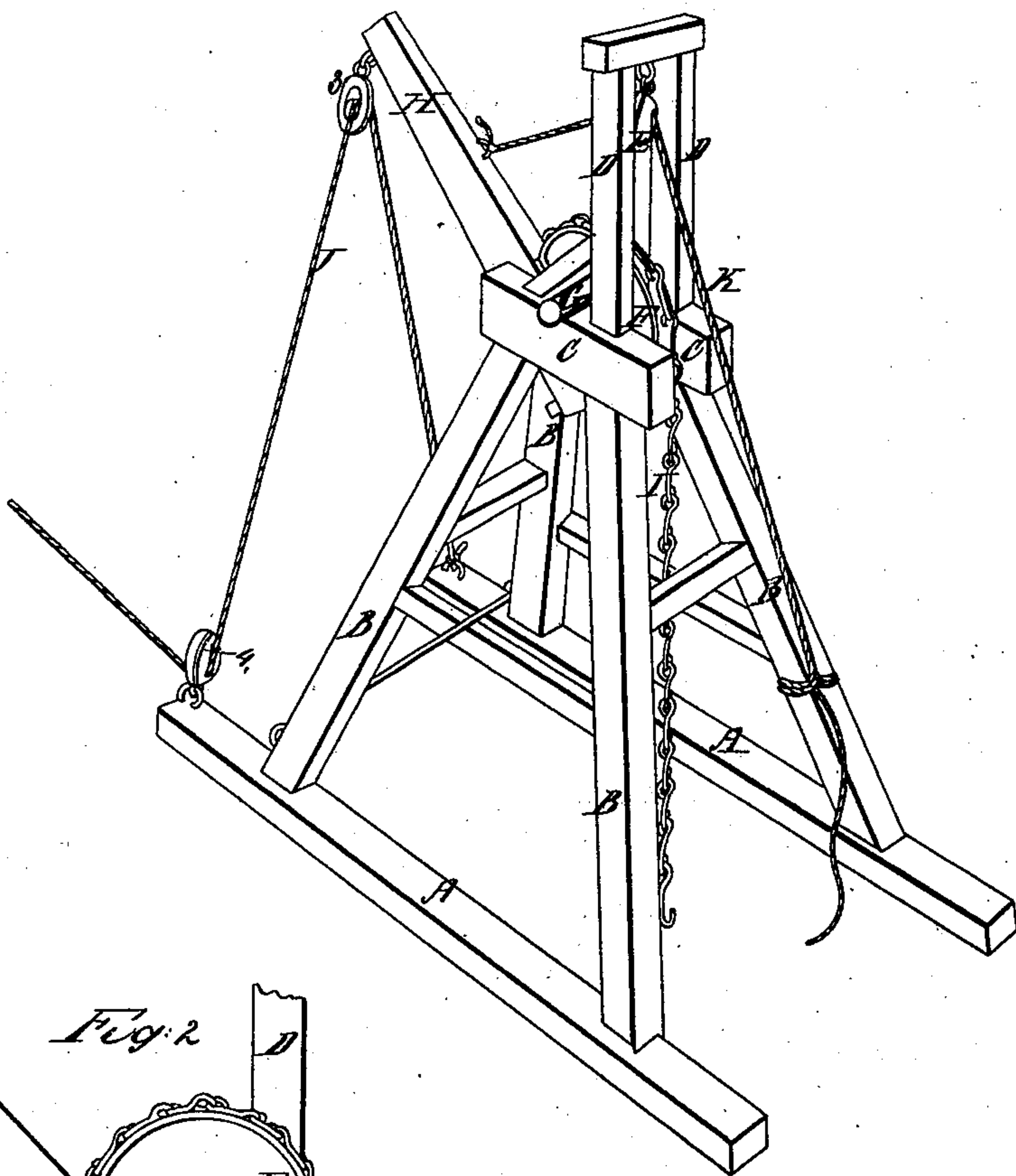


*R. B. Ferris,*  
*Stump Elevator.*

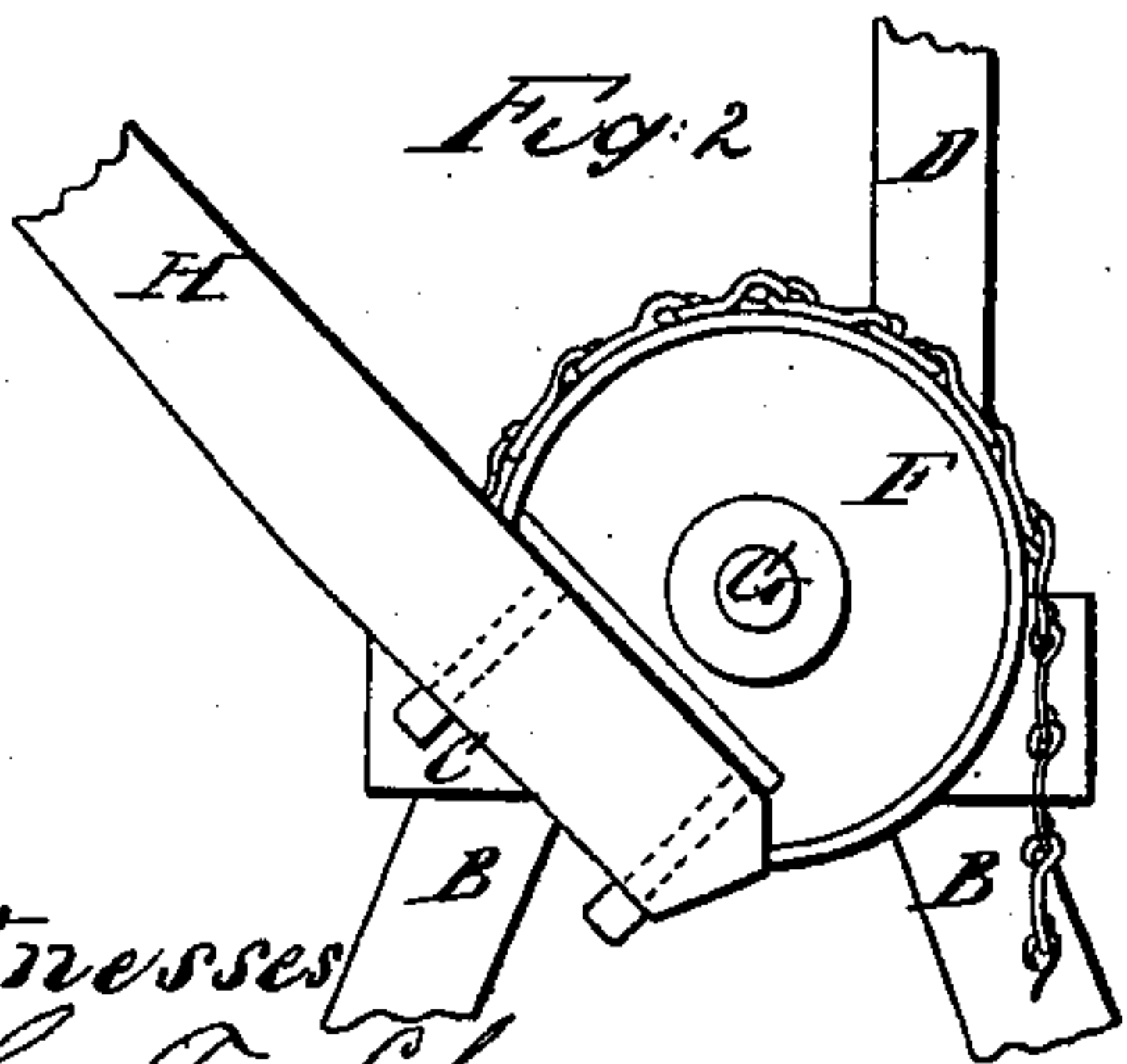
*N<sup>o</sup> 82,932.*

*Patented Oct. 13, 1868.*

*Fig. 1*



*Fig. 2*



*Witnesses*

*H. F. Everts.*  
*Louis L. Hyde*

*Inventor*  
*R. B. Ferris*  
*My Attorney*  
*Thos S Sprague*

# United States Patent Office.

RUFUS B. FERRIS, OF HOLLAND, MICHIGAN.

Letters Patent No. 82,932, dated October 13, 1868.

## IMPROVED STUMP-EXTRACTOR

The Schedule referred to in these Letters Patent and making part of the same.

### *To whom it may concern:*

Be it known that I, RUFUS B. FERRIS, of Holland, in the county of Ottawa, and State of Michigan, have invented a new and useful Improvement in an Apparatus for Extracting Stumps and Lifting Heavy Weights; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a perspective view, and

Figure 2 is a side elevation, partially in section, of the sheaved cam and its connections.

The object of this invention is to construct a simple and cheap, but powerful apparatus for the purpose of extracting stumps from the ground, and for lifting heavy weights.

To accomplish this purpose, on two parallel sills, A, I erect four posts, B, forming a strongly-braced framework, pyramidal in shape; each pair of posts being connected longitudinally at the top by a tie-beam, C, surmounting which are standards D, between which is suspended a pulley-block, E. F is a sheaved cam, rigidly secured to a shaft, G, journaled into the tie-beams C, and operated by a lever, H, firmly bolted to the flat portion of the sheave F. A chain, I, is secured to the lever at its junction with the cam, around which, in a proper groove or sheave, it passes, and descending to the ground, terminates in a proper hook, for convenience in securing to stumps, &c.

J is a rope, one end of which is secured to one end of one of the sills A, and passing up through a sheave-block, 3, at the outer end of the lever H, descends and passes through a similar block, 4, secured to the end of the opposite sill, and terminates in a hook, to which the team is attached. K is a halyard, one end of which is secured to the lever H, passing through the sheave-block F down to the ground, by means of which the lever H may be raised, and the chain slackened.

To operate this apparatus, we will suppose that a stump to be extracted is under the cam and between the sills: Draw up the lever H with the halyard K, hook the chain securely around the body of or under the roots of the stump, attach a team to the end of the rope J, and start them forward, when a powerful strain will be exerted on the chain I, and the work is done.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the lever H, sheave F, chain I, rope J, sheave-blocks 3 and 4, sills A, post B, tie-beams C, standards D, pulley E, and halyard K, when constructed, arranged, and operating substantially as described, and for the purposes set forth.

RUFUS B. FERRIS.

Witnesses:

H. D. POST,  
JAN FRIMPE.