

(No Model.)

T. B. GRIFFITH.
Life Raft.

No. 235,946.

Patented Dec. 28, 1880.

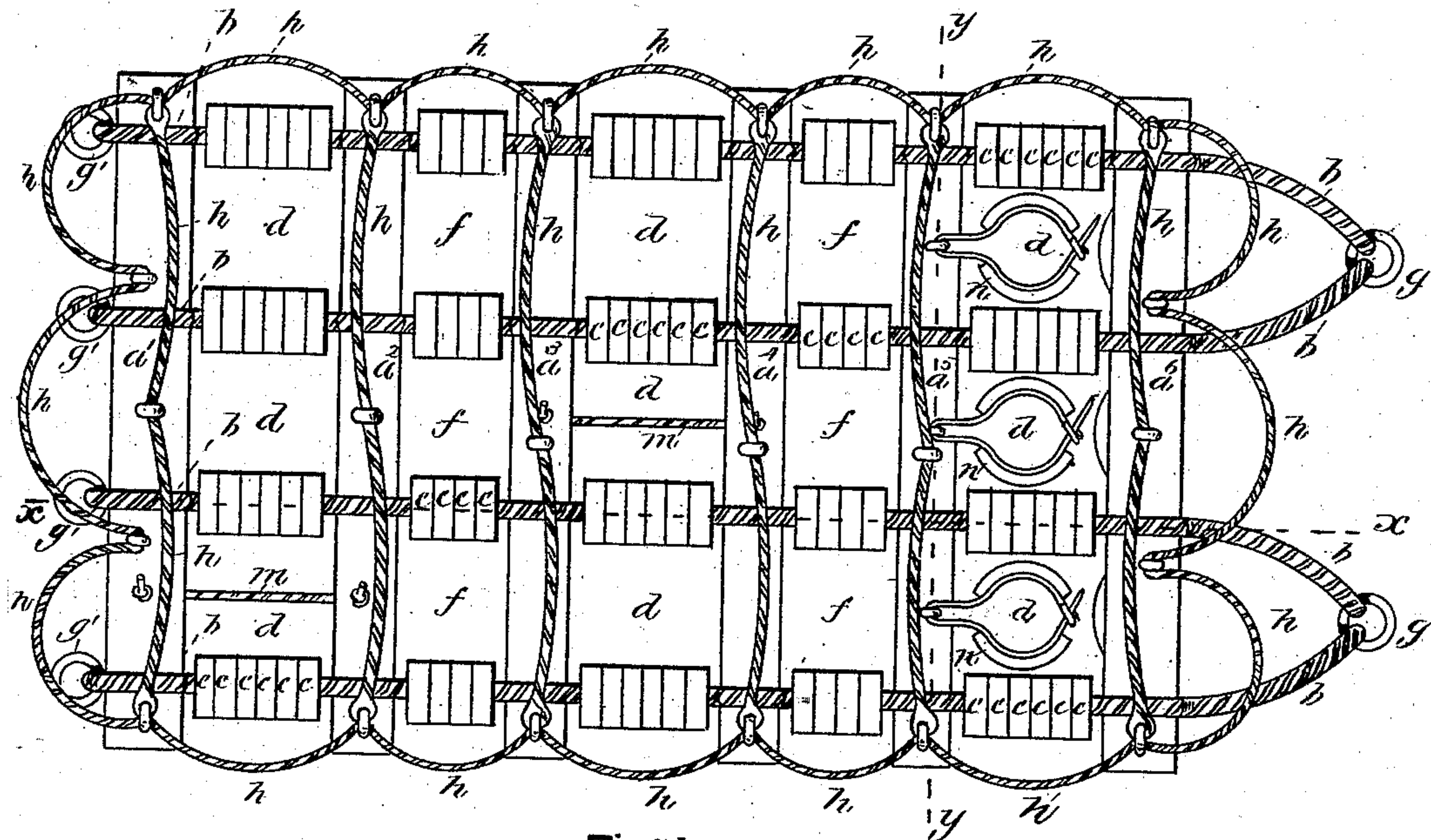


Fig. 1.

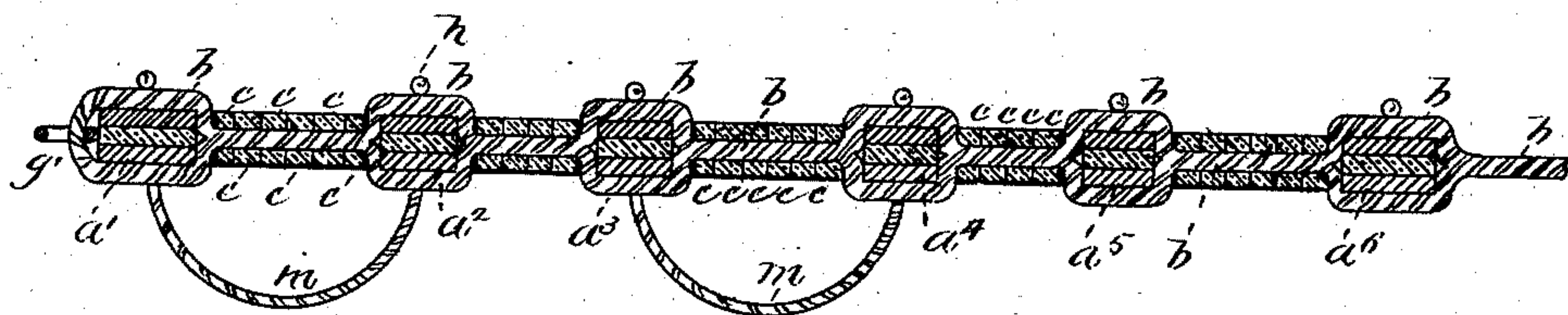


Fig. 2.

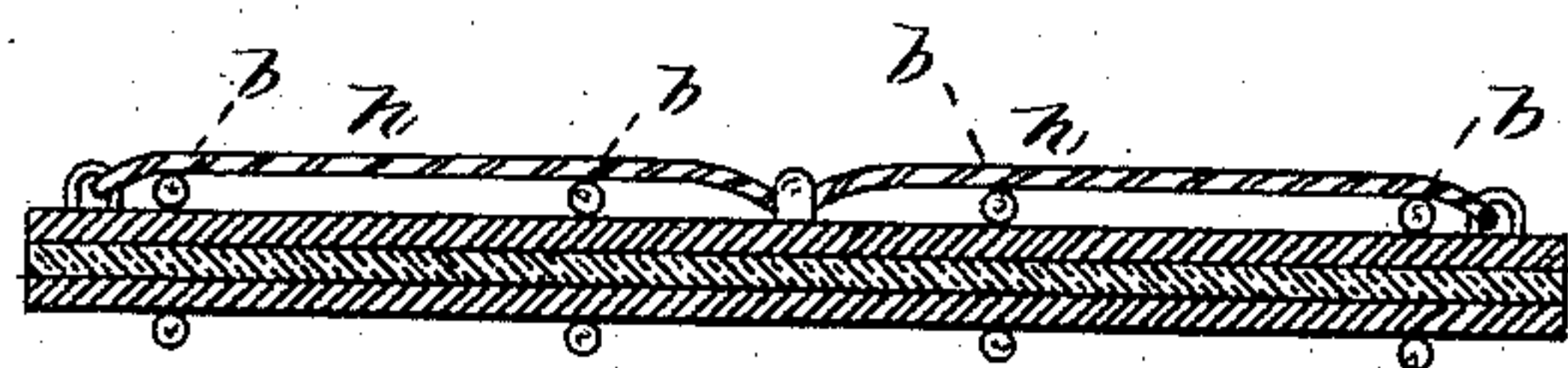


Fig. 3.

WITNESSES

A. J. Dettinger
Geo F. Walker

INVENTOR

Thos. B. Griffith
by his attys
Charles & Raymond

UNITED STATES PATENT OFFICE.

THOMAS B. GRIFFITH, OF CARVER, MASSACHUSETTS.

LIFE-RAFT.

SPECIFICATION forming part of Letters Patent No. 235,946, dated December 28, 1880.

Application filed October 18, 1880. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. GRIFFITH, of Carver, in the county of Plymouth and Commonwealth of Massachusetts, a citizen of the United States, have made a new and useful Improvement in Life-Rafts, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 is a plan; Fig. 2, a cross-section on the line *x x* of Fig. 1; Fig. 3, a cross-section on the line *y y* of Fig. 1.

This invention has already been partially described by me in a caveat dated September 18, 1880.

An effective life-raft should be buoyant, portable, flexible, not liable to damage, adaptable to any required purpose, not liable to tip over in a rough sea or in any emergency; should be cheap, and should carry persons so that each can be of assistance to the others upon the raft; and my invention embraces these features and certain details of construction which I will now describe.

The raft consists of a series of cross-bars or portions, *a'*, *a*², *a*³, *a*⁴, *a*⁵, and *a*⁶, which preferably are made of cork battened or confined between two surfaces of light wood, or of cork or other buoyant material inclosed in canvas. These cross-bars or portions are united to each other by the longitudinal ropes, *b*, or other flexible connections, upon which are strung a series of cork floats, *c*, or to which is attached cork or other buoyant material inclosed in canvas. This arrangement of cross-bars and longitudinal flexible connections forms a series of spaces or compartments, *d*, between the bars and the connecting-ropes, and each space should be of sufficient size to receive a person. The intermediary spaces *f* may or may not be utilized as compartments for holding persons, as described.

The raft is provided with lanyards *g* at one end, which preferably are formed by uniting the ends of the connecting-ropes to a ring, as shown, and which serve, in one capacity, to secure the life-raft to the ship's side, so that the raft can be used as a ladder while other rafts or life-boats are taking their freight, and

then the ladder-raft can be cast off. They also serve as life-ropes and for use in lashing the raft when rolled up, and for various other obvious purposes.

The raft may also be provided with rings *g'* upon the end opposite that having the lanyards, which ropes are fastened in any desirable way either to the connecting-ropes or to the cross-bars at that end of the raft.

The raft is further provided with life-lines *h*, fastened to the cross-bars, the foot-ropes *m*, if desired, and life-belts *n*, which are made in the ordinary form of the belt life-preserver, and which are contained in the sections or compartments, being fastened either to one of the cross-bars or to one of the ropes, and being adapted to embrace the body of the occupant. These life-belts have ropes by which they can be tied about a person; and when the belt is secured to a cross-bar the bar opposite the same may be provided with a cushion to cover its sharp edge.

A raft such as is shown in Fig. 1 is capable of supporting in the compartments *d* nine persons.

While it is desirable that each cross-line of compartments be separated by a transverse section not adapted for use in receiving persons, yet I do not confine myself to this construction, but may utilize all the sections for receiving persons, if desired, and the raft may be made with as many compartments as required.

I do not intend to confine myself to the use of ropes for connecting the cross-bars, but may use any material that shall have sufficient flexibility.

The raft can be rolled up and stowed in a small compass, and is ready for use at a moment's notice, and, being made principally of cork and light wood, it can receive from age or disuse no damage to its buoyancy. Its construction renders it capable of being made of a size to suit any purpose for which it may be required. Non-extinguishable lights, such as are now used to ignite by contact with the water, may be attached to the raft, so that its position may be known at any time. The raft is suitable for either smooth or rough water. Its construction is simple and inexpensive.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a life-raft, the combination of cross-
5 bars of cork, battened or otherwise confined between two surfaces of wood or other material, longitudinal connecting-ropes *b*, and the cork floats *c*, strung upon said ropes between the cross-bars, all arranged to form open com-
10 partments or sections *d*, substantially as described.

2. The combination, in a life-raft, of the buoyant cross-bars, the longitudinal connecting-ropes *b*, and the cork floats strung or otherwise secured thereto with the life-belts 15 *n*, secured to the cross-bars and within the sections *d*, substantially as and for the purposes described.

THOS. B. GRIFFITH.

Witnesses:

F. F. RAYMOND, 2d,
J. F. LEAMANN.