No. 796,846. PATENTED AUG. 8, 1905.

C. A. DE LAMBERT.

RAFT OR OTHER CRAFT.

APPLICATION FILED AUG. 8, 1904.

Fig. 1.

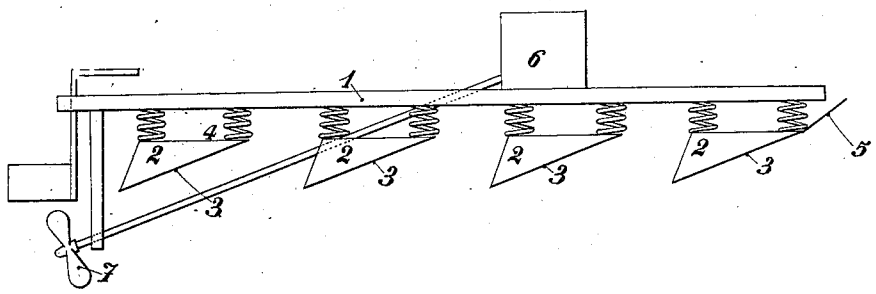


Fig. 2.

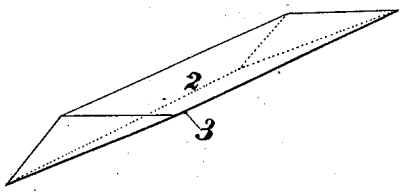


Fig. 3.

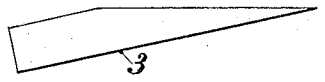


Fig. 4.

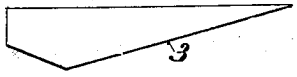


Fig. 5.

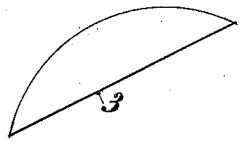


Fig. 6.

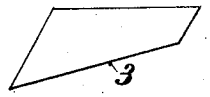
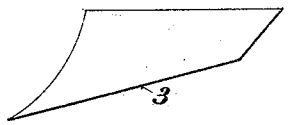


Fig. 7.



Witnesses:
Frank O. Parker
C. D. Kesler

Inventor
Charles A. de Lambert
By James L. Norris
Atty

UNITED STATES PATENT OFFICE.

CHARLES ALEXANDRE DE LAMBERT, OF VERSAILLES, FRANCE.

RAFT OR OTHER CRAFT.

No. 796,846. Specification of Letters Patent. Patented Aug. 8, 1905.

Application filed August 8, 1904. Serial No. 220,015.

To all whom it may concern:

Be it known that I, CHARLES ALEXANDRE DE LAMBERT, engineer, a subject of the Emperor of Russia, residing at Versailles, France, have invented certain new and useful Improvements in Rafts or other Crafts, of which the following is a specification.

This invention relates to rafts and other flat-bottomed craft provided with self-contained motive power, and has for its object to enable such craft to be propelled at greater speed than heretofore and at the same time maintain its inherent stability.

In the accompanying drawings, Figure 1 is a diagrammatic side view of a raft according to the invention. Fig. 2 is a perspective view of a detail. Figs. 3, 4, 5, 6, and 7 show in side elevation modifications of the same detail.

A raft is the type of craft that is most stable and offers the greatest resistance to external forces tending to capsize it, and I will describe this invention as applied thereto.

If a screw-propelling motor be placed on an ordinary raft, the speed obtained is necessarily slow in consequence of the resistance of the water against the floats which support the floor of the raft. In order to decrease this resistance, the floor 1 of the raft, Fig. 1, constructed according to this invention is supported by a number of floats 2 of prismatic form, arranged at suitable distances apart with their axes perpendicular to the longitudinal axis of the floor—that is, at right angles to the direction of motion of the raft. Each of these prisms in cross-section is preferably of a scalene triangular shape and arranged with the smallest angle pointing toward the forward end of the raft and with the upper side horizontal and the largest side 3 oblique to the bottom or floor of the raft. The obliquity of the longest side with reference to the horizontal side may be small, an angle of from two to six degrees being found suitable in most cases. The third and shortest face of the prismatic float, which may be considered as the rear face, is arranged so as to give to the triangle the greatest surface possible compatible with the strength of the prism. These prismatic floats 2 may be attached directly to the under side of the floor 1 of the raft, or springs 4 or other mechanical elements, such as adjustable rods, may be interposed between th floats and the floor of the raft to permit o the space between the floats and the floor o the raft being slightly varied. The front en of the foremost float has preferably an exten sion 5, which is more inclined upward abov the horizontal top face of the prism than th side 3, which extension will aid to lift the for ward end of the raft as it is being propelled The raft may be provided with a single mo tor or with two or more motors 6 and witl any desired number of screw-propellers 7.

The depth to which the raft is immerse will depend upon the weight of the raft an the load placed thereon. The motor or mo tors being started, the raft will be propelle forward, and the resisting force of the wate will exert a pressure against the inclined lowe faces 3 of the prismatic floats equal to the pro pelling force and will on account of the ob liquity of the said lower faces cause the pris matic floats to rise, the raising thereof in creasing as the speed increases. When th speed becomes such as to cause the upper part of the floats to rise above the surface of th water, the lower face 3 of the prisms or par thereof only remains in contact with the wa ter, so that the prismatic floats glide on th water, which then presents only very little re sistance to the motion of the raft. The dis tance between the successive floats should b such that the molecules of water which hav glided along the lower face 3 of one float ca resume their equilibrium before coming int contact with the lower face of the followin float.

The cross-section of the prisms need no necessarily be of triangular shape, as de scribed. They may be quadrangular polygo nal, Figs. 3 and 4, or circular segmental, Fig 5, in cross-section, provided the lower face be plane or slightly concave and inclined down ward from front to rear, or the cross-sectio of the prisms may be such as that shown in th Figs. 6 and 7, in which the under side 3 ha two connected flat surfaces, the front or for ward one of the said surfaces inclining up ward from the other of the said surfaces, thi form permitting of the length of each flo being reduced without affecting their glidin motion.

Having thus described and ascertained the nature of my invention and in what manner the same may be performed, I declare that what I claim is—

In a raft or other flat-bottom craft having motive power, a plurality of floats of prismatic form with their axes perpendicular to the longitudinal axes of the raft, and lower faces oblique to the bottom of the raft, and yieldable members for connecting said floats to the floor of the raft.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

CHARLES ALEXANDRE DE LAMBERT.

Witnesses:

PAUL BLUM,

HANSON C. COXE.