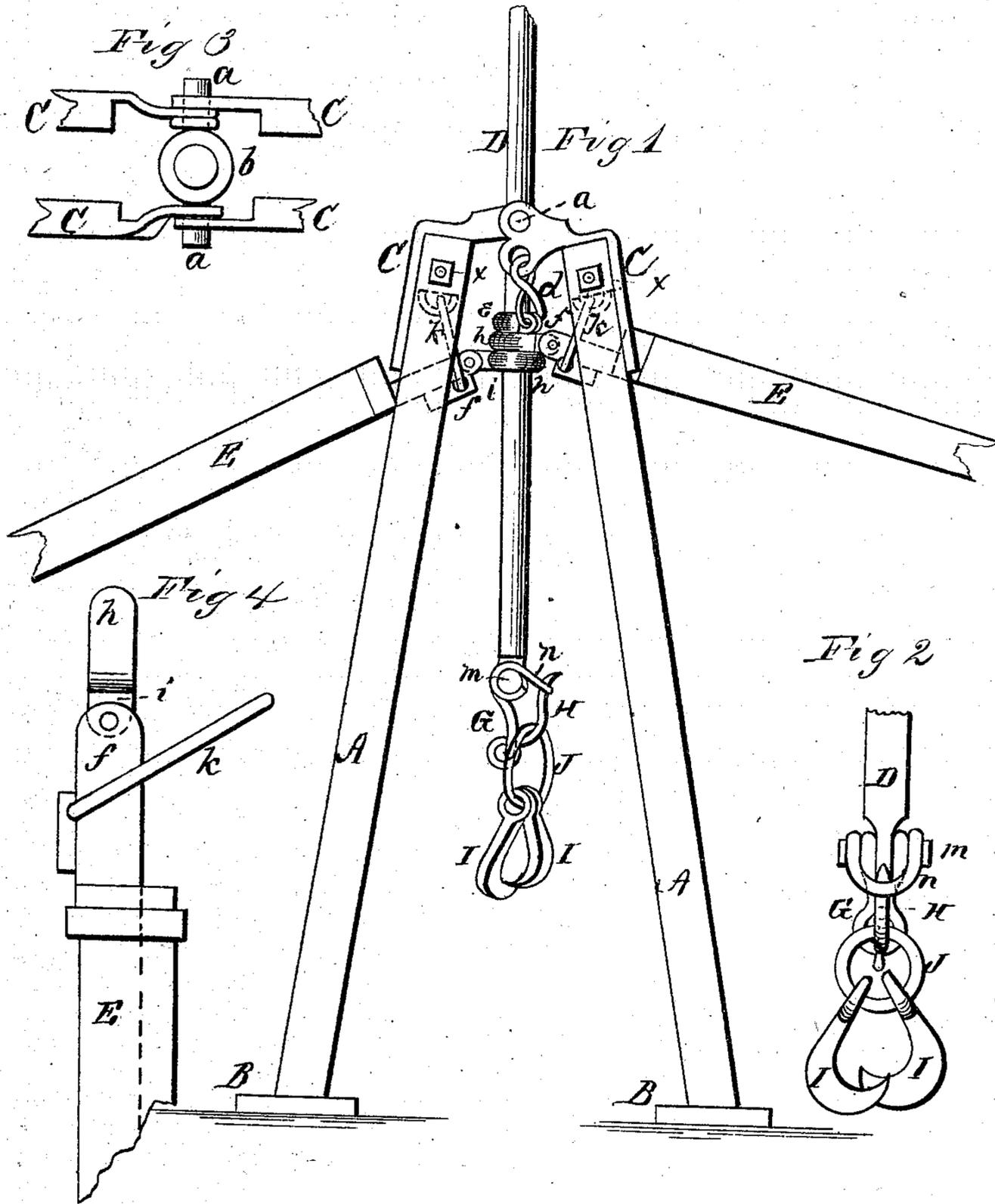


M. YOCHEM.  
Stump-Extractors.

No. 150,651.

Patented May 5, 1874.



WITNESSES.  
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# UNITED STATES PATENT OFFICE.

MICHAEL YOCHER, OF JASPER, INDIANA.

## IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. **150,651**, dated May 5, 1874; application filed April 4, 1874.

*To all whom it may concern:*

Be it known that I, MICHAEL YOCHER, of Jasper, in the county of Dubois and in the State of Indiana, have invented certain new and useful Improvements in Stump-Extractor; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in certain improvements upon the Letters Patent No. 143,129, for stump-extractor, granted to W. Duffner, September 23, 1873, as will be hereinafter more fully set forth.

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 annexed drawing, in which—

Figure 1 is a side elevation of my stump-extractor. Fig. 2 is an enlarged side view of the latch or hook coupling. Fig. 3 is a plan view of the top coupling of the frame, and Fig. 4 is an enlarged view of the inner end of one of the operating-levers.

The frame of my stump-extractor is made in two sections, each section consisting of two legs, A, spread at their lower ends and connected by means of a foot or cross bar, B, upon which they rest. The upper ends of the legs A are brought close together simply with a block between them, and fastened by a bolt, *x*. The sections thus constructed are coupled together by means of metal bars C C, fastened one upon the outside of each leg A, and bent inward over and beyond the end of the leg. The extreme inner ends of the bars C C are bent upward, and connected by journals or trunnions *a a* formed on opposite sides of a ring, *b*, said journals passing through holes in the ends of the bars, and the ring fitting over the pulling-beam D.

By this construction the sections of the frame may be spread at any distance apart without binding the pulling-beam D.

From the inner end of one of the bars C depends a link, *d*, to which is attached a ring or collar, *e*, passing over the pulling-beam D

and holding the same. E E represent the operating-levers, each of which is provided at its inner end with a forked metal bar, *f*, in which is pivoted an arm, *i*, projecting from a collar or jaw, *h*, surrounding the pulling shaft or beam D. Each lever is suspended by a single link, *k*, attached in the bar *f* and between the upper ends of the legs A. At the lower end of the pulling-beam D is hinged or pivoted a bail, G, by a pin, *m*, passing through the lower end of the beam and through eyes formed by bending the rod of which the bail is made. On the ends of the pin *m* is pivoted a latch, *n*, to catch upon and hold the point of the hook H, which is hung in the bail G. I I represent the grappling-hooks which are placed upon a ring or link, J, and this is hung upon the hook H, as shown.

In the patent of Duffner above mentioned the angular bars connecting the standards are bent at right angles, which brings the devices for holding the pulling-beam directly between the ends of the standards, and hence when said standards are spread they will bind on the intermediate devices.

By my construction the inner ends of the angular bars are elevated, bringing the collar *b*, through which the pulling-beam passes, above the upper ends of the standards, so that there can be no binding.

Furthermore, in the patent of Duffner compound levers are used to operate other levers or jaws which grasp the pulling-beam. I use a single lever on each side connected with a collar or band surrounding the pulling-beam.

I am aware that other stump-extractors are in use of substantially the same character as that of Duffner, but they invariably present a complication of devices which renders them not only expensive, but also very much liable to get out of order.

My object has been to construct a stump-extractor that shall be simple in construction, cheap to manufacture, and durable and effective in operation.

I do not, broadly, claim the various parts of which my machine is composed, of themselves, as I am well aware that taken each by itself they will be found in various stump-ex-

tractors. It is only when combined in the manner described to form one machine that I lay claim to them.

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

The combination of the standards *A A*, having angular bars *C C*, collar *b*, with journals *a a*, levers *E E*, forked bar *f*, collars *h*, links *k*, shaft *D*, link *d*, and collar *e*, all sub-

stantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of March, 1874.

MICHAEL YOCHER.

Witnesses:

BAZIL B. EDMONSTON,  
ANTHONY E. KENT.