

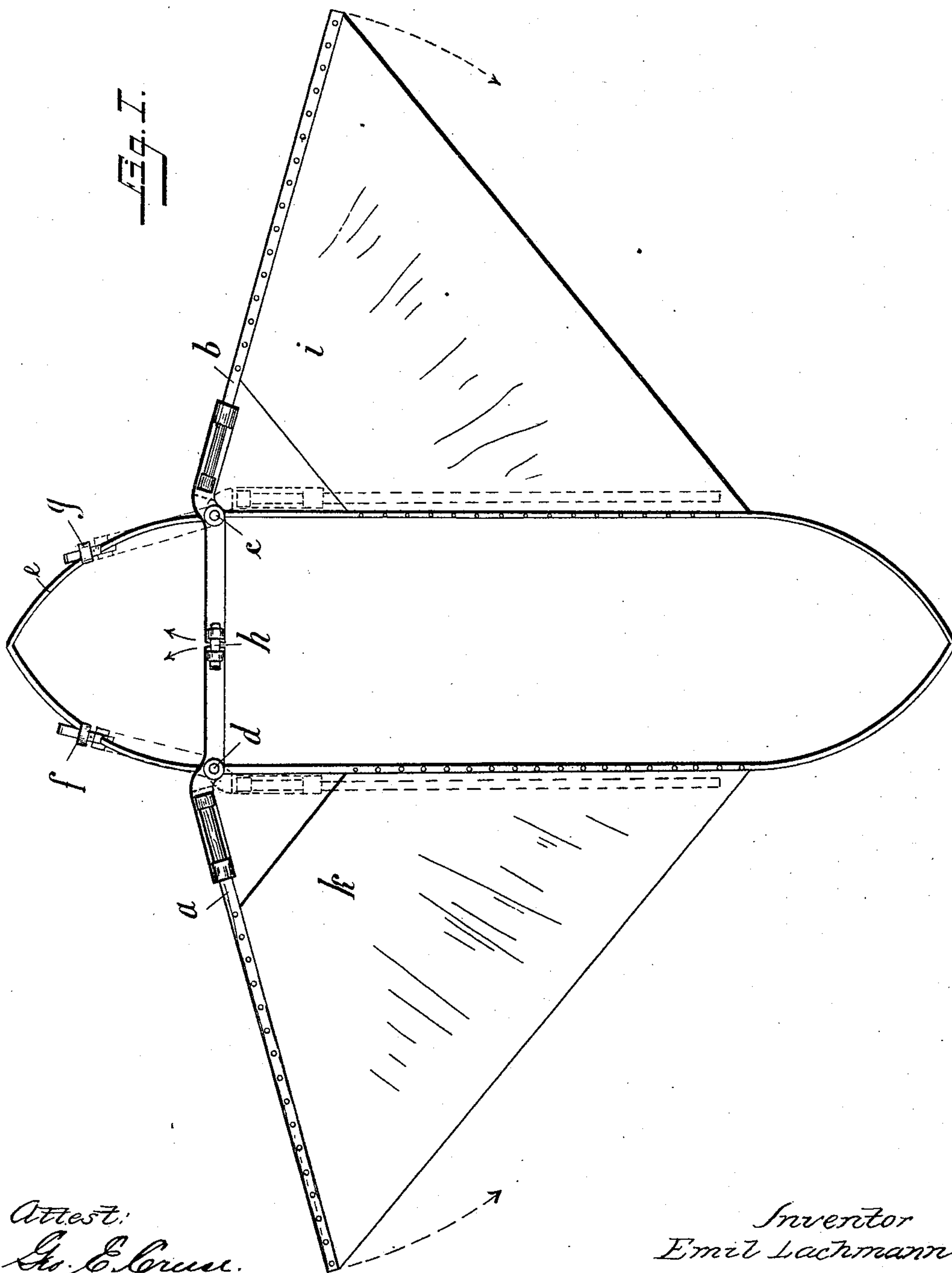
(No Model.)

2 Sheets—Sheet 1.

E. LACHMANN.
BOAT.

No. 486,381.

Patented Nov. 15, 1892.



Attest:
Geo. E. Crane.
Edward D. Knight

Inventor
Emit Lachmann
By *Knight Bros*
Attorneys.

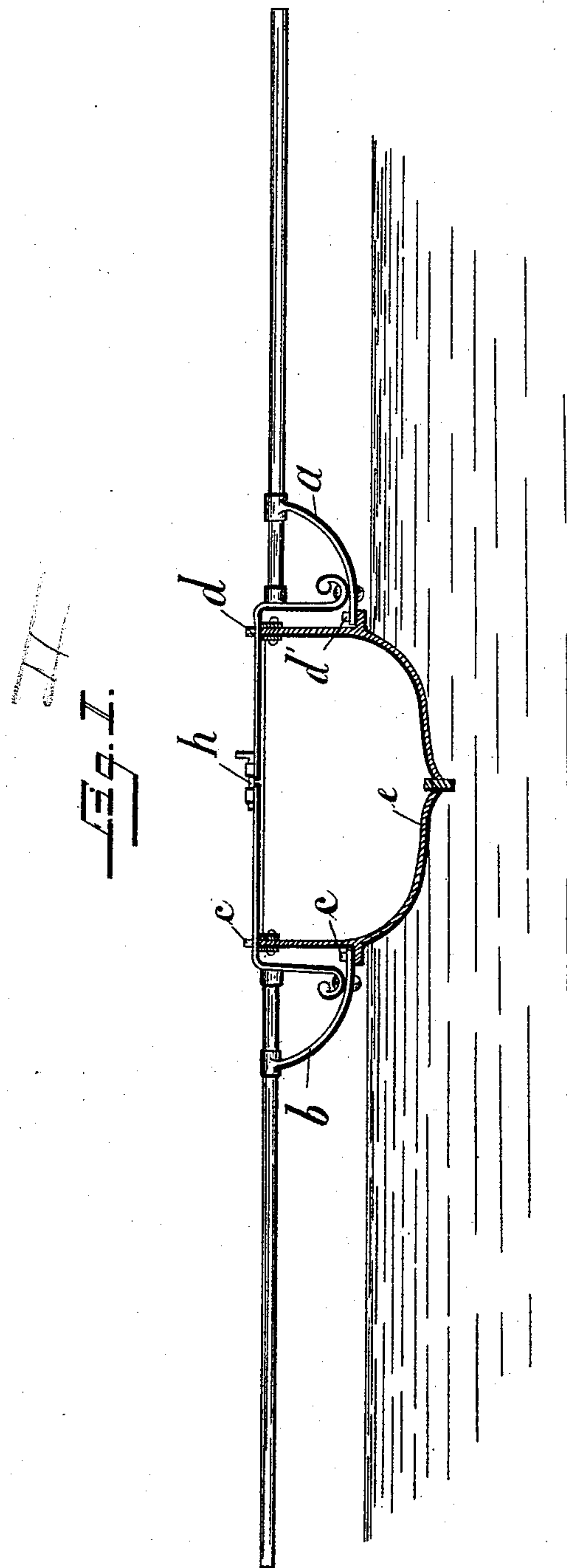
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2 Sheets—Sheet 2.

E. LACHMANN.
BOAT.

No. 486,381.

Patented Nov. 15, 1892.



Attest:
Geo. B. Cruise
Edward Hughes

Inventor:
Emil Lachmann
By Knight Bros
Attorneys.

UNITED STATES PATENT OFFICE.

EMIL LACHMANN, OF BERLIN, GERMANY.

BOAT.

SPECIFICATION forming part of Letters Patent No. 486,381, dated November 15, 1892.

Application filed May 3, 1892. Serial No. 431,688. (No model.)

To all whom it may concern:

Be it known that I, EMIL LACHMANN, manufacturer, of Berlin, in the Kingdom of Prussia and German Empire, have invented new and useful Improvements in Boats, of which the following is a specification, reference being had to the accompanying drawings.

This invention for improvements in boats has for its object to prevent boats from capsizing; and it consists, essentially, of hinged brackets and sail-cloths attached to the boat and brackets, so that by swinging the brackets on their hinges the sail-cloths are expanded to form horizontal wings normally above the water-line when in use or packed close to the sides of the boat when not in use.

In the accompanying sheet of illustrative drawings, Figure I is a plan of a boat fitted with the safety apparatus, which is shown in the position required for use; and Fig. II is a sectional front elevation of the same.

A bracket *a* or *b* is pivoted at *d d'* or *c c'* to each side of the body *e* of the boat, so that the bracket can swing on the pivots. The brackets *a* and *b* can be fastened in two positions—the position of rest, in which the two outer arms of the bracket *a* and *b* lie close to the sides of the boat, as shown in dotted lines in Fig. I, and the position for use, in which the arms are spread out. The brackets *a* and *b* are secured in the position of rest by passing pins through holes in the ends of the inner arms *a' b'* of the brackets and holes in brackets *f g*, fixed on the boat, the location of brackets *f g* and length of arms *a' b'* being such that the perforated ends of the latter pass in front of the former when the brackets are folded alongside the boat. They are secured in the position of use by a pin *h*, passing through the holes in the perforated ends of the inner arms *a b* of the brackets, which arms

meet when brought to a position athwart the boat. Sail-cloths *i* and *k* are secured to the boat and to the outer arms of the brackets *a* and *b*. When these arms are spread out, as shown, the sail-cloths *i* and *k* are tightened and the apparatus is ready for use. In the position of rest the sails are strapped close to the sides of the boat *e*. The sail-cloth does not lie upon the surface of the water and does not, therefore, hinder the course of the boat. It only strikes the surface of the water in case of rolling, and in consequence of the great resistance which the water offers prevents the upsetting of the boat.

What I claim, and desire to secure by Letters Patent, is—

1. The attachment for preventing boats from capsizing, consisting of the brackets hinged to the boat and sail-cloths attached to the boat and to the brackets, whereby when the brackets are swung out the sail-cloth is expanded to form wings and when the brackets are swung in the cloth is folded to the sides of the boat, substantially as described.

2. The combination, with a boat, of the pair of brackets hinged to swing in a horizontal plane at the sides of the boat and the horizontal wings secured to the brackets normally above the water and the inner arms of the wings for controlling them adapted to interlock across the boat when the wings are spread and having means for locking them alongside the boat when the wings are folded, substantially as and for the purpose set forth.

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

EMIL LACHMANN.

Witnesses:

PAUL FISCHER,
PAUL BRINKMANN.