

A. DEAN.
Floating Breakwaters.

No. 151,858.

Patented June 9, 1874.

FIG. 1.

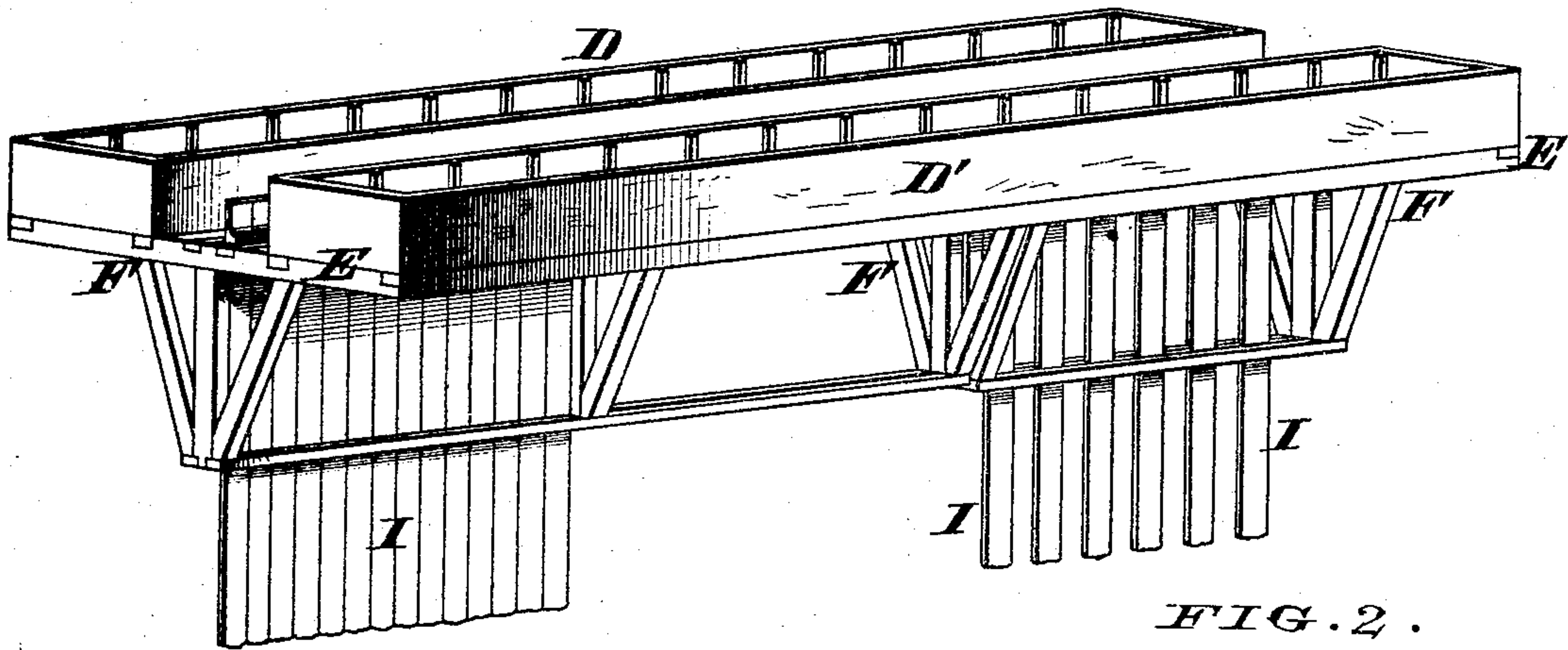
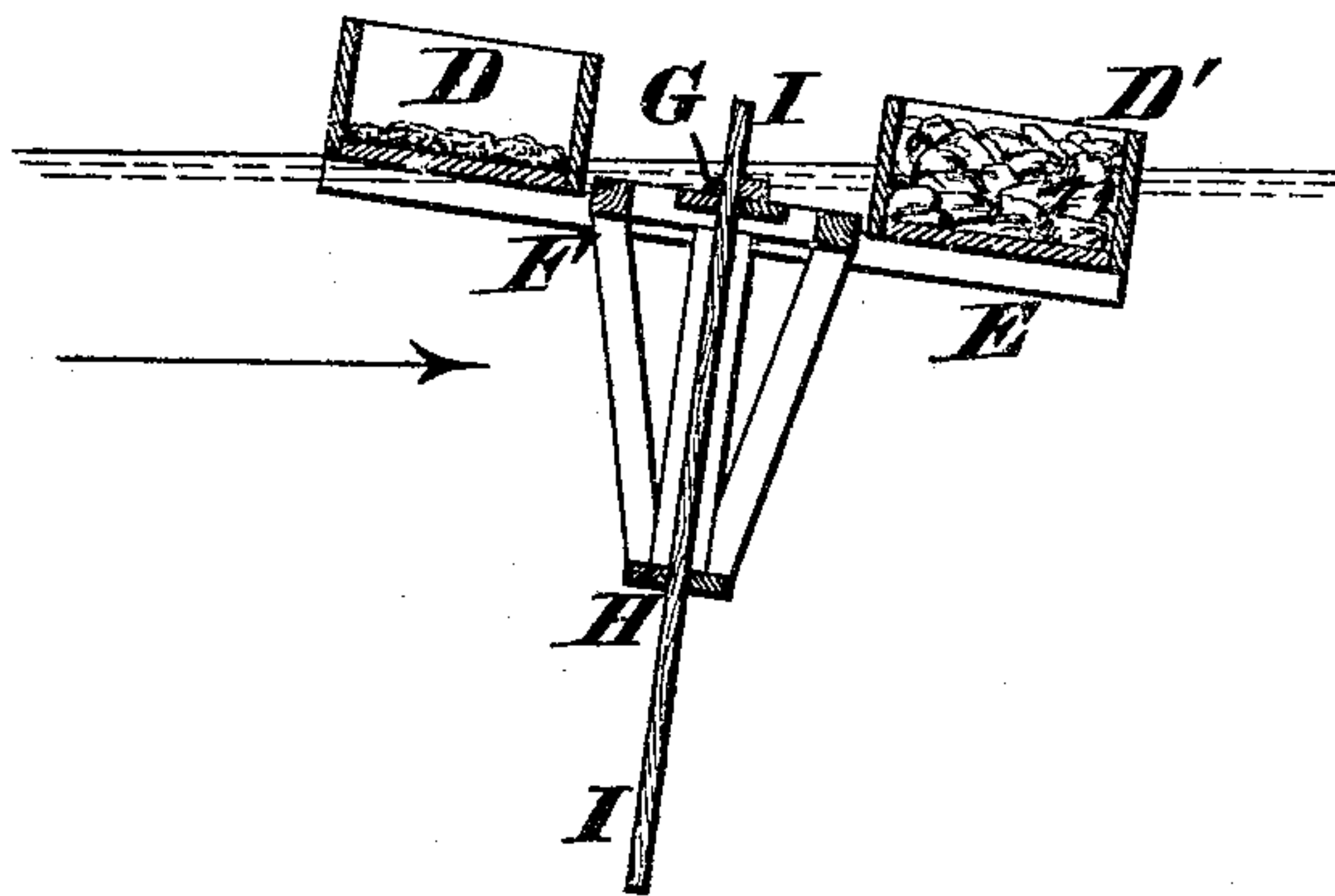


FIG. 2.



Attest.
Jas. H. Layman.
Walter Allen.

Argus Dean
By Knight Bros
Att'ys.

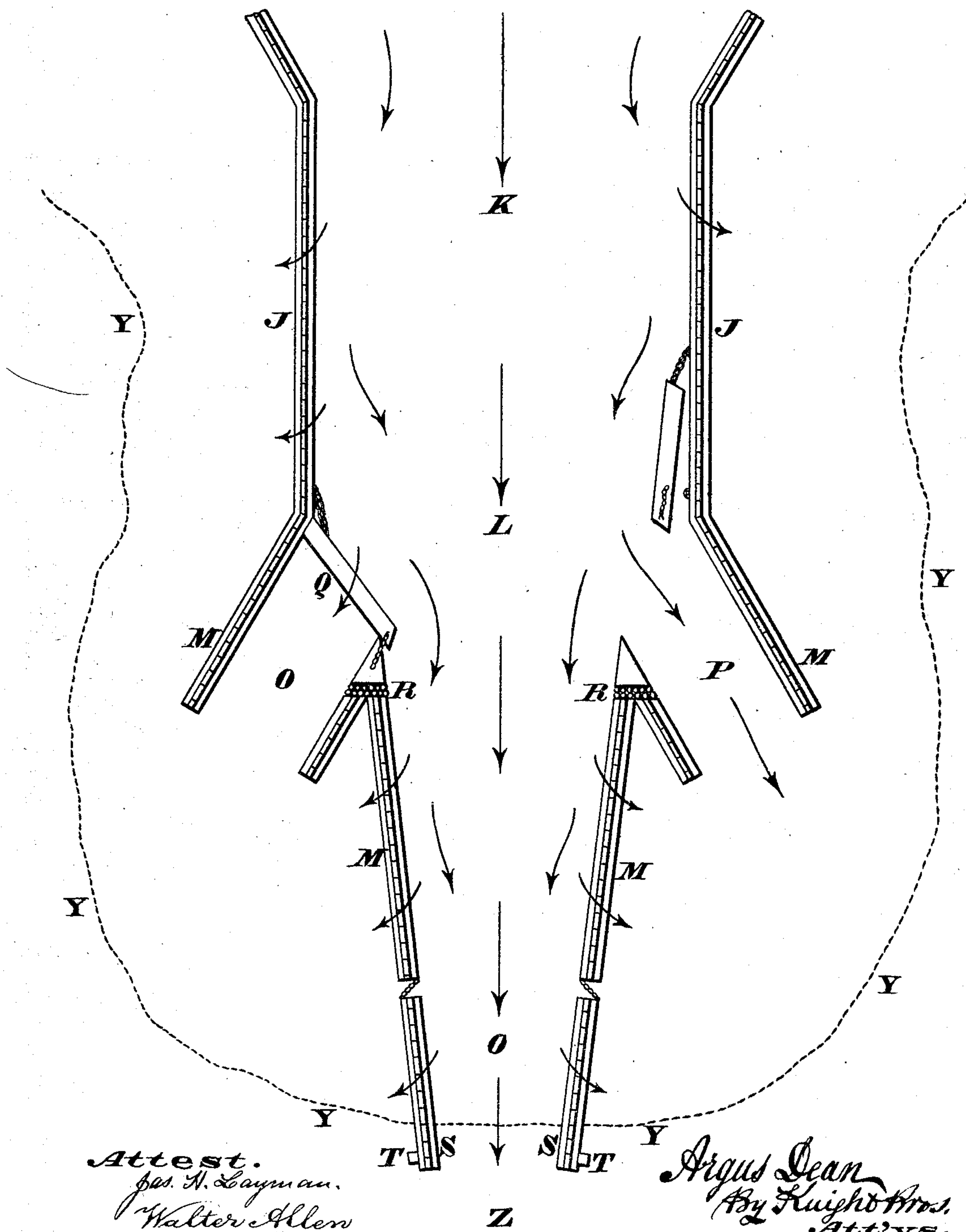
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FIG. 3.



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UNITED STATES PATENT OFFICE.

ARGUS DEAN, OF OTTO, INDIANA.

IMPROVEMENT IN FLOATING BREAKWATERS.

Specification forming part of Letters Patent No. **151,858**, dated June 9, 1874; application filed March 18, 1874.

To all whom it may concern:

Be it known that I, ARGUS DEAN, of Otto, Clarke county, Indiana, have invented a new and useful Arrangement of Dykes and Breakwaters, for deepening and maintaining river-channels, of which the following is a specification:

My instrumentalities for these purposes consist primarily in long frame-works, which are adapted to float and to be moved or anchored in positions where they will be effective to divert and deflect more or less of the impinging water, so as to concentrate the same and create a washing current whenever it is desired to deepen the river-bed.

Figure 1 represents a form of frame for a floating dyke or breakwater such as is employed by me. Fig. 2 is a transverse section of the same. Fig. 3 is a plan representing my arrangement of instrumentalities for creating and maintaining a navigable pass or channel at a river-mouth.

My breakwater consists of two scows or barges, D D', connected immovably parallel to one another by means of transoms E, and from the lower sides of which extend triangular projections, which may be rigidly fastened to the transoms, as at F, or may depend freely therefrom. One of these scows, being loaded with sand or other heavy material, may be caused to sink sufficiently to cant the pendent frame F toward the current, as in Fig. 2. Longitudinal openings G and H, in the upper and lower portions of my crib and float, respectively, are designed to receive sheet piles I, which are driven tightly down so as to close more or less completely the passage of water laterally through these structures. In Fig. 3 the dotted line Y represents the breast of shoal or sunken bluff or bar, and Z represents deep water. J represents sunken dykes, which border and confine the main channel. K, L,

and M represent, respectively, similar dykes, which confine the passes N O P. Q are floating gates or breakwaters, by means of which one or more of the passes may be closed. This closure may be made more or less complete, whether as to the sides or entrances of the channels by the closeness of the sheet piles on the one hand, or the width of their interstices on the other hand. R represents piling, to sustain the sunken dykes at the junctions of the passes and the stress of the closed gates Q. S are floating dykes or breakwaters moored to the lower ends of the sunken dykes, and sustained at their lower ends by piles T or other means.

The floating dykes will, in most cases, be only required at deep places, as at S, or to close the inlets of side passes, as at Q, or where the channels of rivers are obstructed by sand-bars the impediments may be speedily removed without the use of sunken dykes by the temporary application of such floating dykes, which, having accomplished their purpose, may be shifted to another locality where their presence is needed.

I claim as new and of my invention—

1. The combination of the scows D D', transoms E, triangular frame F G H, and sheet piles I, all substantially as herein set forth, to form a floating dyke or breakwater.

2. The floating dykes or breakwaters S, arranged at the end of the stationary dykes M, and connected thereto, in combination with the piles T, substantially as set forth, for the purpose designated.

In testimony of which invention I hereunto set my hand.

ARGUS DEAN.

Attest:

GEO. H. KNIGHT,
JAMES H. LAYMAN.