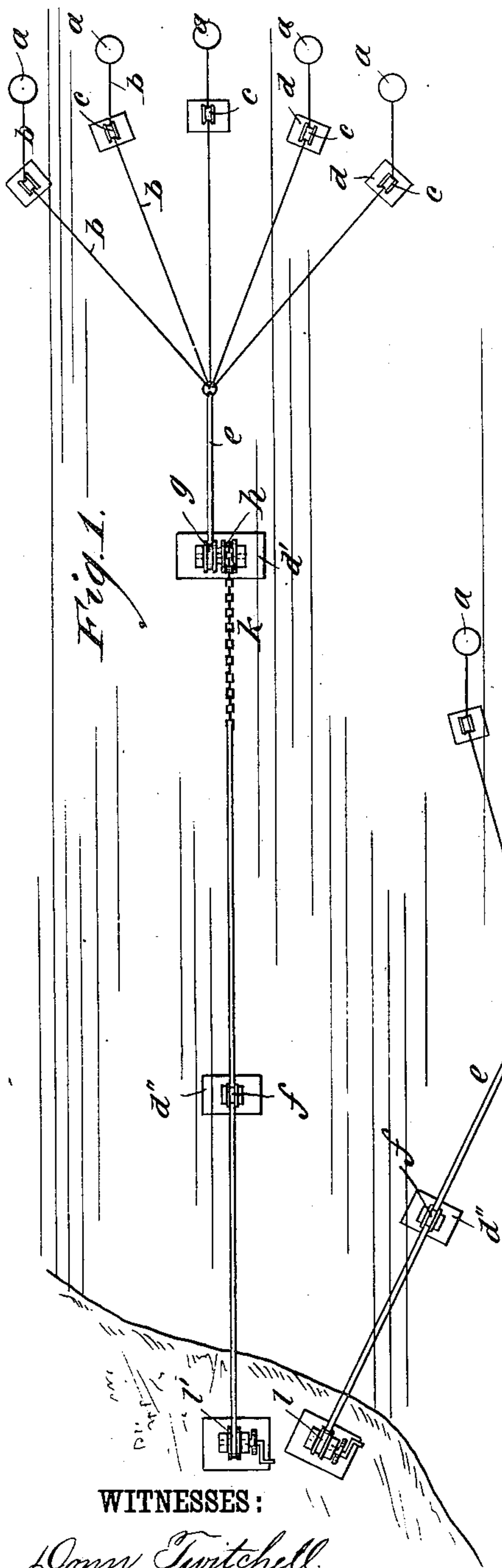


(No Model.)

C. S. AYLESWORTH.
MARINE TORPEDO SERVICE.

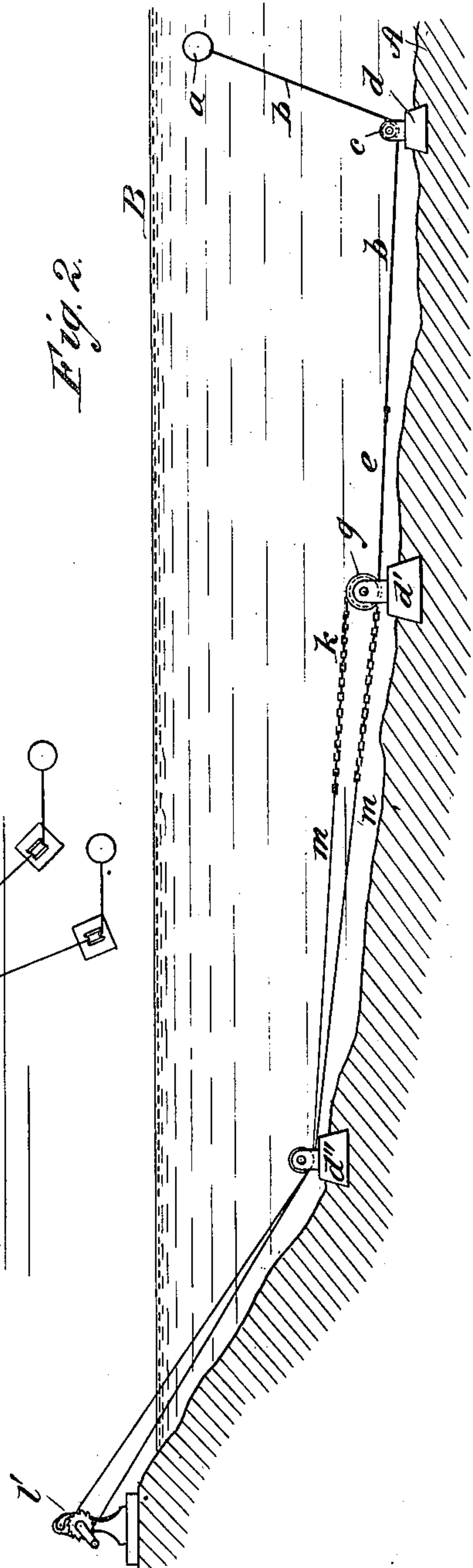
No. 353,728.

Patented Dec. 7, 1886.



WITNESSES:

Donn Twitchell.
John Malheur Ritter



INVENTOR:

Chas. S. Aylesworth
BY: Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES S. AYLESWORTH, OF SPEEGLEVILLE, TEXAS.

MARINE-TORPEDO SERVICE.

SPECIFICATION forming part of Letters Patent No. 353,728, dated December 7, 1886.

Application filed July 21, 1885. Serial No. 172,204. (No model.)

To all whom it may concern:

Be it known that I, CHARLES SAMUEL AYLESWORTH, of Speegleville, in the county of McLennan and State of Texas, have invented a new and Improved Method of Placing and Manipulating Submarine Torpedoes, of which the following is a full, clear, and exact description.

My invention relates to the disposition and manipulation of submarine torpedoes, its object being to so place and connect the torpedoes that they may be drawn out of the way of friendly vessels, but so that they will automatically resume positions that will interfere with the passage of such vessels as it is desired to intercept.

To the above end the invention consists of a series or system of torpedoes that are connected to guide-lines that pass under anchored sheaves and lead to a point where the lines are all connected to a single manipulating-line common to all of the guide-lines, which common manipulating-line leads to the shore or to a position from which it can be operated from the shore.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a plan view of a torpedo plant arranged to carry my invention into practice, and Fig. 2 is a side view of a portion of the plant illustrated in Fig. 1.

In the drawings, A represents the bottom or bed of the river or harbor in which the torpedoes *a a*, arranged in accordance with my system, are placed, and B represents the surface of the water in such river or harbor.

To each of the torpedoes *a a* there is secured a light guide-line, *b*, which leads from the torpedo directly down to and under a sheave, *c*, which is mounted in bearings carried by an anchor-block, *d*, placed upon the bed or bottom of the river or harbor.

From the sheaves *c c* the lines *b b* lead and are secured to a manipulating chain or rope, *e*, which is common to all the lines *b b*, and

reaches directly to the shore to engage with the winch *l*, being guided and supported on its way by sheaves, as *f*, mounted on anchor-blocks *d'*; or it may reach only to a windlass, as *g*, which is carried by an anchor-block, as *d'*, and run by a sprocket-wheel, *h*, that is actuated by a chain, *k*, connected to the winch *l'* by means of ropes or chains *m m*.

In times of war or danger, where hostile ships are expected in the river or harbor where a system of torpedoes planted as described are arranged, the manipulating-ropes *e* of each series are relaxed to allow the torpedoes, which are buoyant, to rise to positions near the surface B, as best shown in Fig. 2, but should a friendly vessel at any time appear the torpedoes *a a* could be drawn down close to the bed A by means of the manipulating mechanism described.

The submerged windlass *g* is only to be employed where the torpedoes are located at a great distance from the shore, as I greatly prefer to have the manipulating chain or rope lead directly to the operating station.

The torpedoes *a a* are to be made as buoyant as possible in order that they may quickly rise to near the surface when the tension on the rope *e* is relaxed, and although I prefer to use that form of torpedo which is fired or exploded by impact, still any other form of torpedo arranged and manipulated as described would be within the spirit of my invention.

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

A torpedo-plant, substantially as described, wherein the torpedoes are secured to guide-lines that pass beneath anchored sheaves and lead to a common manipulating rope or chain that is actuated by a mechanism, substantially as described, located at the operating-station, substantially as described, and for the purpose specified.

CHARLES S. AYLESWORTH.

Witnesses:

S. L. MORRIS,
W. M. SLEEPER.