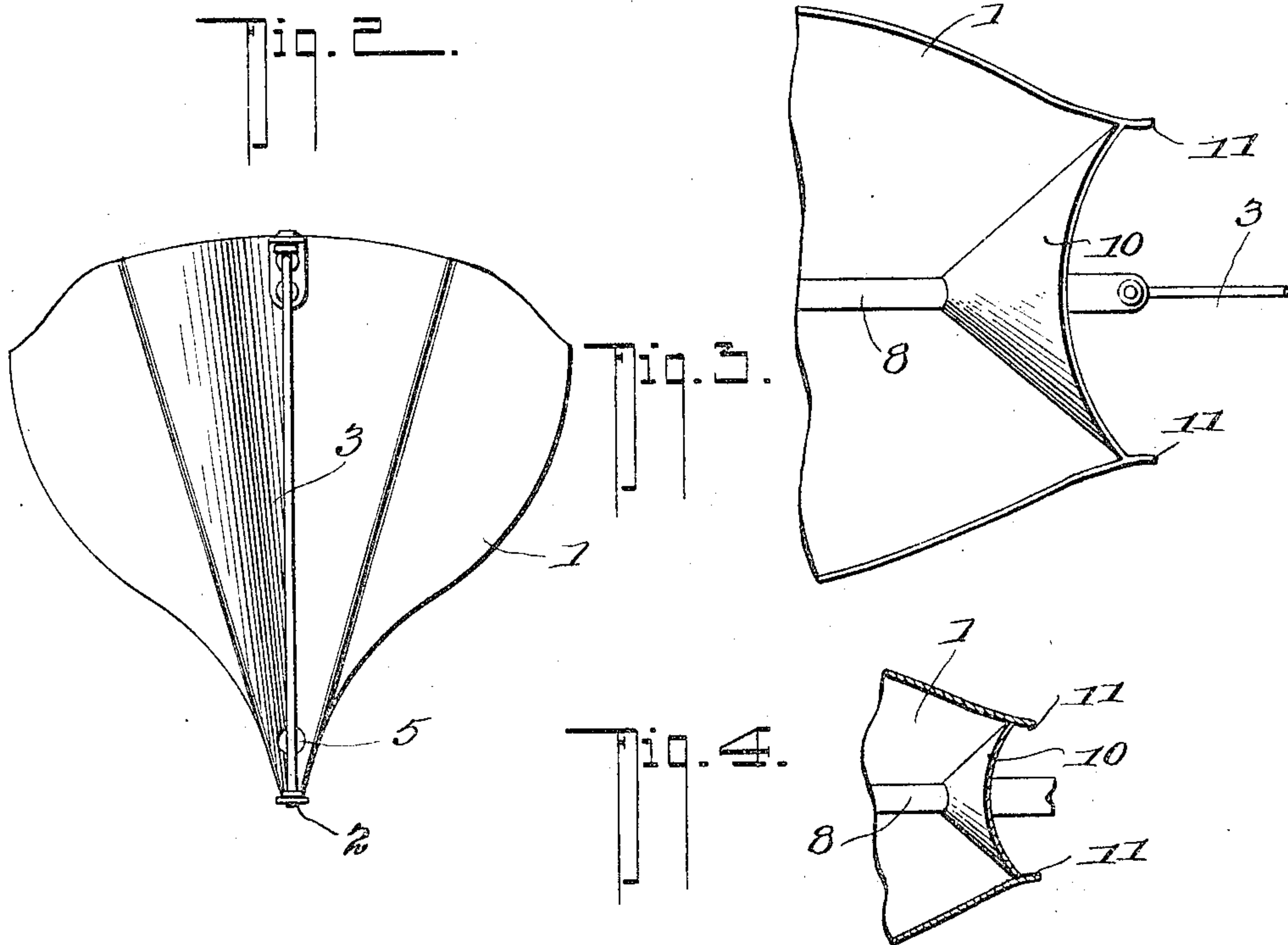
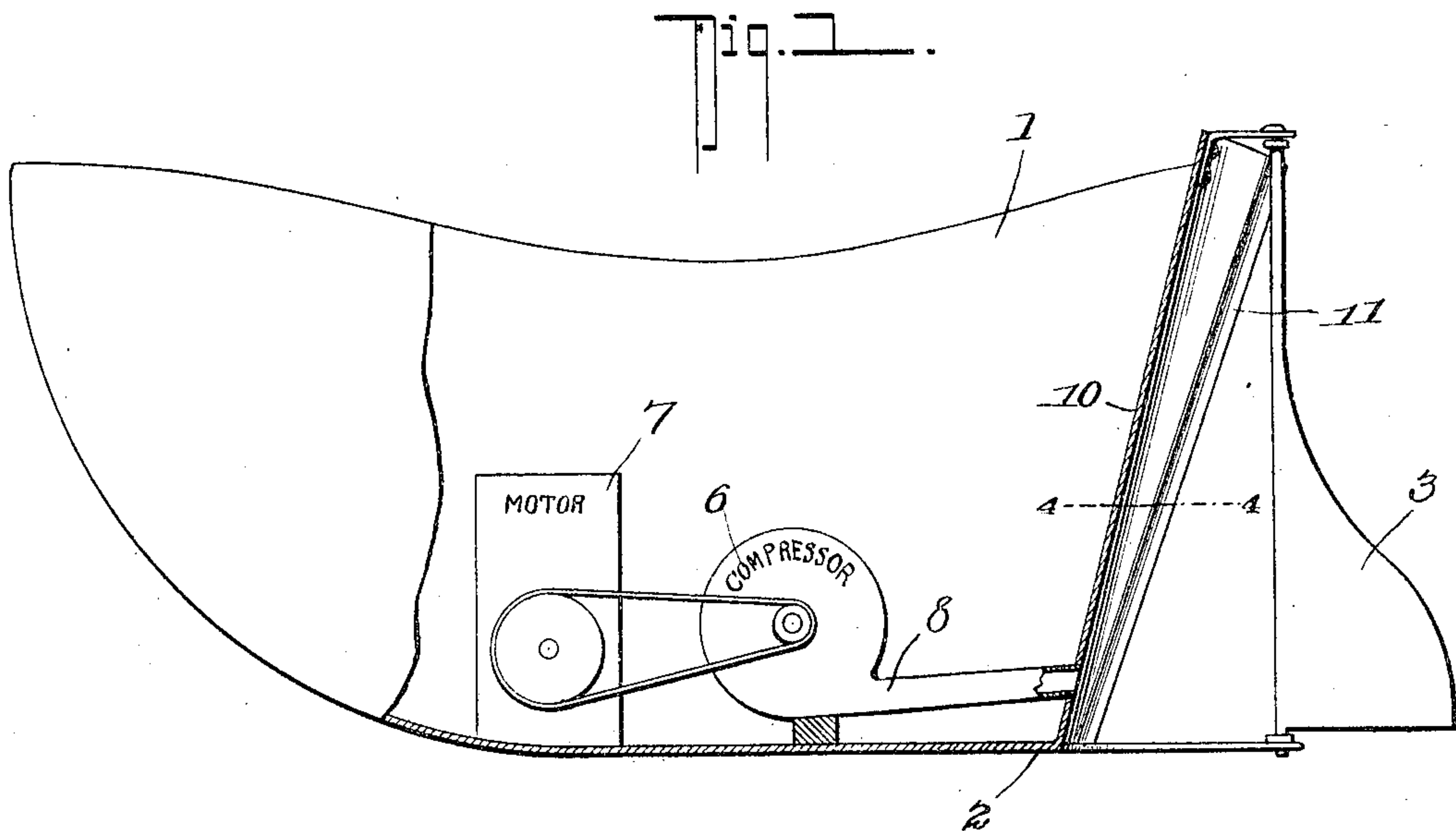


No. 808,634.

PATENTED JAN. 2, 1906.

P. CARLSON.
VESSEL PROPELLING DEVICE.
APPLICATION FILED JULY 10, 1905.



Witnesses

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UNITED STATES PATENT OFFICE.

PEET CARLSON, OF MANOR, TEXAS.

VESSEL-PROPELLING DEVICE.

No. 808,634.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed July 10, 1905. Serial No. 269,012.

To all whom it may concern:

Be it known that I, PEET CARLSON, a citizen of the United States, residing at Manor, in the county of Travis and State of Texas, have invented a new and useful Vessel-Propelling Device, of which the following is a specification.

This invention relates to vessel-propelling devices, and has for its principal object to provide a novel form of propeller in which a current of air or other fluid is forced under pressure through a port in the stern of the vessel, the stern being so shaped that the volume of propelling fluid is more or less confined and its force utilized to the best advantage in the propulsion of the vessel.

A further object of the invention is to provide a fluid-propelled vessel in which the stern is of such shape that the volume of propelling fluid will form a cushion between the stern of the vessel and the body of water in the rear, the expansive force of the fluid being utilized after the impact of the jet or stream.

A still further object of the invention is to provide a device of this character in which the stern-plate of the vessel is arranged in a plane oblique to the vertical, so that the air or other fluid forced into the water at a point below the surface of the latter will in rising to the surface act on the inclined stern-plate and further assist in propelling the vessel.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a sectional elevation of sufficient of a vessel to illustrate the application of the invention thereto. Fig. 2 is an elevation of the stern of the vessel. Fig. 3 is a partial plan view of the vessel. Fig. 4 is a sectional plan view of the stern on the line 4-4 of Fig. 1.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The vessel 1 may be of any size and is provided with a keel 2 and rudder 3 of any ordinary construction.

At a point within the vessel is a means for forcing air sternward, this mechanism in the present instance being shown in the form of a blower or compressor 6, driven by a motor 7. From the blower or compressor leads a pipe 8, through which the air is carried to the rear end of the vessel and there discharged through a port 5 below the water-line.

The stern-plate 10 of the vessel is arranged on a line oblique to the vertical and extends from the keel upward to a point above the water-line, generally to the top of the hull, the plate inclining sternward from the keel-line up. This plate, viewed in plan, has a concave inner face and is of gradually-increasing width from the keel to the top of the hull, and at the opposite sides of the plate are arranged rearwardly-extending flanges 11, which in connection with the concaved plate form a pocket in which the air issuing from the port 5 is confined to some extent.

The air issuing from the port 5 serves first by its impact against the body of water to force the vessel forward, and as the air is naturally lighter than the water it seeks to rise to the surface of the water, but being confined in the pocket formed by the concaved stern-plate and the flanges 11 it will move upward in the space formed between the stern-plate and the body of water adjacent thereto. The air in moving upward forms a cushion between the stern-plate and the water, and the quantity of air in this cushion is constantly replenished as the air issues from the port 5. In moving upward the air will expand and in expanding will tend to force the vessel forward, and it will further act as a propelling means, owing to the inclination of the stern-plate, the movement of the body of confined air against the inclined plane represented by said stern-plate serving to force the vessel forward, and at the same time the stern of the vessel will be held up to some extent and will not be submerged, as is usual in vessels propelled at high speed by the ordinary propelling mechanisms.

Having thus described the invention, what is claimed is—

1. A vessel having a transversely-concaved stern, the side walls of the vessel being extended rearward to form flanges at the opposite sides of said concaved stern, said flanges being arranged on convergent lines that taper from the upper portion of the stern to a point of convergence adjacent to or below the keel, a discharge-port formed in the stern at a point

adjacent to the keel, and means for forcing a stream of compressed air through said port.

2. A vessel having a transversely-concaved stern, the side walls of the vessel being extended to form flanges at the opposite sides of the stern, said flanges being arranged on tapered lines toward a point of convergence adjacent to or below the keel, a port arranged in the stern of the vessel, means for forcing a stream
10 of compressed air through said port, and a

rudder mounted aft the concaved stern, and in the vertical plane of the keel, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
the presence of two witnesses. 15

PEET CARLSON.

Witnesses:

FRANK CARLSON,

SIMEON NORSS.