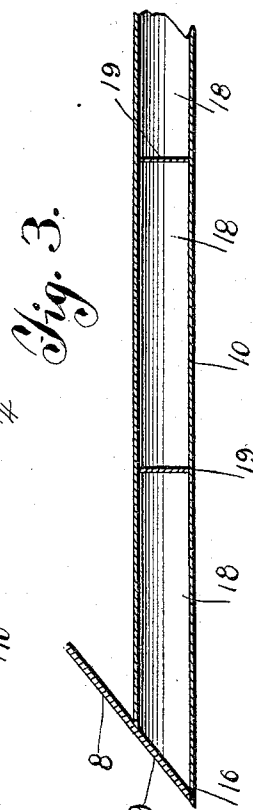
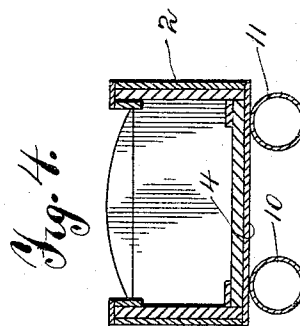
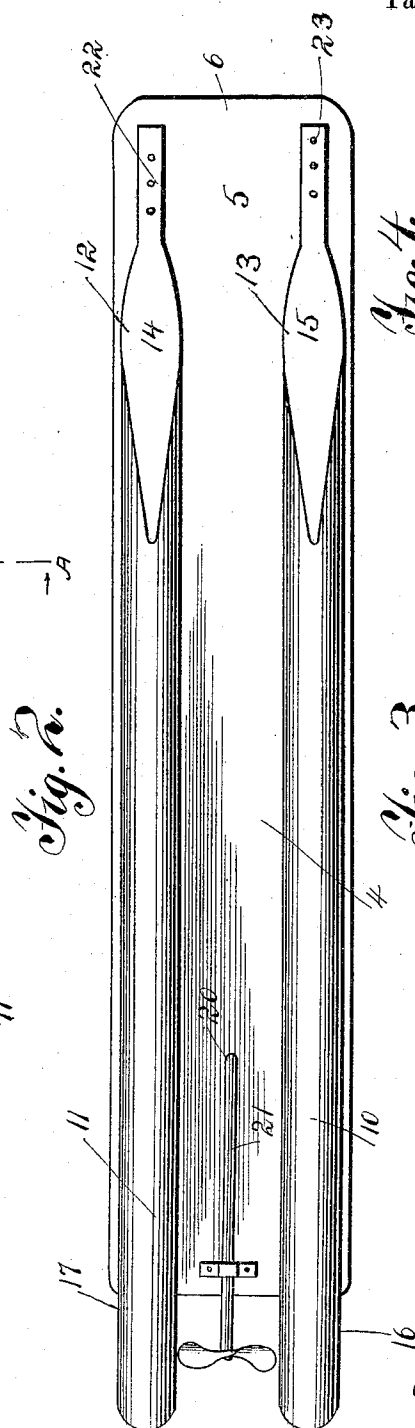
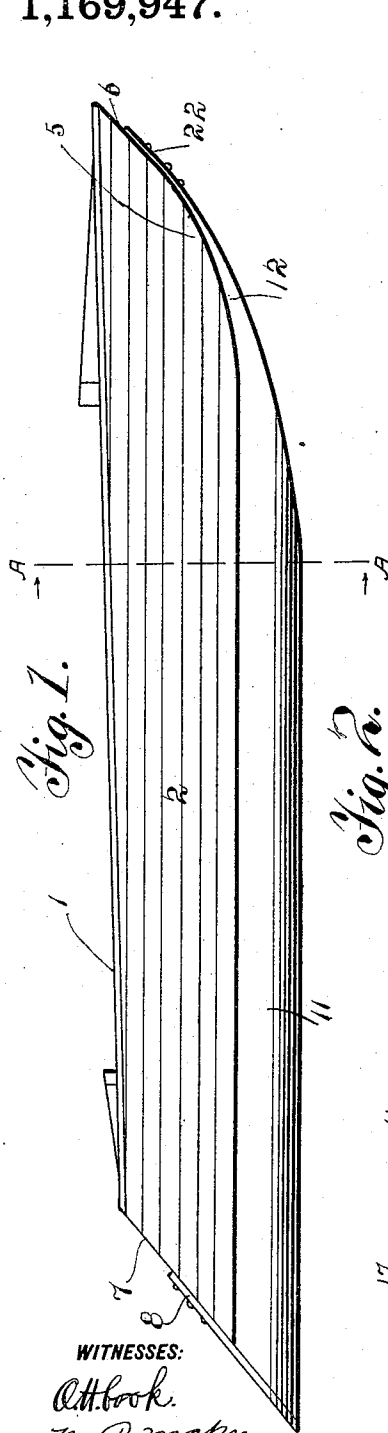


1,169,947.

Patented Feb. 1, 1916.



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BOAT.

1,169,947.

Specification of Letters Patent.

Patented Feb. 1, 1916.

Application filed May 19, 1915. Serial No. 29,052.

To all whom it may concern:

Be it known that I, JAMES M. FORSE, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Boats, of which the following is a specification.

This invention relates to improvements in boats and has for its object to provide a pontoon boat adapted especially for motor boating.

Another object of the invention is to provide a motor boat having a flat bottom and a pair of air tubes on the opposing sides of said bottom.

Still another object of the invention is to provide a flat bottom boat having air tubes on said bottom extending rearwardly thereof whereby the stern will be prevented from settling too low.

With the above and other objects in view I have invented the device illustrated in the accompanying drawings in which—

Figure 1 is a side elevational view of my improved boat, Fig. 2 is a bottom plan view thereof, Fig. 3 is a longitudinal sectional view of an air tube partly broken away, and Fig. 4 is a sectional view taken on line A—A of Fig. 1.

Like reference characters indicate like parts throughout the specification and in the several views in the drawings in which—

1 indicates a boat having vertical sides 2, and 3 and a flattened horizontal bottom 4, the bow end 5 of which curves up on the nose 6. The stern end wall 7 of the boat inclines downwardly and rearwardly and forms a bearing for the upper ends 8 of the closure plates 9 of the air tubes 10 and 11, the rear ends 12 and 13 of which incline at the same angle as that of the wall 7. The tubes 10 and 11 extend the entire length of the boat and are spaced apart so as to be on the opposing sides of the bottom 4. The front ends 12 and 13 of said tubes are upwardly curved so as to conform to the rake on said bow end of the boat, and are provided with closures 14 and 15, which are formed of flat metal sheets curved to fit said curved ends whereby they will slide over the water raising the bow of the boat entirely out of the water when a high speed is attained. The projection of the ends 16 and 17 of the tubes beyond the stern end of the boat acts to prevent the boat from settling in the water as would ordinarily be the case,

consequently when a high rate of speed is attained the boat bottom will rise entirely out of the water and the tubes 10 and 11 will skim over the surface thereof. Each of the tubes 10 and 11 is divided into a plurality of air tight compartments 18 by means of the divisional walls 19 so that if one compartment should become punctured the boat will still float by the other air compartments. An opening 20 is provided in the bottom 4 for the passage of the propeller 21. Each of the members 14 and 15 have flattened portions 22 and 23 by means of which the forward ends of said tubes 10 and 11 may be secured to said bow.

I claim—

1. A boat having a flat bottom and a plurality of air tubes on said bottom, said tubes projecting beyond the stern end of said boat, each of said tubes being divided into a plurality of air tight compartments, the bow of said boat being upwardly curved, the forward ends of said tubes being arcuate to conform to the curve of said bow, the stern end wall of said boat being inclined, the rear ends of said tubes being inclined at an angle to conform to the angle of said wall, closures for said inclined ends, said closures projecting above said tubes and being attachable to said wall, closures for the forward ends of said tubes having extending portions whereby they are secured to said bow, said last closures being formed of flat strips curved to conform to the forward ends of said tubes.

2. A boat having a flat bottom and a plurality of air tubes on said bottom, said tubes projecting beyond the stern end of said boat, each of said tubes being divided into a plurality of air tight compartments, the bow of said boat being upwardly curved, the forward ends of said tubes being arcuate to conform to the curve of said bow, the stern end wall of said boat being inclined, the rear ends of said tubes being inclined at an angle to conform to the angle of said wall, closures for said inclined ends, said closures projecting above said tubes and being attachable to said wall, closures for the forward ends of said tubes having extending portions whereby they are secured to said bow, said last closures being formed of flat strips curved to conform to the forward ends of said tubes, and the side walls of said boat being vertical.

3. In combination with a boat, a plurality

of air tubes formed on the bottom thereof, flat closure plates for the forward ends of said tubes, the forward ends of said tubes being longitudinally arcuate.

5 4. In combination with a boat, a plurality of air tubes formed on the bottom thereof, flat closure plates for the forward ends of said tubes, the forward ends of said tubes being longitudinally arcuate, and tapering
10 and transversely rectilinear to form a flat closure.

5. In combination, a flat bottom boat having an upwardly curved bow and an inclined stern, air tubes on the bottom thereof and having the forward ends curved to conform
15 to the contour of the boat.

6. In combination, a flat bottom boat having an upwardly curved bow and an inclined stern, air tubes on the bottom thereof
20 and having the forward ends curved to conform to the contour of the boat, and said tubes projecting beyond the stern of said boat.

7. In combination with a boat, a plurality of air tubes formed on the bottom thereof, flat closure plates for the forward ends of said tubes, the forward ends of said tubes being longitudinally arcuate and transversely
25 rectilinear to form a flat closure, said closure being fixed on the bow end of said boat, said bow being arcuate and a propeller shaft projecting from the bottom of said boat and between said tubes.

8. In combination with a boat, a plurality of air tubes formed on the bottom thereof, flat closure plates being longitudinally arcuate, and tapering and transversely rectilinear
35 to form a flat closure, said closure being fixed on the bow end of said boat, said bow being arcuate, and a propeller shaft projecting from the bottom of said boat and between said tubes, and said shaft extending beyond the stern of said boat.

9. In combination with a boat, a plurality of air tubes formed on the bottom thereof, flat closure plates for the forward end of said tubes, the forward end of said tubes being longitudinally arcuate, and tapering and transversely rectilinear to form a flat
45 closure, said closure being fixed on the bow end of said boat, said bow being arcuate, a propeller shaft projecting from the bottom of said boat and between said tubes, said shaft extending beyond the stern of said
50 boat and beyond said tubes.

10. In combination, a flat bottom boat having an upwardly curved bow and an inclined stern, air tubes on the bottom thereof

and having the forward ends curved to conform to the contour of the boat, said tubes projecting beyond the stern of said boat, and closure plates for the rear end of said tubes having extensions for engagement with said stern.

11. In combination with a boat, said boat having a flattened bottom, and an upwardly curved bow, a plurality of air tubes mounted at the bottom of said boat and extending longitudinally thereof in spaced
65 apart relation, said tubes sloping upwardly beginning at a point in advance of said upwardly curved bow and terminally transversely flattened lugs carried by said tubes and secured to the outer end of said bow.

12. In combination with a boat, having an upwardly curved bow, a plurality of air tubes mounted at the bottom of said boat and longitudinally thereof, and closure plates secured to said tubes at a point in the rear of said upwardly curved bow at one end
75 and to said bow at its opposite end, said closure plates being also upwardly curved so as to overlie the bow end of said boat.

13. In combination, a flat bottom boat having an upwardly curved bow and an inclined stern, air tubes on the bottom thereof
85 and having the forward ends curved to conform to the contour of the boat, said tubes projecting beyond the stern of said boat, closure plates for the rear end of said tubes having extensions for engagement with said stern, and said ends being inclined.

14. A boat, air tubes fixed thereto and projecting beyond the stern of the boat.

15. A boat, air tubes fixed thereto and projecting beyond the stern of the boat, and the forward ends of said tubes being formed arcuate longitudinally thereof.

16. A boat, air tubes fixed thereto and projecting beyond the stern of the boat, the forward ends of said tubes being formed arcuate longitudinally thereof, and a propeller shaft projecting through the bottom of said boat.

17. A boat, air tubes fixed thereto and projecting beyond the stern of the boat, the forward ends of said tubes being formed arcuate longitudinally thereof, a propeller shaft projecting through the bottom of said boat, and beyond the rear ends of said tubes.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES M. FORSE.

Witnesses:

W. A. O. BROWN,
I. F. RANDOLPH.