

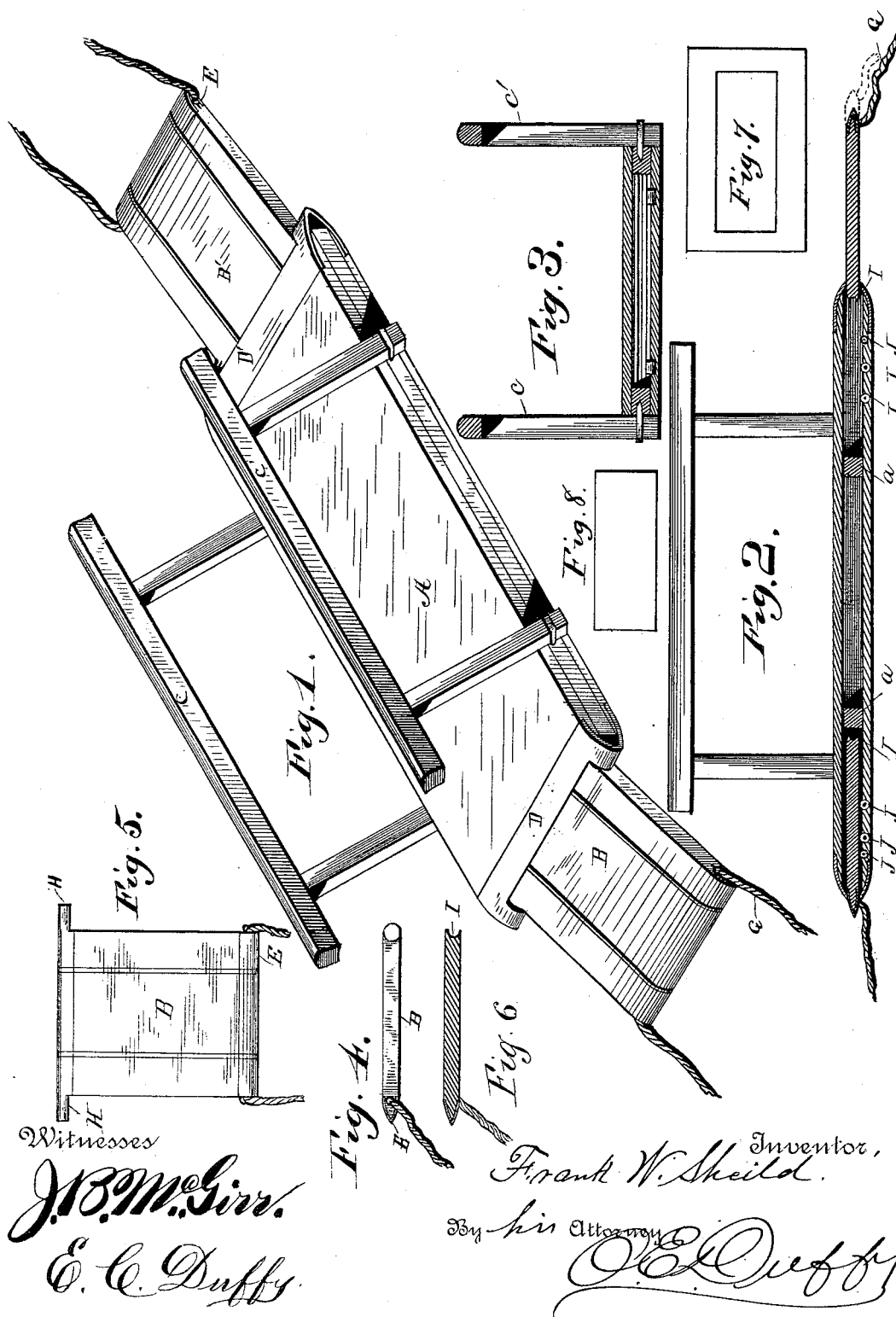
(No Model.)

F. W. SHEILD.

### GANG PLANK FOR VESSELS.

No. 386,355.

Patented July 17, 1888.



# UNITED STATES PATENT OFFICE.

FRANK W. SHEILD, OF HAMPTON, ASSIGNOR OF ONE-HALF TO THOMAS R. COOKE, OF NORFOLK, VIRGINIA.

## GANG-PLANK FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 386,355, dated July 17, 1888.

Application filed March 27, 1888. Serial No. 268,619. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK W. SHEILD, of Hampton, in the county of Elizabeth City and State of Virginia, have invented certain new and useful Improvements in Gang Ways and Planks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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 the letters of reference marked thereon, which form part of this specification.

This invention has relation to gang-planks, gangways, and the like; and it consists in making a gang-plank hollow in its horizontal and longitudinal section, preferably closed at the sides and provided at its ends with metal coverings to prevent abrasion from hard knocks and wear and tear, and is open at its ends for the reception of sliding end pieces, which may be pulled out or in telescopically, as may be desired, all of which will be more fully hereinafter described.

In the drawings, Figure 1 illustrates my invention in perspective, with both ends pulled out of the body of the plank; Fig. 2, a vertical longitudinal section; Fig. 3, a transverse section; Fig. 4, a detached view of one of the sliding pieces; Fig. 5, a plan view of the same; Fig. 6, a longitudinal section of one of the end pieces; Fig. 7, a detail plan view of the protecting metal tip; and Fig. 8, a plan view of the tip of the sliding piece, cut out of Fig. 7, which is used for the end of the end piece.

A in the drawings hereto annexed is the main body of the plank.

B B' are the sliding or end pieces; and C, the hand-rails, which are removable when necessary.

D D' are the end metal tips of the main plank, and E E the metal tips of the end sliding pieces.

G G are ropes or chains for securing the gang-plank to steamboats, to the bulkhead of ships or to floating gangways, to wharves, or to freight and cattle cars.

H H are projections to form hinges or pivots by which the end pieces B turn up or down.

I I are concaves in the inner end of the sliding pieces B B'.

J J J J are anti-friction rollers, upon which the sliding end pieces are supported and facilitated in their operation.

a a' are transverse stiffening and strengthening pieces located across the body of the plank between its top and bottom, and at the same time serve as stops for the sliding end pieces.

The metal tips of the main plank A, together with projections on the end piece B, form hinges for the end piece to work in and prevents its disengagement from the main plank. The sliding end pieces are provided with grooves or ways that register with the rollers to guide them in a straight line when pushed home. When the hand-rails are removed, the plank and its end piece may be reversed, or either side may be used, as they are both substantially alike.

In forming the metal ends of the main plank I cut the blanks out of suitable sheet metal, as shown by Fig. 7, and then bend it so as to fit over the end of the main plank, and when in position it will be seen that the opening is left for the end piece, as well as forming the hinge portion, as shown at I in the several figures.

The piece of metal shown by Fig. 8 is cut out of the center of Fig. 7, and it is used for a metal tip for the ends of the end pieces. Thus it will be seen that there is no waste whatever in the metal used for ironing these planks.

It will be observed that this simple construction is cheap in first cost and readily admits of repair, as all the pieces are interchangeable, strong, and efficient in use, and readily adjusted to either steamboats and wharves, ships' sides, floating gangways and bridges, and docks, warehouses, cars for unloading and loading, or, in fact, in any position where they may be found applicable, the gist of the invention being in the automatic adjustment of the end pieces with the main plank, which will rise and fall with tides, rivers, &c., or to any irregular heights where gang-planks may be used.

The operation is as follows, taking a steamboat for illustration: When the steamer comes to the wharf, the plank is thrown out or in, as the case may be. Should the steamer be close to the wharf, the end pieces need not be used,

as they may remain sheathed; but if the boat is a good distance off then the end pieces are pulled from their position and securely fastened by any well-known means. The pieces  
5 being pulled out, the concave I will take hold of the edge of metal piece D and will work up and down, as if on a pivot, and at the same time will prevent the end piece from slipping off or into the body of the plank, while the  
10 hinges prevent the end pieces from slipping out.

Should the water be high or low, the pivoted end pieces will adjust themselves, as before observed.

15 The hand rails are seldom used except for ship-sides, for the passage of passengers, or for cattle. For unloading freight and the like the hand-rails are not required. The end pieces may be pushed into the body of the plank  
20 when it is desired to put it away, thus taking up little room when packed.

What I claim is—

1. The combination, in a gang-plank, of the main portion, with the sliding end pieces pivoted as described.  
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2. A gang-plank consisting of a body portion and end sliding pieces pivoted and hinged substantially as described, and provided with friction-rollers, as shown.

3. A gang-plank consisting of the main body portion provided with chambers between its flat sides, transverse supporting and stop pieces, and hinged metal protecting-pieces, substantially as described. 30

4. The combination, in a gang plank, of the main body portion provided with end protecting-irons, which serve also for hinges, with pivoted end pieces having projections H H on their ends, said ends being also concaved to receive the edge of the protecting-irons, whereby the sections are secured together in the manner shown and described. 35 40

5. The combination, in a gang-plank, of the hollow main body portion provided with hinged irons, protecting-pieces, and anti-friction rollers, with the pivoted end sliding pieces having journal or pivoted projections, the said sliding pieces being adapted to be telescopically adjusted, and stops for the said end pieces, substantially as set forth. 45 50

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

FRANK W. SHEILD.

Witnesses:

PHIL. B. SHEILD,  
THOS. R. COOKE.