O. J. PETERSON.

PROPULSION MEANS FOR VESSELS.

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1,068,696.

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Fig. 1

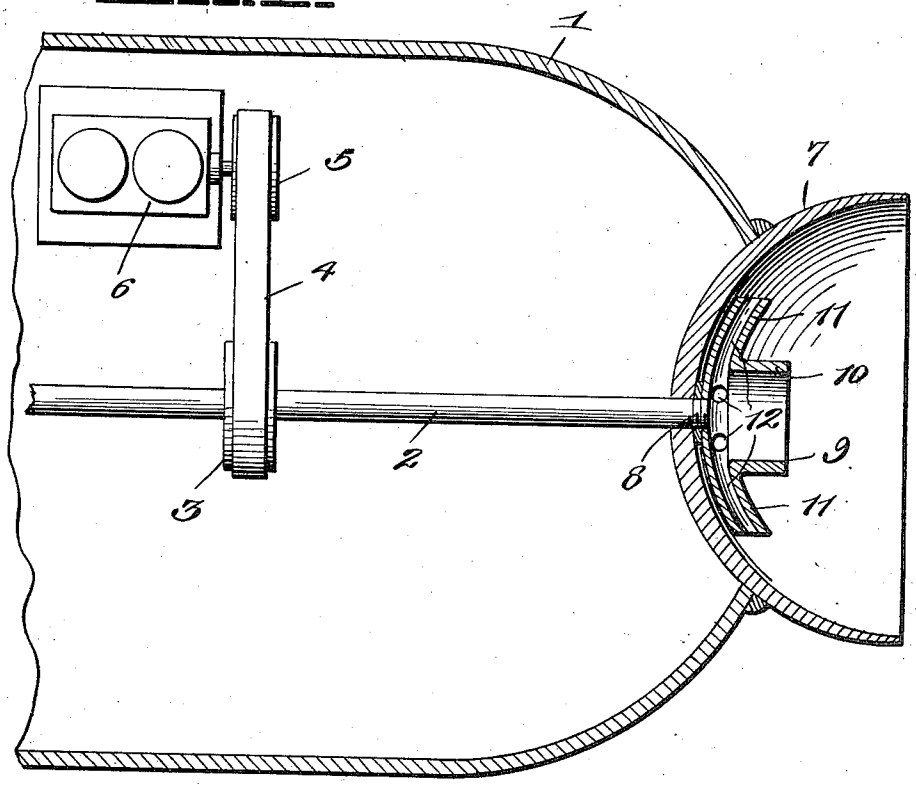
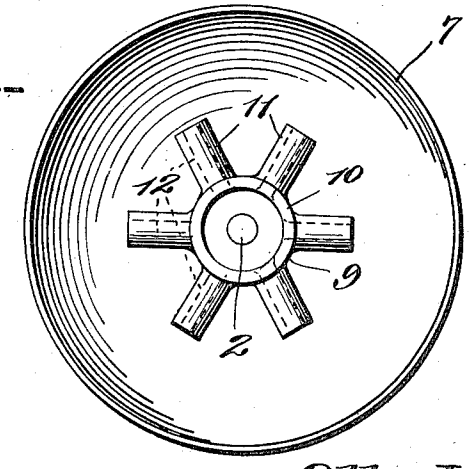


Fig. 2



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PROPULSION MEANS FOR VESSELS.

1,068,696. Specification of Letters Patent. Patented July 29, 1913.

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To all whom it may concern:

Be it known that I, OTTO J. PETERSON, a citizen of the United States, residing at Egli, in the county of Harney and State of Oregon, have invented certain new and useful Improvements in Propulsion Means for Vessels, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to new and useful improvements in propulsion means for vessels and the like and has for its object to provide an improved means for expelling the water from the stern of the vessel by means of centrifugal force.

A further object of the invention resides in providing a bowl-shaped deflector or the like formed at the stern against which the water is forced as the same is expelled.

A still further object of the invention resides in the provision of a device which is extremely simple and durable in construction, inexpensive to manufacture and one which will be very efficient and useful in operation.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawing forming a part of this application, Figure 1 is a fragmentary horizontal section through the hull of a ship showing my improved propulsion means applied thereto; and Fig. 2 is a rear end elevation of the same.

In describing my invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views and in which 1 indicates the hull of a vessel or ship of any desired type whatsoever, through which extends the longitudinal shaft 2 which has a pulley or the like 3 mounted thereon. This pulley connects through the medium of a driving belt or other connecting means 4 to an additional pulley 5 carried on the drive shaft of an engine 6. While this particular operating means is shown and described for the rotation of the shaft 2, it will be appreciated that any other form of operating means may be used, if desired.

Mounted in the stern of the hull 1, is a bowl-shaped member 7, the same facing outwardly and having a portion thereof projecting within the space inclosed by the hull and the shaft 2, which extends centrally through the hull, has the rear end thereof extending through the central portion of this bowl-shaped member to project slightly therewithin. This latter end of the shaft 2 is threaded, as shown at 8 to be engaged with a circular head member or the like 9. This head member consists of a substantial collar or sleeve portion 10 having the forward end closed by a wall, with which is engaged the threaded end of the shaft 2, and a plurality of arcuate tubular arms 11 radiate from this collar portion. Portions of these members 11 form continuations of the rear wall of the member 9 and the bores of these radial tubular arms 11 communicate with the inclosure defined by the collar 10 through the medium of the openings 12. It might also be here stated that the wall at this forward end of the sleeve or collar portion 10 is designed concavo-convex, the curvature thereof being coincident with the curvature of the inner wall of the bowl-like member 7 and as the tubular members 11 have portions thereof which are continuations of this rear wall, these tubular members are, in themselves, somewhat arcuately designed. From this construction described, it will be appreciated that this head member with the radial arcuate arms thereon will form a substantial propeller in itself. In the operation thereof, however, the water will be entered in the head member through the collar portion 10 and as the same is caused to rotate through the rotation of the shaft 2, this water will be expelled through the radial arms 11 to contact with the walls of the bowl-shaped member 7. Through the rotation of this head member and the simultaneous expulsion of the water therefrom against the bowl-shaped member, it will be appreciated that the hull and parts carried thereby may be readily propelled in a body of water.

From the foregoing description of the construction of my improved propulsion means, the operation thereof will be readily understood and it will be seen that I have provided a simple, inexpensive and efficient means for carrying out the objects of the invention.

While I have particularly described the elements best adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the

minor details of construction may be resorted to without departing from the spirit or sacrificing any of the principles of the invention.

Having thus described this invention, what I claim is:—

1. In a propulsion means for vessels, the combination with a hull and bowl-like member mounted in the stern thereof, said bowl-like member facing outwardly; of a shaft extending longitudinally of the hull and projecting through the central portion of said bowl-like member, a head member of sleeve-like design having one end thereof closed and removably engaged with the projecting end of said shaft, a plurality of substantially radial and curved tubular arms formed on said head member, the bores of which have communication with the interior of said head, and means to rotate said shaft.

2. In a propulsion means for vessels, the combination with a hull, and a bowl-like member mounted in the stern thereof, said bowl-like member facing outwardly therefrom; of a shaft extending longitudinally of the hull and projecting through the central portion of said bowl-like member, a sleeve-like head member having a concavo-convex forward wall removably engaged with the rear end of said shaft, the curvature of said forward wall being designed coincident to the curvature of the wall of said bowl-like member, a plurality of substantially radial and rearwardly curved tubular arms formed on said head member, the bores of said tubular members having communication with the interior of said sleeve-like head member and said members also having portions thereof forming continuations of the forward wall of said head member, and means to rotate said shaft and head member carried thereon.

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

OTTO JOHN PETERSON.

Witnesses:

Mrs. J. GEHNART,

E. M. HEMBREE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."