

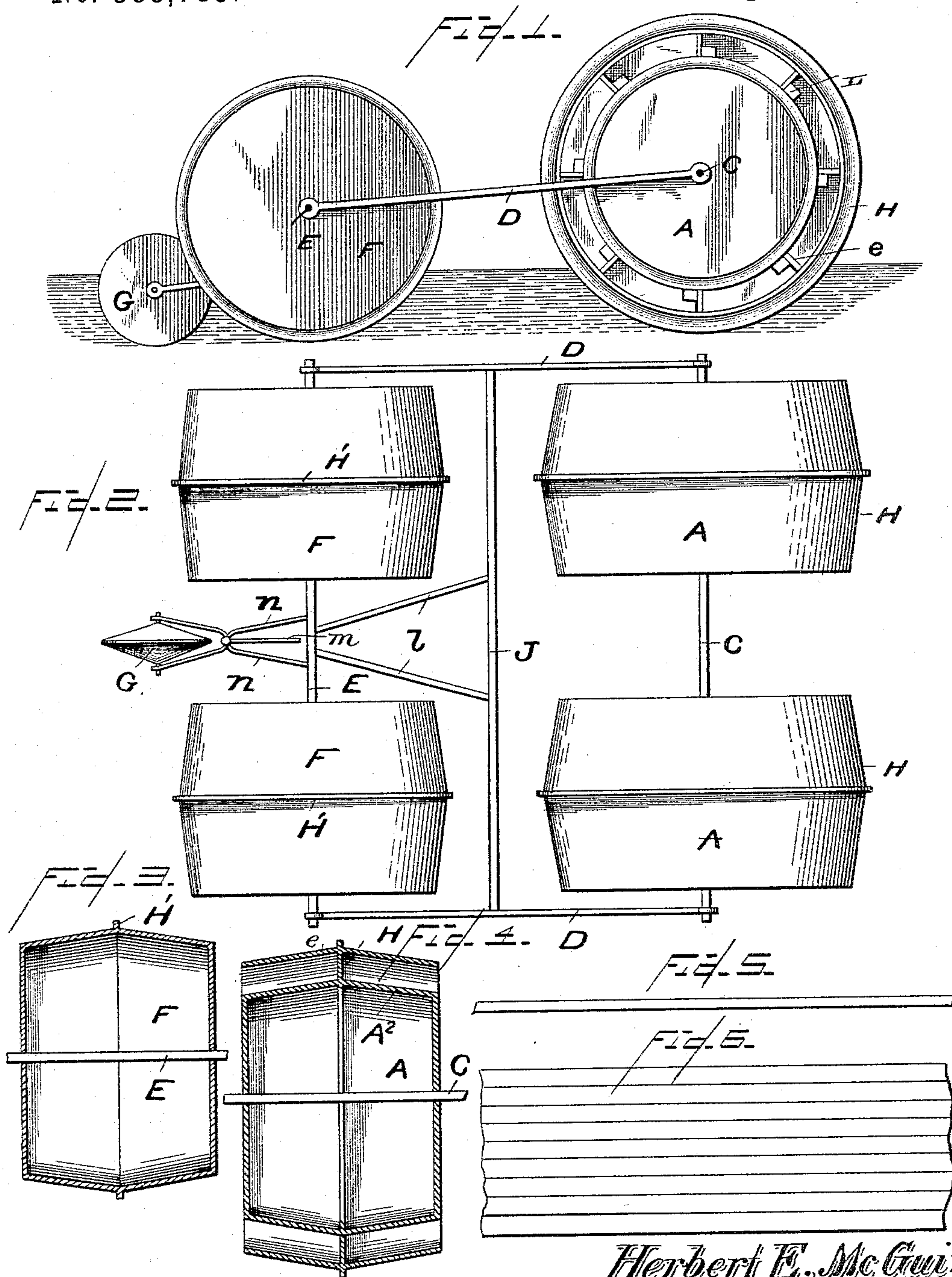
(No Model.)

H. E. McGUIRE..

BOAT.

No. 388,783.

Patented Aug. 28, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

HERBERT EDWARD McGUIRE, OF PEARLINGTON, MISSISSIPPI, ASSIGNOR OF
ONE-HALF TO JOHN WESLEY COWART, OF SAME PLACE.

BOAT.

SPECIFICATION forming part of Letters Patent No. 388,783, dated August 28, 1888.

Application filed November 19, 1887. Serial No. 255,648. (No model.)

To all whom it may concern:

Be it known that I, HERBERT EDWARD McGUIRE, a citizen of the United States, residing at Pearlington, in the county of Hancock and State of Mississippi, have invented certain new and useful Improvements in Boats; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

My invention relates to improvements in boats in which two or more cylindrical air-tight wheels with buckets thereon are made to operate in conjunction with two or more cy-
15 lindrical air-tight rollers; and the objects of my improvements are to provide a boat whereby great speed may be obtained, and rendering it impossible to sink same by any ordinary casualty to which boats are now subjected. I
20 attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view; Fig. 2, a top view. Fig. 3 is a sectional view of one of the small
25 air-tight wheels, and Fig. 4 is a similar view of one of the drive-wheels; Fig. 5, a side view of deck; Fig. 6, a top view of deck.

Referring by letter to the accompanying drawings, A A indicate the drive-wheels,
30 which are composed of an inner and an outer periphery or annulus of keel form, the inner section of which is air-tight. This inner section is sufficiently small with respect to the outer one or periphery, H, that when they
35 have been placed together, as shown, there will be an interspace between them, so as to form buckets. It will be observed that as the periphery of the inner section, and also the periphery H, is of keel form, the buckets
40 formed by the two will have a pitch outwardly from a central point. The inner sections, A², are each provided with a vertical periphery flange which meets the inner side of the periphery or outer section and divides the buck-
45 ets into two lateral sets, as shown in Fig. 3 of the drawings. These driving-wheels are secured to a transverse shaft, C.

F F indicate two wheels, which are smaller than the wheels A, and are also made air-

tight and are secured to a shaft, E, parallel to the shaft C. These wheels F are also keel shape, but without buckets, and are provided on their periphery with a central vertical external flange, H'. The shafts C and E are suit-
55 ably connected by means of arms D D, which are connected by a central shaft, J, and the shafts E and J are braced by means of diagonal brace-arms ll.

G indicates a rudder, which is properly stayed in position by means of stays n, and is
60 provided with a suitable tiller, m.

The interspaces between the inner section and periphery of the wheels A are divided into equal parts to form the buckets by means of the transverse strips e. These trans-
65 verse strips e are braced in proper position by means of short bars L, which are secured to the sides at the inner edges of the said strips and against the periphery of the inner air-tight sections, as more fully shown in Fig. 1
70 of the drawings. Upon these bars connecting the wheels and comprising the main frame a deck may be arranged for passengers and the motive power. It is obvious that hand-power may be used to drive the boat; but I do not
75 wish to confine myself to such, as steam, air, electricity, or any known motor may be used as the propelling force.

This boat is particularly adapted for pleas-
80 ure-boats where great speed is desired, and in canals and rivers where barges may be propelled, avoiding the washing of banks by waves, as is now the case where bow of boat projects under water.

Having described my invention, what I
85 claim, and desire to secure by Letters Patent, is—

The combination, in a boat, of the side bars, D, connecting the front and rear axles, and the cross-bar J, connecting the said side bars, sub-
90 stantially as specified, the drive-wheels having an inner air-tight section with a periphery of keel shape and arranged at intervals from the outer section, the central flange between the two sections, the transverse strips, also
95 between the two sections, forming the buckets, and the transverse bars L, secured to the inner sides of the said strips and on the pe-

riphery of the said inner air-tight section, the shaft for said wheels, the smaller air-tight wheels in rear of the drive-wheels, also having peripheries of keel shape and a vertical
5 central external flange, the steering-wheel in a plane between the said smaller wheels, the stay-rods therefor, and the tiller *m*, substantially as specified.

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

HERBERT EDWARD McGUIRE.

Witnesses:

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