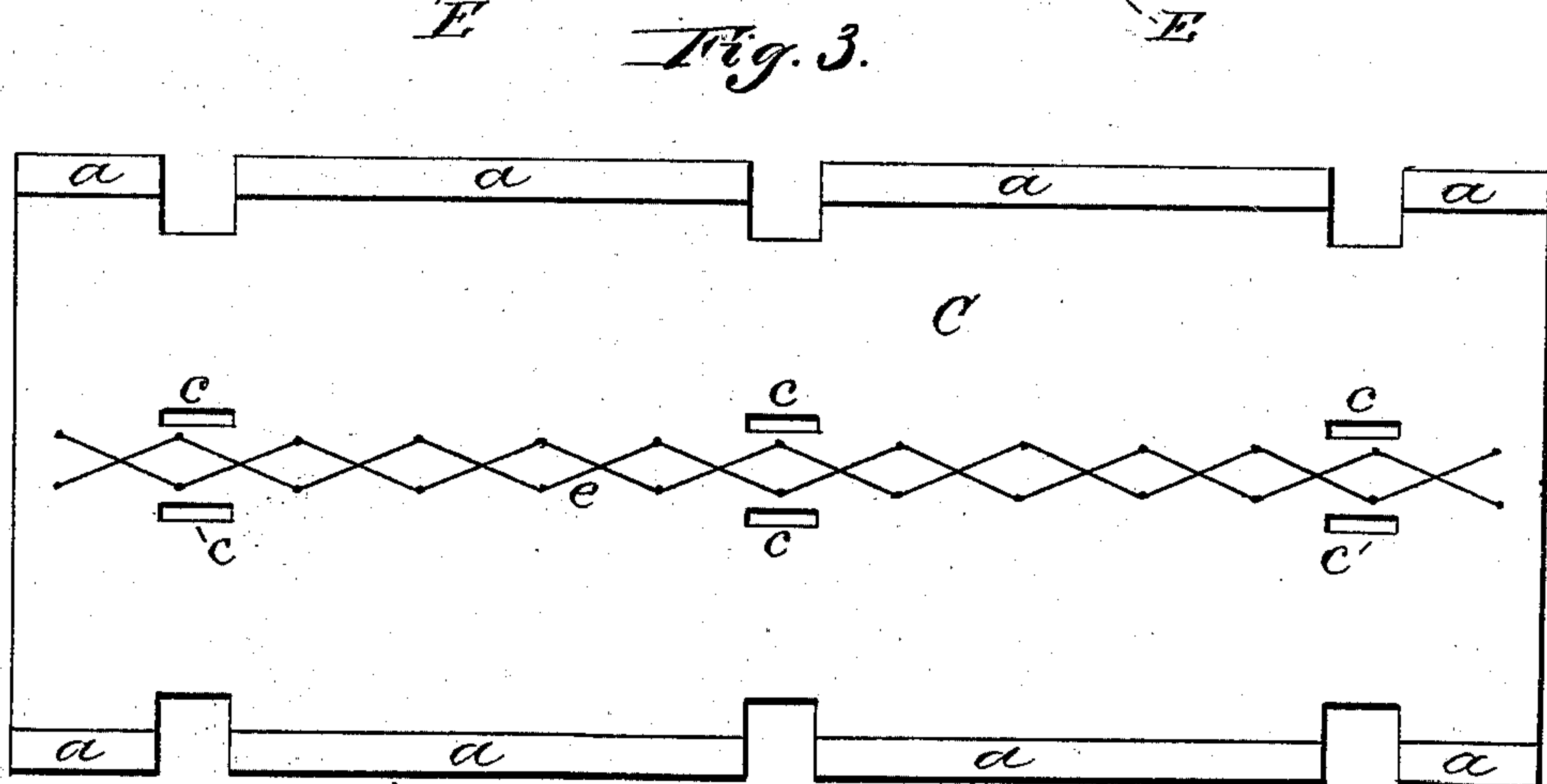
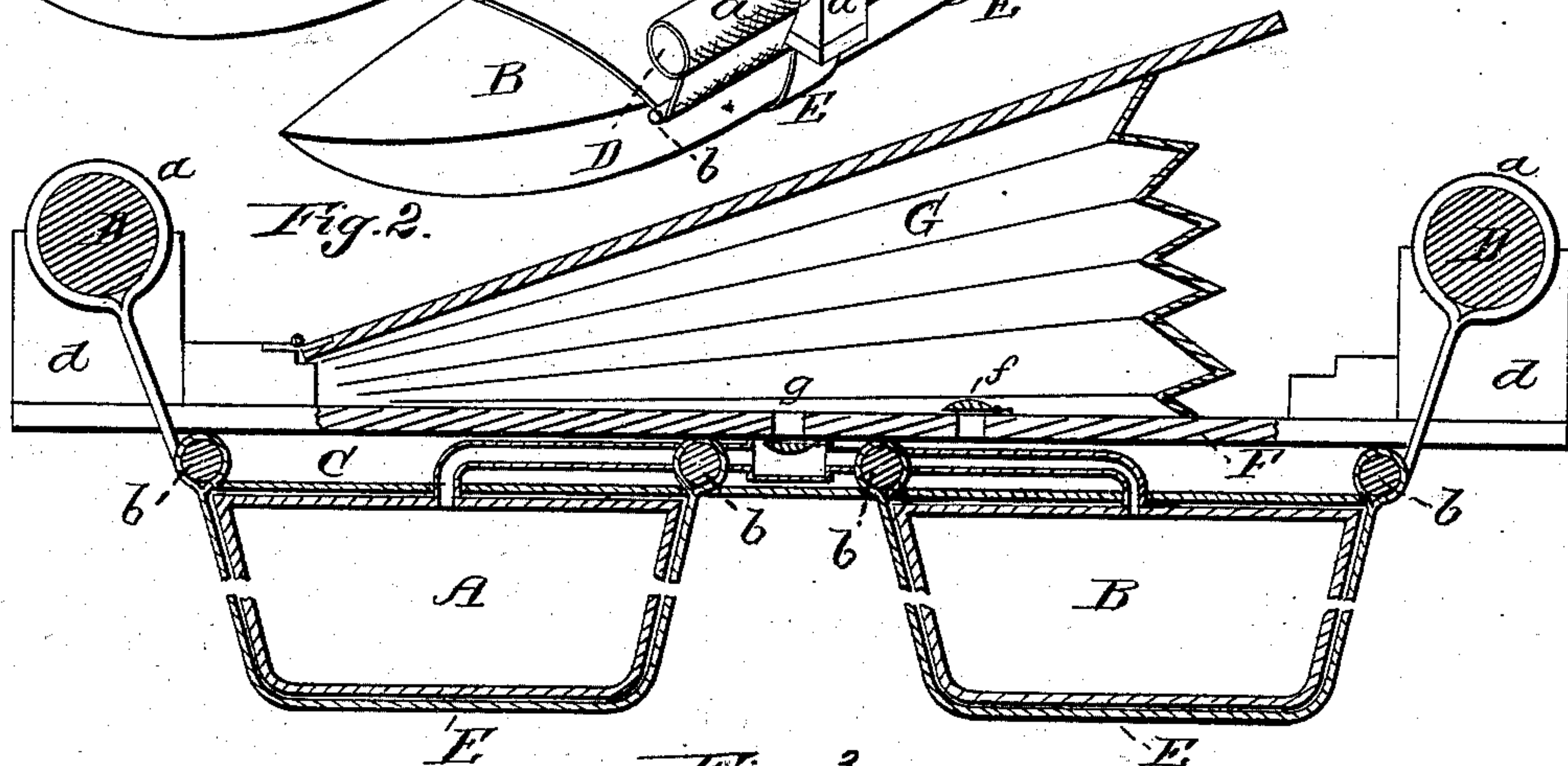
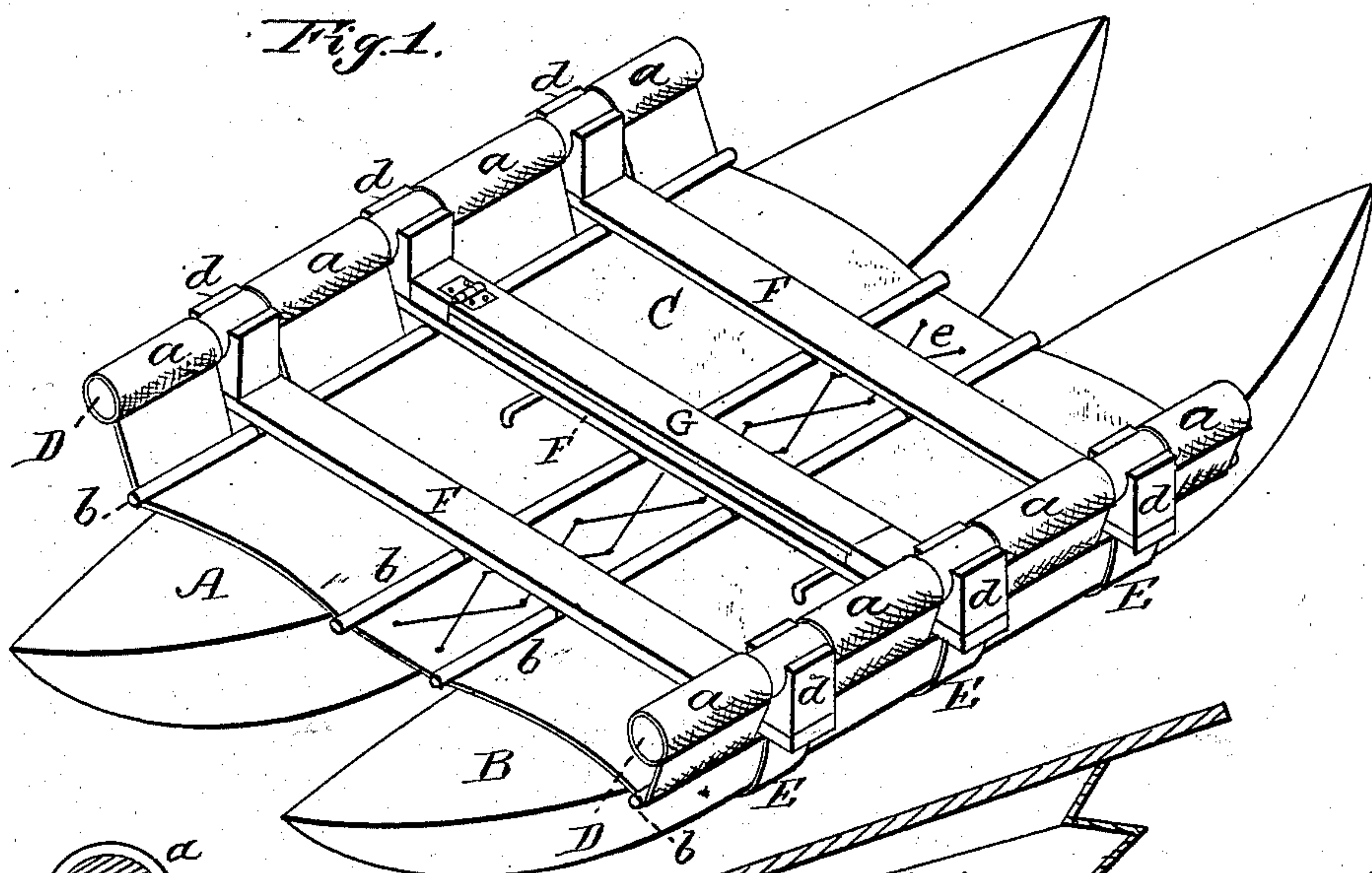


(No Model.)

E. L. PERRY.
Harness for Life Rafts.

No. 237,203.

Patented Feb. 1, 1881.



Witnesses:
W. C. M. Arthur,
Geo. B. Porter.

Inventor:
Edward L. Perry.
Per. Cha. H. Fowler,
Attorney.

UNITED STATES PATENT OFFICE.

EDWARD L. PERRY, OF PATERSON, NEW JERSEY.

HARNESS FOR LIFE-RAFTS.

SPECIFICATION forming part of Letters Patent No. 237,203, dated February 1, 1881.

Application filed October 25, 1880. (No model.)

To all whom it may concern:

Be it known that I, EDWARD L. PERRY, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Harness for Life-Rafts; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 is a perspective view of my invention, showing the harness applied to two pontoons or floats. Fig. 2 is a cross-section of the same, taken on an enlarged scale; and Fig. 3, a top-plan view of the canvas or other covering.

This invention has relation to certain new and useful improvements in harness for rubber pontoons, barrels, and life-boats of either wood or metal, canvas, or other material; and the object thereof is to provide a harness that in case of necessity can be connected thereto in the shortest possible time, whereby a perfect life-saving raft is obtained at a comparatively small expense. These objects I attain by the construction of the harness illustrated in the drawings and hereinafter described.

In the accompanying drawings, A B represent the pontoons or floats, as the case may be, to which the harness is connected, consisting, in part, of a covering, C, of duck, canvas, or any other desirable material, to form the deck and hold the whole structure together. The covering C has at its sides loops *a*, to receive the large spars D, which act as a bulwark, and at the same time hold the raft in shape. The slings E pass around the pontoons or floats A B, and are looped at their ends for the insertion of small spars *b*, the looped ends of the slings E passing through holes *c* in the covering.

Cross-planks F are laid over and upon the covering C, which may be used as seats, and at the ends of each plank are semicircular bearings *d*, for the reception of the spars D, which rest therein, and, if desired, to the ends of the planks F may be attached suitable rowlocks.

The covering C is provided with two rows of holes along the center thereof, to receive a

lacing-rope, *e*, the purpose of which is to bring the harness taut. This, however, is only required when the harness is used on barrels, boats, &c., where the floats are not made especially for the harness.

In place of the small spars *b*, large ropes can be substituted, said ropes passing through the looped ends of the slings E, similar to the small spars, the slings being made of a flexible material, such as duck or canvas.

When floats are used similar to those illustrated in the drawings, which require inflation, I provide one of the cross-planks F with a suitable bellows, G, which is a fixture, or forming part of the harness, the bellows, when not in use, being closed down, as shown in Fig. 1, so that it will serve as a seat. The bellows is supplied with air through the inlet *f* and discharged through the outlet *g*, both of which are provided with suitable valves, usually termed "clapper-valves." The air, as it is discharged through the opening or outlet *g*, passes through suitable pipes, *h i*, into the floats A B, the process being kept up until the floats are properly inflated with air.

Heretofore the bellows or other air-supplying apparatus has been independent of the floats, and after the process of inflation it has been detached and removed, and, as a general thing, at times when they are wanted could not be found.

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

1. A harness for constructing life-rafts, consisting of the covering C and looped slings E, in combination with the spars D, ropes or spars *b*, and the cross-planks F, substantially as and for the purpose set forth.

2. The combination, with one or more floats and the covering C, of the cross-planks F, one of which has a suitable bellows, G, permanently connected thereto, and adapted to fold down, when not in use, to form a seat, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EDWARD L. PERRY.

Witnesses:

CHAS. E. PEASE,
HENRY S. WINANS.