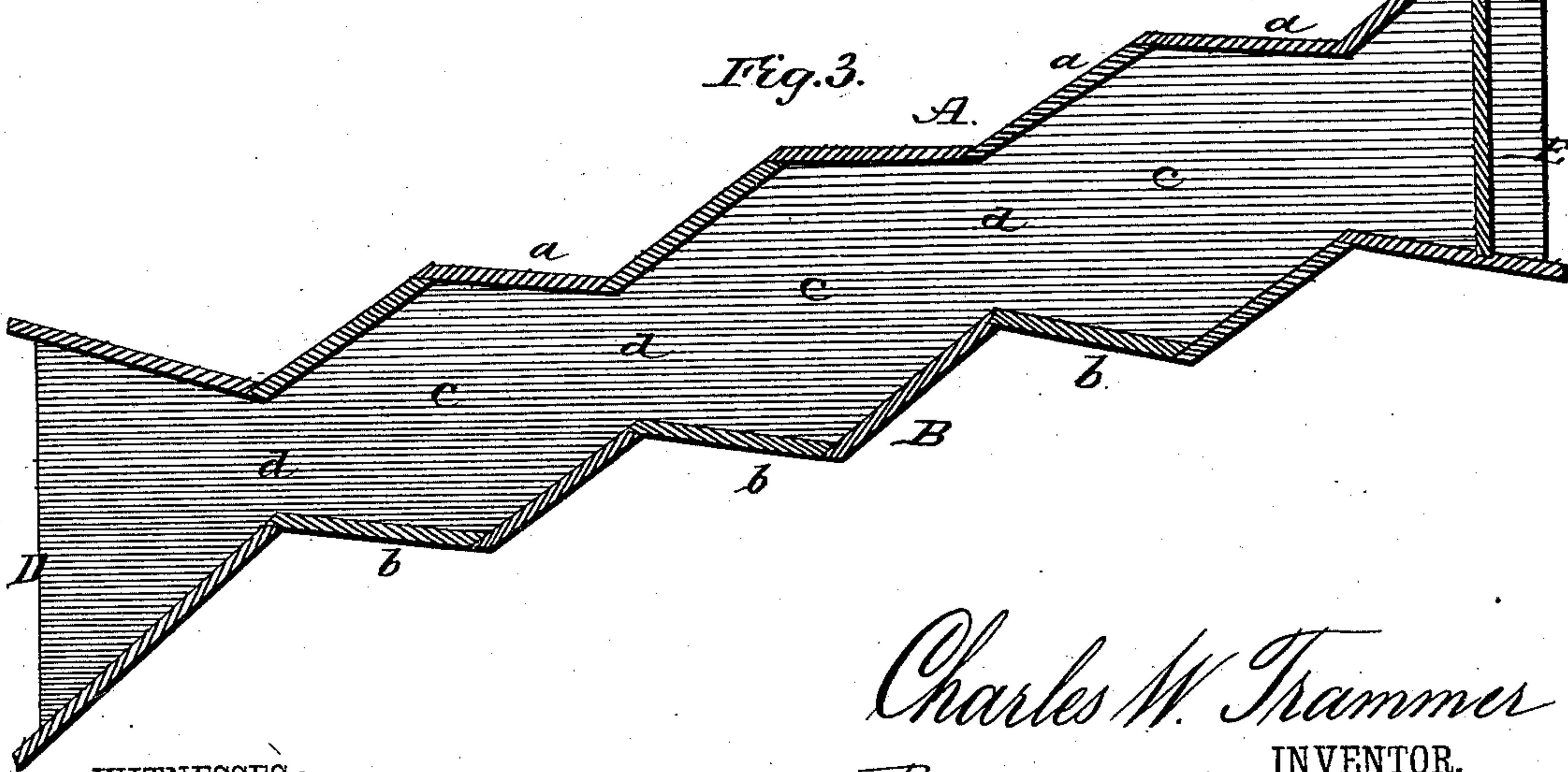
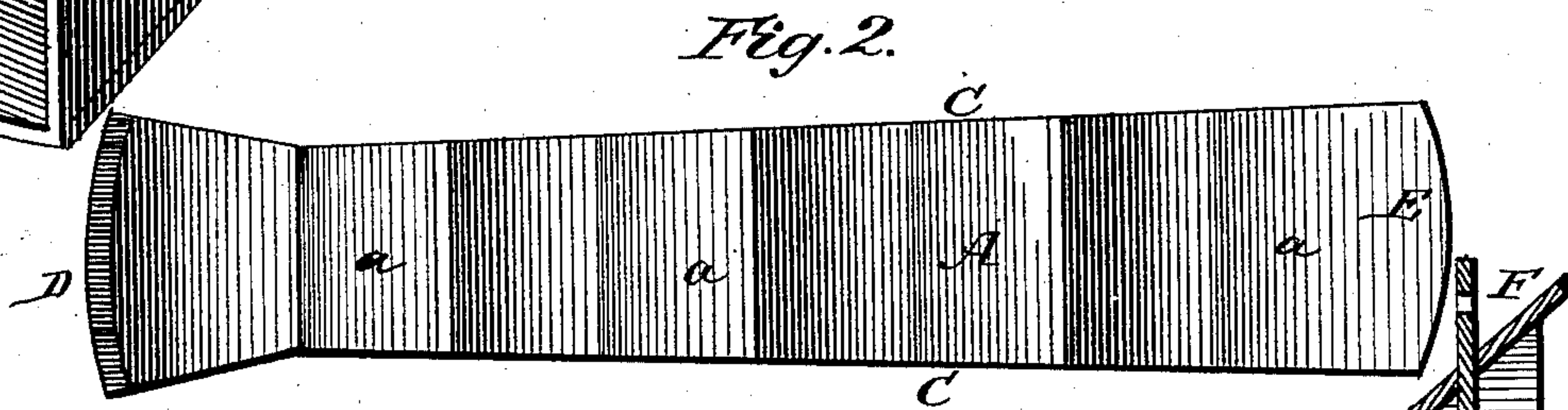
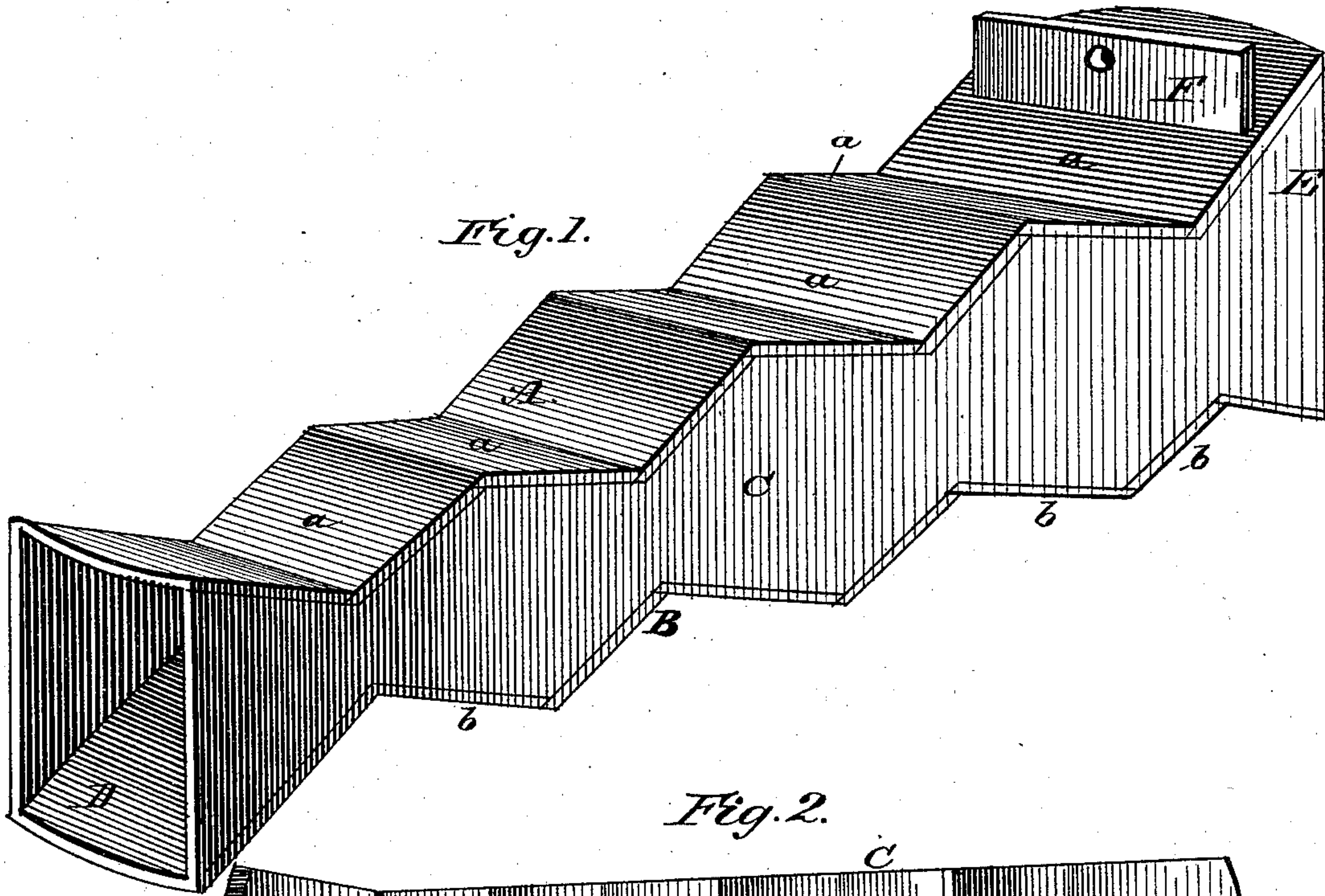


(No Model.)

C. W. TRAMMER.  
FISH WAY.

No. 286,869.

Patented Oct. 16, 1883.



WITNESSES:

*Wm. L. Dietrich,*  
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*Charles W. Trammer*  
INVENTOR.  
*By Louis Bagger & Co.*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

CHARLES W. TRAMMER, OF GREAT FALLS, MARYLAND.

## FISHWAY.

SPECIFICATION forming part of Letters Patent No. 286,869, dated October 16, 1883.

Application filed July 30, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES W. TRAMMER, a citizen of the United States, and a resident of Great Falls, in the county of Montgomery and State of Maryland, have invented certain new and useful Improvements in Fishways; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved fishway. Fig. 2 is a plan or top view of the same; and Fig. 3 is a longitudinal vertical section.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to devices adapted to enable fish to ascend a fall or so-called "fishways" or "fish-ladders;" and it consists in the improved construction of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, A denotes the top and B the bottom of my improved fishway, which may be made of wood or any other suitable material. C C are the sides, which diverge from the lower end toward the upper end, thus forming with the top and bottom an inclined chute of gradually-increasing capacity toward its upper end, having an enlarged or hopper-shaped fish-inlet, D, at its lower end, and an outlet, E, at its upper end, which may or may not be provided with a sliding gate, F, and suitable means for operating the same for regulating the flow of water through the chute. If desired, this gate may be placed at the lower end of the chute, or there may be one at each end.

The diverging sides C C are straight; but the top and bottom A and B consist of a series of inflected steps, (shown, respectively, at *a* and *b*,) whereby enlarged chambers *c* are formed inside of the chute, communicating with one

another through the narrowings *d*. As the water enters the chute at the fish-outlet (or water-inlet) E at its upper end, it will, as it descends through the chute, fill up the entire space within the chambers *c*, because it is retarded in its exit by the gradually-diminishing narrowings *d d*, thus causing comparatively "still water" in the chambers, through which the fish will have no difficulty in working their way from one end to the other until they reach the top of the chute, from which they emerge into the river or water-course above the dam or falls, as the case may be. If the race or river in which the device is placed is subject to sudden fluctuations in the strength of its current from freshets or from other causes, the flow of water through the chute may be readily and easily regulated by adjusting the gates.

Among the advantages of my improved fishway are that it is exceedingly simple in construction, durable, and that it cannot be choked up by twigs or other drifting matter drifting through it. It can readily be removed and replaced when desired, and, when made of the proper size, can be placed in position, ready for use, in a short time.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The improved fishway herein shown and described, having sides C C, top and bottom A and B, composed of inflected steps or sections *a* and *b*, forming gradually-enlarged chambers *c* inside of the chute, connected to one another by the narrowings *d*, enlarged fish-inlet D, and outlet E, substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES W. <sup>his</sup> + TRAMMER.  
mark.

Witnesses:

ADDISON SLAMM,  
AUGUST PETERSON.