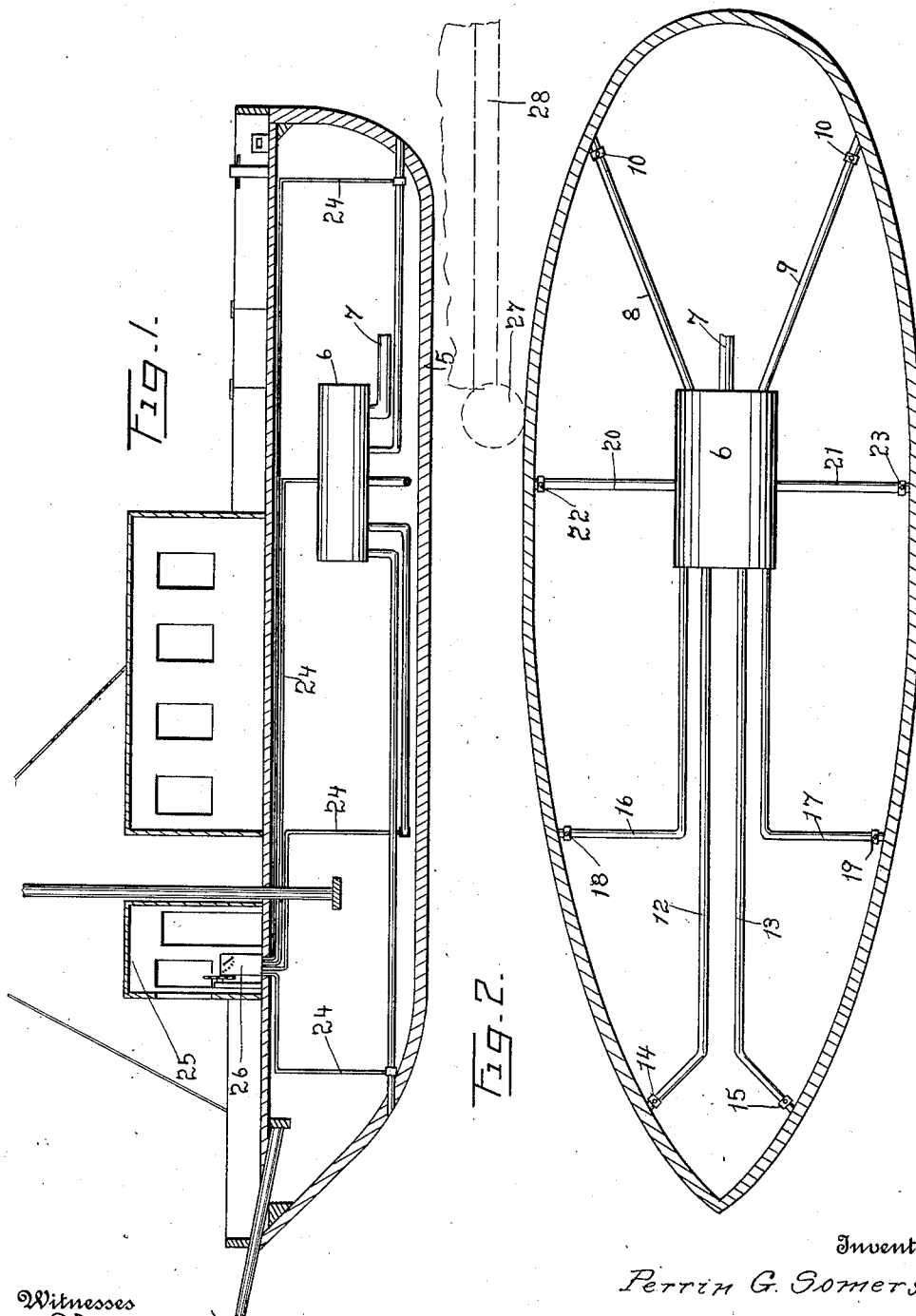


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 FLUID JET PROPELLED VESSEL.
 APPLICATION FILED JULY 12, 1910.

1,007,811.

Patented Nov. 7, 1911.



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UNITED STATES PATENT OFFICE.

PERRIN G. SOMERS, OF SAN DIEGO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO ED KINGSTON, OF ALPINE, CALIFORNIA.

FLUID-JET-PROPELLED VESSEL.

1,007,811.

Specification of Letters Patent.

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Application filed July 12, 1910. Serial No. 571,595.

To all whom it may concern:

Be it known that I, PERRIN G. SOMERS, a citizen of the United States of America, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Fluid-Jet-Propelled Vessels, of which the following is a specification.

This invention relates to fluid jet propelled vessels, the object of the invention being to provide a structure of this character comprising a compressed air receiving magazine from which air may be supplied for a plurality of jets, the discharge pipes for said jets being located in position to drive the vessel ahead, astern, sidewise, or to warp the vessel into a dock, as will be hereinafter set forth.

Further objects and advantages of the invention will be set forth in the detailed description which now follows:

In the accompanying drawing, Figure 1 is a longitudinal sectional view of a vessel having the jet propulsion devices applied thereto, and, Fig. 2 is a horizontal section thereof upon a slightly enlarged scale.

Like numerals designate corresponding parts in both of the figures of the drawing.

Referring to the drawing, the numeral 5 designates the hull of the vessel and 6 designates a compressed air reservoir to which compressed air may be supplied through a supply pipe 7 from a compressor or other source of supply, not shown. Leading from the reservoir are the stern jet pipes 8 and 9 that are controlled by valves 10 and 11. Bow jet pipes 12 and 13 likewise lead from the reservoir and are controlled by valves 14 and 15. Transverse jet pipes 16 and 17 lead from the reservoir and are controlled by valves 18 and 19, the jets from these pipes discharging forward of the transverse center line of the vessel. Additional transverse jet pipes 20 and 21 that are controlled by valves 22 and 23 are so located as to discharge in the rear of the transverse center line of the vessel.

All of the controlling valves, 10, 11, 14, 15, 18, 19, 22, and 23 may be electrically actu-

ated. Electrically actuated valves are so well known that a detail description thereof is unnecessary. Conduits for the controlling wires of the various valves are indicated at 24, these conduits leading to the pilot house 25, where suitable controlling mechanism, indicated in a general way at 26, is illustrated.

It is apparent, that by opening the valves 10 and 11, for instance, the vessel will be driven forward. By opening the valves 14 and 15, the vessel will be driven rearwardly. By opening the valve 11, the vessel will be driven forward and at the same time its stern will be driven toward the right to impart a turning movement to the vessel in case the usual rudder (not shown) should become disarranged. By opening the valves 18 and 22, the vessel will be driven sidewise, while if the vessel be lying adjacent a wharf, partially indicated in dotted lines at 28, and the valve 19 be opened, the vessel will be warped around the corner pile 27 of the wharf until it lies along side of the wharf instead of in front thereof. These, and many other movements of the vessel may be had by reason of the peculiar arrangement of jets herein shown and described, the supply to these jets being facilitated by reason of the fact that they draw their supply from a storage chamber instead of from individual air pumps or compressors.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claim.

Having described my invention, what I claim is:

The combination with a vessel, of a fluid receiving storage chamber therein, means for conducting a compressed fluid to said storage chamber, a pair of jet pipes discharging

from the stern of the vessel, said jet pipes
lying at an acute angle to the longitudinal
median line of the vessel and opposite sides
thereof, additional jet pipes discharging at
5 opposite sides of the bow of the vessel and
additional jet pipes discharging at the op-
posite sides of the vessel a short distance
fore and aft of the transverse median line

of the vessel, all of said pipes being pro-
vided with individual controlling valves. 10

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

PERRIN G. SOMERS.

Witnesses:

H. M. VOLLMER,

J. C. HIZER.

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