

R. T. STONE.

FERRY SLIP.

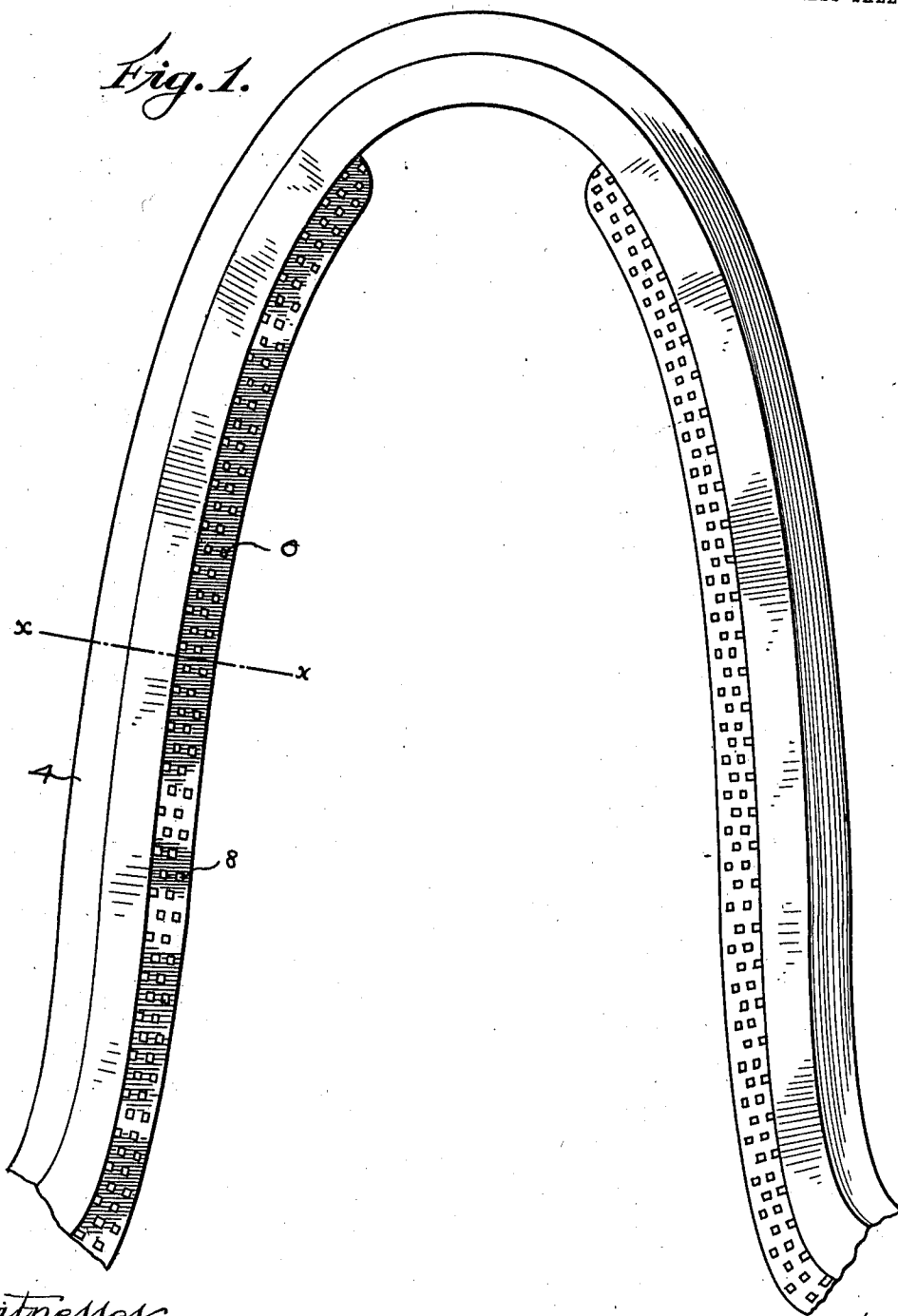
APPLICATION FILED AUG. 11, 1910.

982,644.

Patented Jan. 24, 1911.

2 SHEETS—SHEET 1.

Fig. 1.



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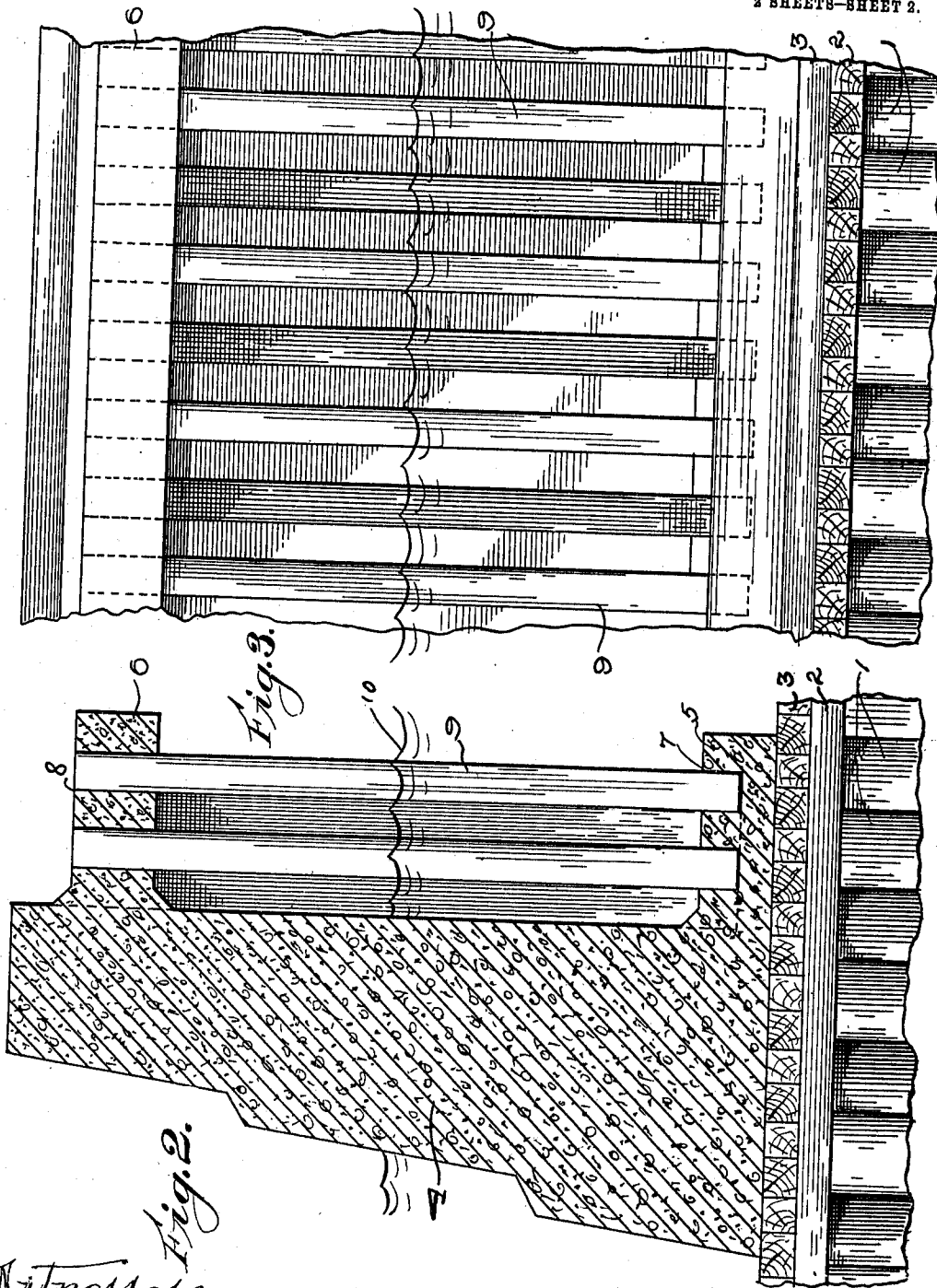
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2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

RICHARD TAYLOR STONE, OF OAKLAND, CALIFORNIA.

FERRY-SLIP.

982,644.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RICHARD TAYLOR STONE, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented certain new and useful Improvements in Ferry-Slips, of which the following is a specification.

This invention relates to ferry slips, and has for its object to provide an improved ferry slip which will be strong, economical, durable, and easily repaired.

The invention further has for its object to provide an improved ferry slip the sides of which are so constructed and reinforced as to be able to effectively withstand the blows and violent action of ferry boats entering the slip.

The invention further has for its object to provide an improved ferry slip having sides and points of a flexible character and means whereby the same may be readily renewed or replenished when injured.

Referring to the accompanying drawings:—Figure 1 is a plan view of a ferry slip constructed in accordance with this invention having its outer point broken away. Fig. 2 is an enlarged view in transverse vertical section on the line X—X of Fig. 1. Fig. 3 is an enlarged view in elevation of portions of one side of the slip.

In carrying out the invention a fixed foundation is provided and preferably consists of a number of piles 1 driven below the water line and having fastened thereon a platform composed of cross timbers 2 and 3. Built upon the platform is a concrete wall 4 of any suitable shape, and, as here shown, preferably with its outer portion at an incline so as to serve as a strong abutment, said concrete wall 4 being formed with two extended slabs 5 and 6, the slab 5 being formed with sockets 7, and the slab 6 with transverse holes 8 extending through the same. These holes may be arranged in any manner desired, and as shown in Fig. 1, preferably in two or more parallel lines, being in staggered relation to each other. Having their lower ends seated in the holes 7 and their upper ends projecting through holes 8 are slip timbers 9. The term "slip timbers" is used to indicate the vertical timbers which are located in the sides of a ferry slip over which a boat entering the slip rubs or slips. These slip timbers 9 are the same shape as the holes 7 and 8—preferably square owing to the facility

with which timbers of similar size may be obtained. By means of having the timbers square, they may be taken out of the sockets and holes and turned so as to present a fresh face as each face becomes worn.

(10) indicates the water line of extreme high tide, and the length of the slip timbers will be according to the depth of the water at extreme high tide. It is desirable to have them rather long in order to secure greater flexibility. By means of these slips, a yielding or flexible surface will be presented to a boat entering the slip and striking against either side thereof. It will be noted that successive rows—one in front of the other—are employed. Any number of such rows of slip timbers may be employed. In case those in the front become broken they may be withdrawn and those in the rear rows substituted therefor. In case any of the timbers are broken, these may be easily withdrawn and other timbers supplied. This can be done without impeding traffic and with the expenditure of a small amount of labor. The advantage of such construction over that in use will readily be apparent as a few broken piles generally necessitate the use of a pile driver to withdraw the broken pieces and replacement with new ones and the consequent loss of time in the interruption of traffic. By means of the present invention, the slip timbers may be readily replaced when broken.

Having described the invention, I claim:—

1. A ferry slip of the character described, comprising a fixed foundation, a super-structure, and rows of slip timbers slidably and detachably mounted in the sides of the slip above the foundation to present different sides thereof to the face of the slip.

2. A ferry slip of the character described, comprising a fixed foundation, a super-structure mounted on said foundation, and slip timbers slidably and detachably mounted in the super-structure above said foundation to present different sides thereof to the face of the slip.

3. A ferry slip of the character described, having each of its sides formed with a fixed foundation, a super-structure consisting of a concrete wall having a slab at its top and bottom on one side, and rows of slip timbers slidably and detachably mounted in said slabs to present different sides thereof to the face of the slip.

4. A ferry slip of the character described,

having each of its sides constructed with a fixed foundation, a concrete wall mounted on said foundation and having on one side an upper and lower longitudinal slab, the lower slab being formed with sockets, and the upper slab with transverse holes, and slip timbers detachably mounted in said sockets and transverse holes and located above the fixed foundation.

5. A ferry slip of the character described, having each of its sides formed with a fixed foundation consisting of piles driven below the water line, a platform mounted on said piles, a concrete wall mounted on said platform having a longitudinal slab on one side at the top and bottom, and rows of slip timbers detachably mounted in said slab in staggered relation to each other.

6. A ferry slip of the character described,

having each of its sides formed with a series of piles driven below the water line, a platform mounted on said piles, a concrete wall mounted on said platform having on one side a longitudinal upper and lower slab, the lower slab having a series of socket holes and the upper a series of transverse holes, and a plurality of slip timbers detachably mounted in said sockets and holes and extending between said slabs, the upper portion of said slip timbers and concrete wall being located above high water mark.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD TAYLOR STONE.

Witnesses:

F. J. SCHROEDER,
H. C. SCHROEDER.