

(No Model)

P. McMILLAN.
ARMOR PLATE FOR VESSELS.

No. 583,690.

Patented June 1, 1897.

Fig. 1.

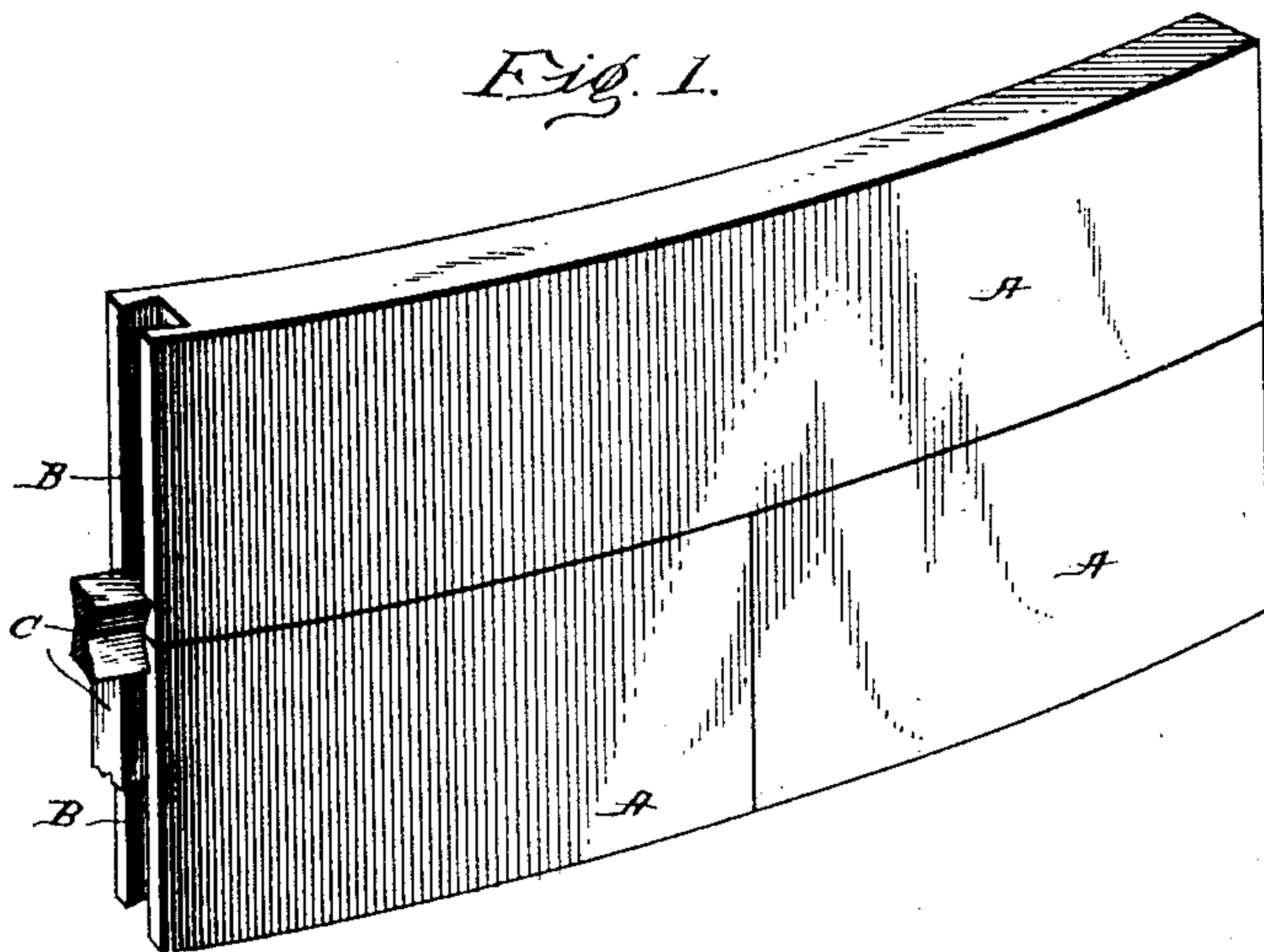


Fig. 2.

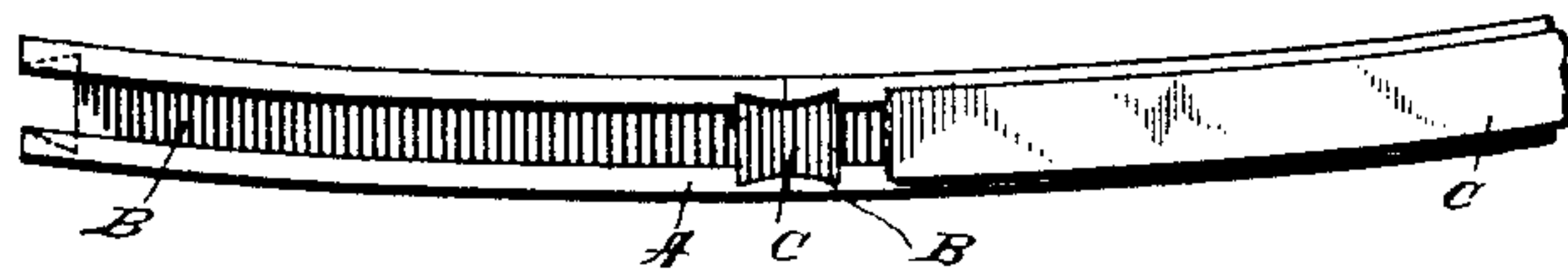


Fig. 3.

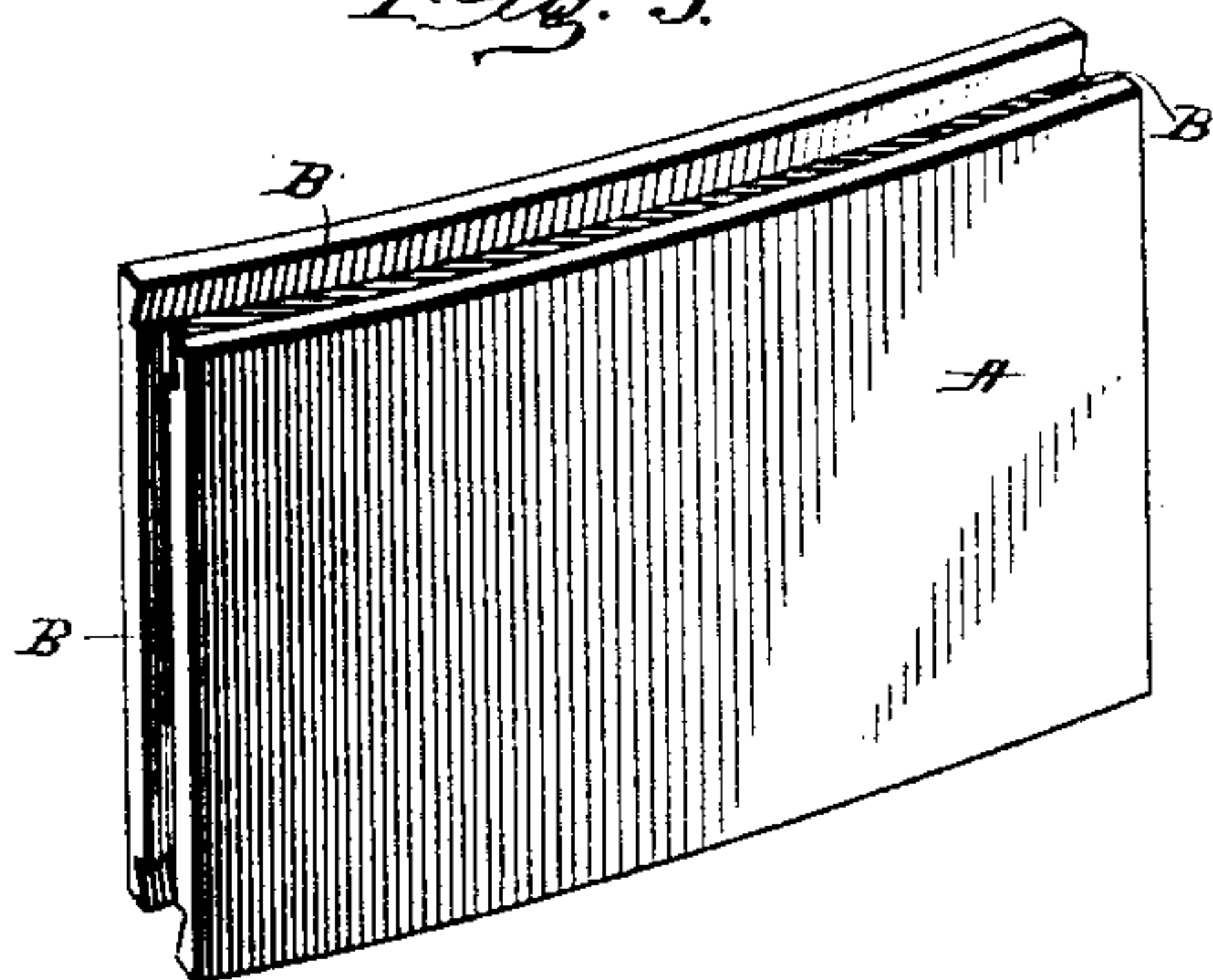
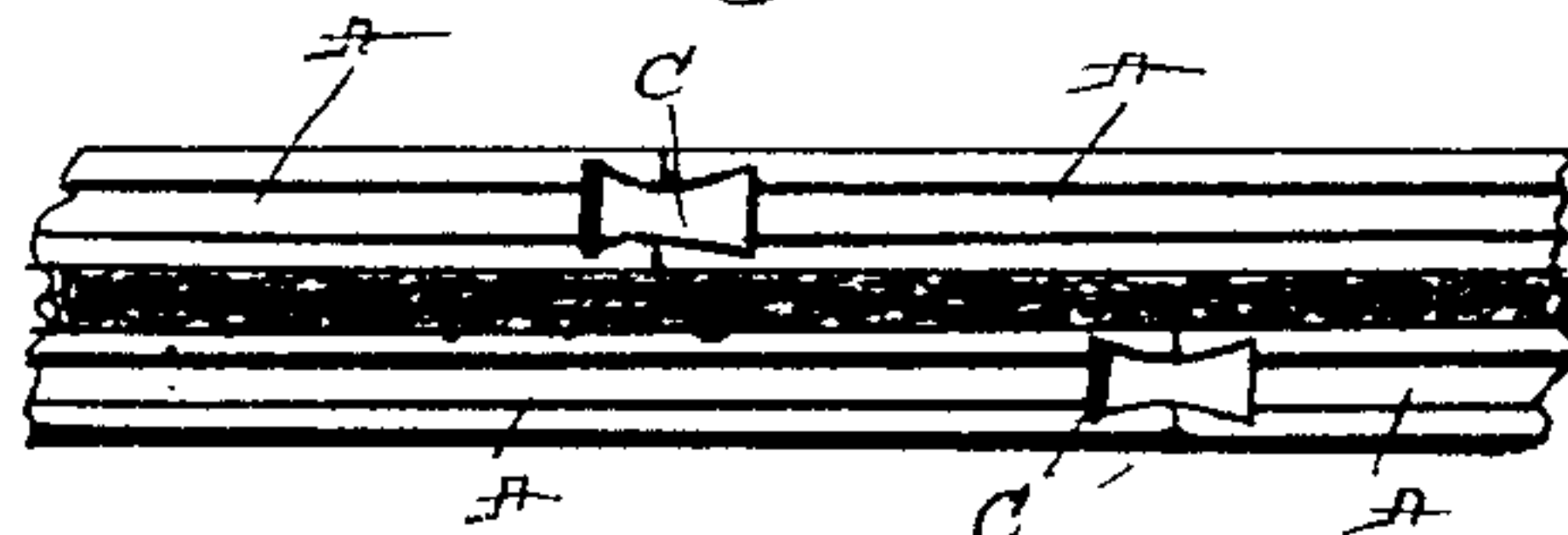


Fig. 4.



Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

PETER McMILLAN, OF PIERCE CITY, MISSOURI, ASSIGNOR OF ONE-HALF TO
LEWIS L. ALLEN, OF SAME PLACE.

ARMOR-PLATE FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 583,690, dated June 1, 1897.

Application filed July 17, 1896. Serial No. 599,503. (No model.)

To all whom it may concern:

Be it known that I, PETER McMILLAN, a citizen of the United States, residing at Pierce City, in the county of Lawrence and State of Missouri, have invented certain new and useful Improvements in Armor-Plates for Vessels; 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.

This invention relates to certain new and useful improvements in armor-plates for vessels, turrets, and the like; and it has for its objects, among other things, to provide a simple and cheap construction whereby the plates may be securely united, permitting of the building up of the required amount with small plates, thereby rendering it much easier than the handling of heavy plates. I provide for the setting up of any desired number of plates to give the required thickness, setting the different layers any required distance apart, and filling in the space between them with any desired or suitable material. The plates are formed upon their edges and ends with dovetail grooves, into which are designed to be engaged correspondingly-shaped keys, by which they are drawn together and locked. The plates and their keys may be employed for other purposes—such, for instance, as bank-vaults, elevators for grain, and other fireproof structures. The form of the grooves may be varied, as may also the shape of the key employed for locking the sections or plates together.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view showing several plates united in accordance with my invention. Fig. 2 is a cross-section through the same. Fig. 3 is a perspective view of one of the plates. Fig. 4 is a similar view of one of the keys. Fig. 5 is a cross-section.

Referring now to the details of the drawings by letter, A designates one of the plates. It may be of any desired dimensions and is

shown as provided upon each edge and end with a groove B, which is open at both ends and which has undercut side walls, as shown. These plates may be more or less curved, according to the character of the work in which they are to be used. They may be of any required thickness.

The plates are drawn and held together by the keys C, which are formed with their opposite walls shaped to conform to the shape of the grooves, it being designed that one key shall engage in the grooves of the adjacent edges or ends of two adjacent plates. As the keys are driven into place they draw the plates together, and it is preferable that the plates be so arranged as to break joints, as shown.

There may be as many thicknesses of these plates as may be desired. They may be arranged at any desired distance apart and the space therebetween filled in with metal scraps or any other suitable material and the whole united, if preferred.

It has been demonstrated that metal is preferable to stone or masonry for forts and fortifications, and the ease with which a structure can be built up according to my invention will recommend the same for use in such structures.

The outer plates may be secured to the inner or adjacent plates by keys and ways in the same manner that the inner plates are drawn and held together, and the plates of the different thicknesses or layers are preferably arranged so as to break joints. The keyways and keys may be arranged parallel with each other or at any desired angle.

What is claimed as new is—

A structure built up of plates with undercut grooves joined together by keys inserted in the adjacent grooves of the adjacent faces of the plates, a series of such plates arranged at a distance from another such series and a filling between the two series, substantially as specified.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

PETER McMILLAN.

Witnesses:

WM. H. RHEA,
GEO. W. BROCE.