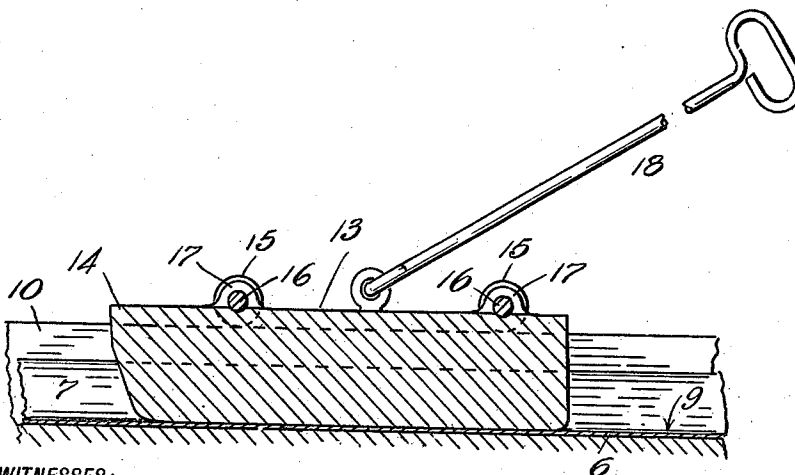
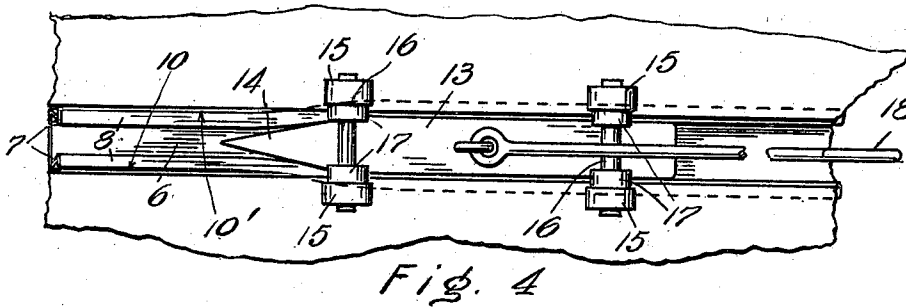
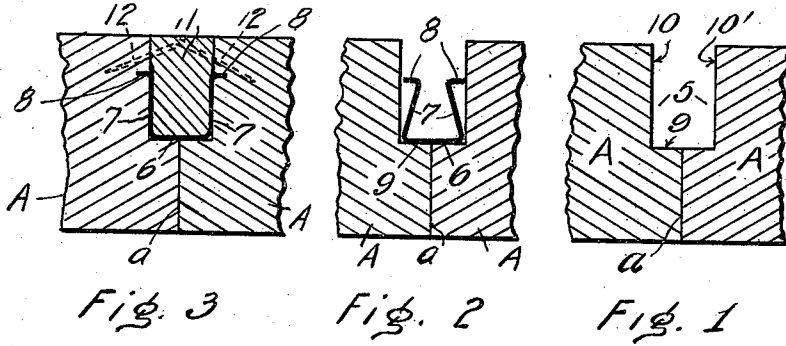


G. H. HILDRETH.
 WATER TIGHT SEAM.
 APPLICATION FILED MAR. 7, 1910.

977,741.

Patented Dec. 6, 1910.



WITNESSES:
H. Barnes
E. Peterson

INVENTOR:
George H. Hildreth
 BY *Pierre Barnes*
 ATTORNEY

UNITED STATES PATENT OFFICE.

GEORGE H. HILDRETH, OF SEATTLE, WASHINGTON.

WATER-TIGHT SEAM.

977,741.

Specification of Letters Patent.

Patented Dec. 6, 1910.

Application filed March 7, 1910. Serial No. 547,913.

To all whom it may concern:

Be it known that I, GEORGE H. HILDRETH, a citizen of the United States, residing at Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Water-Tight Seams, of which the following is a specification.

This invention relates to ship construction, and has for its object to provide a simple and efficient means for making the seams between the adjoining planking water-tight.

The invention aims to dispense with the use of oakum, pitch or the like and to provide a joint of greater durability and which affords strength to the laid planking. To these ends, I have devised a metallic locking plate which is inserted within complementary rabbets provided therefor in the plank edges and having lateral flanges which are forcibly embedded in the plank material, and finally introducing a strip of wood within the channel of such plate to retain the same in operative condition as well as making the top surface of the laid planking flush throughout.

The detail construction of the invention will be hereinafter more fully described and specifically claimed.

Referring to the drawings forming part of this specification, Figure 1 is a cross sectional view of a part of a floor or deck which is provided with a recess to accommodate my invention; Fig. 2 is a similar view with the seam closure plate inserted in the recess; and Fig. 3 a like view with the said plate applied and the recess closed with a filling piece. Fig. 4 is a plan view showing the machine employed in securing the plate in position; and Fig. 5 is a longitudinal vertical section of the same.

To carry my invention into effect, I form a rectangular shaped rabbet, 5, (Fig. 1) upon the upper opposing sides of each plank A so that the latter, when placed in juxtaposition, as at a, will present recesses severally comprised of two rabbets extending downwardly from the outer surface of the floor or deck. Within a recess, as shown in Fig. 2, is inserted a trough shaped plate formed with a flat central web portion 6 having a width slightly less than that of a groove and from its side edges are upwardly extending flanges 7 which are bent near their outer edges to provide outwardly directed mar-

ginal ribs 8. To permit the insertion of a plate within a deck-groove, the plate flanges 7 are rolled or otherwise formed to converge inwardly in order that the spread of the outsides of the respective ribs 8 will be less than the width of a groove. The plate is placed in a deck-groove to have its web 6 lie directly upon the bottom 9 of the latter. Whereupon apparatus, to be hereinafter described, is employed to thrust the flanges 7 outwardly to forcibly press the marginal ribs 8 thereof into the wood of the opposing sides 10 and 10' of a deck-groove and to occupy the positions at which they are shown in Fig. 3. Subsequent to a plate being thus inserted and engaged with the adjacent planks, the opening above the plate and between such planks is filled with a wooden strip 11 or by cement. Where a strip of wood is used it should be first thoroughly dried and slightly tapering to drive into the space between the plate-flanges and thereby serve as a key. After a strip is thus placed it is secured against withdrawal by "toe" nails 12 driven diagonally through the strip into the adjoining plank.

The devices for pressing the plate ribs 8 into the packing comprise a heavy body 13 having a wedge shaped forward end 14 while to the rear its width is equal to the distance between the plate flanges 7 when the same are spread apart to their greatest extent as determined by the width of the deck recess and at right angles with respect to the web 6. Said body is of at least the depth of such recess and is provided upon opposite sides with traction wheels 15 whose axles 16 are secured to the body by extending through lugs 17 provided thereupon. These wheels are arranged to bear upon the outer surface of the planking to render more easy the propulsion of the device. Connected to the body 13 is a handle 18 whereby the same may be drawn or pushed by the operator.

A plate, when inserted in a seam recess has, as before mentioned, its flanges 7 inclined inwardly, as shown in Fig. 2, and to the left hand side of Fig. 4. The point 14 of the body of the spreading device is then introduced between the flanges 7 and by forcing the body forward through the instrumentality of the handle 18 the rear part of such body causes the plate ribs 8 to be forced into the wood and the flanges to occupy positions at right angles to the web

6 and in contact with the sides of the recess. The filler 11 is then inserted to entirely close the opening, as before explained.

The advantages of the invention reside in the absolute water-tight condition of a seam to which my devices are employed, the facility in applying the same, and the improved condition and appearance of the deck so treated.

10 What I claim as my invention, is—

1. A deck-seam comprised by forming a recess between adjoining planks by the provision of rabbets formed in the upper faces of the latter, a plate formed with a flat central web portion for seating upon the bottom of said recess and having flanges extending at right angles from the sides of said web and terminating in marginal flanges which are respectively forced into the plank material to the sides of said recess, and a filler to fill the space in the recess which is unoccupied by said plate and serving to maintain said marginal ribs in engagement with the planking.

25 2. A deck-seam comprised by forming a recess between adjoining planks by the provision of rabbets formed in the upper faces of the latter, a plate formed with a central web portion for seating upon the bottom of said recess and having flanges extending upwardly from the sides of said web and terminating in marginal flanges which are respectively forced into the plank material to the sides of said recess, and a filler to fill the space in the recess which is unoccupied by said plate and serving to maintain said marginal ribs in engagement with the planking.

30 3. A deck-seam comprised by forming a recess between adjoining planks by the provision of rabbets formed in the upper faces of the latter, a plate formed with a flat central web portion for seating upon the bottom of said recess and having flanges extending at right angles from the sides of said web and terminating in marginal flanges which are respectively forced into the plank material to the sides of said recess, a filler

to fill the space in the recess which is unoccupied by said plate and serving to maintain said marginal ribs in engagement with the planking, and means for securing said filler in place.

4. A deck-seam comprised by forming a recess between adjoining planks by the provision of rabbets formed in the upper faces of the latter, a plate formed with a central web portion for seating upon the bottom of said recess and having flanges extending upwardly from the sides of said web and terminating in marginal flanges which are respectively forced into the plank material to the sides of said recess, a filler to fill the space in the recess which is unoccupied by said plate and serving to maintain said marginal ribs in engagement with the planking, and means for securing said filler in place.

5. The means for protecting a deck-seam which is formed by a recess of less depth than the planking and arranged symmetrically with respect to the subjacent seam between the adjoining planks, and comprising a plate having a central web adapted to lie on the bottom of the recess, flanges which are arranged to contact with the sides of the recess, and marginal flanges which are respectively pressed into the planking at opposite sides of the recess and a filler for closing the space within the recess which is unoccupied by said plate.

6. The means for protecting a deck-seam which is formed by a recess of less depth than the adjoining planking, comprising a plate having a central web adapted to lie on the bottom of the recess, flanges which are arranged to contact with the sides of the recess, marginal flanges which are respectively pressed into the planking at opposite sides of the recess, and a filler for closing the space within the recess which is unoccupied by said plate.

GEORGE H. HILDRETH.

Witnesses:

PIERRE BARNES,
H. BARNES.