(No Model.)

C. J. HENDRY.

LIFE RAFT.

No. 343,028. Patented June 1, 1886.

Fig. 1.

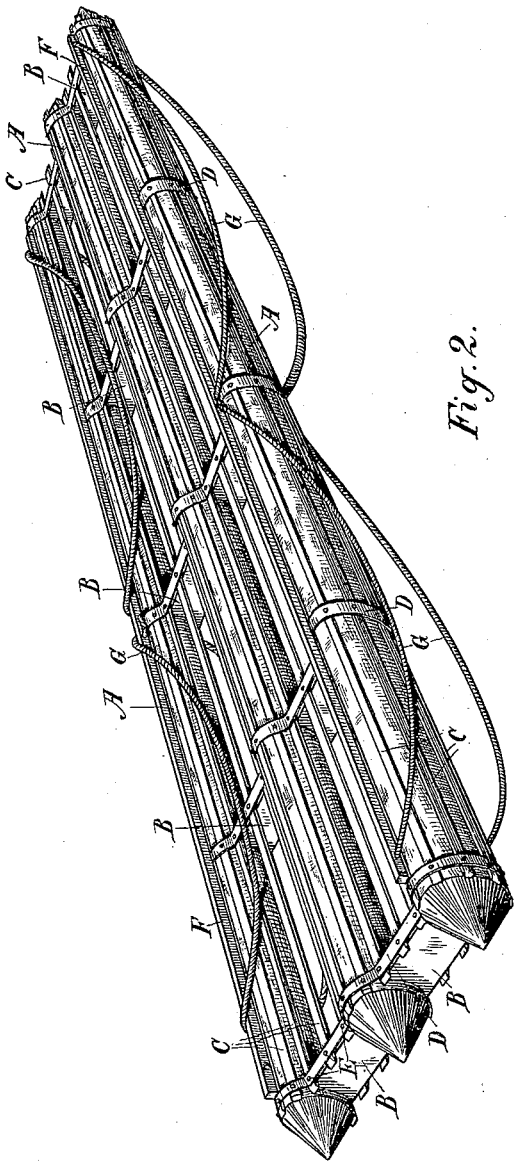
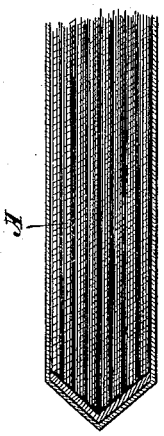


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES J. HENDRY, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO THE LEDUC TULE IMPROVEMENT COMPANY, OF SAME PLACE.

LIFE-RAFT.

SPECIFICATION forming part of Letters Patent No. 343,028, dated June 1, 1886.

Application filed September 19, 1885. Serial No. 177,629. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. HENDRY, of the city and county of San Francisco, State of California, have invented an Improvement in Life-Rafts; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in that class of apparatus known as "life-rafts;" and it consists in the construction and combination of devices hereinafter described and claimed.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a view of a raft constructed according to my invention. Fig. 2 is a longitudinal section of one of the cylinders.

In the construction of life rafts it is customary to unite two or more hollow air-tight cylinders by a frame work, which maintains them in a plane side by side; but these often become perforated, broken, and useless in time of need.

In my invention I take the round pithy stock of the reed known as the "tule," which is extremely light and buoyant, and from its cellular structure does not became water soaked and heavy, and bind or unite them together in cylindrical masses A, of sufficient diameter, (which may be from three to eight or ten inches,) the cylinders being made from five to thirty feet in length. The reeds, after being firmly bound into the cylindrical shape, are then covered with an exterior flexible coating of any suitable or desirable material. I have found that canvas stitched tightly around the cylinders and afterward painted with some water-proof paint is very suitable for the purpose. After these cylinders A have been formed I take three or more of them and unite them side by side in parallel lines by a rigid unyielding frame-work, B. Over this frame-work, and around the cylinders, may be placed longitudinal strips of wood, C, which are secured by straps D, passing over and around the whole and secured with bolts or rivets E, so as to unite the whole firmly together. Upon the top and bottom of the outer cylinders are fixed larger wooden strips, F, having holes made through them for the attachment of life-lines G, as shown, so that whichever side up the raft may fall in the water these lines will be in readiness to be seized by any person coming near the raft. The ends of the cylinders may be either cut straight off or they may be made conical, as shown in the drawings. In either case it will be desirable to protect these ends by a metallic cap of the same shape as the end, which may be applied before the canvas is put on, and will thus protect them from injury from rough usage. By this construction I am enabled to produce a raft having a great buoyancy and extreme lightness, the weight of a raft of twenty feet in length not exceeding two hundred and seventy-five pounds, and being easily handled by two men.

I am aware a life-preserver has been formed of tule-reeds bound together to form cylinders and surrounded by a flexible covering; also, that cylinders of various kinds have been provided with a covering of braided rattan, and that longitudinal strips have also been employed to inclose said cylinders. These features I therefore do not broadly claim as my invention.

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

In a life-raft, the cylinders formed of tule-reeds bound together and a flexible covering surrounding said cylinders, in combination with the metallic end pieces fitted to the cylinders, the longitudinal strips secured to the cylinders and to an intermediate frame, whereby the two are rigidly secured, and the transverse straps surrounding and riveted to the cylinders and frame, substantially as herein described.

In witness whereof I have hereunto set my hand.

CHARLES J. HENDRY.

Witnesses:
ISAAC MOORE,
THOMAS S. BARTON.