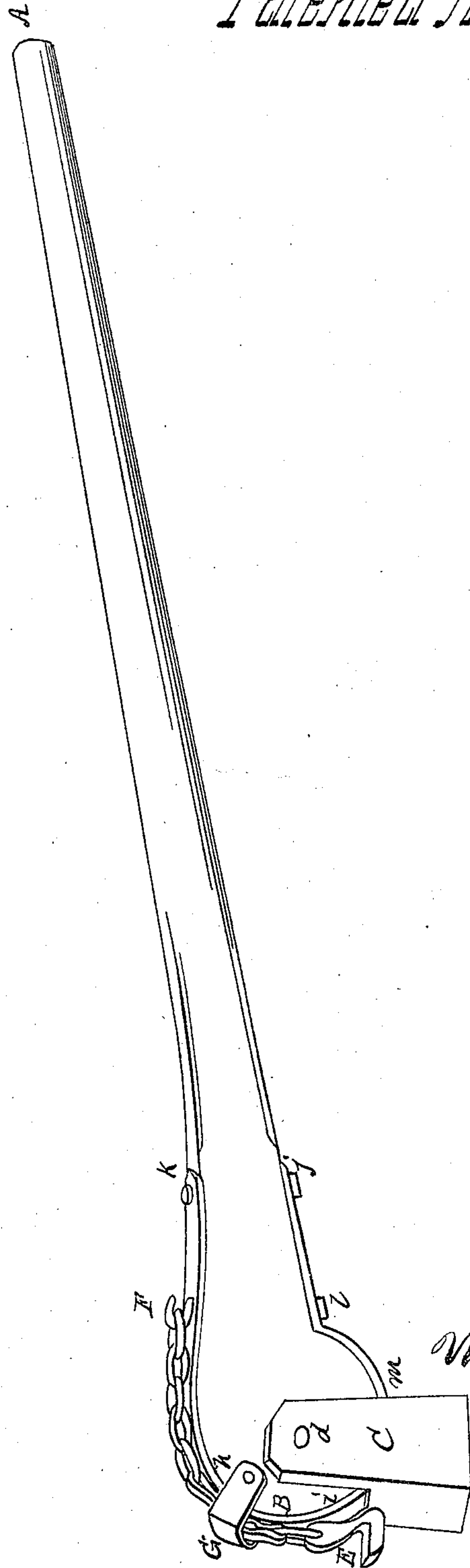


*W. Langdon,
Stump Elevator.*

N^o 55,314.

Patented June 5, 1866.



*Witnesses
J. W. Witmore
E. C. Ampherson*

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UNITED STATES PATENT OFFICE.

WILLIAM LANGDON, OF LANGDON'S STATION, PENNSYLVANIA.

IMPROVEMENT IN STUMP-EXTRACTORS.

Specification forming part of Letters Patent No. 55,314, dated June 5, 1866.

To all whom it may concern:

Be it known that I, WILLIAM LANGDON, of Langdon's Station, in the county of Erie and State of Pennsylvania, have invented a new and useful improvement on the lever of the first kind; 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 drawing, making a part of this specification.

A B represent a wooden shaft; K *h i l j*, straps of iron around the end, bolted by F *l*, and K *j* heavy bolts. The head of the bolt F *l* is a hook to hold the chain. F G E, the chain, constructed with flat links; E, hook for attaching to or catching the body to be moved; G, strap to keep the chain in place; C, fulcrum-block; *d*, fulcrum shaft or pivot; *l h d i*, a circle. The pivot *d* passes through the lever at about one-third or one-half of the distance from the center of the circle to the point *i* in the circumference. *d h*, the short arm of the lever when it is raised up to catch the weight; *d B*, the short arm of the lever when the force has been exerted and the long arm brought partly down; *d i*, the short arm after the long arm has been brought down.

The shaft A B may be of iron. The band *j l i* K would not then be necessary.

In operating the lever the hook E is an improved means of catching the weight. In raising weights, like a railroad-track for repairs, when the downward pressure of the weight increases as it is raised, this improvement has the advantage of the eccentric lever. The short arm becomes shorter as the force required is greater. *d B* is shorter than *d h*, and *d i* shorter than *d B*, &c.

The lever may be formed by leaving out part of the circle *l m i d*, and having a deep notch at *d* to rest on a detached fulcrum, C, solid from *d* down.

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

The eccentric short arm of the lever of the first kind, in connection with the chain and hook, substantially as described.

WM. LANGDON.

Witnesses:

I. W. WITMORE,
E. CAMPHAUSEN.