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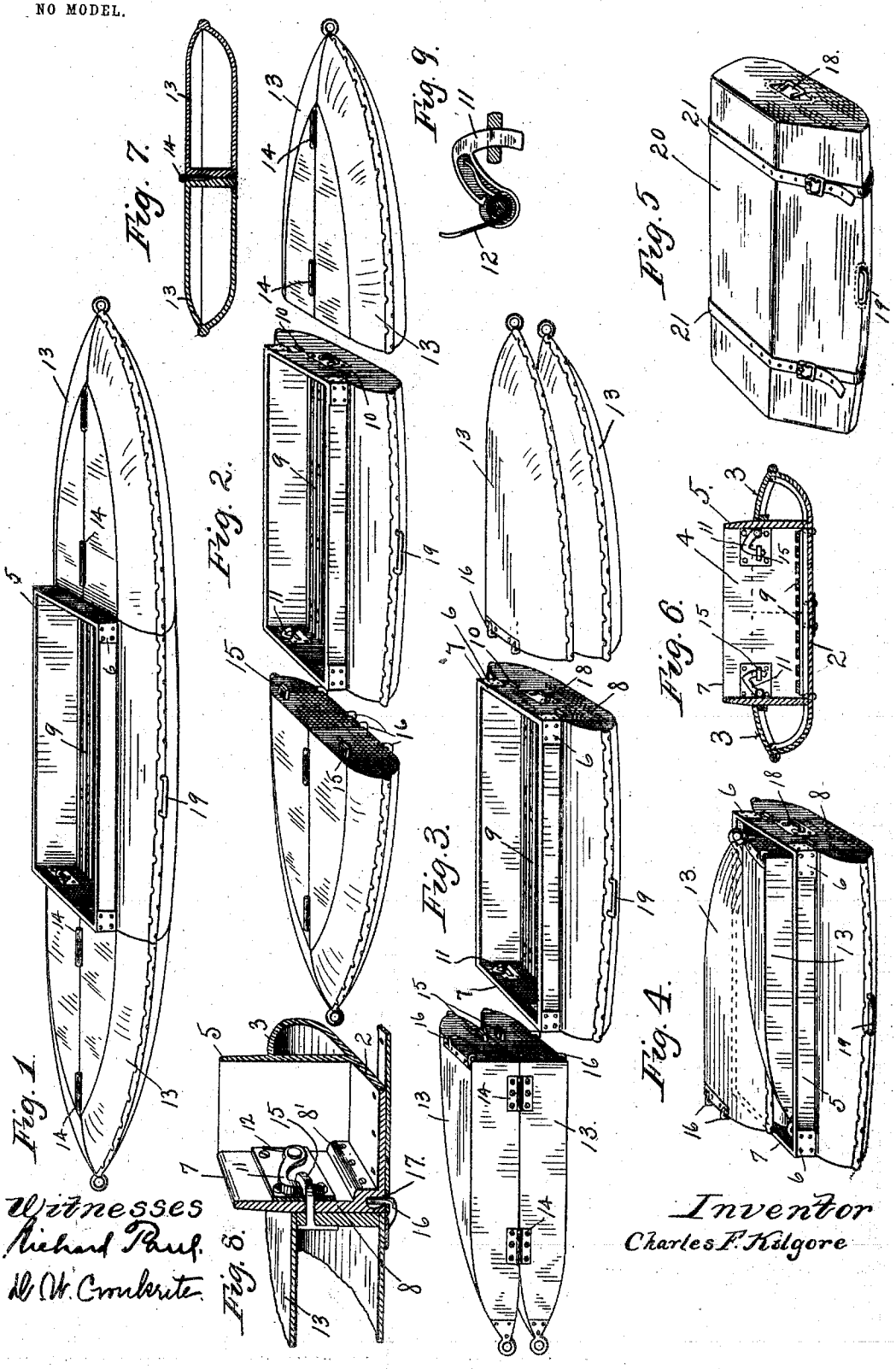
C. F. KILGORE.

FOLDING BOAT.

APPLICATION FILED FEB. 17, 1903.

NO MODEL.

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No. 764,473. Patented July 5, 1904.

# UNITED STATES PATENT OFFICE.

CHARLES FREDERICK KILGORE, OF HARTFORD, CONNECTICUT.

## FOLDING BOAT.

SPECIFICATION forming part of Letters Patent No. 764,473, dated July 5, 1904.

Application filed February 17, 1903. Serial No. 143,880. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES FREDERICK KILGORE, a citizen of the United States of America, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Folding Boats, of which the following is a specification.

The invention relates to a sectional boat.

The object is to provide a portable boat having air-chambers for increasing the buoyancy of the boat, which can be quickly separated into sections and packed into a small light package and easily transported from place to place, and hence is particularly adapted for the use of duck-hunters and other sportsmen or for prospectors, explorers, troops, or lumbermen.

Figure 1 of the accompanying drawings is a perspective view of a folding boat embodying the invention. Fig. 2 is a similar view showing the sections separated. Fig. 3 is a view showing the end sections separated and folded. Fig. 4 shows the end sections folded and packed into the middle section. Fig. 5 is a view of a case containing the boat folded and packed for transportation. Fig. 6 is a transverse section through the middle section. Fig. 7 is a transverse section through one of the end sections when unfolded. Fig. 8 shows a means for securing the middle and end sections together. Fig. 9 is a view of the lock used to secure the middle and end sections.

The boat is shown as constructed in three sections; but it may be divided into a greater number of sections, if preferred. The middle section has a bottom 2 with upwardly-turned sides that are joined water-tight with the deck 3, that extends along each side of the hold 4. Wash-boards 5 are located upon each side of the hold, with their lower edges forming tight joints with the bottom and their upper edges extending above the deck. At the ends of the middle section are bulkheads 8, which are preferably strengthened on the inside by cross-bars 8′ and are fastened to the wash-boards by angle-plates 6. By extending the wash-boards 5 to the bottom of the hold the section is strengthened and closed air-chambers are provided upon each side which increase the buoyancy of the section. At the bottom of the hold is a skeleton floor 9. In the bulkheads 8 are slots 10, and on the inside, adjacent to the slots, are hooks 11 with springs 12 on their pivots, each spring having an end fitting within a recess in the shank of the hook and an end bearing against a wash-board, so as to hold the hook in engagement with an eye 15, projecting from an end section.

The end sections of the boat correspond in size and shape, preferably each having one end pointed and the other end squared to present a flat surface to the end of the middle section. Each end section is shown as divided longitudinally into two parts 13. These parts are connected at the top by hinges 14, so one part can be folded upon the other. When the square ends of the end sections are butted against the bulkheads of the middle section, the eyes 15 extend through slots 10 and are locked by the hooks 11. These hooks, as shown in Fig. 8, are wedge-shaped, so that as they are driven into the eyes the sections of the boat will be drawn firmly together and be rigidly and securely united and held. At the inner edges of the bottoms of the end sections are a series of fingers 16, that enter sockets 17 in the bottom of the middle section and prevent the bottoms of the sections from spreading when the hooks are driven into the eyes. Each part of both end sections is a closed air-chamber that adds to the buoyancy of the boat.

To assemble the sections of the boat for use, the eyes on the end sections are thrust through the slots in the bulkheads of the middle section and thehooks are driven into the eyes, so as to draw the ends of the sections firmly together, and as broad abutting surfaces are provided between the end and middle sections the boat will be rigid and stable and capable of withstanding the hard usage and rough waters to which a hunting-boat is liable to be subjected. When the hooks are disengaged from the eyes, the end sections are free to be detached from the middle section and folded together and packed into the middle section. Handles 18 may be attached to the ends of the middle section to facilitate lifting, and a han-

dle 19 is preferably attached to one side of the middle section for convenience in carrying the package. A case 20, Fig. 5, may be placed over the middle section containing the end sections and secured thereon by straps 21 or in any other suitable way.

The sections may be made of cedar or sheet metal or they may be built of light frames and covered with canvas or other suitable material.

The invention claimed is—

1. A folding boat, comprising a middle section, longitudinally-divided end sections and means for securing the end sections to the middle section, substantially as described.

2. A folding boat, comprising a middle section having a hold, longitudinally-divided and pivotally-connected end sections, and means for detachably securing said end sections to said middle section whereby each end section is adapted to be folded and placed within said middle section, substantially as described.

3. A folding boat, comprising a middle section, end sections divided longitudinally into detachably-connected parts, each part having a closed air-chamber, and means for securing said end sections to said middle section, substantially as described.

4. A folding boat, comprising a middle section having closed air-chambers and a hold, longitudinally-divided and pivotally-connected end sections, each part of the end sections having a closed air-chamber and adapted to be folded upon the other part, substantially as described.

5. In a folding boat, the combination, with a middle section having its ends closed by bulkheads and having slots through the bulkheads and hooks pivoted to the inside of the bulkheads adjacent to said slots, of end sections having bulkheads and eyes projecting from the outside of the bulkheads and adapted to extend through said slots and receive said hooks, whereby said bulkheads are locked and the sections held together, substantially as described.

6. In a folding boat, the combination, with a middle section having its ends closed by bulkheads and having slots through the bulkheads and sockets in the bottom, of end sections having bulkheads and eyes projecting from the outside of the bulkheads and adapted to extend through said slots, fingers projecting from the bottom of said end sections and adapted to extend into said sockets and hooks on the inside of the bulkheads of the middle section and adapted to extend into said eyes, whereby the sections are secured together, substantially as specified.

7. In a folding boat, the combination, with a middle section having a hold, of end sections divided longitudinally into pivotally-connected parts that are adapted to be folded one upon the other, the hold in said middle section being of sufficient size to receive the folded end sections, and a case for said middle section, substantially as described.

8. A folding boat, comprising a middle section having a hold, wash-boards extending to the bottom of said hold and forming air-chambers each side, end sections divided longitudinally into pivotally-connected parts, each constituting an air-chamber and adapted to be folded one upon the other, means for securing said end sections to said middle section, and said end sections when folded fitting within said middle section, substantially as described.

9. A folding boat, comprising a sheet-metal middle section having air-chambers and a hold, sheet-metal end sections divided longitudinally into parts and hinged together, each part forming an air-chamber and adapted to be folded over upon the other part, means for securing said end sections to said middle section, and said end sections when folded fitting within said middle section, substantially as described.

10. A folding boat, comprising a middle section having a hold, end sections composed of pivotally-connected parts adapted to be folded and placed within the hold in said middle section, and means for securing said end sections when unfolded to said middle section, substantially as described.

11. A folding boat, comprising a middle section having a hold and provided with air-chambers, end sections composed of pivotally-connected parts, each part having an air-chamber, and each end section being adapted to be folded and placed within the hold in said middle section, and means for securing said end sections when unfolded to said middle sections, substantially as described.

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

CHARLES FREDERICK KILGORE.

Witnesses:

OLIVER T. HUNGERFORD,

JOHN S. HONEYCOMBE.