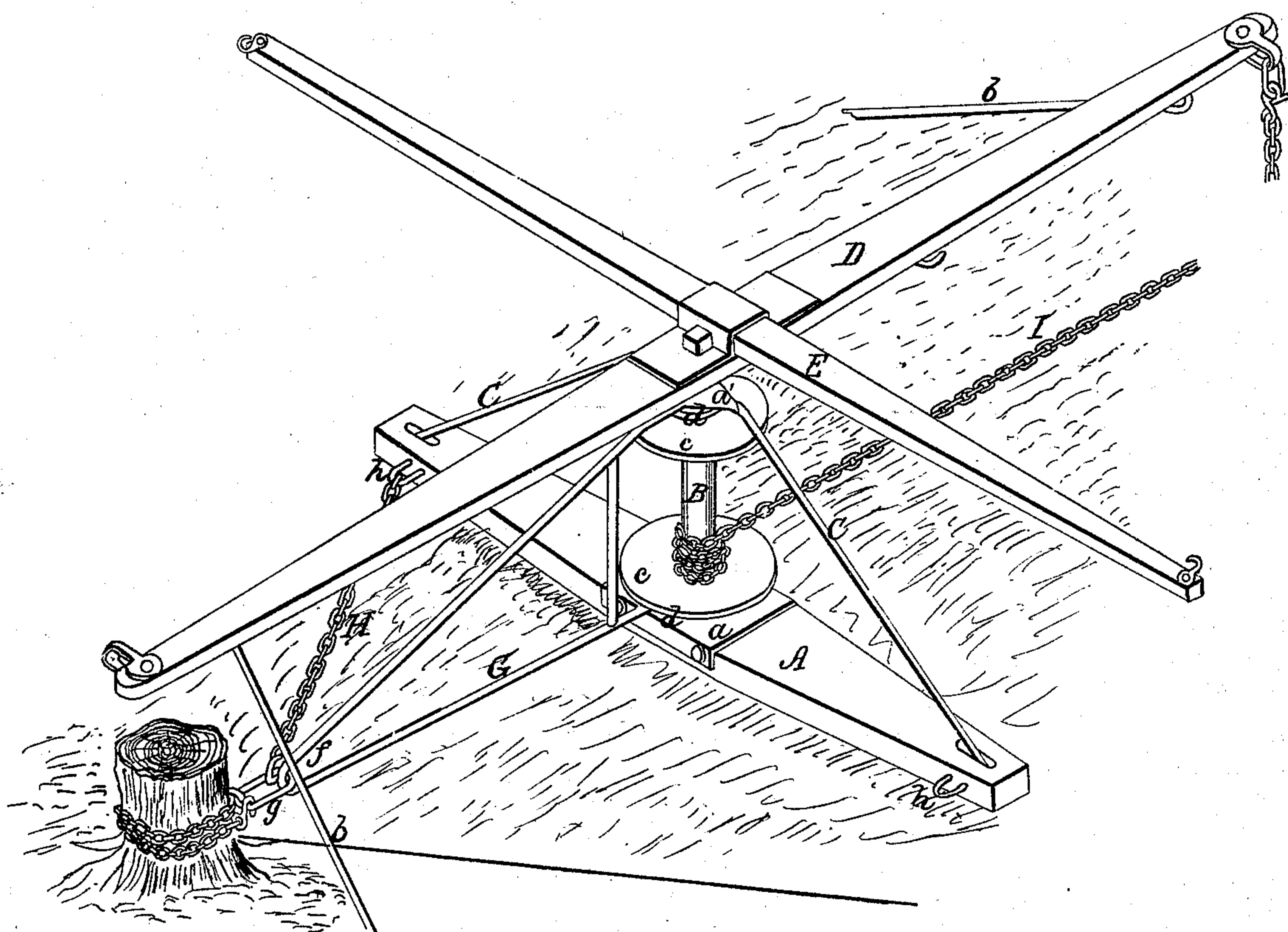


*H. Smith, 3d.*  
*Stump Elevator.*

*N<sup>o</sup> 88,336.*

*Patented Mar. 30, 1869.*



*Witnesses.*  
*R. F. Osgood*  
*Geo. W. Mott*

*Inventor.*  
*Henry Smith 3<sup>rd</sup>*  
*By J. Fraser & Co*  
*Attys*



HENRY SMITH, 3D, OF NORTH CHILI, NEW YORK.

*Letters Patent No. 88,336, dated March 30, 1869.*

**IMPROVEMENT IN STUMP-EXTRACTORS.**

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

*To all whom it may concern:*

Be it known that I, HENRY SMITH, 3d, of North Chili, in the county of Monroe, and State of New York, have invented a certain new and useful Improvement in Machines for Pulling Stones, Stumps, Drawing Buildings, Operating Ditching-Machines, &c.; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which the figure shows a perspective view of my improved machine.

My invention consists in combining, with the base that supports the windlass, a stiff bail and connecting-chain, whereby said base and bail are always made to retain their proper right-angled position, whatever may be the direction of draught upon the main chain that connects with the resistance.

In the drawing, A indicates the base, which is simply a stick of timber, of suitable length, resting upon the ground, and so arranged as to be capable of being dragged over the field by simply hitching the team to it.

To the centre of the base is bolted a bearing-plate, *a*, in which rests the lower end of the windlass B, the upper end of the latter being situated in a bearing-plate, *a'*, stayed by a double brace, C, which extends downward and outward, and is firmly secured to the ends of the base, as clearly shown.

To the upper end of the windlass-shaft is secured a sweep, D, to which the team is attached, having drag-bars, *b*, to prevent reaction of the sweep under strain, when the team is stopped.

The sweep is also provided with a cross-leader, E, for directing the horses.

Thus far the parts I have described have been in common use, and I disclaim them as new.

To the windlass-shaft, above and below the head-flanges *c c*, is swivelled, at *d d*, a bail, G, of strong iron, extending back a suitable distance, forming the angle

*f*, to which is attached a link, *g*, having a chain, which is wound around or otherwise attached to a stump, post, or other firm object, to anchor the machine.

With the extremity of this bail is also connected a chain, H, of such length as to connect with hook *h* at either end of the base.

The operation is as follows:

The machine is anchored at a suitable point to act upon a radius, and as the stumps, stones, or other obstacles, are removed from the radial path of draught-chain I, the action of said chain, in moving forward, swings the machine around on the anchor-centre, as indicated by the red line.

The object of my invention is to keep the base, A, and bail G always at right angles to each other, as the machine thus swings, which is accomplished by means of the chain H. Heretofore the base has been connected with the anchor simply by a chain extending from its centre. In such case the base is not braced or held steadily, but plays loosely.

In my arrangement it must always keep its position, and therefore it can never interfere with the horses, or with the operators.

Besides the above, the bail, by its attachment to the opposite ends of the windlass, braces the same firmly, and equalizes the draught.

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

The combination of bail G and connecting-chain H with base, A, the whole arranged as described, and operating in the manner and for the purpose specified.

In witness whereof, I have hereunto signed my name, in the presence of two subscribing witnesses.

HENRY SMITH, 3D.

Witnesses:

R. F. OSGOOD,  
GEO. W. MIATT.