(No Model.) 2 Sheets—Sheet 1.

J. H. MANSFIELD.

DETACHABLE COVER FOR BOATS.

No. 277,146. Patented May 8, 1883.

Fig 1.

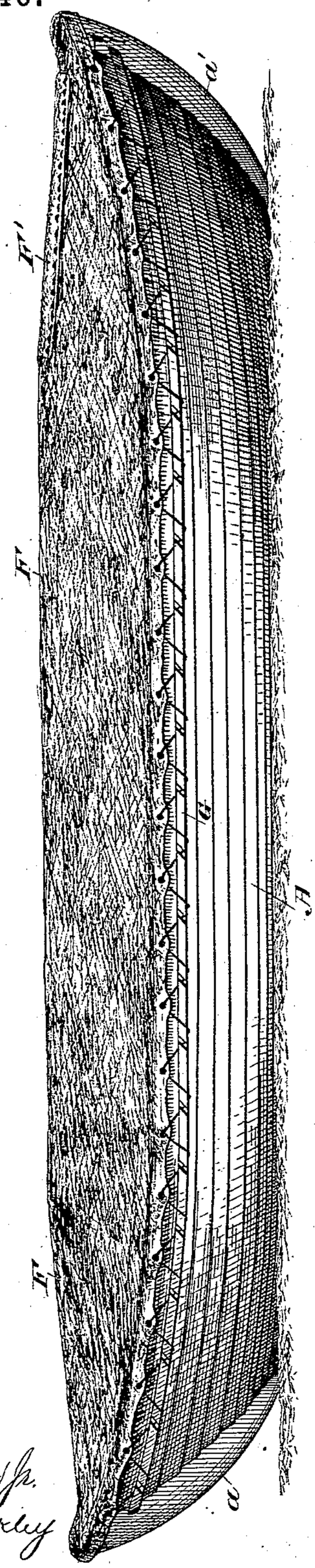
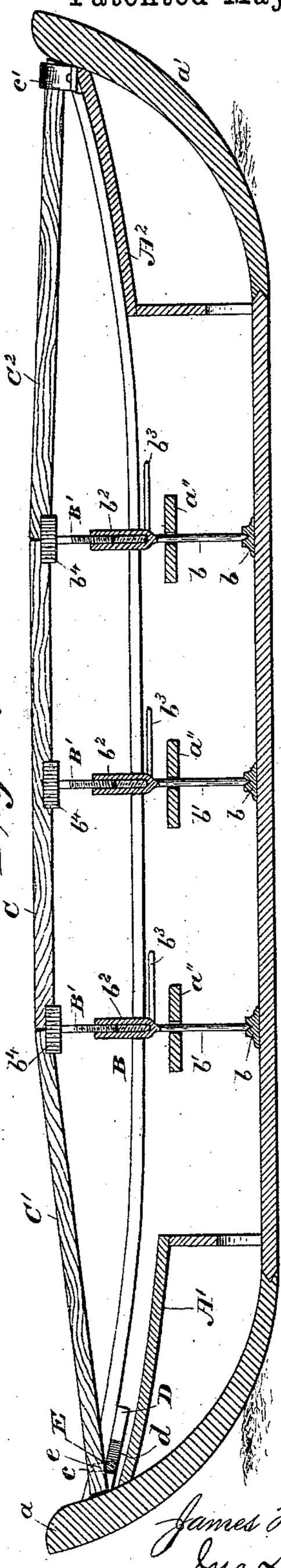


Fig 2.



Attest.

Geo. T. Smallwood Jr.

Chas C. Burkley

Inventor:

James H. Mansfield.

By Jno. L. Couldrey atty.

(No Model.) 2 Sheets—Sheet 2.

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Fig 3.

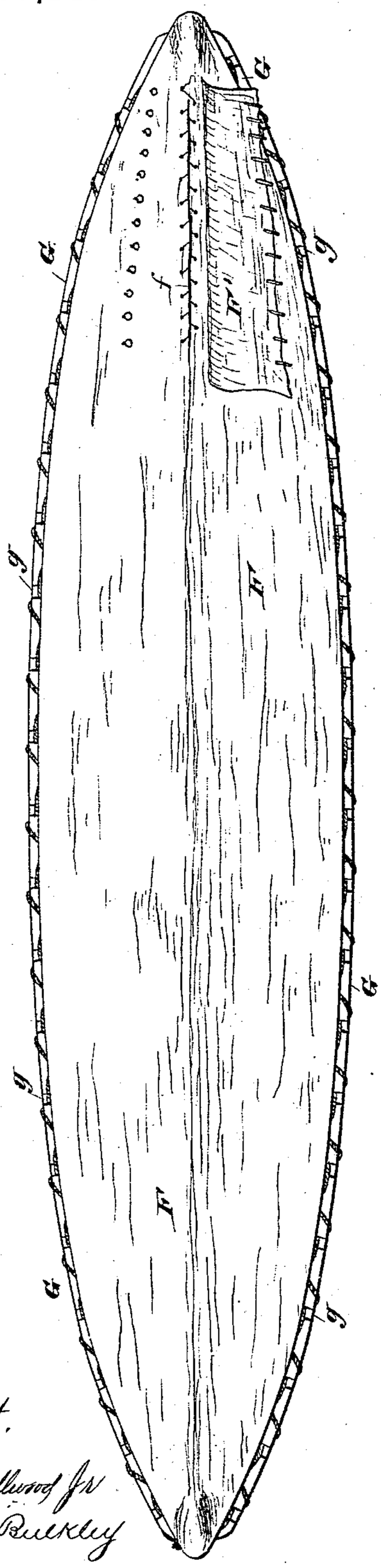

Fig 4.

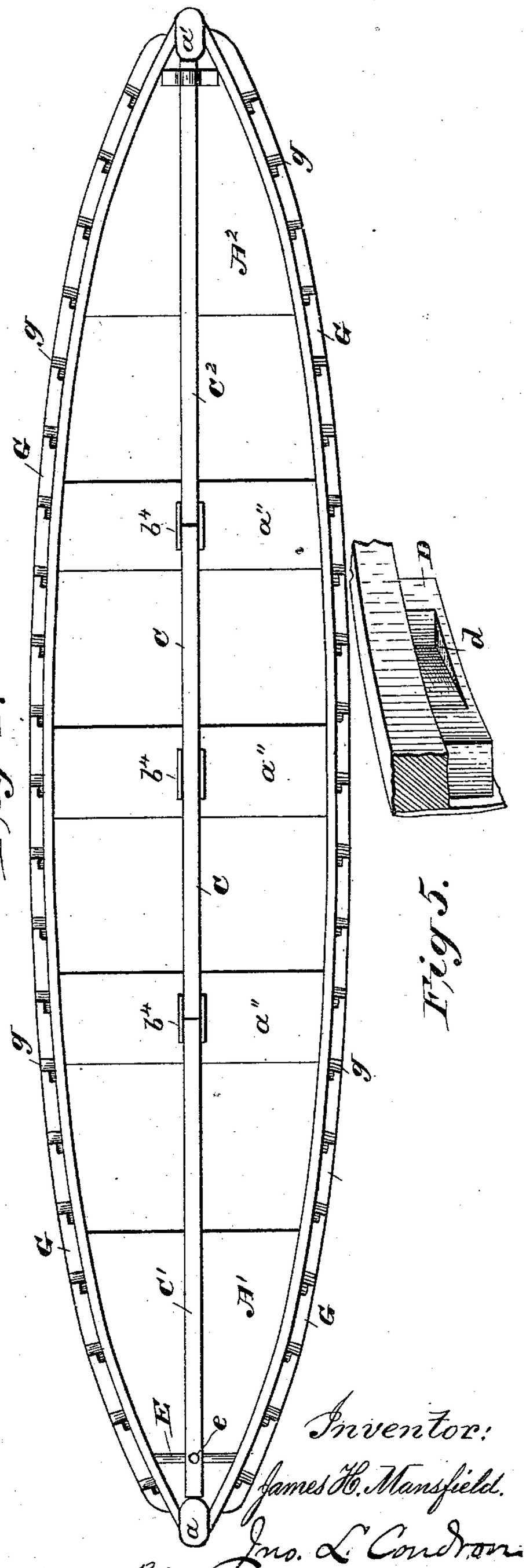

Fig 5.

Attest.
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Inventor:
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UNITED STATES PATENT OFFICE.

JAMES H. MANSFIELD, OF GLOUCESTER, MASSACHUSETTS.

DETACHABLE COVER FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 277,146, dated May 8, 1883.

Application filed February 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. MANSFIELD, a citizen of the United States, residing at Gloucester, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Covers for Open Boats, of which the following is a specification.

My invention relates to a structure for protecting open boats against the damage resulting from the entrance of quantities of water into the interior of the boat, either in the form of rain or of spray.

While my invention is applicable to open boats of all kinds—such as pleasure-boats, yawls, and even steam-launches, &c.—it is particularly applicable to the seine-boats used in the ocean fisheries. These seine-boats measure about thirty-five feet in length, seven and one-half feet in width, and three feet in depth, and, owing to their size, cannot ordinarily be transported from point to point otherwise than by towing. In thus transporting these boats, particularly during stormy and rough weather, they, being open, ship large quantities of water, either in the form of rain or spray, and thus rapidly decay, and not unfrequently are lost by foundering. The necessity of a protecting structure for these boats has long been felt; but none have yet been devised, so far as I am aware, which combine in their construction the strength necessary to resist the destructive action of the weather—as, for instance, fierce gales of wind, heavy rain, and snow-storms, &c.—the rough handling to which they are necessarily subjected, and, finally, which constitute no obstruction to the use of the boat and to the carriage of its full cargo.

The object of my present invention is the production of a protecting structure which shall combine all of the advantages required by the above-stated essentials, and which shall be at the same time light and portable.

To the above ends my invention consists in the provision and arrangement of certain devices forming the supporting-frame and protecting-cover hereinafter described and claimed.

In order that my invention may be fully understood, I will describe it with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of an ocean seine-boat with its cover applied as in use. Fig. 2 is a vertical longitudinal section of said boat with its cover removed, showing the supporting-frame for the cover, the line of section passing through the keel of the boat. Fig. 3 is a top view of the boat with its cover applied. Fig. 4 is a similar view of the boat with its cover removed. Fig. 5 is a detailed view of a portion of the side of the boat, showing the arrangement of one of the bow-cleats.

In the said drawings, A designates the hull of the boat, *a* its stem, and *a'* its stern-post. The ocean seine-boat is provided at its forward end with a short bow-deck, A', built about twelve inches below the gunwale, and at its after end with a short stern-deck, A^2, built flush with the gunwale. A number of seats, a^2, are also provided, (three being shown,) extending athwart the boat and secured in position in customary manner.

Upon the floor of the boat, in line above its keel and beneath the seats, I securely place a number of iron socket-plates, *b*, (three such plates being shown.) Resting removably at their lower ends in these sockets *b*, and extending each perpendicularly upward through an opening cut in each of the seats a^2, in line above the socket-plate, are a number of supports, (three being shown,) upon the upper ends of which rests a ridge, as shown in Fig. 2. Each of the upright supports is composed of two sections—a lower section, B, and an upper section, B'. Each of the lower sections, B, is formed of a lower solid iron portion, *b'*, resting at its lower end in the socket *b*, and passing upward through a hole cut in the seat a^2. Welded to the upper extremity of the solid portion *b'* is a tubular iron portion, b^2, extending vertically upward, and formed with an internal screw-thread, as shown.

Attached to each of the lower sections, B, is a horizontal hand-bar, b^3, for turning said section in its socket *b*, for a purpose hereinafter described. The upper sections, B', consist each of a solid bar provided with an external screw-thread, so as to be inserted into the portion b^2 and screwed firmly therein, the external thread of the section B' working into the internal thread of the portion b^2. The upper end of each of the sections B' is provided with a socket-plate, b^4, formed upon or secured to the upper end of said section. Each of these socket-plates b^4 is formed with sides about two inches high, and separated interiorly by a space about two

inches wide, the said sockets being each about six inches long. Within these sockets b^4 is placed the ridge-pole C, said pole extending in a horizontal direction longitudinally of the boat, and very little, if at all, above the level of the stem and stern-post. The ridge C is formed of a stick of timber cut to fit the sockets b^4. The forward end of the ridge C is braced by a piece of timber, C′, the after end of which rests in the forward socket, b^4, with and abutting against the forward end of the ridge C. Said portion of the brace C′ may be secured within the socket b^4 by a pin passing horizontally through the sides of the socket, and also through the end of the brace.

Secured to each side of the boat at the bow, just below the gunwale, and on the inner wall of the side, is a cleat, D, (there being thus two such cleats, one on each side,) each of which is provided on its side with an oblique cut or recess, *d*, to receive one end of an iron bar, E, about one foot long, said bar being provided on its upper side with an upwardly-extending projection, *e*, as shown. The brace C′ is provided with a hole, *c*, cut vertically through its forward end, into which the projection *e* passes. Thus the forward brace is secured in position. The after brace, C^2, is placed at its forward end in the after socket, b^4, and its position and manner of attachment correspond to the after end of the forward brace. The after end of the brace C^2 rests upon the stern-deck, and lies beneath an iron strap, *c*′, formed in an inverted-U shape, as shown, said strap being secured firmly to the stern-deck.

The cover F is made of canvas or other water-proof material, and is cut so as to fit the shape of the boat. At the after end of the cover is made a cut or opening, *f*, about eight feet long. The edges of this cut are laced together by a lacing-line passing alternately through eyes pierced through the cover parallel with the edges of the cut, or by other suitable means. The cut *f* is closed by an apron, F′, secured to the body of the cover by sewing the edge of the apron parallel with the cut to the body of the cover. The free edge of the cover is provided with a series of snap-hooks, which clasp a corresponding series of rings secured to the body of the cover parallel with the cut, or other suitable means of fastening may be employed, such as eyes and lacing. The edges of the cover F are secured to the sides of the boat in the following manner: A long cleat or rail, G, is secured outside the boat, four or five inches below the gunwale, extending from stem to stern on each side of the boat. The outer side of this cleat may be rounded, while its side next to the boat is of course flat. At distances of about one foot apart a series of holes, *g*, are cut vertically through the cleat G. The cover is roped to the cleat, like the bonnet to the foot of a sail. Beginning at the bow, the first latchet passes through the first hole in the cleat, the second latchet is then passed through the second hole and also through the first latchet, and so on toward the stern. The edge of the cover may also be secured to the cleat in the following way: the latchings may be looped and passed down through the holes *g*, and a long line passed through the loops beneath the rail or cleat. By this arrangement the cover is cast loose by hauling on the long line from the stern. This same result may be accomplished by other forms of lashing.

I do not confine myself to the precise form of screw-joint for the perpendicular supports above described. The upper section may be made to turn, instead of the lower section, and the sockets b^4 may be secured permanently to the ridge and have attachments to receive the upper end of the supports, and in the latter event the supports may be made in one piece, with the screw-joint at their upper ends. Neither do I confine myself exclusively to the devices shown for securing the fore and aft braces at their ends either to the ridge or to the decks. In lieu of the device shown for securing the forward brace to the bow-deck, a cleat secured to the bow-deck and extending from side to side of the boat, together with a projection on the under side of the brace, may be used, the end of the brace resting against the after side of the stem and the projection against the forward side of the cleat, thus clamping the brace. A pin passed vertically through the after end of the after brace and thence into the deck to secure the after brace may be used in lieu of the device shown.

The manner of using the structure is as follows: The frame having been set up and braced, as above described, and the cover having been placed over the frame and lashed to the rail or cleat G, as stated, an attendant passes in under the cover through the opening *f*, and by means of the hand-bars *b*′ turns the lower sections, B, in such manner as to lengthen the supports and thus strain the cover, which renders it proof against the force of the wind. Having done this, the attendant passes out through the opening *f*, laces it together, and secures the apron over the cut. All is now ready for use. When the boat is to be uncovered the apron is thrown back, the opening *f* is unlaced, the supports are lowered by the hand-bars *b*′, the lashings are cast off from the cleat G, the fore and aft braces are unshipped, also the ridge, the supports are removed and disjointed, and the cover, braces, ridge, and supports are stowed away to be rigged up again when used.

Two men can manage the rigging and dismantling of my improved cover almost as quickly as the operation is described.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In a combined cover and supporting-frame therefor for boats, &c., the combination, with an exterior lashing-rail secured to the sides of the boat, and a supporting-frame for the cover, consisting of a series of extensible supports resting removably upon the floor of the boat,

a ridge resting upon the said supports, and fore and aft braces for said frame, secured at their outer ends to the end sections of the boat, of a cover resting upon said frame and secured at its edges to the said lashing-rail.

2. The extensible supports, consisting each of two sections united by a screw-joint, the lower sections being each removably attached to the floor of the boat, and the upper sections being each removably attached to a ridge extending longitudinally of the boat and secured removably thereto.

3. The combination of the lower support-sections, B, and the upper support-sections, B′, the sockets b^4, the ridge C, the forward brace, C′, with its attachments D E, and the after brace, C^2, with its attachment c', substantially as and for the purposes set forth.

4. The cover F, secured at its edges to the sides of the boat and resting upon a suitable supporting-frame removably secured to the said boat, said cover being provided with the aperture *f* and with the apron F′, secured to said cover in such manner as to overlie the said aperture.

5. The boat A, provided with the rail G, the cleats D, the strap c', and the socket-plates *b*, in combination with the supports B B′, the sockets b^4, the ridge C, the forward brace, C′, the after brace, C^2, and the cover F, having the opening *f* and apron F′, and provided with attachments for securing it to the rail G, substantially as set forth.

6. The combination, with the support-section B, provided with the hand-bar b^3, and removably secured to the floor of the boat, of the support-section B′, removably secured to a ridge extending longitudinally of the boat, and secured removably thereto, said sections B B′ being united extensibly at their contiguous ends by a screw-joint.

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

JAMES H. MANSFIELD.

Witnesses:
CHARLES A. HODGKINS,
ALFRED M. BROOKS.