

(No Model.)

H. C. SPALDING.  
ANCHOR FOR TELEGRAPH CABLES.

No. 327,460.

Patented Sept. 29, 1885.

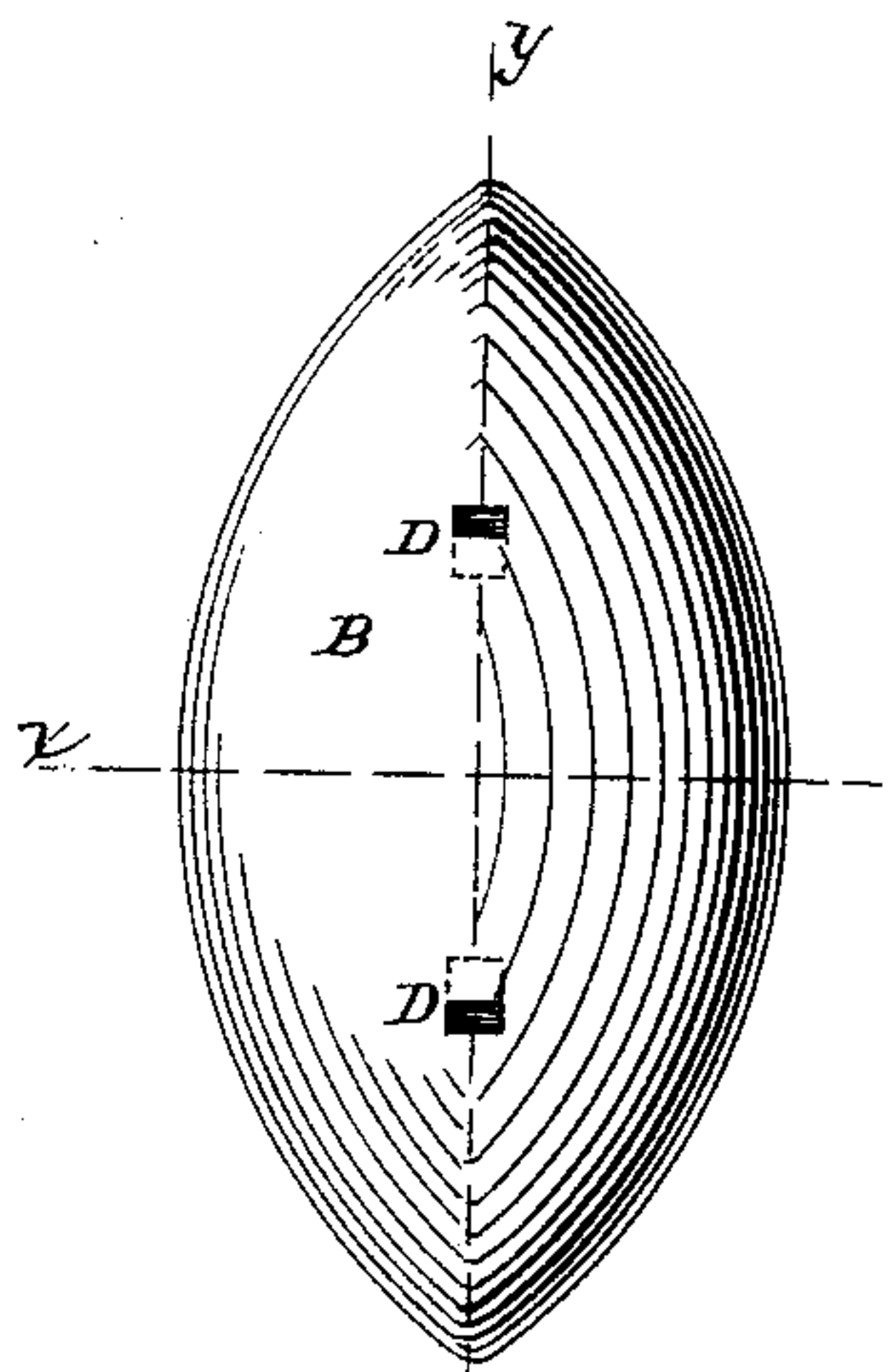


Fig. 1.

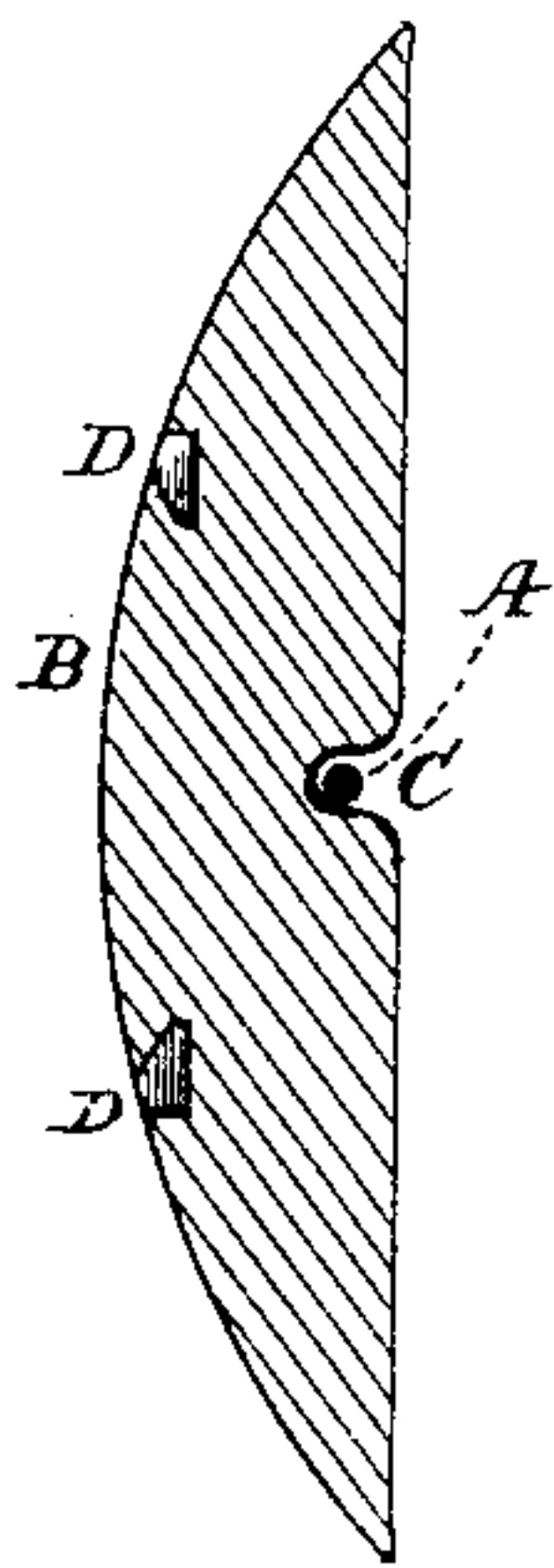


Fig. 2.

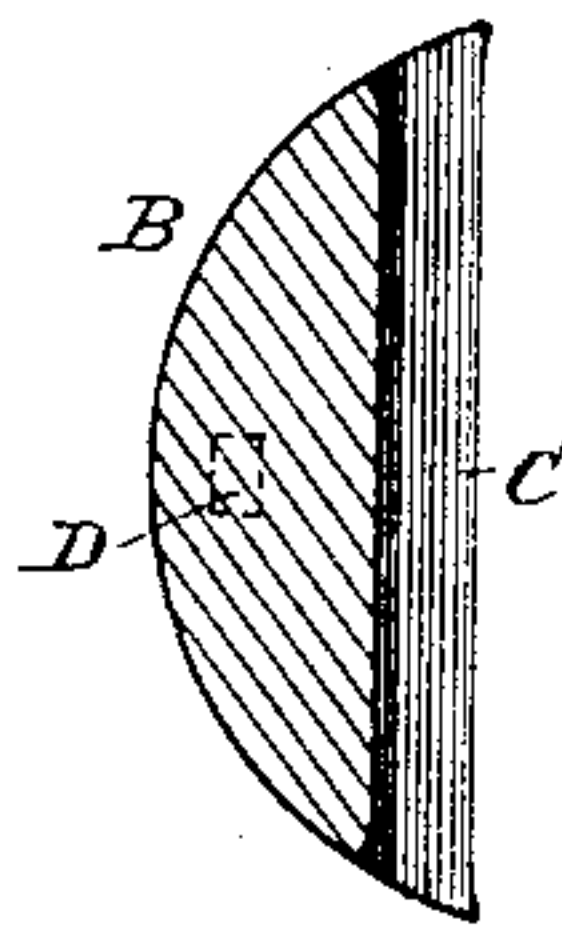


Fig. 3.

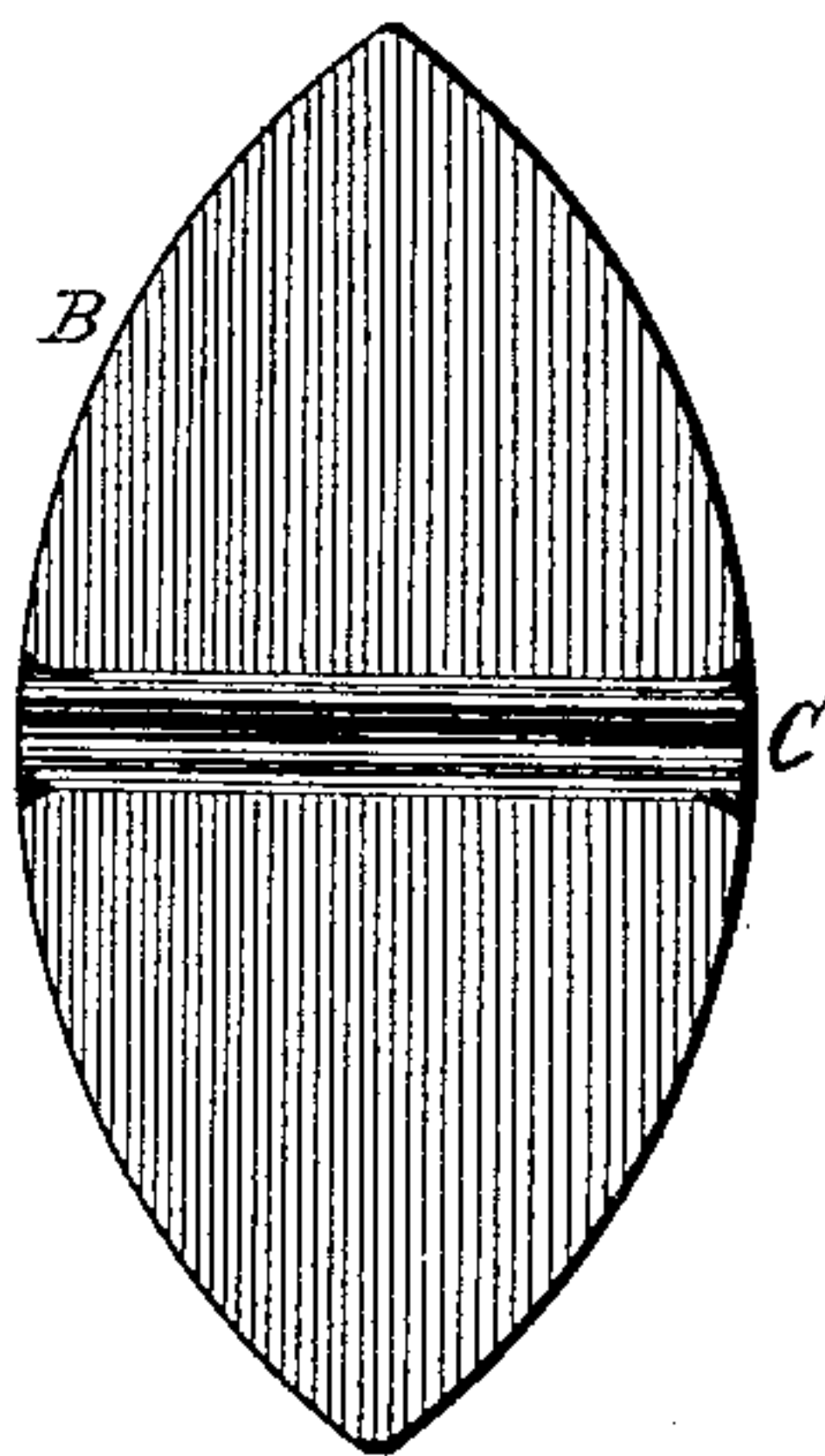


Fig. 4.

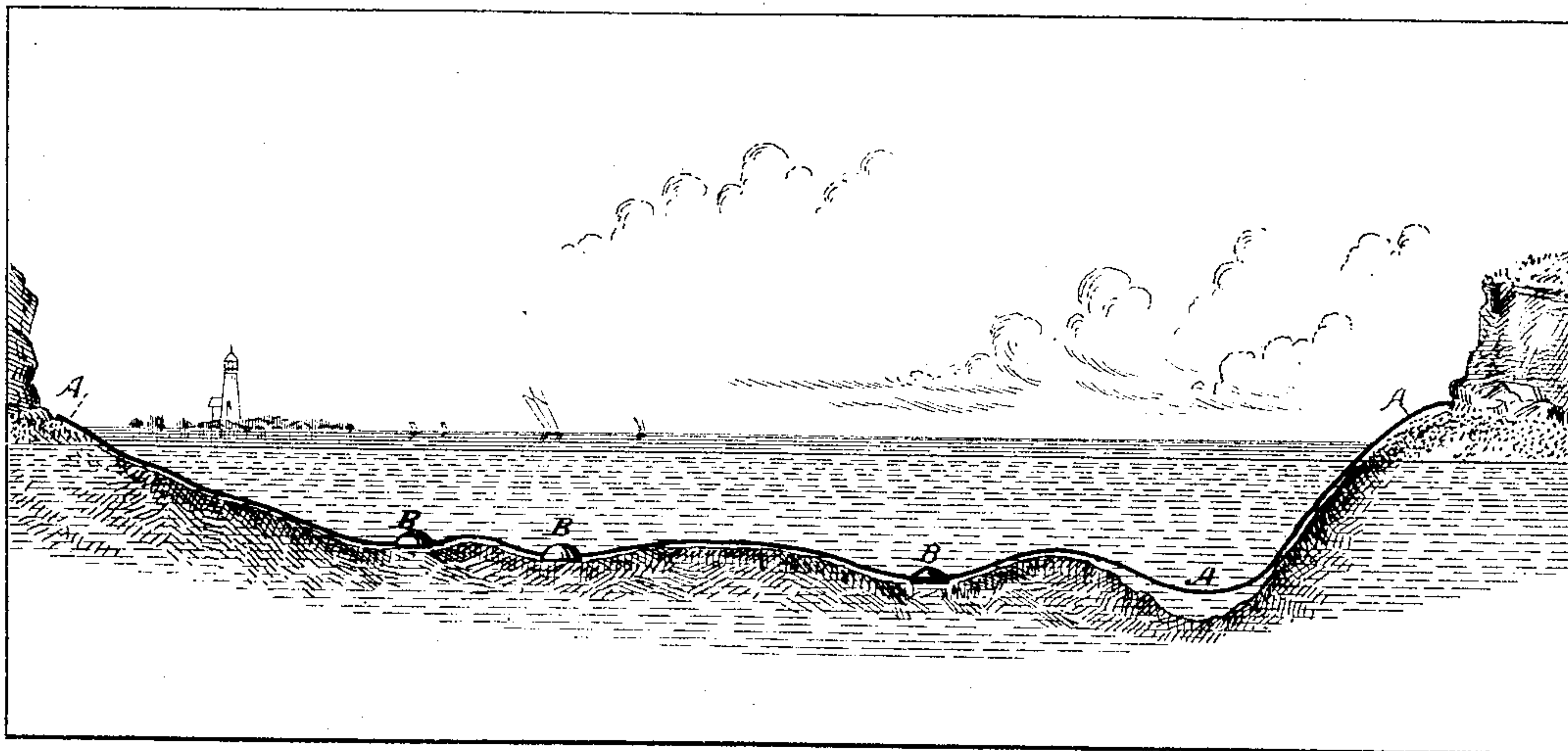


Fig. 5.

Witnesses.  
J. Daniel Compton.  
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att'y.



# UNITED STATES PATENT OFFICE.

HENRY C. SPALDING, OF BOSTON, MASSACHUSETTS.

## ANCHOR FOR TELEGRAPH-CABLES.

SPECIFICATION forming part of Letters Patent No. 327,460, dated September 29, 1885.

Application filed April 17, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY C. SPALDING, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Telegraph-Cables, of which the following is a specification, reference being had to the drawings accompanying and forming a part of the same.

My invention relates to submarine electric cables; and it consists in a novel means or devices for anchoring them. Cables are often laid in places where they are affected by currents or tides. Under such circumstances it becomes desirable to anchor them—that is, to secure them to the bottom—as otherwise they are liable to collect large quantities of débris or sea-weed, and acquire such bulk in this way that a strong current may break them.

The means which have heretofore been used for anchoring cables have not been constructed with a view to keeping the cable close to the bottom, but merely to confining it in one position. Weights have been used which are attached to the cable and let down with it. The objections to this are, that the cable must be exceptionally strong in order to sustain a heavy weight in the course of laying, and also that there is no certainty that the weights will hold the cable close to the bottom.

My improvements consist in a weight or anchor that is adapted to be applied to the cable after it is laid, or is to be let down by a rope or cable independent of the cable itself. These weights or anchors have one side flat, so that they will lie in one position on the bottom and not be liable to shift their position. In the flat side is a groove in which the cable is confined, and on the rounded side are holes or other means by which the weight is connected to the rope or cable by which it is lowered. These weights are placed over the cable by divers after it has been laid, or they are secured to the cable and lowered with it by suitable machinery and tackle on the same ship from which the cable is paid off, or from another.

In the drawings, Figure 1 is a top view of one of the weights. Fig. 2 is a section of the same on line Y. Fig. 3 is a section on line X. Fig. 4 is an under plan view of the weight,

and Fig. 5 is the section of the bed of a stream or channel, showing a cable in position.

I use heavy iron weights B, having a flat side, and prefer the approximately-elliptical shape shown. As the weights lie with their longer dimensions in line with the current they will not be liable to turn or be displaced when made of this shape. In the rounded side are two holes, D, into which a tool is inserted when the weights are lowered. Across the face or flat side of the weight is a groove, C.

These weights or anchors are applied in the following manner: The cable A is first laid in the usual manner. The weights are then lowered to the bottom at the required points and placed by divers over the cable, as shown in Fig. 5. They serve to confine the cable to the bed of the river or channel, and thus prevent it from being shifted by the tides or currents and from accumulating sea-weed. It is of course possible to apply the weights in other ways; but that shown is the best. It will be observed that the weights or anchors are not secured to the cable, but simply laid over it, the cable being held in place by entering the groove C.

The invention is obviously applicable more particularly to rivers or seaways where the depth of water is not very great, and where the cable would be exposed to injury from currents and the other causes enumerated.

The size and material of the anchors or weights will depend upon circumstances and preferences. Iron is perhaps the most suitable material, and each anchor may be several hundred pounds in weight.

What I claim is—

1. An anchor or weight for submarine cables, consisting of a heavy body of approximately elliptical shape, having one flat side for resting on the bottom, and adapted to be placed over a cable, as set forth.

2. An anchor or weight for submarine cables, consisting of a heavy body having one flat side for resting on the bottom, and formed with a groove in which the cable is confined when the weight is placed over the same, as set forth.

3. An anchor or weight for submarine cables, composed of a heavy body adapted to rest on the bottom and confine the cable thereto,

and provided with means for connecting the lowering rope or cable to it, as set forth.

4. The combination, with a cable, of anchors or weights laid over the cable, but not connected therewith, for the purpose of confining the same to the bed or bottom of the river or channel in which it is laid.

5. The combination, with a cable, of anchors

or weights having a flat side containing a groove, the said weights being laid over the cable upon the bottom, with the cable passing through the grooves, as described.

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Witnesses:

ALONZO B. WENTWORTH,  
JOSEPH T. McDEVITT.