(No Model.) 3 Sheets—Sheet 1.

T. W. B. MURRAY & C. J. BAKER.

Folding-Boat.

No. 228,470. Patented June 8, 1880.

Fig. 1.

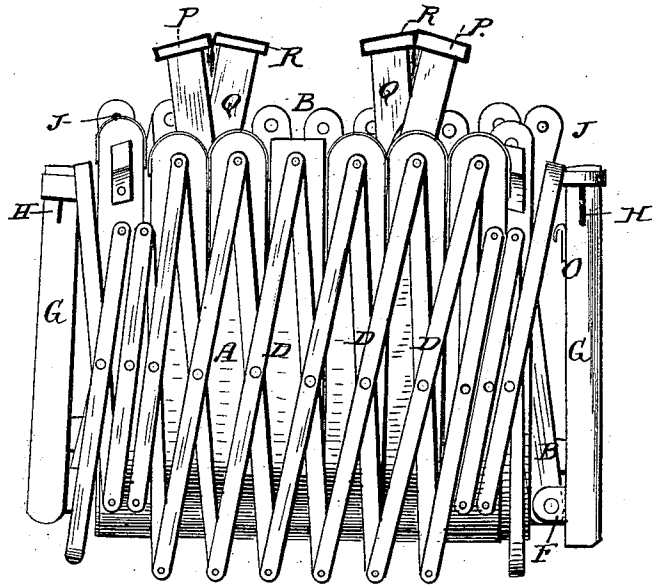


Fig. 4.

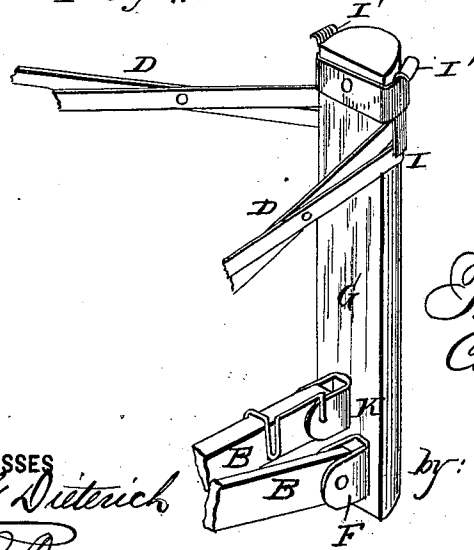
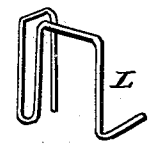


Fig. 5.



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(No Model.) 3 Sheets—Sheet 2.

T. W. B. MURRAY & C. J. BAKER.

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No. 228,470. **Patented June 8, 1880.**

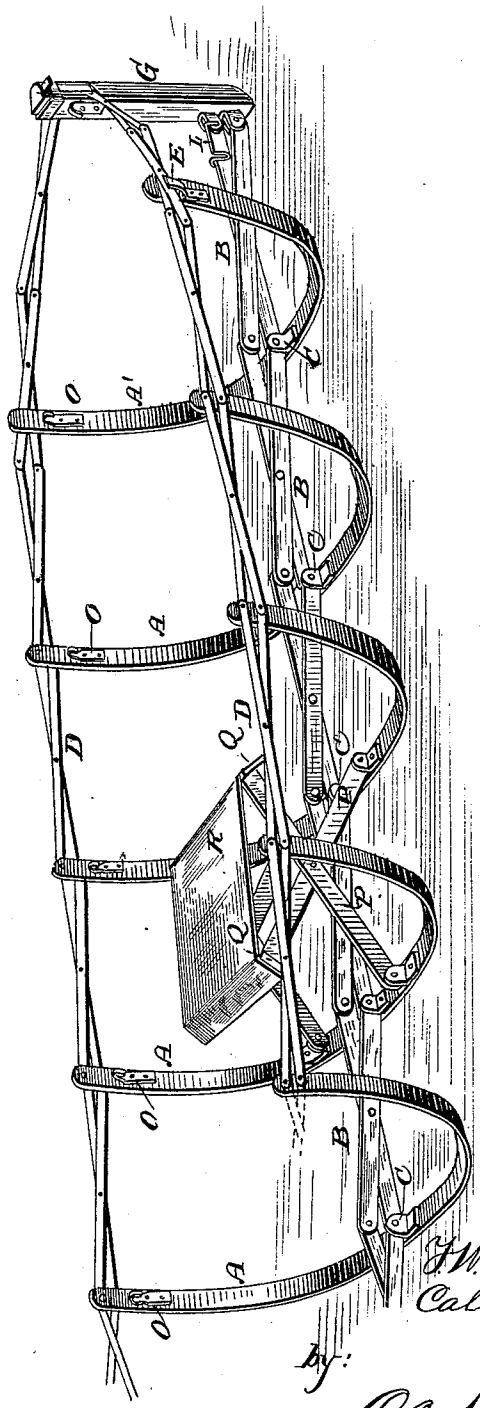


Fig. 2.

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(No Model.) 3 Sheets—Sheet 3

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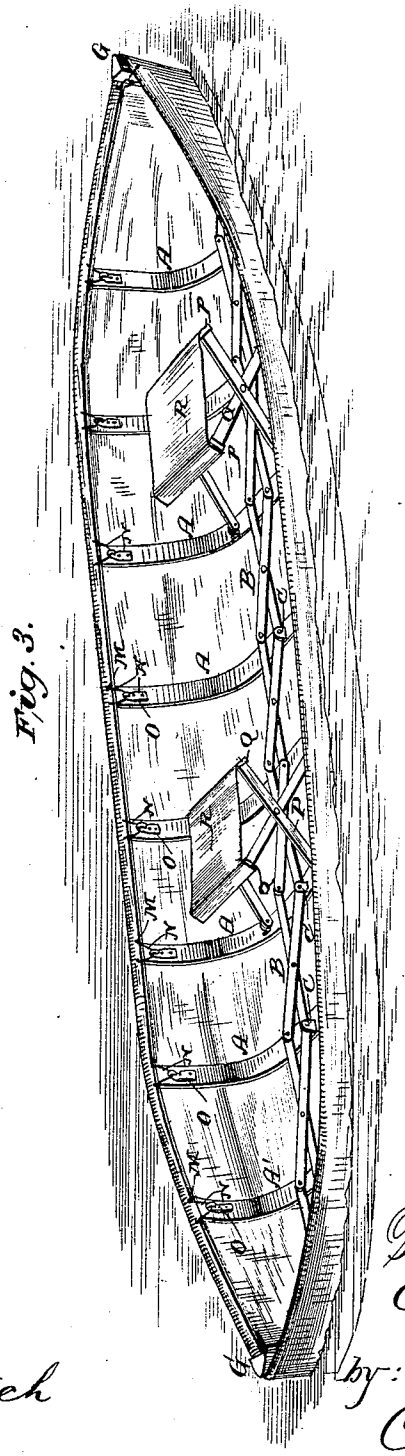


Fig. 3.

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UNITED STATES PATENT OFFICE.

THOMAS W. B. MURRAY AND CALEB J. BAKER, OF CHICAGO, ILLINOIS.

FOLDING BOAT.

SPECIFICATION forming part of Letters Patent No. 228,470, dated June 8, 1880.

Application filed March 31, 1880. (No model.)

To all whom it may concern:

Be it known that we, THOMAS W. B. MURRAY and CALEB J. BAKER, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Folding Boats; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a side view of our improved boat-frame folded. Fig. 2 is a perspective view of the same extended. Fig. 3 is a perspective view, showing the covering stretched upon the frame. Fig. 4 is a detail view of one end of the boat-frame on an enlarged scale. Fig. 5 is a detail view of the catch or fastener. Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to that class of boats which may be folded into a small space, so as to be convenient for exploring, hunting, and fishing parties, &c.; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

The frame of our improved folding boat is constructed of a series of bows, A A′, joined or connected by a set of lazy-tongs, B B, the lower joints of which are pivoted between suitable lugs C C upon the bows, as shown. The upper ends of the bows are connected by two separate sets of lazy-tongs, D D, the upper joints of which are pivoted to all of the said bows, excepting the last one at each end, which are denoted by letters A′, and which are provided with hooks E, to receive the extensions of the said lazy-tongs D. The latter, it should be stated, are to be made of light flexible material, (steel preferred,) while the lazy-tongs B must be made of rigid material, sufficiently stiff to keep the bows braced apart when the frame is extended.

The lower outer ends of the lazy-tongs B are pivoted between lugs F upon standards G, which form the ends of the boat-frame. The upper ends of the said standards are provided with recesses H H, to receive hooks I, formed at the outer ends of the sets D of lazy-tongs, the extensions of which are curved or bent, so as to enable the hooked ends to enter the recesses provided for their reception, thus forming the pointed ends of the boat-frame.

The upper ends of the outer lazy-tongs, B, which, for the purpose of enabling the frame to be freely folded, are not permanently attached, are provided with perforations J. The standards G are provided, just above the pivoting-points of the lazy-tongs B, with lugs K, between which the free ends of the said lazy-tongs may be inserted and secured by adjustable catches L, of the construction shown in Fig. 5, or by pins or keys of any suitable construction.

The shell or covering of our improved boat may be made of canvas, or of any other suitable material, sewed into such shape as to be capable of being stretched neatly and tightly upon the frame when extended. The edge of the covering is provided with openings or eyelets M, through which passes a cord, N, the ends of which may be tied together at one end of the boat.

The bows A A′ are provided, near their upper edges, with hooks O, over which the cord N may be adjusted, as shown, thus securing the covering firmly and tightly in position.

The boat is provided with one or more seats, formed by cross-pieces P P, pivoted together and to adjoining bows A, and connected by braces Q and a canvas or other flexible covering, R.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of our invention will be readily understood.

The boat is capable of being folded into a very small space, thus making it very valuable for the purposes for which it is intended. It is simple, inexpensive, easily handled, and, consisting of only two pieces—frame and cover—loss or displacement of parts is not likely to occur.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. The combination of bows A A and A′, having their centers connected by rigid lazy-tongs B, with the flexible lazy-tongs D, connecting the ends of said bows A, and adapted

to be adjusted in hooks at the ends of the said bows A′, as set forth.

2. The combination of the bows A A, rigid lazy-tongs B, flexible lazy-tongs D, and the standards G, having recesses to receive the outer hooked ends of said lazy-tongs D, as set forth.

3. The combination, in a folding boat-frame, of the bows A A′, connected by lazy-tongs with the seats formed by cross-pieces P, pivoted together and to said bows, and connected by braces Q and flexible coverings R, substantially as set forth.

4. The combination, with the boat-frame, consisting of bows A A′, connected by lazy-tongs B D and standards G, said bows being provided with hooks O, of a flexible covering fitting upon said frame when extended, and provided with eyelets or openings M, through which is drawn a cord, N, adapted to be adjusted over the hooks O, substantially as set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

THOMAS W. B. MURRAY.
CALEB J. BAKER.

Witnesses:
EDWIN F. ABBOTT,
WILLIAM S. BOND.