

A. O. Crane.
Tent, Boat and Bridge.

N^o 34,672.

Patented Mar. 18, 1862.

Fig: 1.

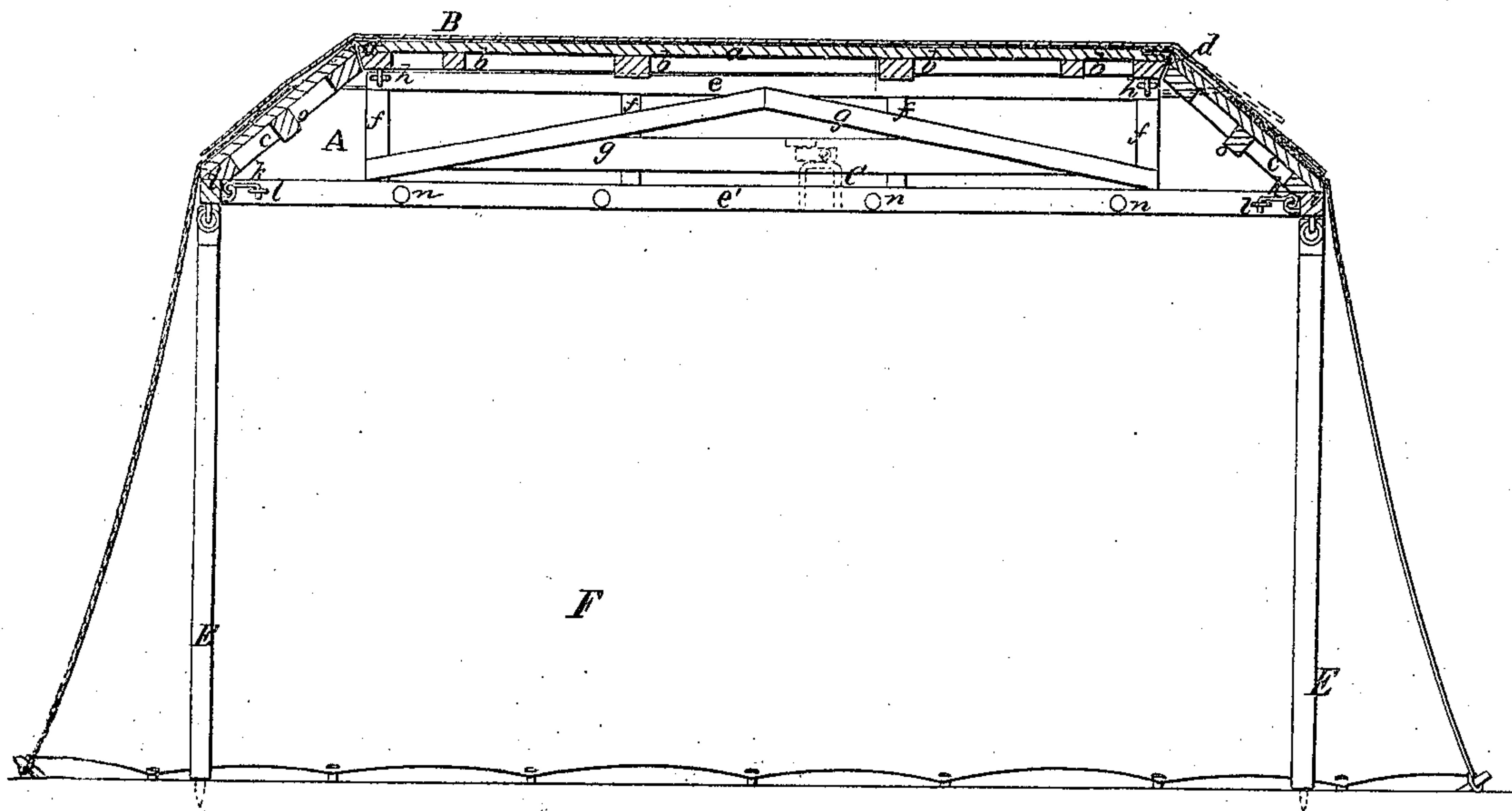


Fig: 2.

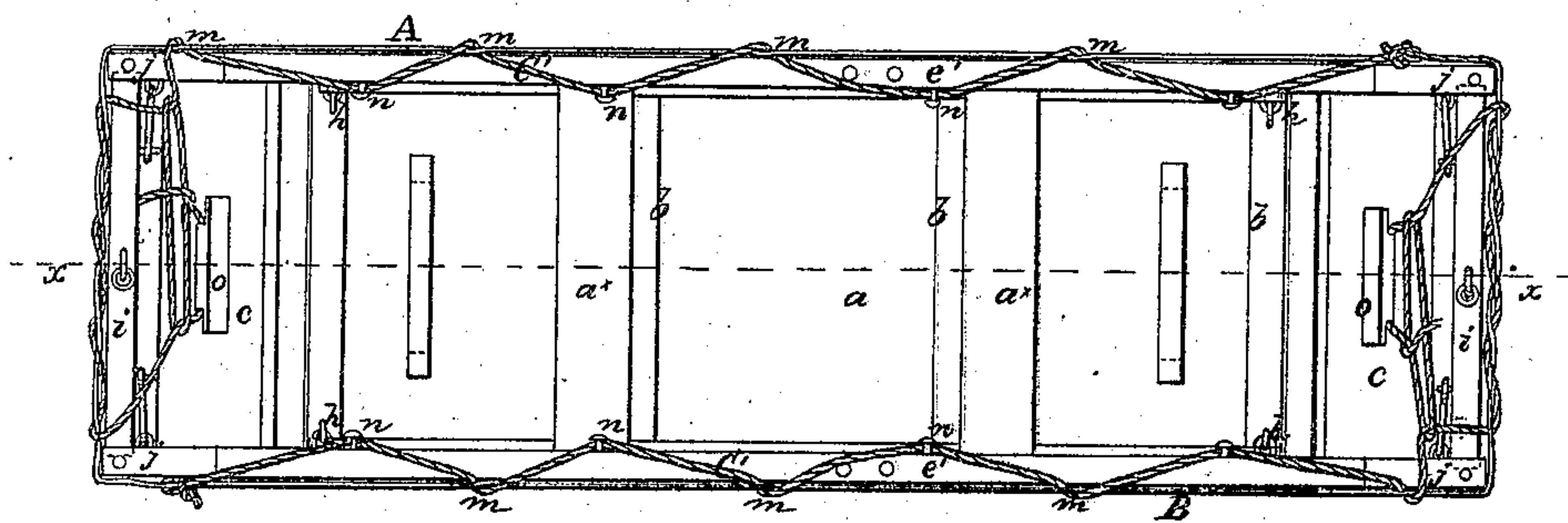


Fig: 3.

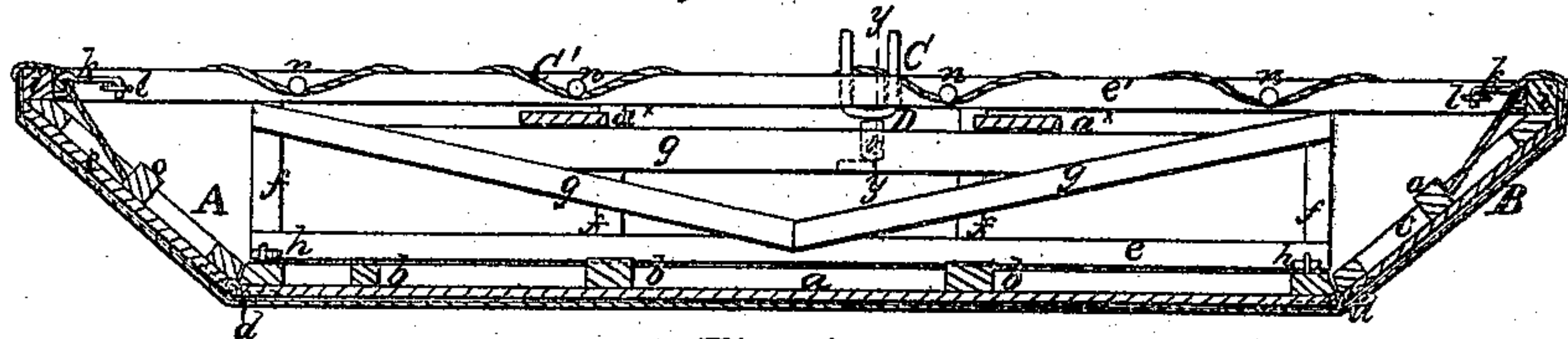


Fig: 5.

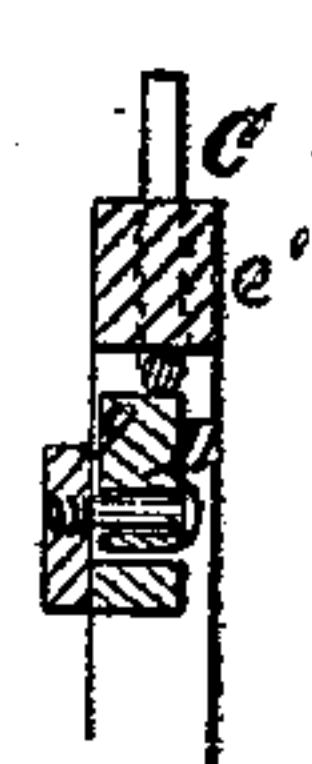
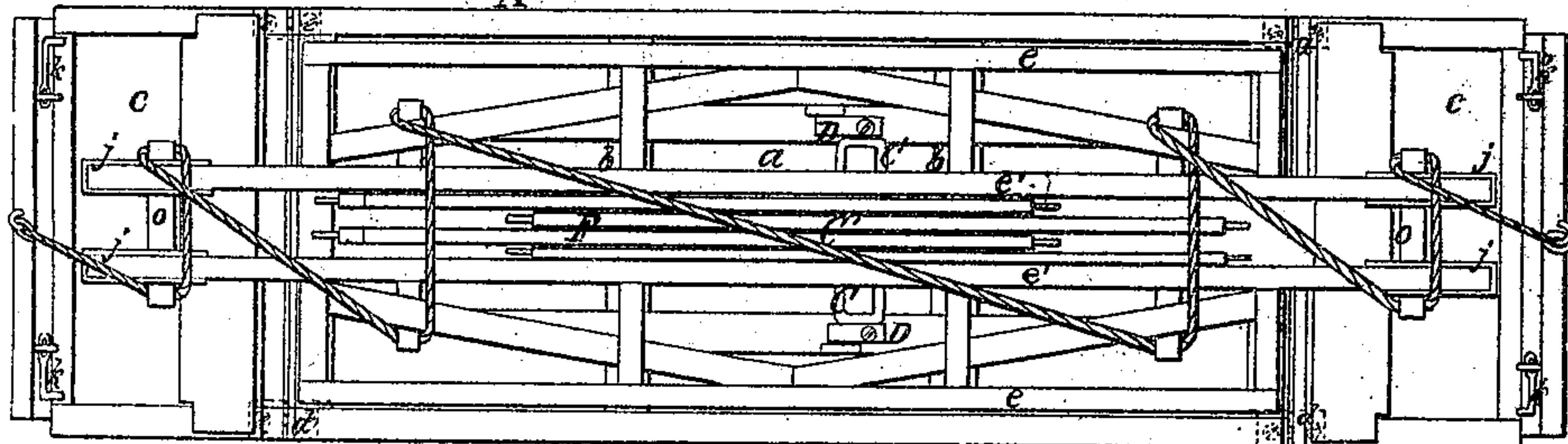


Fig: 4.



Witnesses:

*James Laid
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Inventor:

Albert O. Crane

UNITED STATES PATENT OFFICE.

ALBERT O. CRANE, OF HOBOKEN, NEW JERSEY.

IMPROVED CONVERTIBLE BOAT, BRIDGE, AND TENT.

Specification forming part of Letters Patent No. 34,672, dated March 18, 1862.

To all whom it may concern:

Be it known that I, ALBERT O. CRANE, of Hoboken, in the county of Hudson and State of New Jersey, have invented a new and useful Combination of a Tent, Boat, and Bridge; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical central section of my invention adjusted as a tent; Fig. 2, a detached plan or top view of the boat; Fig. 3, a longitudinal vertical section of Fig. 2, taken in the line *x x*; Fig. 4, a plan or top view of the boat with the several parts of the invention adjusted within or to it for transportation; Fig. 5, a section of Fig. 3, taken in the line *y y*.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to obtain a tent, boat, and bridge combined in such a manner that the device may be readily adjusted for use in any one of the capacities above mentioned and answer equally as well as if made specially for it, and at the same time be capable of being compactly adjusted together to facilitate transportation.

The invention is more especially designed for army use, in which case tents, boats, and ponton-bridges are required, and of such construction that they may be expeditiously adjusted for use, and also expeditiously folded in a compact state and be as light as possible.

To this end the invention consists in the employment or use of a folding boat constructed of wood and used in connection with canvas or other suitable water-proof fabric, all arranged as hereinafter fully shown and described.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a boat, the bottom *a* of which is constructed of boards secured to transverse strips *b*. This boat is provided with adjustable ends *c c*, which are secured at their lower parts to the ends of the bottom *a* by hinges or joints *d*, so as to be capable of being adjusted in an inclined position, as shown in Figs. 2 and 3, or spread out lengthwise in the same plane with the bottom *a*, as shown in Fig. 4.

The sides of the boat are formed of two

pieces of frame-work, composed each of two parallel bars *e e'*, connected by uprights *f* and braced by truss-bars *g*, as shown clearly in Fig. 3. These sides are connected to the bottom *a* of the boat by hinges or joints *h*, which admit of them, when required, being folded inward on the bottom *a*, as shown in Fig. 4. The lower bars *e* of the sides are just equal in length to the bottom *a* of the boat; but the upper bars *e'* are larger and project beyond the bottom *a* sufficiently far to receive the ends of cross-bars *i* at the outer ends of the end pieces *c c* and hold said end pieces in an inclined position. The ends of the bars *e'* are provided with metal sockets *j* to receive the ends of the cross-bars *i*, and hooks *k* are attached to said cross-bars, which fit in staples *l* on the bars *e'* to hold them in proper position.

In order to render the boat complete, a canvas *B* is employed, which is placed around it and secured thereto by cords *C' C'*, which pass through eyes *m* in the edge of the canvas and around pins *n* at the inner sides of the bars *e'*, the ends of said cords being secured by passing around cleats *o* at the inner sides of the end pieces *c c*, as shown clearly in Fig. 2.

The canvas *B* may be dispensed with in certain cases and close sides used instead of the framing just described, in which case the lower bars *e* should form a water-tight joint by means of rabbets or by having a packing between them and the bottom *a* of the boat, and also between the sides of the end pieces *c c* and the close sides.

The boat is provided with adjustable rowlocks *C*, which are formed each of a rod bent or curved in **U** form and fitted in the upper bars *e'* of the sides thereof. These rowlocks are fitted loosely in the bars *e'*, and when required for use are kept in an upward position to project above the bars *e'* by means of a button *D*, as shown in Figs. 3 and 5. When the rowlocks are not required for use, the buttons *D* are so adjusted or turned as to admit of them dropping down, so that their upper ends will be flush with the outer or upper edges of the bars *e'*.

E, Fig. 1, represents uprights, the ends of which are inserted in the ends of the bars *e'* of the sides of the boat when the device is used as a tent, there being an upright at each corner of the boat. The uprights *E* rest upon the ground and hold the boat *A* in an inverted

position, as shown clearly in Fig. 1, and a canvas F is attached to the sides of the boat, which serves as the sides of the tent. This canvas F may be attached to the boat in any proper manner. It may cover the bottom of the boat entirely or be so attached to it that the canvas B of the boat may lap over it and the ends of the latter be forced out from the sides of the boat to admit ventilation, as shown in red in Fig. 1. The lower end of the canvas F may be staked to the ground, as usual.

The interior of the boat when the device is used at a tent may serve as a receptacle for muskets, sabers, &c., the same being placed under the seats or thwarts a^x of the boat. Hooks also may be inserted in the sides of the boat for the purpose of hanging up articles of various kinds required in camp. A superior ponton-bridge may be formed of a series of boats, which, in case of the invention being adopted, would of course always be on hand.

The invention may be packed in a small compass for transportation by detaching the sides of the boat from its end pieces $c c$, folding the latter downward in the same plane with the bottom a , and then folding the sides inward, the uprights E, seats or thwarts a^x , oars, &c., with the canvas underneath them, being lashed on the unfolded boat by ropes b^x , as shown clearly in Fig. 4.

In order that the rowlocks C may not fall by their own gravity when the boat is inverted, a spring may be applied to them and arranged in any suitable way so as to retain them in proper position. This securing of the rowlocks may be necessary when the boat is inverted and used as a tent in order to prevent the canvas F being chafed by them.

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

1. The combination of the uprights or supports E and canvas F, with a folding boat A A' $c c$, constructed, substantially as and for the purposes explained, either with or without the canvas B.

2. The adjustable rowlocks C, fitted loosely in the bars e' and employed in connection with buttons D, pivoted to the bar g , as and for the purposes set forth.

3. Securing the end pieces $c c$ and sides A' of the boat in proper position by means of the sockets j at the ends of the sides A and the cross-bars i on the outer parts of the end pieces $c c$, in connection with the hooks and staples $k l$, substantially as shown and described.

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Witnesses:

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