(No Model.)

G. W. CLAYTON.

ANCHOR FOR SUBMARINE EXCAVATING.

No. 580,482. Patented Apr. 13, 1897.

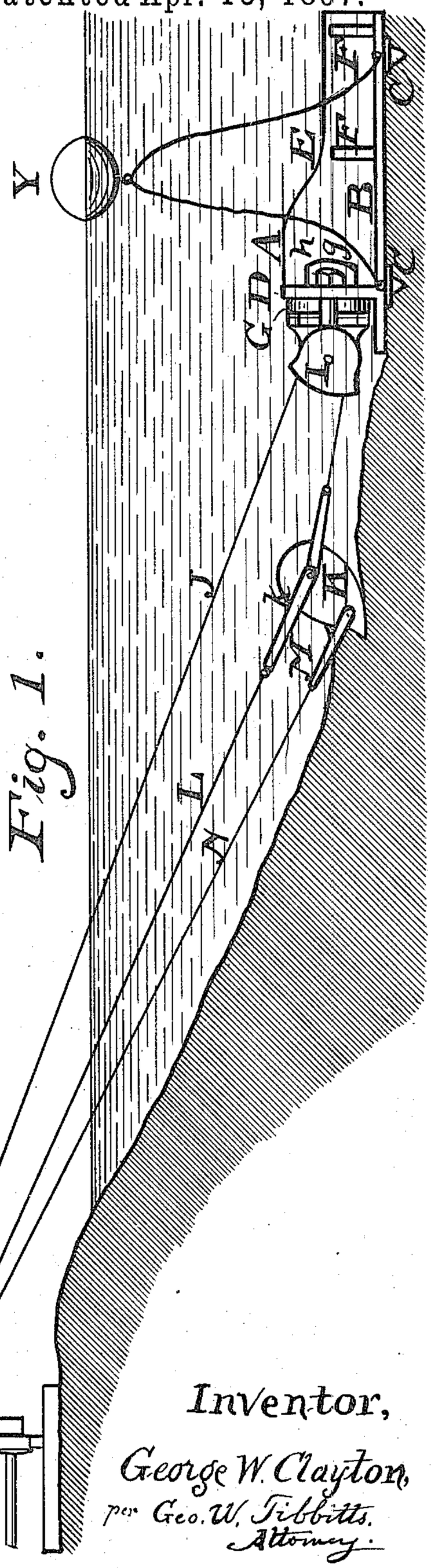

Fig. 1.

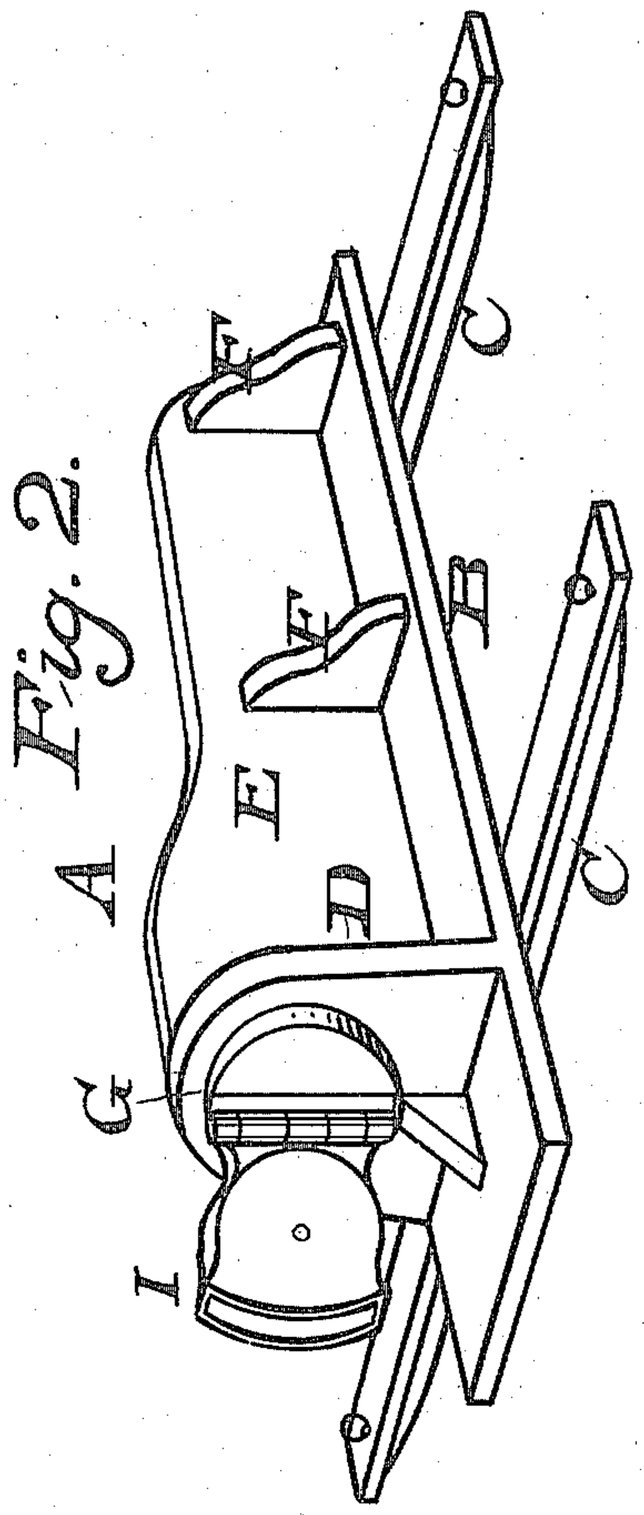

Fig. 2.

Witnesses,
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UNITED STATES PATENT OFFICE.

GEORGE W. CLAYTON, OF CLEVELAND, OHIO.

ANCHOR FOR SUBMARINE EXCAVATING.

SPECIFICATION forming part of Letters Patent No. 580,482, dated April 13, 1897.

Application filed December 17, 1896. Serial No. 616,007. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CLAYTON, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Submarine Excavating, of which the following is a specification.

This invention relates to excavating under water; and it consists in providing an anchor having one or more sheaves attached to be sunken at suitable distances from the shores of streams or other bodies of water and adapted to be shifted from point to point.

The object and purpose of the invention is to enable cables to be operated under water for hauling scoops for conveying earth upward and toward or onto the shore, for deepening channels, or for grading beaches; and the invention consists in the construction and application of a device for the purpose substantially as hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view of a body of water and the shore and a side view of my new anchor device as seen set in place and connected by cables with power on the shore. Fig. 2 is a perspective view of my new anchor device.

A represents a heavy iron casting having a base-plate B, supported on transverse runners C C.

D is a perpendicular head located near one end of the base-plate, and is supported by a perpendicular web E, running back on the central line of said base-plate B, and is strengthened by braces F F on each side. I do not wish to be confined to this particular form of construction, as other forms may be easily substituted.

To the head D is attached a disk G by means of a central pin or bolt *g* put through a hole in the head and held in place by a nut *h* in a cavity in the web E back of the head. This is designed to make a swivel-joint to give the disk freedom to turn.

I is a sheave-case attached by a hinge connection to the disk G, and is adapted for carrying a cable J from a suitable power apparatus on the shore. (Not shown.)

K is a scoop having a double bail *k* attached to the end of the cable J.

L is a second cable attached to the opposite side of said bail *k*, and is also connected with the power on the shore.

M is a bail attached to the forward part of the scoop, and is also connected by a cable N with the power on the shore.

The operations of this apparatus are as follows: The scoop is drawn outward from the shore by cable J running through the sheave on the anchor. Then by relinquishing the pull on said cable J the two cables L and N are pulled inwardly with the scoop in the position seen in Fig. 1 for scraping up earth, and when sufficiently filled the cable L is slackened a little and the loaded scoop drawn upward toward or onto the shore, and then by relinquishing the pull on cable N the scoop is overturned and emptied by the further pull on cable L. The anchor may be conveyed to the places for work by a tugboat and lowered by means of the chains attached to the ends of the runners C C. It may also be shifted along as the work proceeds by hitching the tug to the chains on one side of the anchor and hauling along as the work requires. The chains may be attached to a buoy Y for convenience of location and attachment.

Having described my invention, I claim—

A portable submerged anchor for excavating purposes, consisting of a plate and web A, B, provided with transverse runners C, C, and having a transverse head D, a disk G attached to said head by central bolt and nut *g*, a sheave and sheave-case I attached to said disk by a hinge-joint, in combination with cable J, scoop K and cables L, N, and means for operating said cables, substantially as described.

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Witnesses:

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