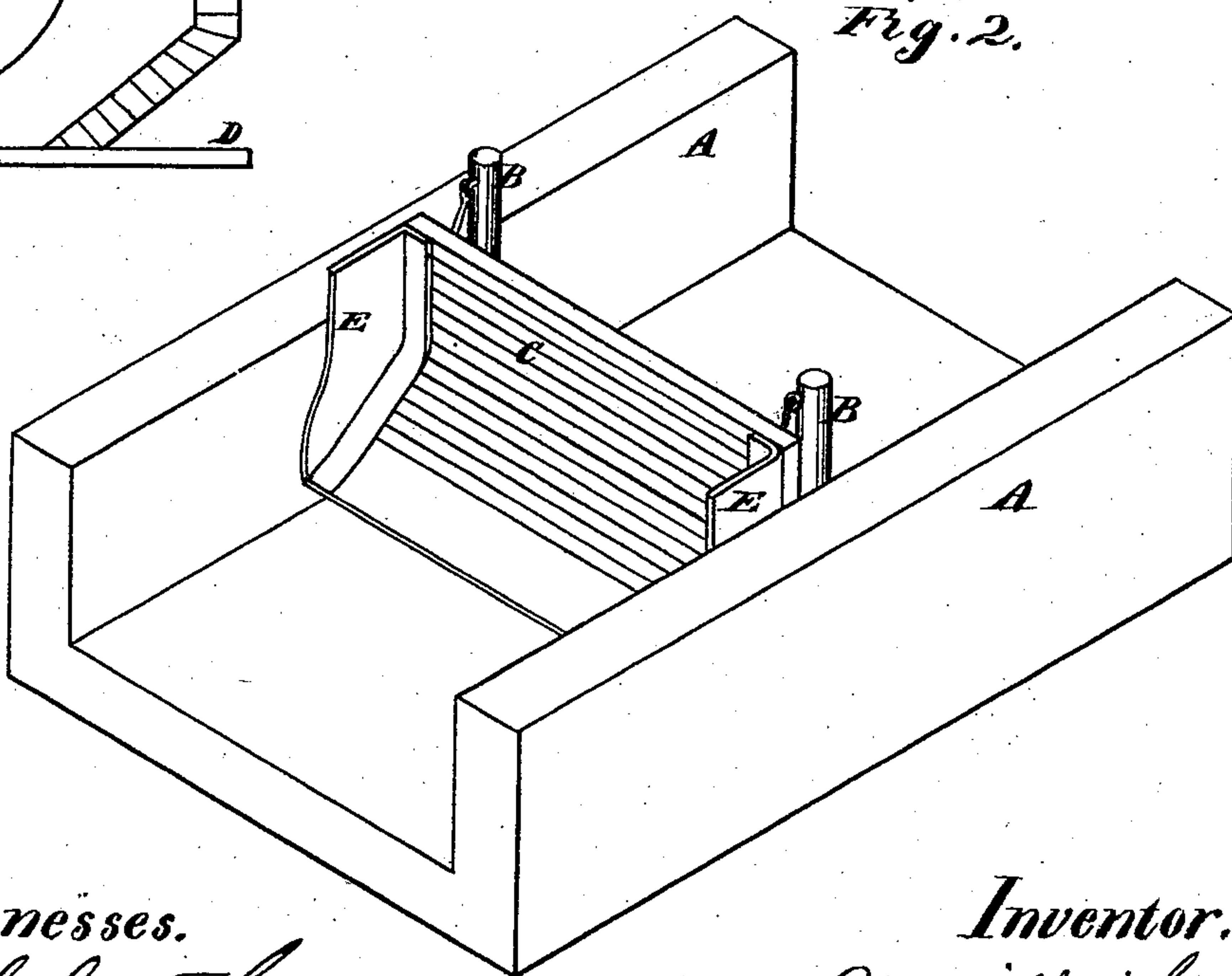
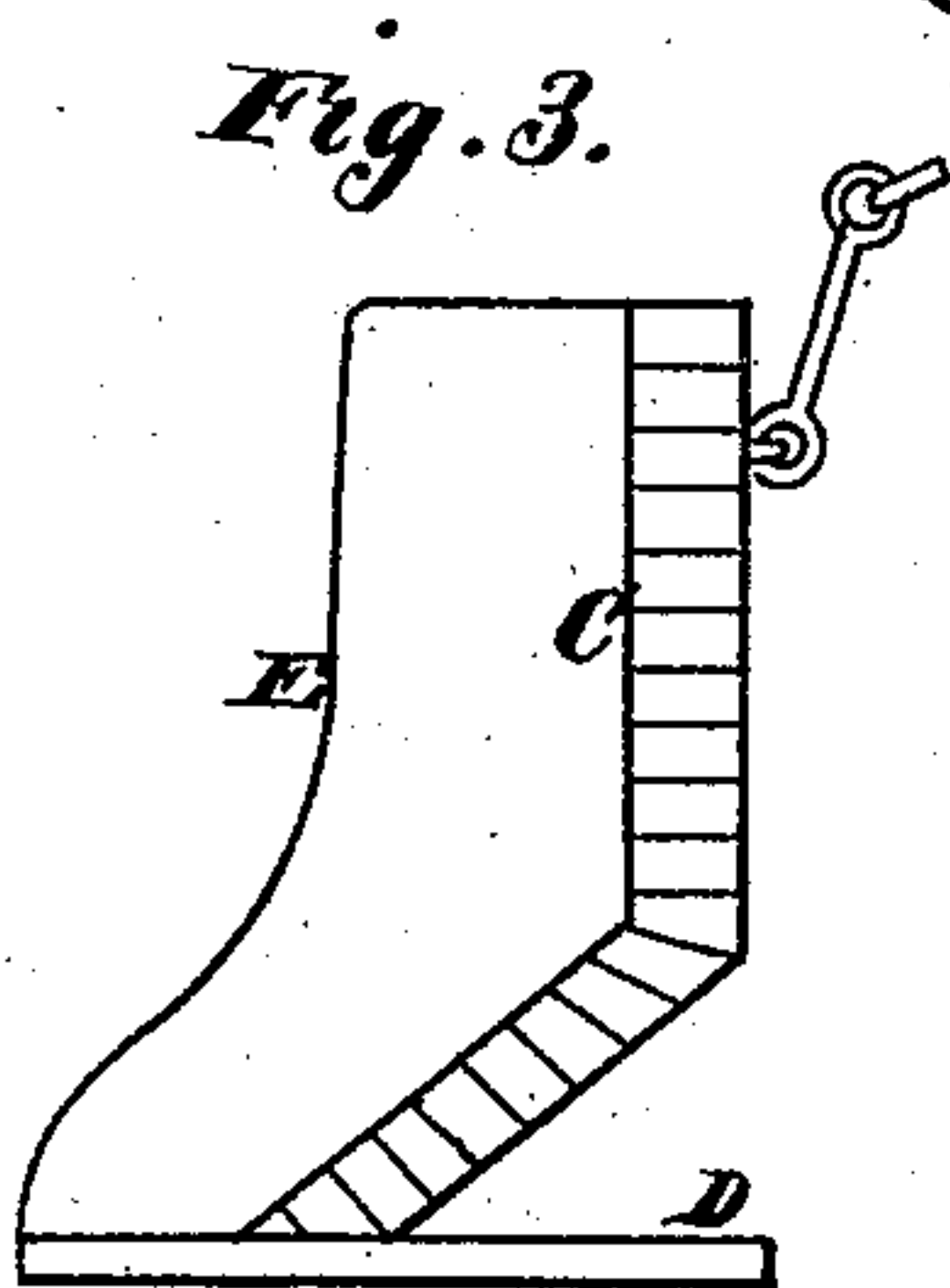
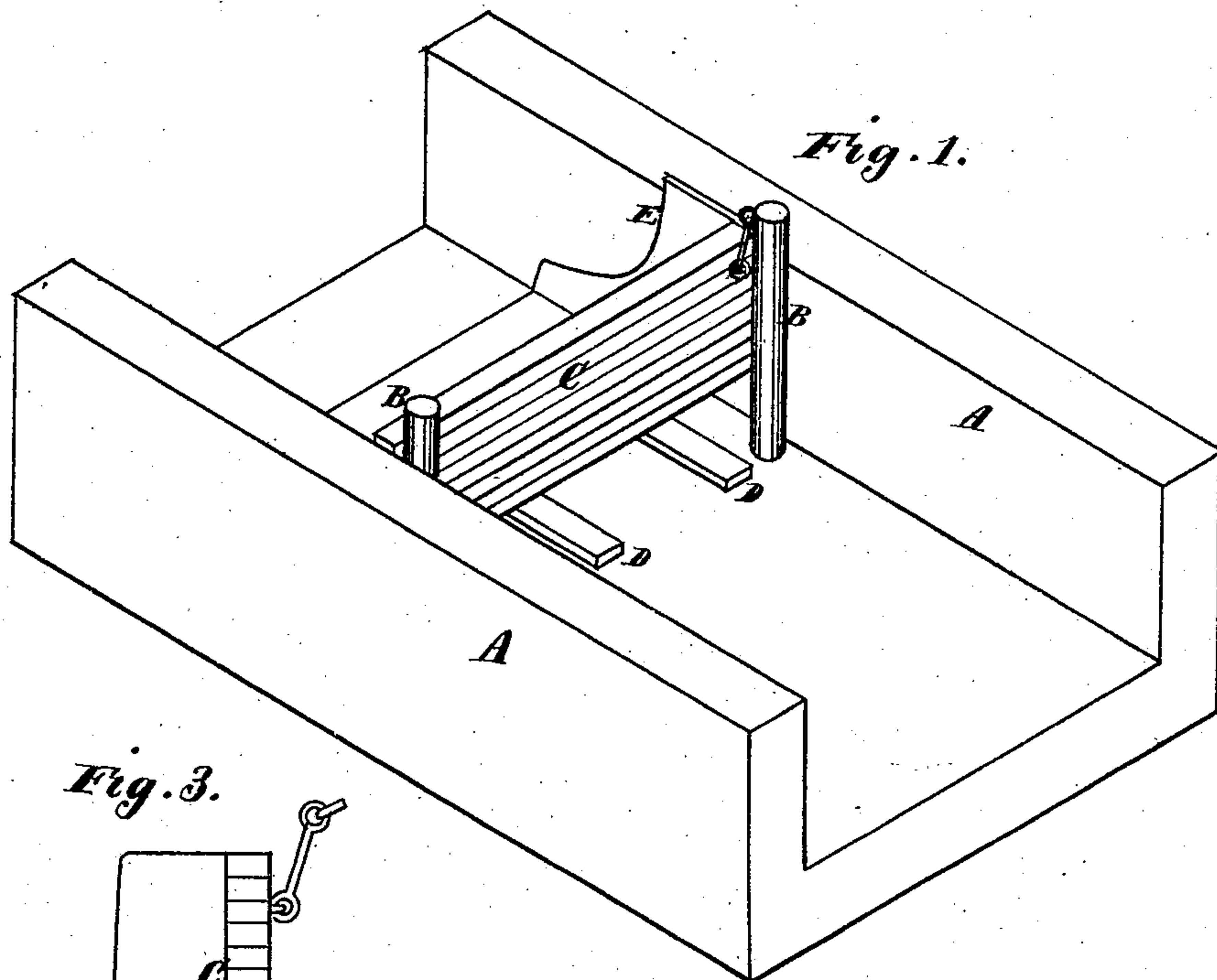


B. COTTLE.
Movable Dams.

No. 153,424.

Patented July 28, 1874.



Witnesses.

Al. Anthony
for Speculating.

Inventor.

Brazillai Cottle
By C. N. M. Smith
Atty.

UNITED STATES PATENT OFFICE.

BARZILLAI COTTLE, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN MOVABLE DAMS.

Specification forming part of Letters Patent No. **153,424**, dated July 28, 1874 ; application filed March 30, 1874.

To all whom it may concern:

Be it known that I, BARZILLAI COTTLE, of San Francisco, in the county of San Francisco and State of California, have invented an Improvement in Movable Floating Dams for Rivers and Estuaries; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the letters marked thereon, in which—

Figure 1 is a perspective view showing back of dam. Fig. 2 is a perspective view showing front of dam. Fig. 3 is an end section.

My invention consists of a movable curved apron, curved inwardly, and hinged or attached to piling at either side of the channel by chains, cables, or anchors, and placed at right angles or in a diagonal position from wall to wall, or pile to pile, for tide-water mills, wing-dams, or rivers, to concentrate the channel of streams into a narrow space, in order to cut out the channels of said rivers or estuaries when the ebbing of the tides takes place, without the aid of dredging-machines, as will hereinafter more fully appear.

In the drawings, A represents the bank of a river, with two piles, B, to which my dam is attached. The apron or dam C is constructed of narrow strips of boards, with an inward curvature at an angle of about forty-five degrees from its longitudinal center. Above this point it is nearly vertical, so that at the commencement of the outward or downward flow of the tide or current the apron will be forced downward by the weight of the water, and be held in that position. When walls are constructed

at both sides of the estuary the apron may be attached to said walls, but a succession of piles will be necessary when it is constructed in sections, so as to have a greater resisting force, and anchors or cables may be used above the apron to hold it in place. Shoes D are attached to the bottom of the dam, at right angles to it, to prevent it sinking into the mud. The joints, outer edges, and toe are provided with flaps of canvas, E, or other flexible material, so as to arrest any unnecessary flow of water beneath or at the sides of the apron. This dam may be placed in sections or lengths of about thirty feet, so as to dam or concentrate the waters of a channel of any width required.

By this device reservoirs of water can be formed for milling, or the apron raised when the tide has ebbed and left a large body of water in reserve above the dam, so that the channel may be cut out by its escape.

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

1. The combination of the dam C, adapted to be held down by the pressure of the water, with the piles B and the connecting-chains.
2. The shoes D at the bottom or toe of the dam, as and for the purpose specified.
3. The combination of the dam C with the flexible flaps E, as described.

In witness whereof I have hereunto set my hand and seal.

BARZILLAI COTTLE. [L. S.]

Witnesses:

C. W. M. SMITH,
SAML. B. MARTIN.