, and upon this post C, I hang the suspending-hook D, which is made with a large eye, *d*, that encircles the post C.

A lever, E, is suspended from the hook D, by the link *a*, and the outer end of this lever E is connected to the manipulating-lever F by the connecting-link *b*, which is pivoted to both of the levers named.

The inner end of the lever F is pivotally connected with two brace-rods, *c c*, that are carried by the standards A A, so that as the manipulating-lever F is depressed the short arm *e* of the lever E will be raised.

A grip, G, is carried by the arm *e* of the lever E, being connected thereto by a link, *f*, which rests in one of the two or more notches *i i*, formed on the upper side of the arm *e*. This grip G, which supports the lifting-bar K, is of peculiar construction, as will be seen by an inspection of Figs. 2 and 3. The slot *g*, formed in the grip and through which the bar K passes, is not rectangular in cross-section, being more in the form of a rhomboid, although the lower part of the outer face of the slot is formed so as to be at about right-angles with the under side of the grip, so that the grip is really formed with a shoulder, *o*, that projects into the slot *g*, and forms a bearing or gripping face against which the bar K is pressed.

A steel plug, *h*, is dovetailed into the upper side of the grip in position so that one of its exposed faces will constitute a portion of the inner wall of the slot *g*, the idea being to provide the grip with a steel gripping-edge. The grip G is the lifting-grip; but to hold the bar K in position after it has been raised by the grip G, I provide a second grip, H, that is arranged below the grip G and supported by a link, *p*, that engages with the hook D.

In operation the stump is connected to the bar K by means of a chain, which is inserted through the eye *m*, formed near the lower end of the bar, and the manipulating-lever F depressed, which movement of the lever, as before stated, will raise the bar K. The lever F, having been depressed to its full extent, is in turn raised, and the grip G will thereby be released from its binding frictional contact with the bar K; but the weight of the bar and the stump secured thereto will be at once thrown upon the grip H, by which it will be securely held until the motion of the lever F is again changed and the lever is depressed, when, as before, the upper edge of the steel plug *h* will be pressed against the bar K, which will be held in a firm grip between the shoulder *o* and the edge of the plug *h*.

When the inner ends of the grips G and H are not raised by their connecting-links, it will be seen that there will be no pressure upon the bar K by the edge of the plug *h*, and it will also be seen that by slightly tilting the bar so that its sides will be more nearly parallel with the end walls of the slot *g* the bar may be freely moved in either direction within the slots *g* of the grips G and H.

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

1. In a stump-puller, the combination, with the supporting-frame, of a hook, D, lever E, and grip H, and connecting-links, a grip, G, connected to the lever E by a link, *f*, a manipulating-lever, F, connected to the lever E by a link, *b*, and a lifting-bar, K, substantially as described.

2. The herein-described grip, provided with the steel plug *h*, and the slot *g*, and the shoulder *o*, substantially as described.

3. In a stump-puller, the combination of the following elements: supporting-frame, hook D, levers E F, links *a*, *b*, *f*, and *p*, grips G and H, formed with shoulders *o*, and steel plugs *h*, and a bar, K, substantially as set forth.

JAMES L. MARTIN.

Witnesses:
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