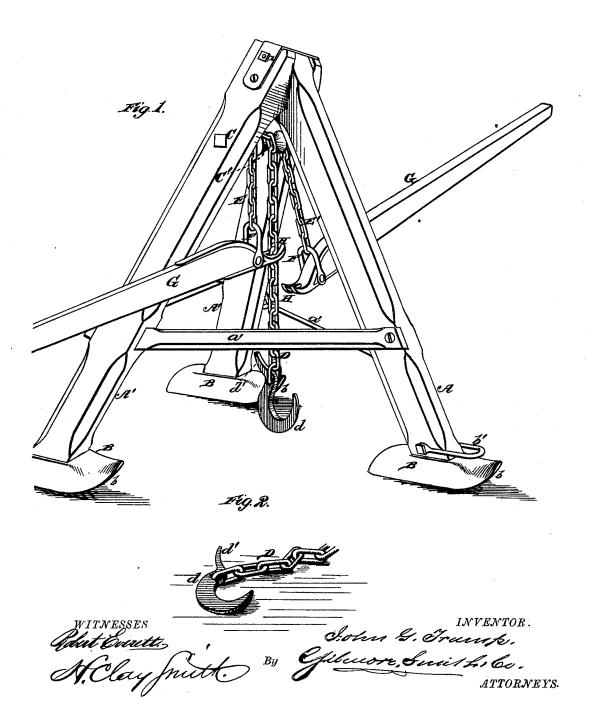
J. G. TRUMP. Root and Stump Puller.

No. 213,473

Patented Mar. 18, 1879.



## UNITED STATES PATENT OFFICE.

JOHN G. TRUMP, OF DENMARK, MICHIGAN.

## IMPROVEMENT IN ROOT AND STUMP PULLERS.

Specification forming part of Letters Patent No. 213,473, dated March 18, 1879; application filed January 11, 1879.

To all whom it may concern:

Be it known that I, John G. Trump, of Denmark, in the county of Tuscola and State of Michigan, have invented a new and valuable Improvement in Root and Stump Pullers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective of my root and stump puller, and Fig. 2 is a detail view of the chain

with hook attached.

My invention relates to a device for pulling stumps, roots, and the like; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth.

In carrying out my invention, I employ a properly-braced tripod, each foot of which is supported on runner-shoes, the beveled portions of which all point in the same direction, the forward foot being provided with a clevis, or other suitable means for connecting with a draft-power, for convenient transportation. The forward leg is bolted between the two rear legs, and a bolt passing through said rear legs near the top carries a loose pulley in the center, upon each side of which depends a chain.

The stump-chain operates over the loose pulley, and the drop-chains are of differential lengths, each having at the lower extremities a clevis, connected to a hand-lever having a

jaw-clutch upon the inner end.

It will thus be observed that by my construction one of the hand-levers hangs lower than the other, and consequently the jaws clamp the stump-chain and manipulate the same below the corresponding operation of the other.

The stump-chain has hooks upon each end, one of which has an upwardly-extending arm, which is adapted to clamp roots and the like between itself and the chain.

Referring to the drawings, A represents the forward, and A' A' the rear, legs of the tripod, bolted together at a, having suitable braces a', and each leg being provided with runner-shoes B, having beveled lower surfaces, b, in one direction, as shown. A clevis, b', allows draft attachment for transportation of the device.

C represents a bolt, passing through the legs A', carrying a loose pulley, C', over which operates the stump-chain D, having hooks at

each end, one of which, d, has an upwardly-projecting arm, d', as shown.

Depending from the bolt C is a short chain, E, from one side of the pulley, and a long chain, E', from the opposite side. The lower end of each chain is provided with a clevis, F, the connecting-bolt of which acts as the fulcrum of levers G, having jaws H upon their inner ends, which engage the stump-chain, as is obvious, one operating above the other upon the chain.

1. The combination of the bolt C, pulley C', stump-chain D, long and short chains E E', clevis F, and lever G H, as and for the purpose specified.

2. The stump-chain D, provided with the root-hook d, having arm d', as and for the pur-

pose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN G. TRUMP.

Witnesses:

E. H. TAYLOR,

F. Bourns.