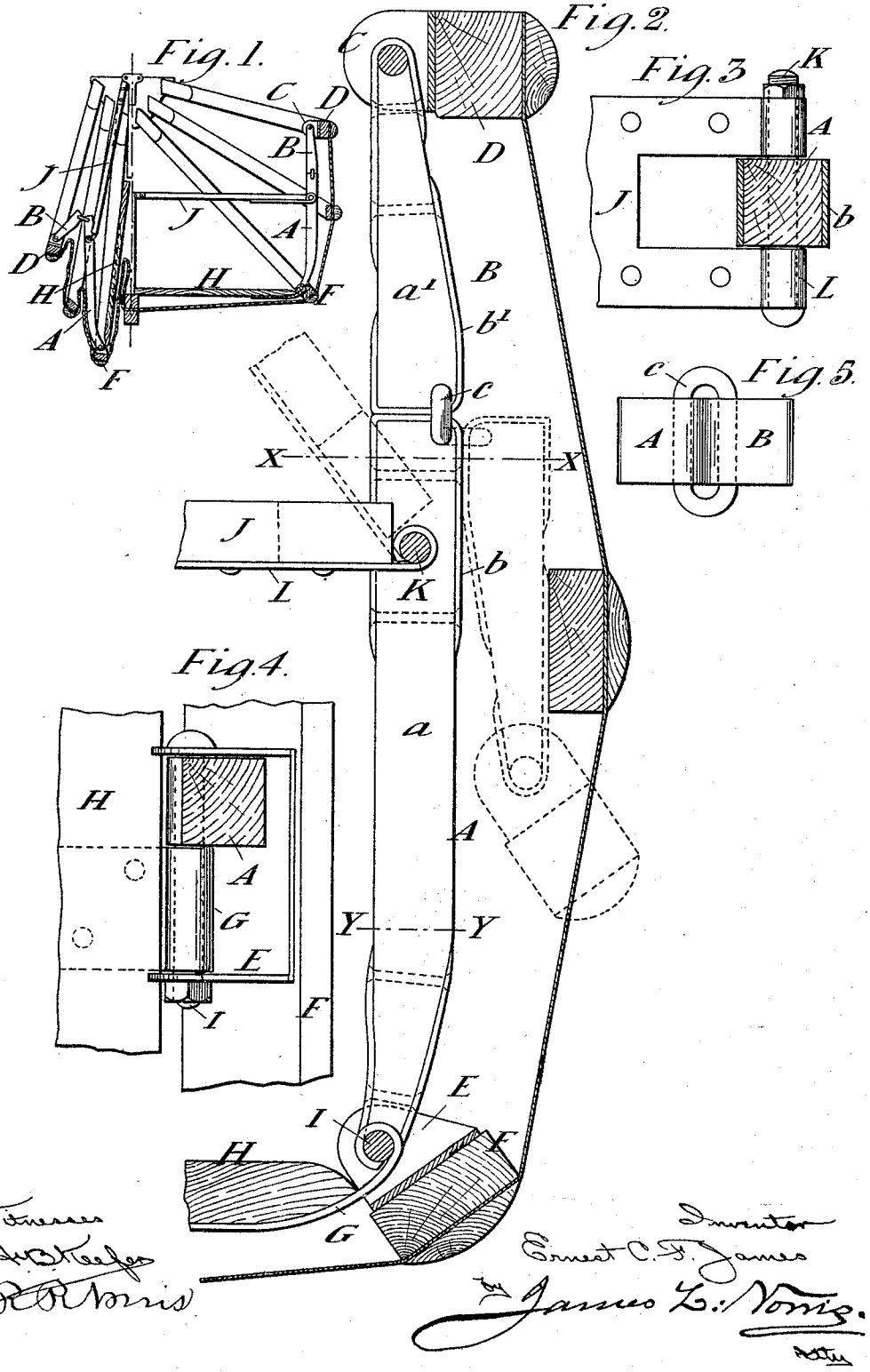
No. 638,338. Patented Dec. 5, 1899.

E. C. F. JAMES.

FOLDING BOAT.

(Application filed Sept. 25, 1899.)

(No Model.)



Witnesses
W. B. Keefer
R. R. Norris

Inventor
Ernest C. F. James
by James L. Norris.
Atty

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ERNEST CUTHBERT FECTOR JAMES, OF LONDON, ENGLAND.

FOLDING BOAT.

SPECIFICATION forming part of Letters Patent No. 638,338, dated December 5, 1899.

Application filed September 25, 1899. Serial No. 731,602. (No model.)

To all whom it may concern:

Be it known that I, ERNEST CUTHBERT FECTOR JAMES, a citizen of England, residing at Hyde Park Court, Albert Gate, London, England, have invented a certain new and useful Improvement in Folding Boats, of which the following is a specification.

My invention relates to folding boats of the construction described in the specification to my English Patents No. 599 of 1892, No. 568 of 1897, and No. 12,843 of 1898.

My present improvement relates to a construction of the jointed struts pivoted at the lower end to the bottom ribs of the boat and at the upper end to the gunwale and serving to secure the boat in the distended position. According to my present invention I construct these jointed struts as I will describe with reference to the accompanying drawings, in which—

Figure 1 shows a cross-section of a folding boat with my improved construction of jointed strut applied thereto. Fig. 2 shows an enlarged side elevation of one of the struts in the expanded position. Fig. 3 shows a cross-section at X X, Fig. 2. Fig. 4 shows a cross-section at Y Y, Fig. 2. Fig. 5 shows a plan of the joint in the folded position of the strut.

The construction of the boat is generally similar to that described in my said English patents, and the cross-section shown at Fig. 1 only serves to make clear the action of the struts, the right-hand side showing the position of the strut when the boat is distended and the left-hand side showing the position of the strut when the boat is folded. The strut is formed of two separate parts A and B, each being composed of a wooden part *a a'*, shod with steel straps *b b'*. These two parts fit upon each other with flat faces and are hinged together by the looped link *c*, which allows of the upper part B being folded down into the position shown in dotted lines at Fig. 2 and in plan at Fig. 5. The upper end of the part B is pivoted to a metal bracket C on the gunwale D, and the lower end of part A is pivoted to a bracket E on the bottom rib F. This bracket is made of sufficient width to receive the metal eye G, by means of which the floor-boards H are pivoted to the same pin I that secures the strut. To the upper part of the lower strut A is pivoted the thwart J, secured to the bolt K, passing through the strut, by the eyes of the metal straps L. These thwarts, which serve as seats, secure the struts in distended position, as shown on the right-hand side of Fig. 1 and at Fig. 2, while when the boat is folded they turn upward, as shown on the left-hand side of Fig. 1 and in dotted lines at Fig. 2.

Having now particularly described and ascertained the nature of this invention and the best means I know for carrying the same into practical effect, I claim—

In a folding boat, a strut composed of two parts A and B hinged together by a link *c*, each part of the strut consisting of a wooden body *a a'* and steel shoes *b b'*, the upper end of part B being pivoted to a bracket C on the gunwale D while the lower part A is pivoted to a bracket E on the bottom rib F, and the thwart J being pivoted to the part A of the strut by a bolt K, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ERNEST CUTHBERT FECTOR JAMES.

Witnesses:

WALTER J. SKERTEN,

JOSEPH LAKE.