John Kelley.

Inyid Sea-Wall Construction

No. 74,547. Patented Feb. 18, 1868.

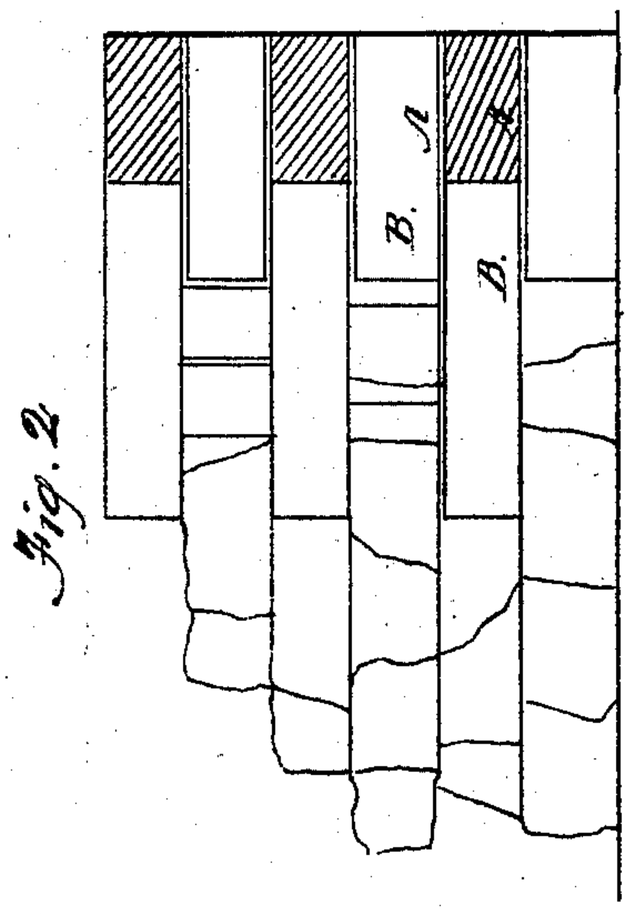

Fig. 2.

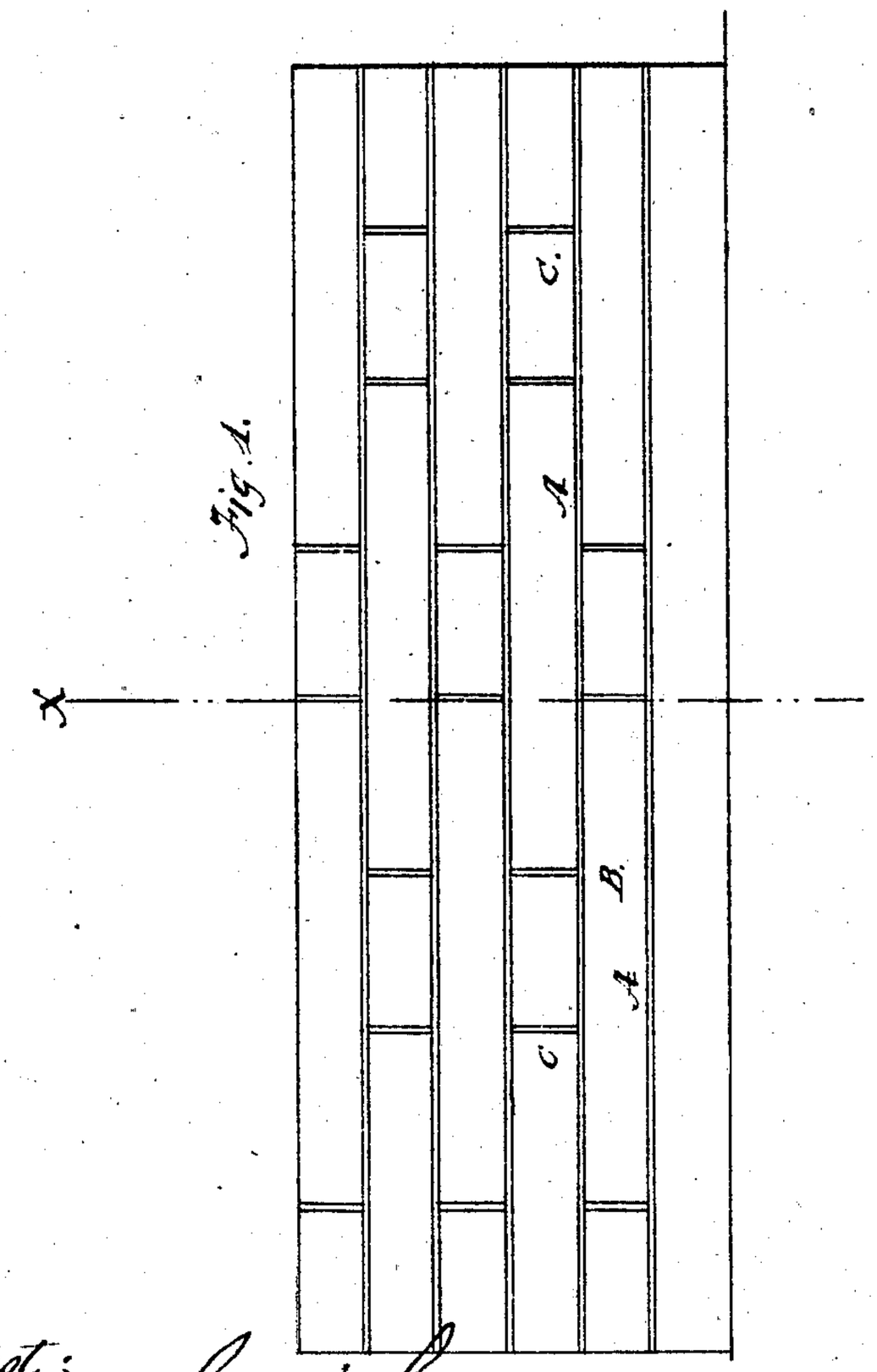

Fig. 1.

Attest;
C. W. N. Smith
J. L. Boone

Inventor;
John. Kelly

United States Patent Office.

JOHN KELLY, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 74,547, *dated February* 18, 1868.

IMPROVEMENT IN THE CONSTRUCTION OF SEA-WALLS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOHN KELLY, of San Francisco, county of San Francisco, State of California, have invented an Improved Sea-Wall; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to a certain new and useful improvement in the building of sea-walls, so that the action of the water against them will not wash out the mortar or cement from the seams or crevices between the masonry or blocks, and consists in placing strips of lead vertically and horizontally between the blocks or layers in front of the mortar or cement.

In order to more fully illustrate and describe my invention, reference is had to the accompanying drawings, forming a part of this specification, of which—

Figure 1 is a front elevation, and

Figure 2 is a sectional elevation, taken through *x x*.

In constructing my wall the ordinary method is pursued, that is to say, the masonry is laid upon the bed-rock, or upon a concrete structure or foundation, and the mortar or cement spread upon it to within about six inches, more or less, of the face or edge. I then lay down a strip of lead, A, of the desired thickness, and then commence to lay the blocks of granite or other masonry, B, upon it, flush with the edge of the lead. In order to fill the vertical joints between the blocks, I also place strips of lead, C, edgewise, with the upper and lower edges resting on the horizontal strips, and so on, the horizontal and vertical strips of lead being laid upon every layer and between every block until the wall is completed.

The usual method of laying sea-wall is to place in the joints between the layers of masonry, in front of the mortar or cement, strips of cloth dipped in tar or asphaltum, allowing it to project a little from the face of the wall. But this device, after repeated trials, has been found to be ineffectual and useless, by reason of the action of the water, which washes and wears it away, allowing the water to wash out the mortar or cement, thereby causing the wall to leak badly, as when used in dry-docks. But such is not the case when my device is used, but a sea-wall is obtained which is impervious to water, and which excels in durability any construction known, and is very inexpensive. The lead between the joints serves to effectually prevent the water from decomposing or disintegrating and washing away the mortar or cement. Other strips of metal might be employed, but I prefer lead, on account of its malleability, so that when the weights are placed upon it, it will serve to more closely fill the openings between the blocks, especially the longitudinal joints.

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

The strips of metal or lead A C, when placed between the joints of blocks of masonry, substantially as and for the purpose herein specified.

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

JOHN KELLY. [L. S.]

Witnesses:

C. W. M. SMITH,

J. L. BOONE.