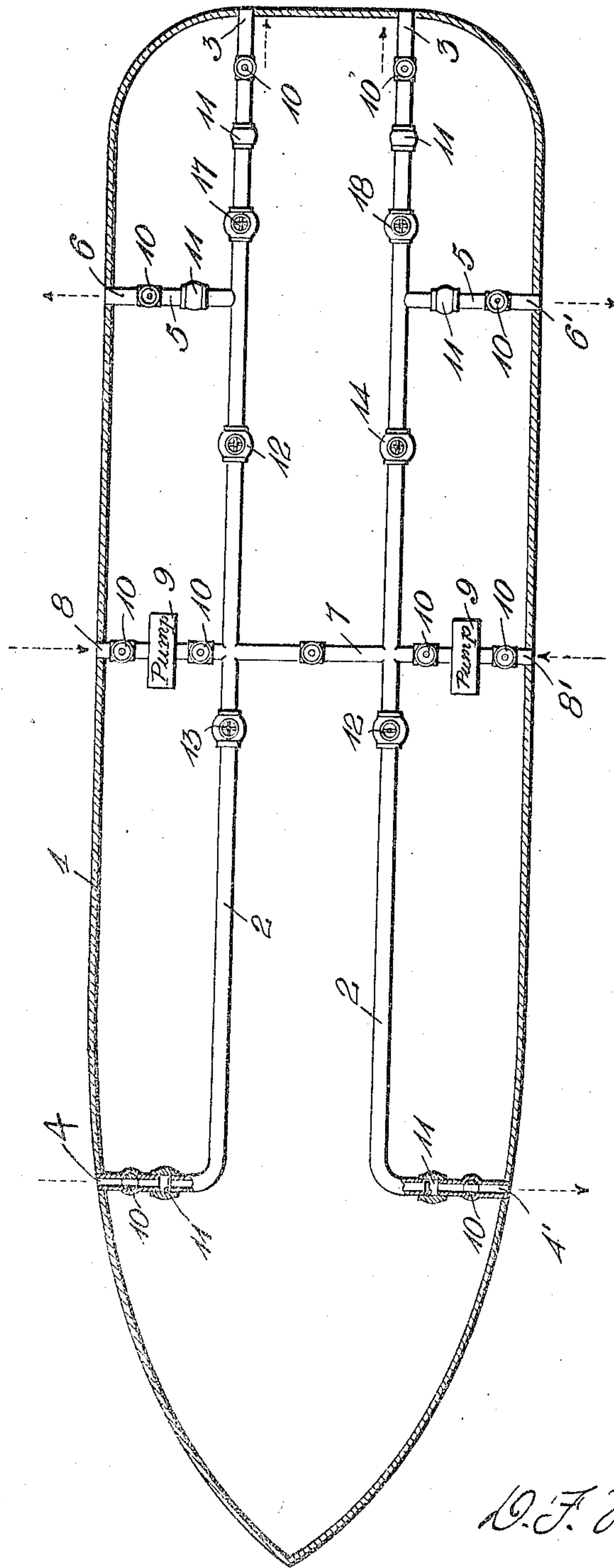


D. F. VOLLMER.
HYDROSTATIC PROPELLING AND STEERING APPARATUS.
APPLICATION FILED MAY 21, 1908.

917,201.

Patented Apr. 6, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID F. VOLLMER, OF MONROE, LOUISIANA.

HYDROSTATIC PROPELLING AND STEERING APPARATUS.

No. 917,201.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed May 21, 1906. Serial No. 494,067.

To all whom it may concern:

Be it known that I, DAVID F. VOLLMER, a citizen of the United States, residing at Monroe, in the parish of Ouachita and State of Louisiana, have invented certain new and useful Improvements in Hydrostatic Propelling and Steering Apparatus, of which the following is a specification.

My invention has relation to new and useful improvements in hydrostatic steering and propelling apparatus to be used in connection with a boat.

The main object of my invention is to produce an efficient means whereby a boat may be turned around in the water, without having any forward or rearward motion, whatsoever; and at the same time my apparatus may be used for propelling a boat in the water. It is observed that in my apparatus the water is drawn in at the central portions of the sides of said boat, and is shot out through jets forwardly or rearwardly, or both, thus making it possible to control the boat no matter what position it may assume.

With these and other objects in view my invention consists in the novel construction and arrangement of parts as are hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the claims hereunto appended.

In the accompanying drawings which illustrate the preferred embodiment of my invention;—The figure of the drawing illustrates a diagrammatic, horizontal, sectional view of my boat, and the apparatus used in connection therewith, showing the arrangement of the hydrostatic propelling and steering mechanism.

Referring more particularly to the drawings my invention is described as follows:—The boat 1, which is adapted to have my apparatus installed therein, has the parallel longitudinal pipes 2, terminating at the rear end of said boat in propelling jets 3, and turning outwardly at their forward ends, terminating at the sides of said boat forming steering jets 4, and 4¹. Communicating with said pipes 2, and at right angles thereto are the pipes 5, which terminate at the sides of said boat forming jets 6 and 6¹. The pipe 7, which runs at right angles to the longitudinal pipes, has its ends terminating at the sides of said boat, forming suction jets 8 and 8¹. Interrupting said pipe 7, near each of its ends are the pumps 9, said pumps being of any desired or preferred form,

which may be adapted for this purpose. Said pipes 2, 5, and 7, are provided with a number of gate valves 10, a number of check valves 11, and a number of hand valves 12, 13, 14, 17 and 18. Said gate valves are for the purpose of shutting off the flow of water through said pipes, when my apparatus is out of condition, or in need of repairs. The check valves are for the purpose of preventing the influx or outflow of water in said pipes, whichever the case may be. Said hand valves, are not necessarily regulated by hand, but may be operated from the pilot house by means of steam or electricity, or any other mode of power, which may be adapted for this purpose. These valves may be placed wherever needed, and are for the purpose of regulating my steering or propelling apparatus. Should it be desired to turn the boat to the right, then said valve 13, would be shut off, together with hand valve 14, while water is shot out through the jets 4¹ and 6; of course, if the boat is standing still, hand valve 17 and 18, will also be closed. It is thought that this explanation will suffice in making the operation of my invention clear to those versed in this art.

Though I have particularly described my invention, I may exercise the right to make such alterations and modifications therein as will not depart from the spirit or scope of my invention.

Having described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a boat steering and propelling apparatus, the combination of two parallel, longitudinal pipes terminating at their rear ends in propelling jets, their front ends turned outwardly forming steering jets, with a pipe running at right angles to said longitudinal pipes and communicating with the same, said pipe provided with pumps adapted and for the purpose of drawing water into said pipes, said longitudinal pipes further provided near their rear ends with pipes at right angles thereto and communicating therewith, said last mentioned pipes terminating in steering jets, all of said pipes provided with a series of valves, adapted and for the purpose of enabling the efficient operation of said apparatus.

2. In a boat steering and propelling apparatus the combination of two parallel, longitudinal pipes, terminating at their ends in propelling jets, their front ends turned

outwardly forming steering jets, with a
pipe running at right angles to said longi-
tudinal pipes, and communicating with the
same, said pipe provided with pumps
5 adapted and for the purpose of drawing
water into said pipes, said longitudinal
pipes further provided near their rear ends
with pipes at right angles thereto and com-
municating therewith, said last mentioned
10 pipes terminating at the sides of the boat in

steering jets, all of said pipes being pro-
vided with a series of gate valves, a series
of check valves and a series of hand valves,
substantially as shown and described.

In testimony whereof I affix my signature, 15
in presence of two witnesses.

DAVID F. VOLLMER.

Witnesses:

ARNOLD BORNSTEIN,
JAMES B. SMALL.