(Model.)

T. O. OLIVER.

Life Preserving Mattress.

No. 237,693. **Patented Feb. 15, 1881.**

Fig. 1

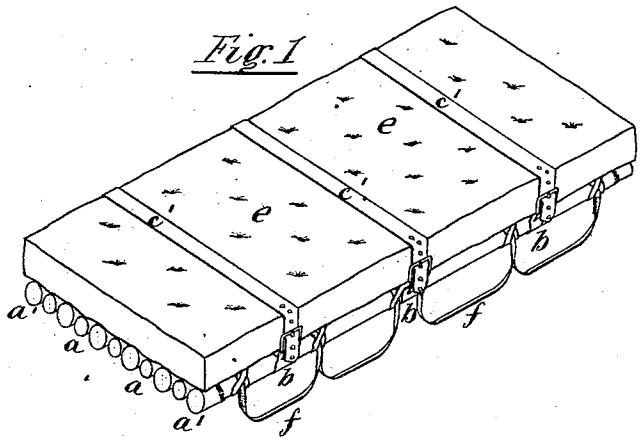


Fig. 2

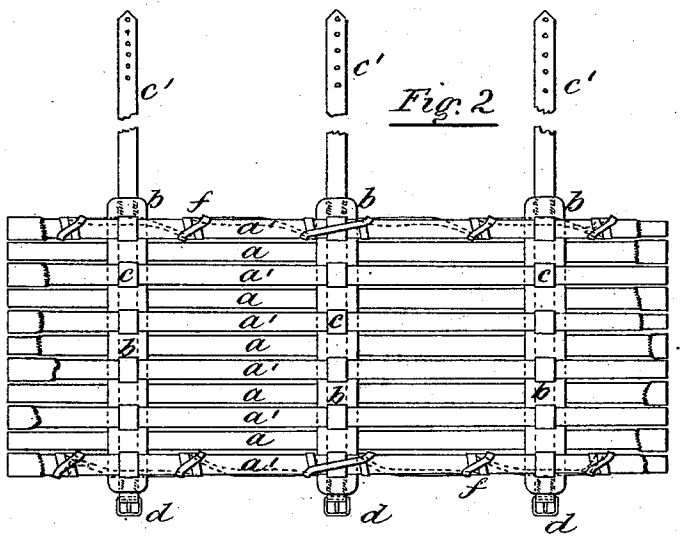


Fig. 3

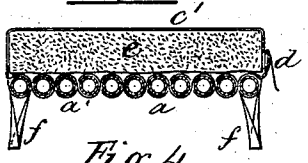
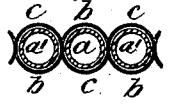


Fig. 4



Witnesses.

James H. Tow.

Sam'l. V. Billing

Inventor.

Thos. O. Oliver

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS O. OLIVER, OF NEW YORK, N. Y.

LIFE-PRESERVING MATTRESS.

SPECIFICATION forming part of Letters Patent No. 237,693, dated February 15, 1881.

Application filed January 10, 1881. (Model.)

To all whom it may concern:

Be it known that I, THOMAS O. OLIVER, of New York, county and State of New York, have invented certain new and useful Improvements in Life-Saving Appliances, of which the following is a specification.

The life-saving appliance forming the subject of this invention consists, primarily, of the combination of bamboo canes, or other suitable hollow vegetable tubes, divided into air-tight compartments, and a mattress, said tubes being used in substitution for the slats of the sleeping-berths of vessels on which the mattress rests, the mattress and the bamboo slats being connected together, to be used as a life-saving raft in case of accident. The bamboo canes are prepared for this purpose by cutting them into lengths equal to the length of the mattress, and plugging and cementing such of their ends as cannot be formed by the natural joints of the canes, thus making hollow air-tight slats, which are arranged side by side, and connected together, by means of suitable bands or belts, in such a manner as to be readily folded for transportation, &c. When the slats are unfolded for use as a sleeping-berth they are firmly secured to the mattress so as to form a part thereof, thereby providing a perfect life-saving raft, always at hand to be thrown overboard in emergencies, with sufficient buoyancy to support any one person clear of the water, or to prevent from drowning a number of persons who may take hold of looped straps secured to the outside bamboos for this purpose, all of which will be fully understood by referring to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of a mattress secured to the bamboo slats. Fig. 2 is a plan view of the bamboo slats, showing the mattress removed therefrom. Fig. 3 is a transverse sectional view of the device; and Fig. 4 is an enlarged transverse sectional view of a portion of the slats, to more clearly show the manner employed in connecting them together.

The bamboo canes are cut to suitable lengths, the natural joints of the canes being used for the ends of the slats *a a'*, where it is possible to do so without excessive waste of the raw material. All the open ends have plugs fitted therein, which are further secured by being cemented, so as to make the canes perfectly air-tight. As many prepared canes are placed side by side as will correspond to the width of the mattress with which they are to be used; and they are secured together by the broad bands *b b*, which pass under the alternate slats *a' a'*, and over the other alternate slats *a a*, and by the narrow bands or straps *c c*, which pass through slits made in the broad bands *b b*, and over the alternate slats *a' a'*, and under the other alternate slats *a a*, as shown at Figs. 2 and 4. The ends of the bands *b b* are firmly secured to the straps *c c*, either by means of sewing or riveting, thereby holding the slats *a a'* securely together, and providing a flexible fastening between them to permit of their being folded. There may be as many of these connecting bands and straps as desired, but three of each I find sufficient to hold the slats together. One end of each of the straps *c c* is provided with a buckle, *d*, and the other end, *c'*, is sufficiently long to pass over the top of the mattress *e*, when it is placed on the slats, and through the buckle *d*, to securely hold the mattress and slats together, as shown at Figs. 1 and 3. The ends *c' c'* of the straps, which lie over the top of the mattress *e*, are adapted to be used as holdfasts, enabling the person floating on the mattress to retain his or her position by passing the legs and arms under them.

Life-lines are provided by means of the straps *f f*, which are attached to the two outside bamboo slats *a' a'* in a series of loops, by being passed around the slats, as shown, and held firmly thereto by means of eyelets or rivets.

It is obvious that the bamboo or other canes may be connected together by other means than that shown to constitute a life-saving raft and berth-slats, and that the same may be used as a raft independent of the mattress; but I prefer to combine the two, as the mattress of itself would have a certain amount of buoyancy, and passengers would not be liable to neglect to provide themselves with a life-saving appliance in the excitement due to serious accidents, if they understood that such a device were to be found in the mattress upon which they rest.

I am aware of the patent of J. P. McLean

of December 7, 1858, No. 22,258, in which there are shown and described tubes made of alternate layers of wood and canvas united by some form of cement; but such tubes are not divided into compartments, and hence they differ essentially from mine.

I am also aware that metallic tubes divided into compartments have been used for various purposes; but I am not aware that tubes of bamboo or other canes which are divided by nature into compartments, or other vegetable or woody tubes divided artificially, have ever been used in combination with a mattress for the purpose of forming a life-saving appliance.

That the employment of a tube divided as herein described, either naturally or artificially, is of great utility will be seen when it is stated that in the event of an injury to said tube between the dividing diaphragms the buoyancy of the entire tube will not be destroyed, but only that of the portion or section thereof thus affected. In this respect my tubes differ materially from those used in the cases mentioned, and from any with which I am acquainted.

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

1. In a life-saving appliance for vessels, the berth-slats, consisting of hollow air-tight tubes of vegetable or woody substance, as described, which are divided into air-tight compartments, in combination with a mattress secured thereto, substantially as set forth.

2. A life-saving device composed of a series of bamboo canes plugged and cemented at their open ends, and connected together by means of broad bands provided with slits and narrow bands interlaced therethrough, substantially as and for the purpose hereinbefore set forth.

3. In combination, the series of air-tight bamboo canes secured together substantially in the manner described, the mattress fastened thereto, and the looped life-lines secured to the two outside bamboo canes, substantially as and for the purpose hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 7th day of January, A. D. 1881.

THOS. O. OLIVER.

Witnesses:
H. D. WILLIAMS,
JAMES H. TORR.