

"The object of the invention is to devise a vessel capable of attaining a high rate of speed with absolute safety and great economy of power, and it consists, essentially, of a rotatable double outer hull within which are suspended stationary hulls or compartments containing the freight or passengers, and the motive power, suitable steering apparatus being provided, and the whole constructed in detail substantially as hereinafter more particularly specified, and then definitely claimed.

"A is the hull of the vessel, preferably about 150 feet in diameter, and about seven hundred and fifty feet long. This is formed by two cylinders enclosing an annular air space. The diameter of the inner cylinder is preferably about eighty feet so that the inner and outer walls of the air space are about thirty-five feet apart. The air space is closed at the ends by the annular bulk heads. A series of annular bulk heads are preferably provided at intervals from end to end of the air space. (There) are a series of longitudinal bulk heads further dividing the inner air space.

"From this construction, it follows that the hull of the vessel is exceedingly strong and very light, and also that the lower edge of the inner cylinder of the hull is raised well above the surface of the water, ensuring dryness in a sea-way.

"H are spiders (webs) connected to the hull...

"I are stationary hulls for passengers or freight, journaled on the said spiders. J are hollow shafts rigidly connected to these hulls at their outer ends. The shafts pass through bearings carried by the outer spiders. L is the stationary hull carrying the machinery.

"M is the driving shaft suitably journaled in the stationary hull and rigidly connected to the inner spiders. Upon the ends of this shaft, the stationary hulls may be journaled, if desired.

"From this construction, it follows that if a rotary motion be given to the shaft, it will be imparted to the hull.

"The driving mechanism is shown... where a single cylinder is shown with its piston connected to a crank on the shaft. The mechanism... is simply for the purpose of indicating how power is applied to the shaft. In practice, suitable triple expansion engines would preferably be employed, and the power might be differently applied to the hull.

"The hull... is divided in the middle and the two halves suitably connected by open truss work. By this means, light and air are admitted to the centre of the vessel and an exit afforded for the products of combustion from the furnaces.

"The hollow shafts project some distance beyond the hull at either end and pilot houses are swung thereon.

"Arms are journaled on the hollow shaft and pivoted at their lower ends near the upper edge of a drag. A chain (is) connected to the drag near its lower edge.

"A windlass (is) contained within the pilot house and arranged to wind up the chain so as to cause the drag to enter the water at a greater or less extent, as might be desired.

"The arms are preferably provided with counter balances, connected by a cross-bar to which a chain is connected, operated by the windlass. By reversing the motion of the windlass, the drags may be raised clear of the water when so desired.

"Arched canopies cover the stationary hulls so as to shield the passengers and crew from water which may have entered the inner cylinder and been carried up over the stationary hulls by centrifugal force.