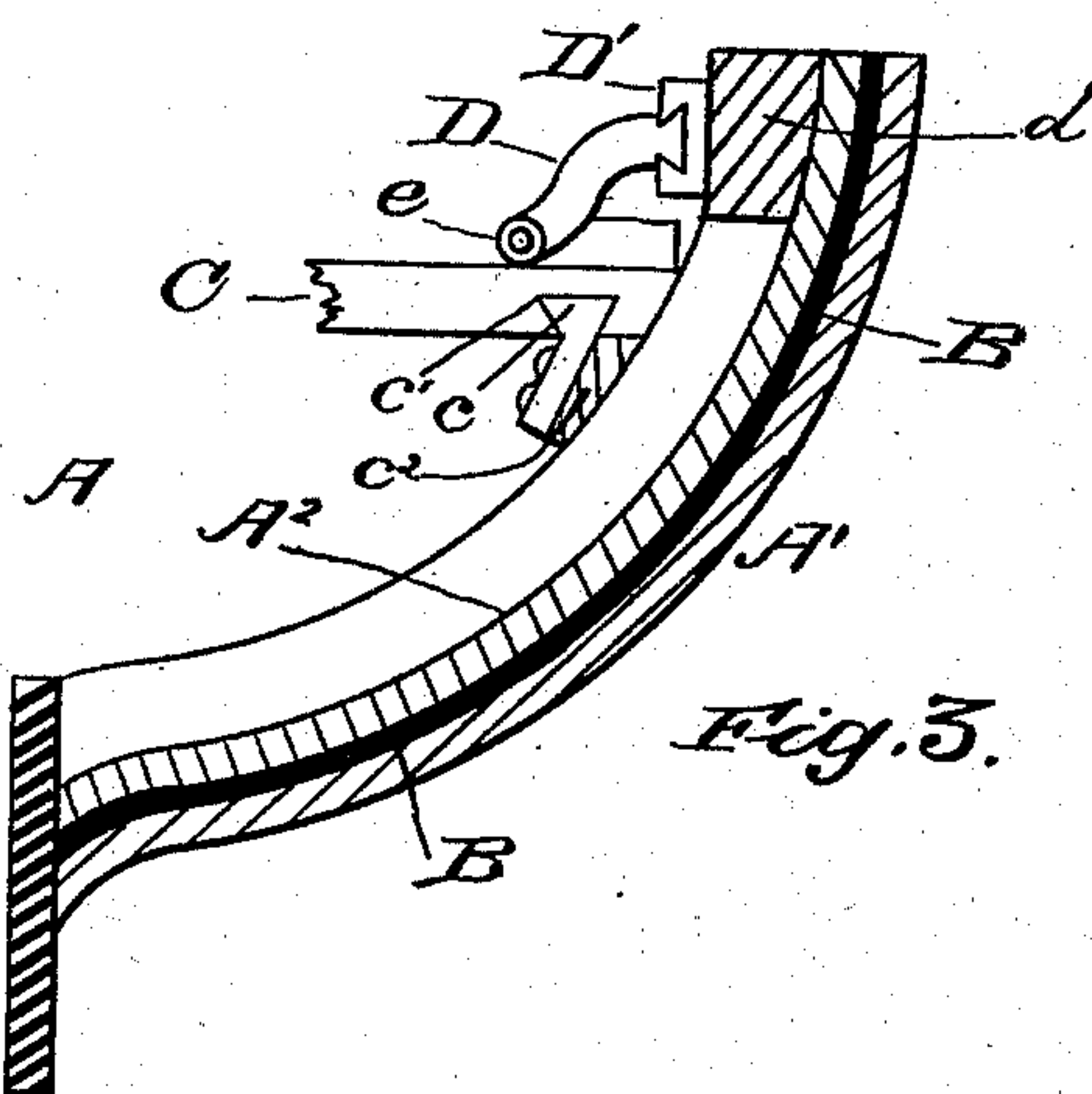
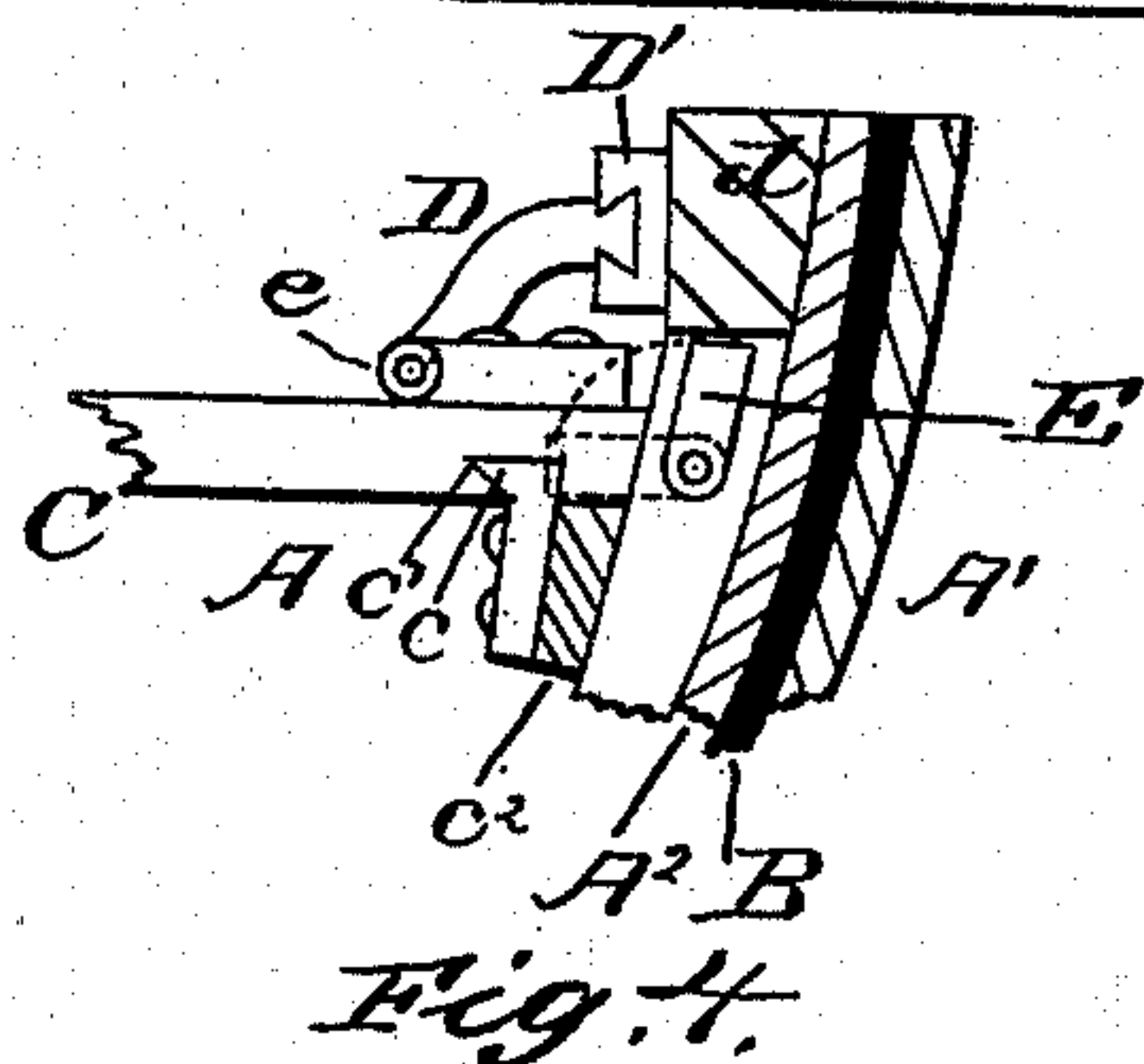
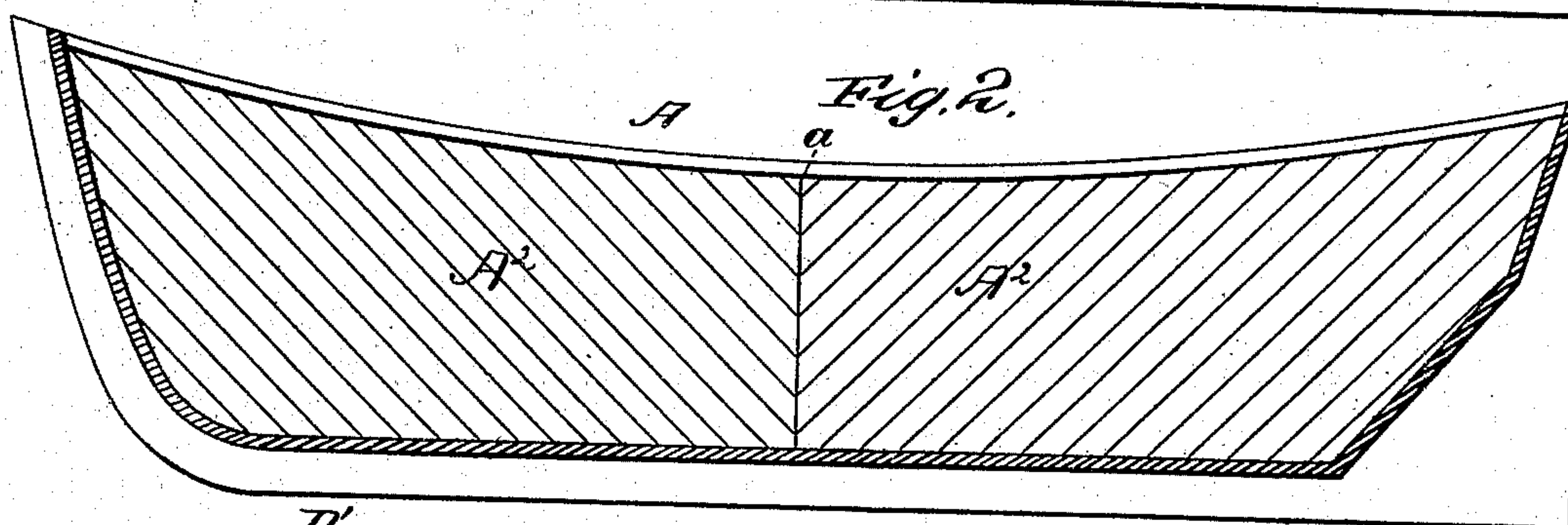
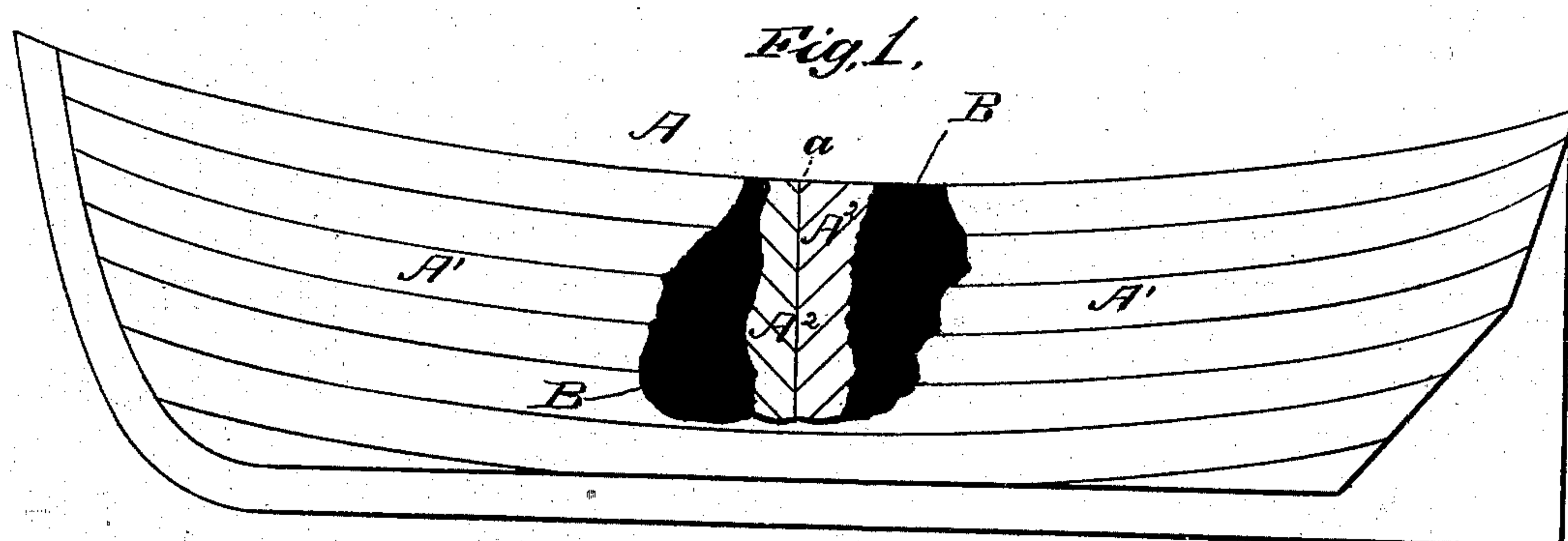


(No Model.)

J. DEAN.
BOAT.

No. 249,461.

Patented Nov. 15, 1881.



WITNESSES
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UNITED STATES PATENT OFFICE.

JAMES DEAN, OF DETROIT, MICHIGAN.

BOAT.

SPECIFICATION forming part of Letters Patent No. 249,461, dated November 15, 1881.

Application filed July 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES DEAN, of Detroit, county of Wayne, State of Michigan, have invented a new and useful Improvement in Boats; and I 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 pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to the hulls and seats of boats; and it consists in certain novel combinations of devices for securing and permitting the ready removability and replacement of boat-seats, and also in a novel construction of the hull, whereby its stability and buoyancy are greatly enhanced, all of which will be hereinafter particularly described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of a boat with a part of the outer sheathing of the hull broken away, showing portions of the inner sheathing and the intermediate lining. Fig. 2 is a longitudinal central section of the boat. Figs. 3 and 4 are cross-sections of one side of the boat, showing a portion of a seat and the devices for securing and permitting the ready removability of the same.

My invention is designed to overcome one of the greatest faults in small boats, and which has often led to loss of life. No matter how tight a boat's seams are when it is turned out of the shop, if it is not used in the water, but allowed to lie dry, often exposed to the heat of the sun, it is sure to become leaky and unfit for use. In many cases the boats upon large vessels lie upon the decks and are seldom used, and are consequently found unfit for use when urgently required. Moreover the number of boats usually carried upon large vessels, owing to lack of room, is quite inadequate to the wants of most of them. This I also propose to remedy incidentally by enabling smaller boats to be stowed in larger ones, while at the same time providing the seats with means by which they are rendered capable of being easily removed and replaced and also well secured against displacement and loss in case of capsizing or rough weather.

Referring to Fig. 1, A is the hull of the boat,

of which A' is the outer sheathing, A² the inner sheathing, and B an intermediate lining of canvas. The outer sheathing is composed of planks running longitudinally from stem to stern in the usual manner. Upon the inner surface of this outer sheathing I arrange a lining, B, of canvas, cloth, or similar strong flexible material, which may be painted or cemented, if desired, and against this lining I place the inner sheathing, A², composed of two sets of boards arranged obliquely with respect to the boards of the outer sheathing, the boards of one set inclining in an opposite direction from those of the other, and the ends of a portion of the boards of the two sets abutting against each other on a median transverse line, d, from which they diverge upwardly and outwardly to the gunwale, while the opposite ends of the remaining boards abut respectively against the gunwale and keel, the entire inner sheathing thus forming, in effect, a truss which firmly braces the hull. The intermediate lining serves as a permanent calking, and will prevent leakage to a very great extent, even though the seams should be considerably opened by exposure.

Referring to Figs. 3 and 4, the letter C denotes one end of the boat-seat, the other portion being omitted. Each of the boat-seats I make removable, so that they may be taken out, in order that one or more boats of smaller size may be placed inside of the larger boat, so as to economize deck-room, allowing a vessel to carry more boats than would otherwise be practicable. In the under side of each seat, near its ends, I form transverse dovetail grooves, as shown at c', to receive correspondingly-shaped cleats c, preferably of metal, which are secured to and project above supports c², secured to the ribs, or longitudinally, at proper height, inside the boat, in any convenient manner. These cleats may be recessed in their upper edges and extend the whole length of the boat, to allow the seats to be dropped in position for the grooves to slide over the dovetailed upper edges of said cleats.

To prevent the seats from sliding out of place when in use I provide in both ends notches, into which may be turned latches, such as shown at E, Fig. 4, hinged to opposite ribs of the boat.

The knees or braces D are also removable and attached to the upper sides of the seats, preferably by hinging, as shown at e, so that they may be turned over upon the seats, and thus take up less room when stored away out of use than if they were rigidly attached.

Across the free end of each brace or knee D, I form a dovetail, d, which fits into a correspondingly-shaped groove formed in a cleat, D', secured to the inner side of the gunwale and properly notched, so that the knees or braces may be engaged therewith at the same time that the seat is slid into position.

In most boats heretofore used at sea or for business purposes the seats have been made stationary. Now, when a boat either propelled by oars or sails is used to convey goods to market, or as a ferry-boat, the seats are almost always in the way, there being usually three or four, while perhaps only one is necessary, so that it will be seen that my improvement in the seats gives great convenience in arranging the interior of the boat as desired for special purposes.

Having now fully described my invention, I claim—

1. In a boat, the seat provided with the dovetail grooves in its under side and the hinged knees or braces upon its upper side, in combi-

nation with the dovetail cleats secured inside the boat for entering said grooves, and suitable devices for detachably engaging the free ends of said knees or braces, substantially as described.

2. In a boat, the combination, with the cleats D', provided with the dovetail grooves and secured to the inner side of the gunwales, and the dovetail cleats c, secured to and projecting above supports attached to the inside of the boat, of the seat provided with transverse dovetail grooves in its under side near its ends, and the hinged knees or braces on its upper side having the dovetail d, substantially as described.

3. A row-boat made with an external sheathing of horizontal boards and a contiguous internal sheathing of diagonal boards diverging upward and outward from a median transverse line, with a layer of fabric between the inner and outer sheathings, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JAMES DEAN.

Witnesses:

W. M. PORTER,
WILLIAM E. HOIT.