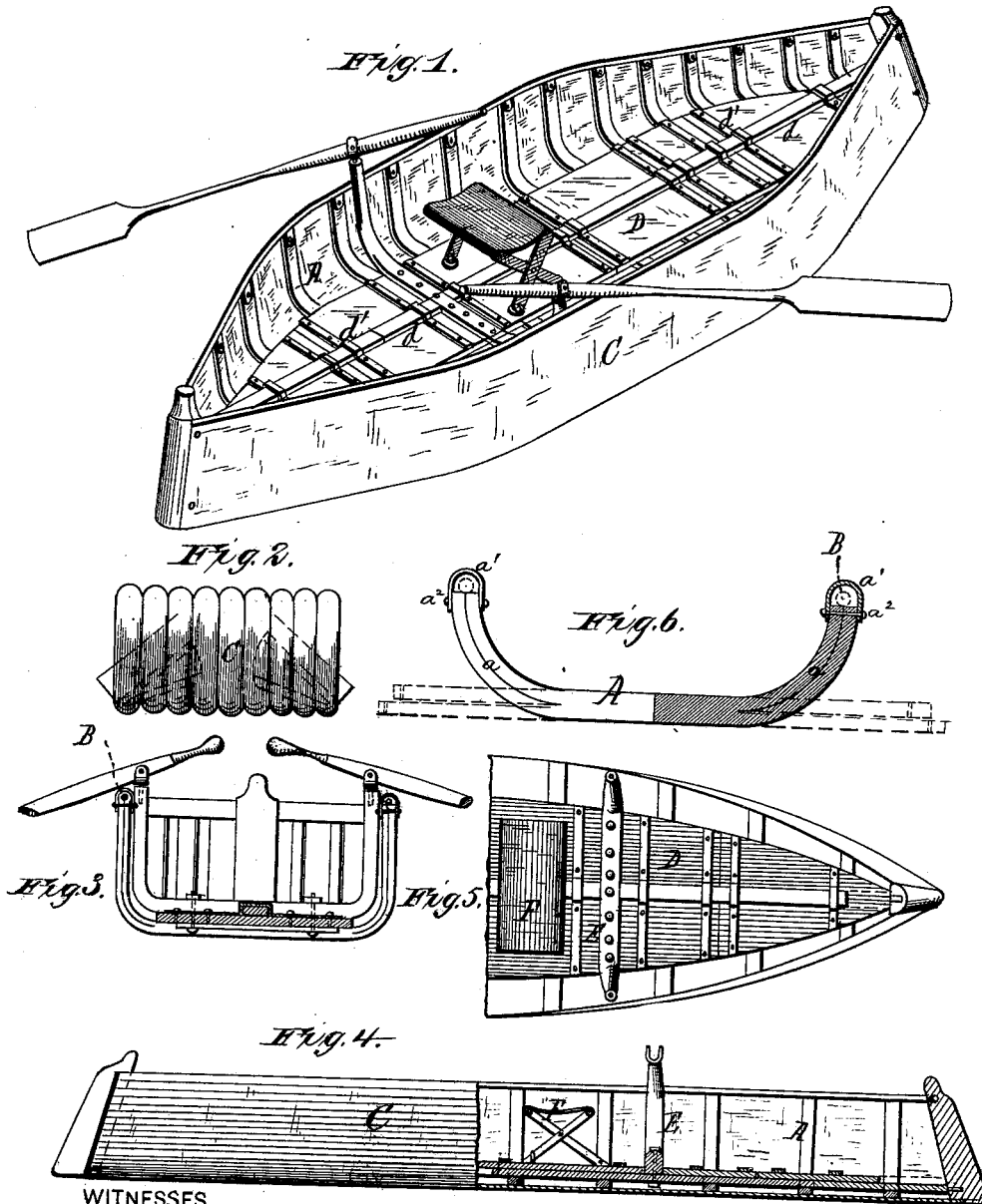


N. A. OSGOOD.  
Portable Folding-Boat.

No. 200,664.

Patented Feb. 26, 1878.



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## IMPROVEMENT IN PORTABLE FOLDING BOATS.

Specification forming part of Letters Patent No. 200,664, dated February 26, 1878; application filed February 11, 1878.

*To all whom it may concern:*

Be it known that I, NATHANIEL A. OSGOOD, of Battle Creek, county of Calhoun, State of Michigan, have invented certain new and useful Improvements in Folding or Portable Boats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved boat. Fig. 2 is a side view of the boat when folded. Fig. 3 is a transverse section through the boat. Fig. 4 is a side view of the boat, partly in section. Fig. 5 is a top view of a section of one end of the boat, and Fig. 6 is a side view of one of the ribs, partly in section.

Similar letters of reference denote corresponding parts in all the figures.

The invention relates to that class of boats in which the body or covering is formed of a skin of suitable flexible water-proof material, and in which, also, the frame-work is adapted to be folded, so that the boat can be brought into a compact form for packing or for transporting the same from place to place.

My invention consists in forming the body of the boat of transverse ribs or knees, connected only by the skin or canvas which forms the covering, whereby the boat is adapted to be folded into compact form for transportation; and it further consists in certain details of construction, hereinafter explained.

In the accompanying drawings, A represents the ribs, one of which is shown in Fig. 6, the dotted lines showing one of the ribs previous to its being bent into the desired form, and the full lines when thus bent. These ribs are slit, as shown at *a*, Fig. 6, said slits extending from each end for about one-third the length, for facilitating the bending of the ribs. The two ends or arm formed by the slit at each end are connected together, when the ribs are bent in the desired form, by means of straps *a*<sup>1</sup> and bolts *a*<sup>2</sup>, and said straps forming loops or eyes, through which a cord or rope, B, passes, the ends of said cords being secured to the bow and stern posts

of the boat. Around the ribs, and connected thereto in any usual or preferred way, as also to the rope or cord, is placed a skin or canvas body, C, said body being further connected to the bow and stern posts. These parts, when in place, form the body and covering of the boat, and the ribs, being connected only by the flexible covering and rope, are adapted to be folded together into the compact form shown in Fig. 2, and said rope, when the body is stretched, forms the gunwale to the boat.

For stretching the boat out into the desired form for use, a bottom board, D, is employed, made in sections, which together extend the entire length of the boat. These sections are connected together and held in place by means of bars *d*, which pass through staples *d*<sup>1</sup>, secured upon the sections of the bottom board D, and in such manner as to break joints with the joints in said board D. The bottom is further held in place by means of pins secured in the end boards of the bottom, and which enter perforations formed in the lower ends of the bow and stern posts.

E is a rib or bar secured to one of the sections of the bottom board D, and to the upright ends of which the rowlocks are secured; and F is a folding seat, which is also secured to one of the sections of the bottom board, said seat being adapted to be folded snugly down upon said section, and to be removed and folded with the bottom board for transportation.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The transverse ribs or knees forming the body of the boat, connected and held in their parallel relation to each other by means of the flexible covering only, in the manner and for the purpose substantially as described.

2. The body of the boat, composed of the parallel ribs and the flexible covering applied thereto, as described, in combination with the sectional or divided bottom board, secured in place for holding the boat in its extended form, substantially as described.

3. The ribs or knees, provided with the loops

or eyes  $a'$ , in combination with the cord or rope forming the gunwale when the boat is extended, substantially as described.

4. The rib or bar E, to which the rowlocks are applied, rigidly connected to and made removable with one of the sections of the divided bottom board, substantially as described.

5. The combination of the folding seat with the removable bottom board, substantially as described.

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Witnesses:

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