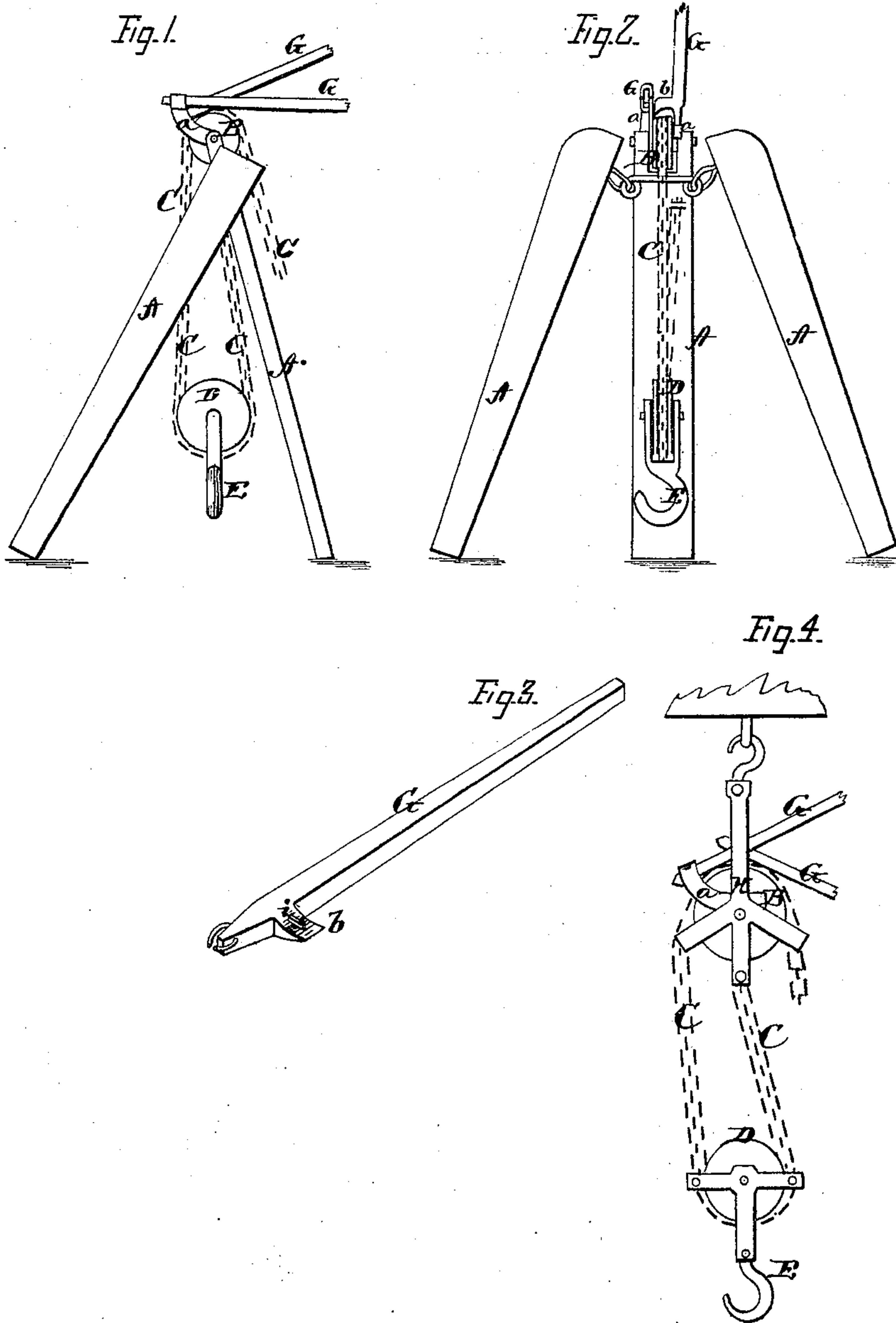


W. SMITH.

Improvement in Stump-Extractors.

No. 129,181.

Patented July 16, 1872.



Witnesses:  
James O. Hutchinson  
C. L. Ewert.

Inventor.  
William Smith.  
per Alexander Mason  
Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM SMITH, OF TOMAH, WISCONSIN.

## IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. 129,181, dated July 16, 1872.

*To all whom it may concern:*

Be it known that I, WM. SMITH, of Tomah, in the county of Monroe and in the State of Wisconsin, have invented certain new and useful Improvements in Stump-Extractor Elevator; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing 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 and elevator, 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—

Figures 1 and 2 are side views of my device used as a stump-extractor. Fig. 3 is a perspective view of one of the levers used; and Fig. 4 represents my device when used as an elevator to raise heavy weights or for other purposes.

A A represent a tripod frame, the three legs being connected at their upper ends in any suitable manner, and in the upper end of the center leg is placed a pulley, B. A chain, C, attached to the middle leg near its upper end, passes around a pulley, D, provided with a hook, E, and then passes up over the pulley B. Upon each end of the axle for the pulley B is placed an arm, *a*, which is curved, as shown, and forms a loop or socket at its outer end for the insertion of the end of a lever, G. This lever is on its inner side provided with a projection, *b*, which is concave on its under side, and has a tooth, *i*, as shown in Fig. 3, so as to grasp and hold the links of the chain C. The machine is worked by the two hand-levers G G; while one is pulled down the other

holds what has already been pulled. These levers may be of any length desired, and hung so as to be taken out at will. The projections or lips *b b*, bearing on the chain C over the pulley, may be made of any suitable form to best gripe and hold the chain on the pulley. As the lever is pulled down the chain is pressed against the pulley, which holds the chain and revolves the pulley.

The levers G G may be hung side by side, as shown, or one above the other, as convenience or necessity may dictate.

In Fig. 4 I have shown the machine without the tripod-frame A, the upper pulley B being hung as a pulley-block in a frame, H, inside of which the levers swing with the pulley. This form is especially adapted for raising heavy weights where the frame A could not be used.

I desire it to be understood as not limiting my invention to the number of levers, as it has been found expedient in practice to sometimes use only one lever and have the loose end of the chain held with a friction-clutch.

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

1. The swinging levers G G, provided with lips *b b* or their equivalents, and operating upon the chain C and pulley B, substantially as and for the purposes herein set forth.

2. The combination of the pulley B, arms *a*, levers G G with lips *b b*, chain C, and pulley D with hook E, all constructed and arranged 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 May, 1872.

WILLIAM SMITH.

Witnesses:

C. L. EVERT,

GEO. J. T. SMITH.