A. T. Boon,
Life Raft.

No 53,775. Patented Apl. 10, 1866.

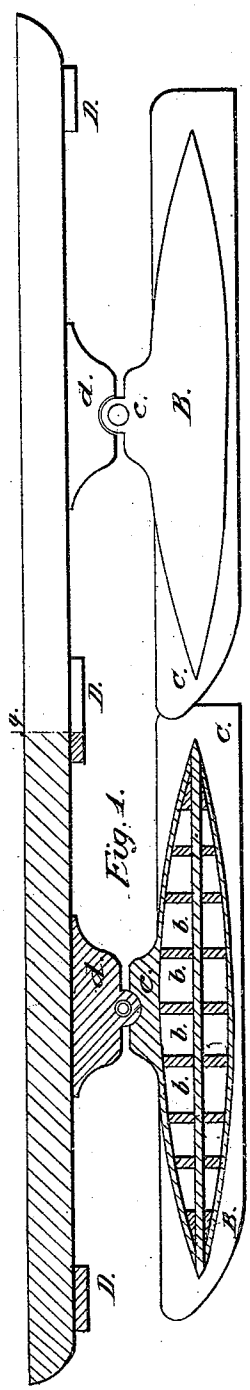


Fig. 1.

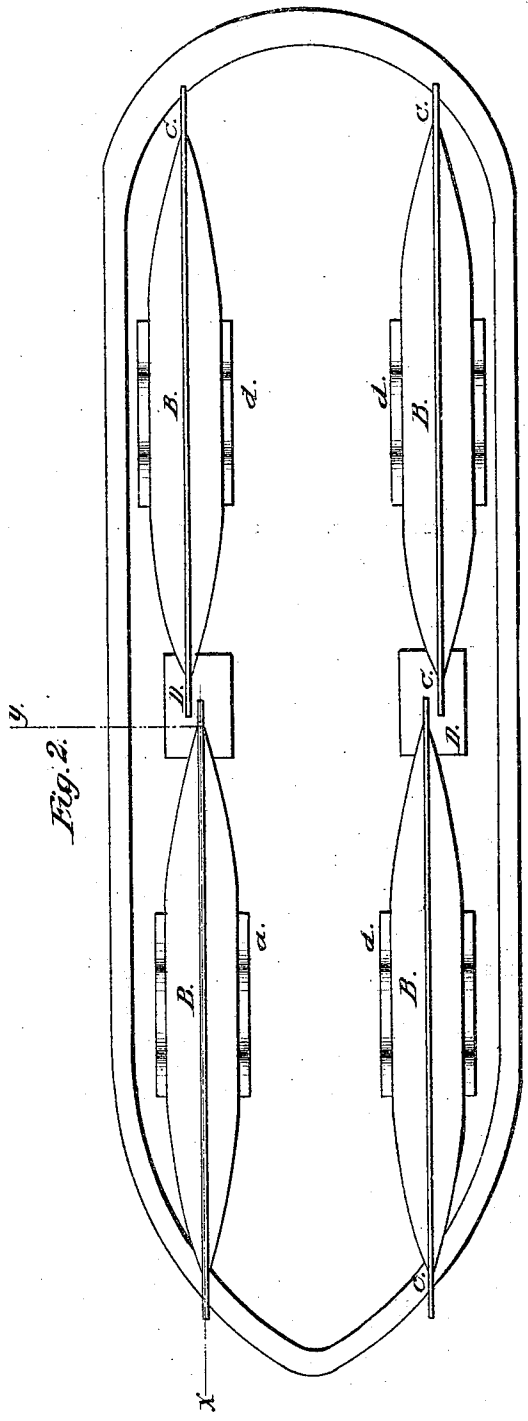


Fig. 2.

Witnesses;
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by his Attorney
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UNITED STATES PATENT OFFICE.

ALONZO T. BOON, OF GALESBURG, ILLINOIS, ASSIGNOR TO HIMSELF AND J. SCOTT RICHMAN, OF MUSCATINE, IOWA.

IMPROVED FLOATS FOR BOATS.

Specification forming part of Letters Patent No. **53,775**, dated April 10, 1866.

To all whom it may concern:

Be it known that I, ALONZO T. BOON, of the city of Galesburg, and county of Knox, and State of Illinois, have invented a new and useful Improvement in Boats; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of one half of a platform or base on which the boat is built, resting on floats or buoys. The other half is a sectional view, as indicated by the right-angled line *x y* in Fig. 2. Fig. 2 is a bottom view, showing position of four adjustable buoys or floats in their relation to the platform or base.

Like letters in both figures of the drawings indicate like parts.

The nature of my invention consists in the construction of four or more buoys or floats, or boats of a suitably-constructed shape, with keels, and made perfectly water tight, properly arranged and attached to the bottom of a base or platform, on which the superstructure of a vessel or other craft is built, by means of hinges with easy-fitting joints, by which they are made adjustable so as to accommodate themselves to the roughness of the water or glide over whatever obstructions there may be in the way, the said buoys or floats being attached for the purpose of obtaining light draft for shallow rivers, as well as speed, and at the same time to prevent their careening one side too much, as is often the case in rough weather or from the said vessel, &c., being too heavily laden, enabling the same, with the same burden, to draw less draft of water than others.

To enable any one skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the platform or base on which the superstructure of the vessel or other craft is built; B, the buoys or floats. They are constructed with water-tight compartments *b*, and, if desired, made of a spindle shape or sharp form to attain speed, as represented in the figures of the drawings. Other forms, however, may be more desirable.

C is the keels. They extend from the top of the buoys to a little below their bottom surface and a suitable distance in their rear and front.

The buoys or floats are built in the most substantial manner, and of such material known in boat or ship building. On each side of them, about the center, are ears *c*, which are pivoted to plates *d*, properly bolted to the platform, forming a hinge in their connection, the object of which is to allow a rocking motion to the buoys or floats, so as to correspond to the rocking or rough motion of the water, thereby making them adaptable to any condition of the water caused by tempestuous weather; and not only this, but where obstructions are frequently met with—as, for instance, in the Mississippi and Missouri rivers—the tendency of the buoys is to glide over them.

It will be observed that the forward ends of the keels of the rear buoys are placed a little in advance of the rear ends of the keels of the front ones, to prevent the formation of an eddy at this point, which would be otherwise the case were they placed a little apart in line, and thus impede somewhat the speed of the boat.

D are stout india-rubber springs, properly secured under the bottom of the platform, one over each front and rear end of the buoys, whereby, in the event of a too violent action of the water upon the buoys, or from other causes, the interposition of the india-rubber springs prevents their ends thumping against the bottom of the platform, thus obviating any unpleasant noise, besides wear and tear, that might otherwise originate, the elasticity of the rubber on the buoys striking upward relieving the concussion and sending them gently downward.

It will thus be seen from the construction and arrangement of the boats or buoys and their adjustability, as described, that the effect of four or more of them will be to displace a less amount of water than the entire surface of a vessel or large boat would, and being perfectly water and air tight, and independent of each other in their action from the action of the water, a vessel of this description, with the same amount of tonnage as others without the buoys or floats, will carry the same

burden and draw less water, thus enabling the same to be used to a better advantage in shallow rivers.

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

The adjustability of the buoys or floats B by means of the ears *c* and plates *d* and their arrangement and attachment to the platform A, substantially in the manner and for the purpose as herein set forth.

ALONZO T. BOON.

Witnesses:
J. SCOTT RICHMAN,
W. A. WOOD.