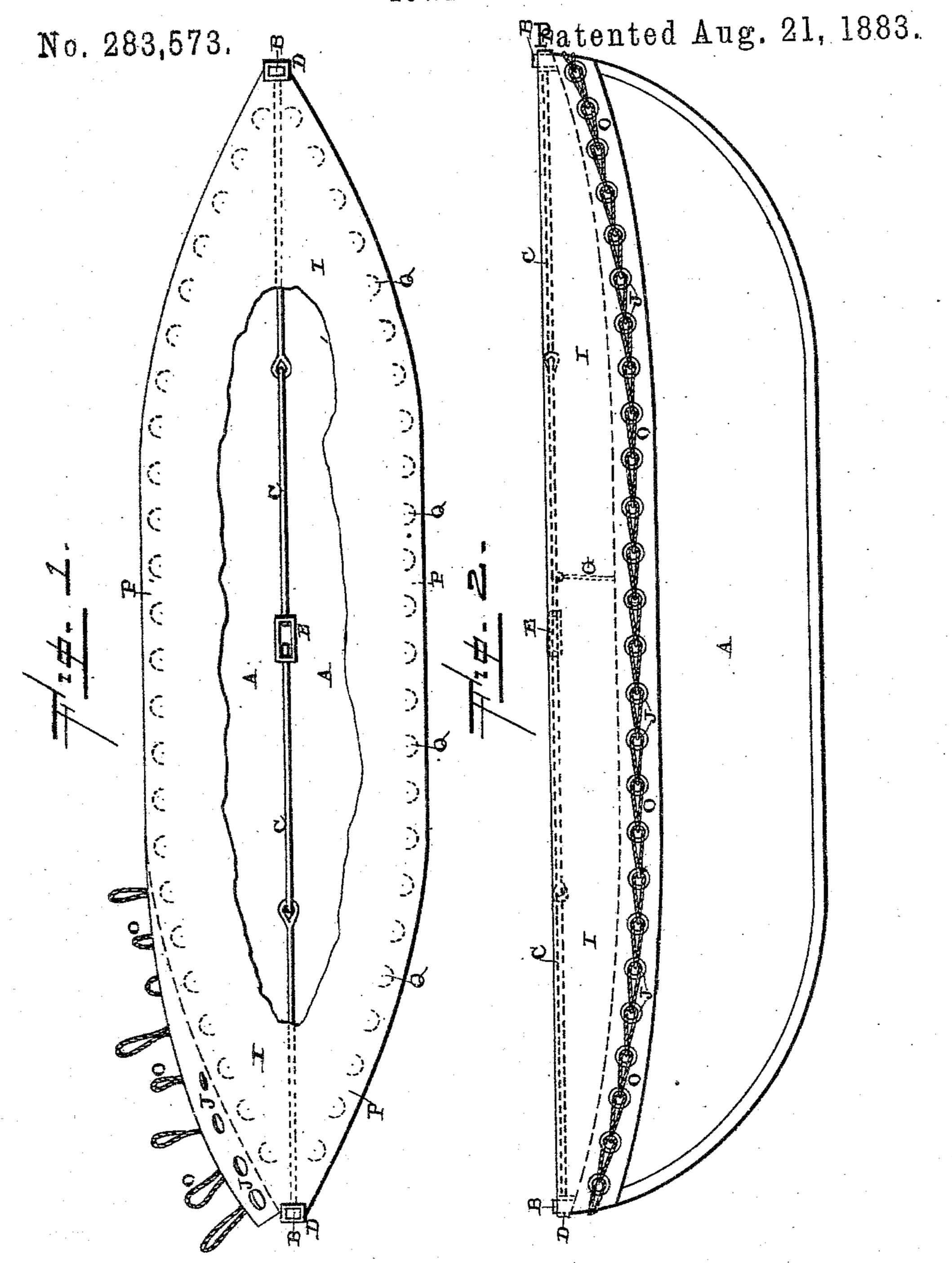
J. COLLINS.

TOWING BOAT.



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United States Patent Office.

JOHN COLLINS, OF GLOUCESTER, MASSACHUSETTS.

TOWING-BOAT.

SPECIFICATION forming part of Letters Patent No. 283,573, dated August 21, 1883. Application filed February 13, 1883. (Model.)

To all whom it may concern:

Be it known that I, John Collins, of Gloucester, in the county of Essex and State of Massachusetts, have invented certain new and 5 useful Improvements in Towing-Boats, Scows, and Crafts of all Kinds; 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 pertains to 10 make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in towing-boats, scows, and crafts of all kinds; and it consists in the combination of a boat having a projection at each end, a brace-rod which is stretched from one end of the boat to the other, and the cover which is stretched over the top of the boat and the rod, and 20 which is provided with means for attachment to the edges of the boat, as will be more fully described hereinafter.

The object of my invention is to connect the two ends of the boat together, so that the 25 strain in towing the boat will be divided equally upon both ends of the boat instead of coming wholly upon one, and to provide the boat with a suitable cover in such a way as to prevent the boat from becoming filled with 30 water, either from storms or while being towed in rough water.

Figure 1 is a plan view of a boat embodying my invention. Fig. 2 is a side elevation of the same.

A represents a boat, scow, or craft of any desired shape, size, or construction, and which has a suitable projection, B, extending above its top edge at each end. Where a craft of any kind is being towed, a tow-line is fastened 40 to one end, and the whole strain is brought to bear upon that end alone, to the great damage of the craft. In order to overcome this objection and to divide the strain equally upon all parts of the boat alike, a jointed 45 brace-rod, C, having an eye, D, upon each end to catch over the projections B, is used. This rod is provided with a pivoted support, G, to sustain the weight of the rod at or near its center, and thus prevent it from sagging down. 50 After the eyes have been slipped over the pro-

jections B, the swivel E is turned until the rod is perfectly taut, and then when the towline is fastened to either end of the craft the strain is divided equally over all parts of the boat. One great advantage of this rod con- 55 sists in its forming a raised support for the cover I, as shown in Fig. 2, above the deck of the boat, so that ample space will be left for the storage of the fishing-nets. The cover both serves to prevent the boat from filling 60 with water and as a protector for all articles left upon its deck, which would be washed

away by the waves.

While the craft is being towed it becomes very necessary to prevent waves from wash- 65 ing over the craft and either filling the craft or damaging its contents. To prevent this I provide a water-proof cover, I, of any suitable material, and which will be shaped so as to correspond to the shape of the craft to which 70 it is to be applied. This cover has a number of eyelet-holes, J, made all along its edge at suitable distances apart, and just about opposite to each hole is secured a loop, O, of suitable length. Around each edge of the craft is 75 secured a rib or rod. P, which has a number of recesses, Q, made through its inner edge, next to the boat, for the loops to pass through. These recesses or holes through the rib will be made to correspond in distance apart to the eye- 80 lets through the cover. In fastening the cover down upon the boat a loop is passed up through one of the holes Q in the rib, and up through the eyelet, which comes just opposite to the hole. The next loop to it is passed up through 85 the loop and its eyelet, and through the loop which was just brought up at its rear, and so on to the end of the boat. As each loop passes over the loop just in front of it, each loop is made to secure the other in place until the end 90 of the boat is reached, where the last two loops may be tied or otherwise fastened together around the projection B. The cover at each end will be cut away, so as to correspond to the projections, and thus the cover will be 95 made to inclose the craft so thoroughly that no water can get in either from storms or from the waves which may wash over the craft while being towed. Either this lacing may be begun at the center and run toward each end of 100 the boat, or the lacing may begin at one end alone.

Having thus described my invention, I claim—

The combination, with the boat provided at each of its ends with a vertical projection, of the jointed brace-rod adapted to be secured at its ends to such projections, and provided with an intermediate turn-buckle, or its equivalent, to serve as a means for bracing the boat fore and aft, and the cover adapted to be

stretched over the top of the boat and rod, and provided with means for securing its edges along the gunwale, the brace-rod serving as an intermediate support for the cover, substan- 15 tially as shown.

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

JOHN COLLINS.

Witnesses:

B. A. BAKER, N. H. PHILLIPS.