

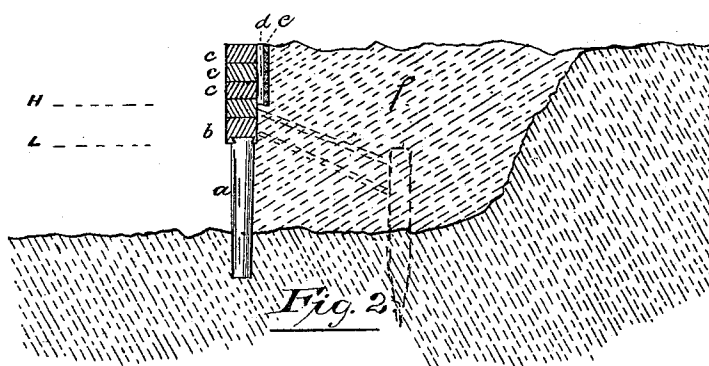
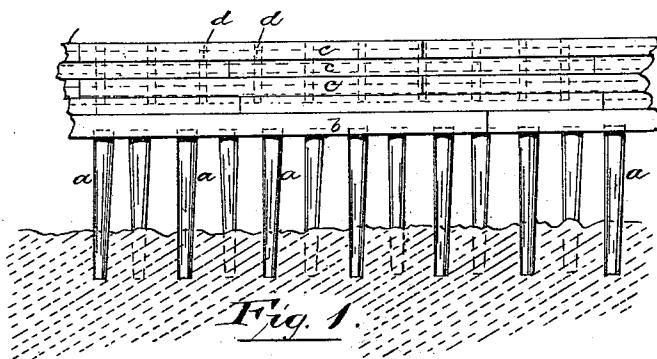
(No Model.)

J. S. VANNESS.

DOCK.

No. 312,234.

Patented Feb. 10, 1885.



Attest:

Inventor:

*Frederick F. Campbell,
Peter Newmay, Jr.*

*Jacob S. Vanness,
by Drake & Co.,
attys.*

UNITED STATES PATENT OFFICE.

JACOB S. VANNESS, OF NEWARK, NEW JERSEY.

DOCK.

SPECIFICATION forming part of Letters Patent No. 312,234, dated February 10, 1885.

Application filed June 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB S. VANNESS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Docks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to increase the durability of docks and like structures; and it consists in the arrangements and combinations of parts, substantially as will be hereinafter set forth, and finally be embodied in the claims.

Referring to the accompanying drawings, in which similar letters of reference indicate corresponding parts in each of the figures, Figure 1 is a front view of the structure, and Fig. 2 is a vertical section of the same.

In carrying out the invention I drive a series of piles, *a a a*, into the river-bed and cut them so that their projecting extremities will be in a line to receive a cap, *b*, at or approximately at the low-water mark. Above this cap are piled timbers *c c* to the top of the dock, all of which parts are tied and anchored in any usual manner. Heretofore it has been a practice to fill in behind these timbers with soil, which came into direct contact with the

said timbers, causing those lying above the high-water mark to rot prematurely. In my improvement, at the back of the said timbers, extending from the top of the dock down to about the mean high-water mark, are secured strips *d d d*, to which is nailed a guard or screen, *e*, of suitable planks, strips, or boards, to keep the filling *f* of earth before referred to from coming into contact with said timbers, whereby said timbers are preserved from rapid decay. Below the high-water mark, where the timbers are kept water-soaked, there is no especial need for such a screen or guard. I therefore terminate the guard at that line.

Having thus described the invention, what I claim as new is—

1. The combination, in a dock, with the timbers *c c*, of a screen or guard secured on the inner side to form an air-chamber between said timbers and a filling, substantially as and for the purposes set forth and shown.

2. The combination, in a dock, of the piles *a*, cap *b*, timbers *c*, strips *d*, and a guard or screen, *e*, secured on the inside of said timbers to protect them from the filling, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of June, 1884.

JACOB S. VANNESS.

Witnesses:

FREDERICK F. CAMPBELL,
PETER MURRAY, Jr.