No. 861,478. PATENTED JULY 30, 1907.

A. W. OTTIGNON.

STEERING MECHANISM FOR SHIPS.

APPLICATION FILED DEC. 21, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

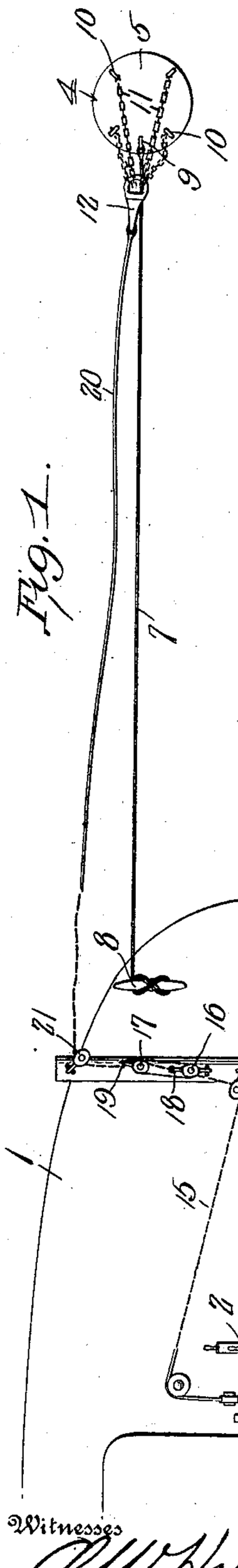

Fig. 1.

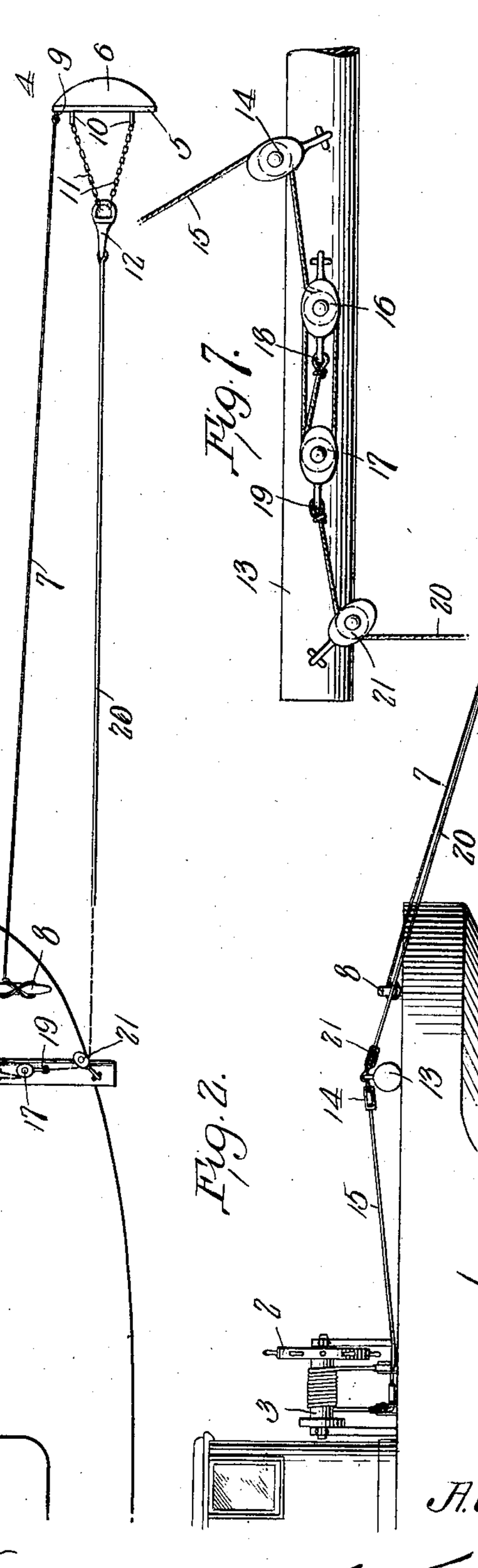

Fig. 2.

Witnesses

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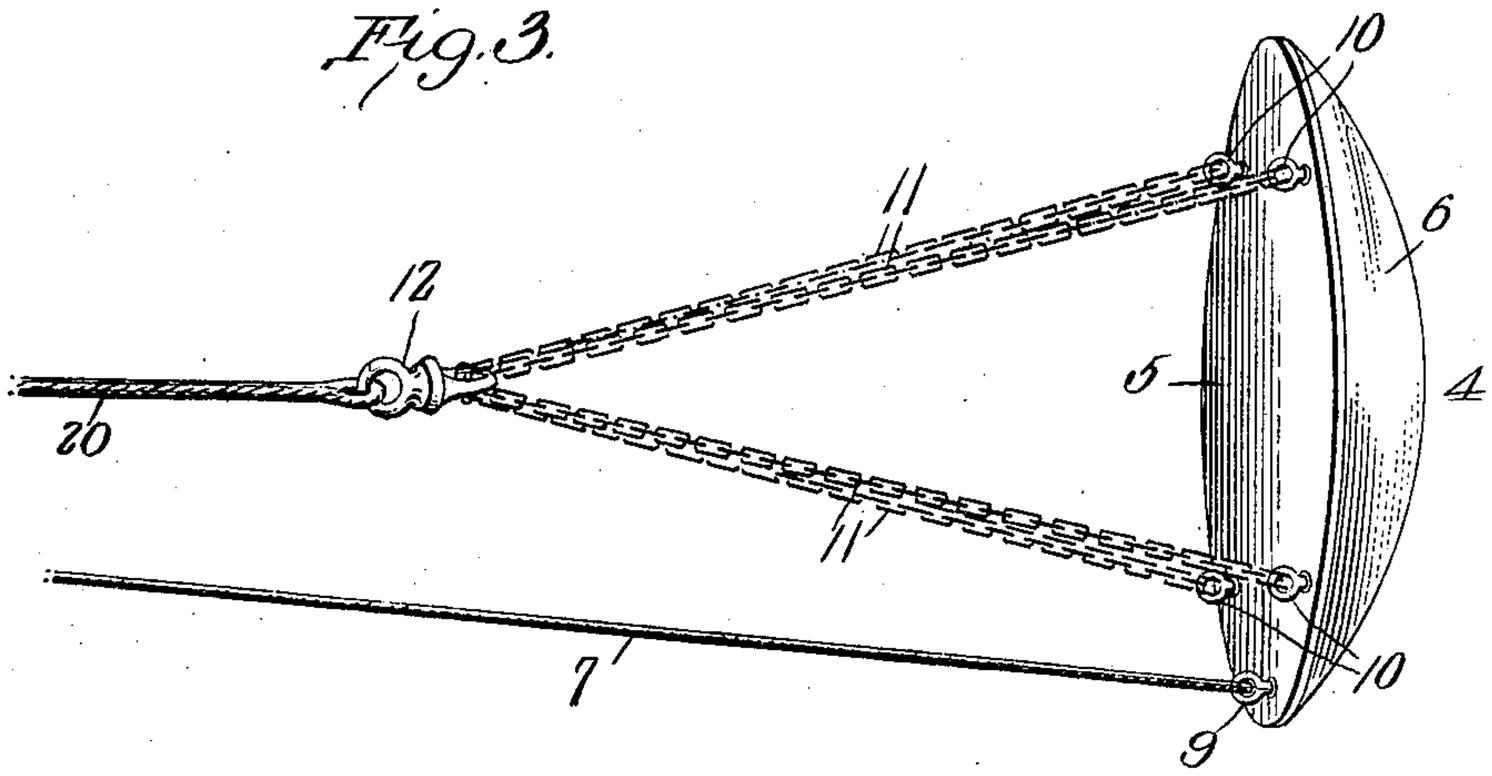
2 SHEETS—SHEET 2.

Fig. 3.



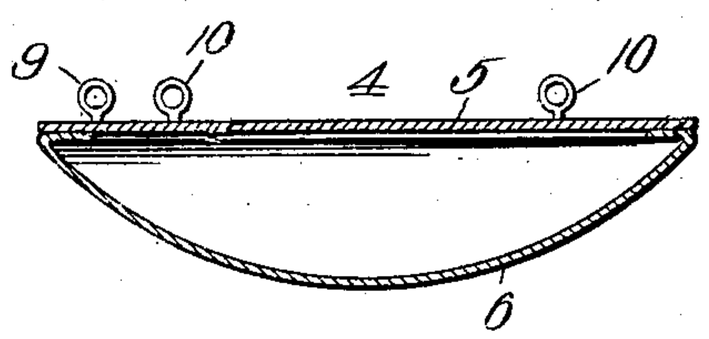
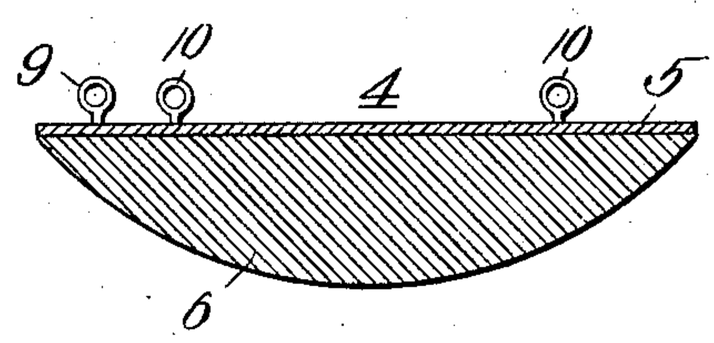


Fig. 4.

Fig. 5.



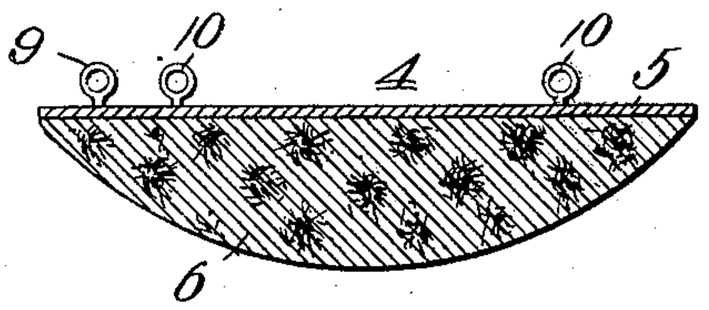


Fig. 6.

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UNITED STATES PATENT OFFICE.

AUGUSTUS W. OTTIGNON, OF ST. LOUIS, MISSOURI.

STEERING MECHANISM FOR SHIPS.

No. 861,478. Specification of Letters Patent. Patented July 30, 1907.

Application filed December 21, 1905. Serial No. 292,799.

To all whom it may concern:

Be it known that I, AUGUSTUS W. OTTIGNON, a citizen of the United States, residing in the city of St. Louis, county of St. Louis City, State of Missouri, have invented certain new and useful Improvements in Steering Mechanisms for Ships, of which the following is a specification.

This invention relates to steering mechanisms for ships and has for its object to provide a supplemental steering mechanism to be carried by the ship and to be used when the ordinary steering mechanism becomes disabled.

Other and further objects will appear in the following description and will be more particularly pointed out in the appended claims.

In the drawings: Figure 1 is a top plan view of the stern portion of a ship with the mechanism attached to the deck thereof. Fig. 2 is a side elevation. Fig. 3 is a detail view of one of the steering plates. Figs. 4, 5 and 6 are cross sectional views of several modifications of the steering plates. Fig. 7 is a detail view of one half of the spar showing a portion of a controlling rope and its pulleys.

Referring more particularly to the drawings, 1 indicates the deck of the ship and 2 a steering wheel of any construction, operating the drum 3. Under normal conditions this steering mechanism controls the ordinary rudder but when this latter becomes broken or disabled or the parts controlling it become broken my invention is brought into use and is connected with the steering wheel to be operated thereby.

In my invention there is provided a pair of buoyant steering members or disk shaped plates 4, one for each side of the ship and which may be formed of a metallic plate 5 and a buoyant element 6 (as for example an air chamber shown in Fig. 4, a block of wood as shown in Fig. 5, or a body of cork as shown in Fig. 6) said buoyant element having one face convex so that no resistance will be offered to the passage of the plate through the water, when the plate is in the floating position hereinafter to be described. These plates are adjustably connected by flexible drag cables 7 to the deck of the ship at 8, each drag cable having connection by means of eye 9 with one plate near one edge thereof. Also connected at one end to each plate by eyes 10 are chains 11 preferably four arranged an equal distance apart and connected at their other ends to a swivel 12.

Transverse of the deck is arranged a spar or beam 13 near the center of which is secured a pair of single pulleys 14 around each of which passes a portion 15 of one of the controlling ropes which lead from the steering drum 3 in such a manner that when one is wound thereon or pulled in the other is unwound or let out. From each pulley 14 a controlling rope passes around one wheel of a double pulley 16 secured to spar 13, to a wheel of a double pulley 17, thence around the other wheel of the pulley 16 to and around the other wheel of pulley 17 and from this latter wheel to an eye 18 on pulley 16 to which it is secured.

The pulleys 17 are not secured in any manner and each carries an eye 19 to which is secured one end of a portion 20 of a controlling rope, which passes around a single pulley 21 secured to an end of spar 13, said rope then leading to and being secured to a swivel 12 to which the chains 11 are secured.

When the ship is traveling in a straight line both buoyant members 4 float on the water in a horizontal position and in the manner of the plate secured to the starboard and are caused to travel in this manner by drag rope 7. When the ship is to be turned to either side, the controlling line 20 of the plate on that side is drawn or "heaved" in by means of the steering wheel 2, the arrangement of the rope and pulleys on spar 13 serving to increase or amplify the movement transmitted by the steering wheel as the controlling rope is drawn in the plate 4 gradually assumes a vertical position transverse to the line of travel of the ship as shown in Fig. 2 and on the port side of the vessel in Fig. 1, thereby causing the ship to swing to the side desired.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

The combination of a circular buoyant steering member having one face convex and the other plane, a drag cable secured to the plane face of said member near the periphery thereof, and a controlling cable having connection with said latter face at a plurality of points.

The foregoing specification signed at St. Louis Mo. this 18th day of December, 1905.

AUGUSTUS W. OTTIGNON.

In presence of two witnesses:
JOHN W. ROTHSCHILD,
ERNEST E. PIERCE.