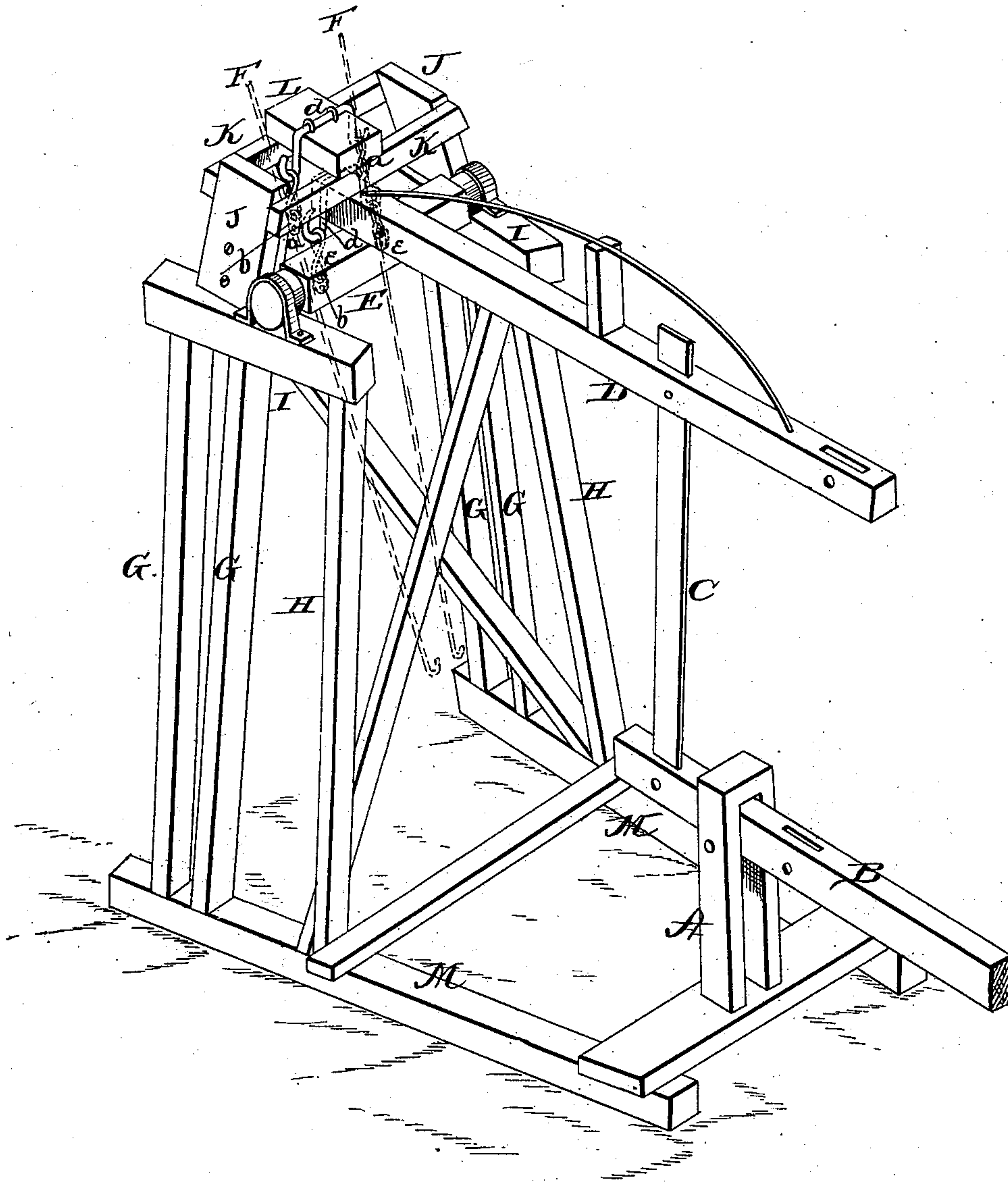


S. D. FRY.
Stump-Extractor.

No. 227,238.

Patented May 4, 1880.



Witnesses:
 Frank L. Curand
 J. J. ~~Chas~~ Carthy.

Inventor:
S. D. Fry
By Alexander Mason
att

UNITED STATES PATENT OFFICE.

STEPHEN D. FRY, OF ATTICA, INDIANA.

STUMP-EXTRACTOR.

SPECIFICATION forming part of Letters Patent No. 227,238, dated May 4, 1880.

Application filed February 12, 1880.

To all whom it may concern:

Be it known that I, STEPHEN D. FRY, of Attica, in the county of Fountain, and in the State of Indiana, have invented certain new and useful Improvements in Stump-Extractors; and I 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 the construction and arrangement of a stump-extractor, 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, which represents a perspective view of my stump-extractor.

A represents double posts for supporting the hand-lever. B is the hand-lever; C, connecting-bar; D, lifting-beam, and E lifting-journal. F F are lifting-bars, and *a a* and *b b* are the four gripes. G G are four large posts, and H H two long posts, with pieces I I bolted on top. J J are two large plates, one on each side on top of the pieces I, and connected by cross-ties K K. L is a cross-block for holding top ratchets. M M are mud-sills connected by cross-ties, and supporting the structure.

The hand-lever B may be applied in two ways. By placing the connecting-bar C in the front holes of the hand-lever and lifting-beam the operator will lift with the lever, but by placing it in the rear holes he will push down. The length and force of leverage are given by moving the lifting-journal E forward or back on the pieces I. The iron lifting-bars are supported by the four gripes *a a b b*, each

gripe being supported by a stirrup, *d*, to which it is connected by a twisted link, *e*. This link gives a joint at each gripe, and does away with all binding, and lets the bars move to their work in any direction. The top gripes, *a*, catch and hold the iron bars and their load, while the lower gripes, *b*, slide down to catch a new hold, and while the lower ones raise their load the top ones slide down, catch and hold it, making it a complete draw and power.

The construction of the frame produces strength as well as prevents it from tipping over in heavy work.

The sills M are provided at both ends with devices for hitching horses to draw it from place to place.

The iron bars F are provided with hooks for hooking onto chain fastened to the stump or other heavy weight to be raised.

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

1. In a stump-extractor, the combination of the hand-lever B, lifting-beam D, and the connecting-bar C, said bar being arranged to be shifted from one side of the lever-fulcrum to the other, for the purposes herein set forth.

2. The combination of the stirrups *d d*, twisted links *e e*, and gripes *a a* and *b b*, for the purposes herein set forth.

3. The combination of the frame-work, as shown and described, lever B, connecting-bar C, beam D, journal E, and the stirrups, links, and gripes, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of January, 1880.

STEPHEN D. FRY.

Witnesses:

I. E. SCHOONOVER,
O. S. TULLIS.