

No. 625,907.

Patented May 30, 1899.

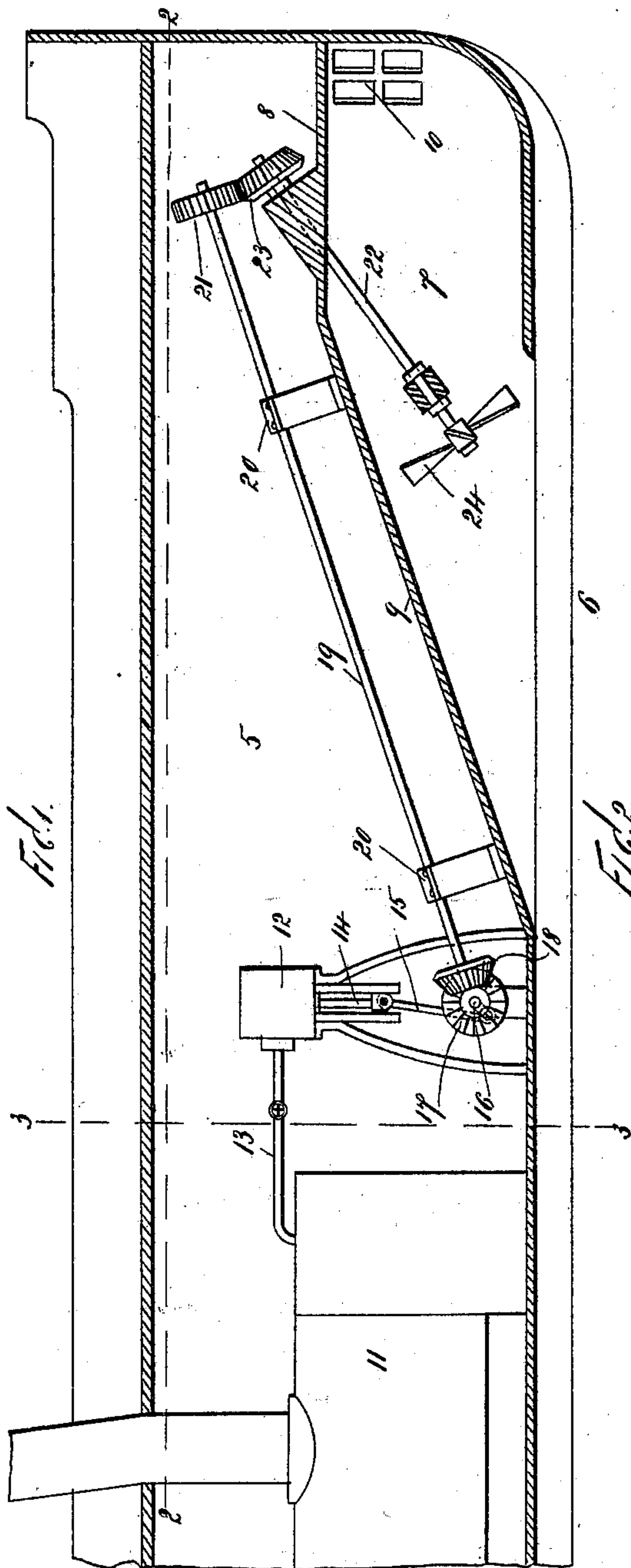
A. STATHAKIS.

PROPELLING MECHANISM FOR VESSELS.

(Application filed June 23, 1898.)

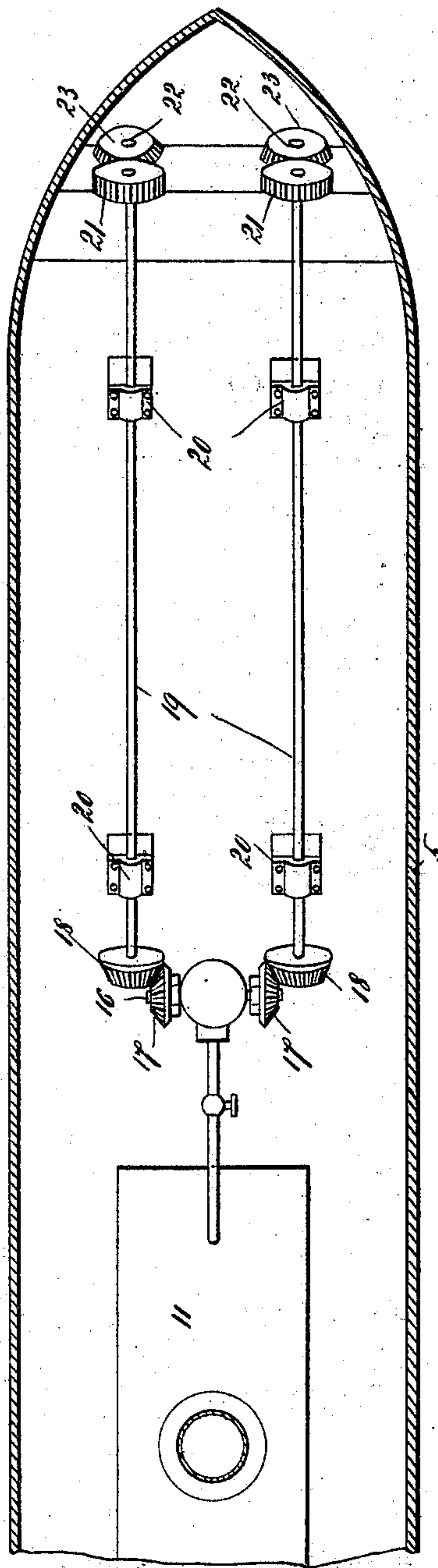
(No Model.)

2 Sheets—Sheet 1.



WITNESSES

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F. A. Stewart



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2 Sheets—Sheet 2.

FIG. 3.

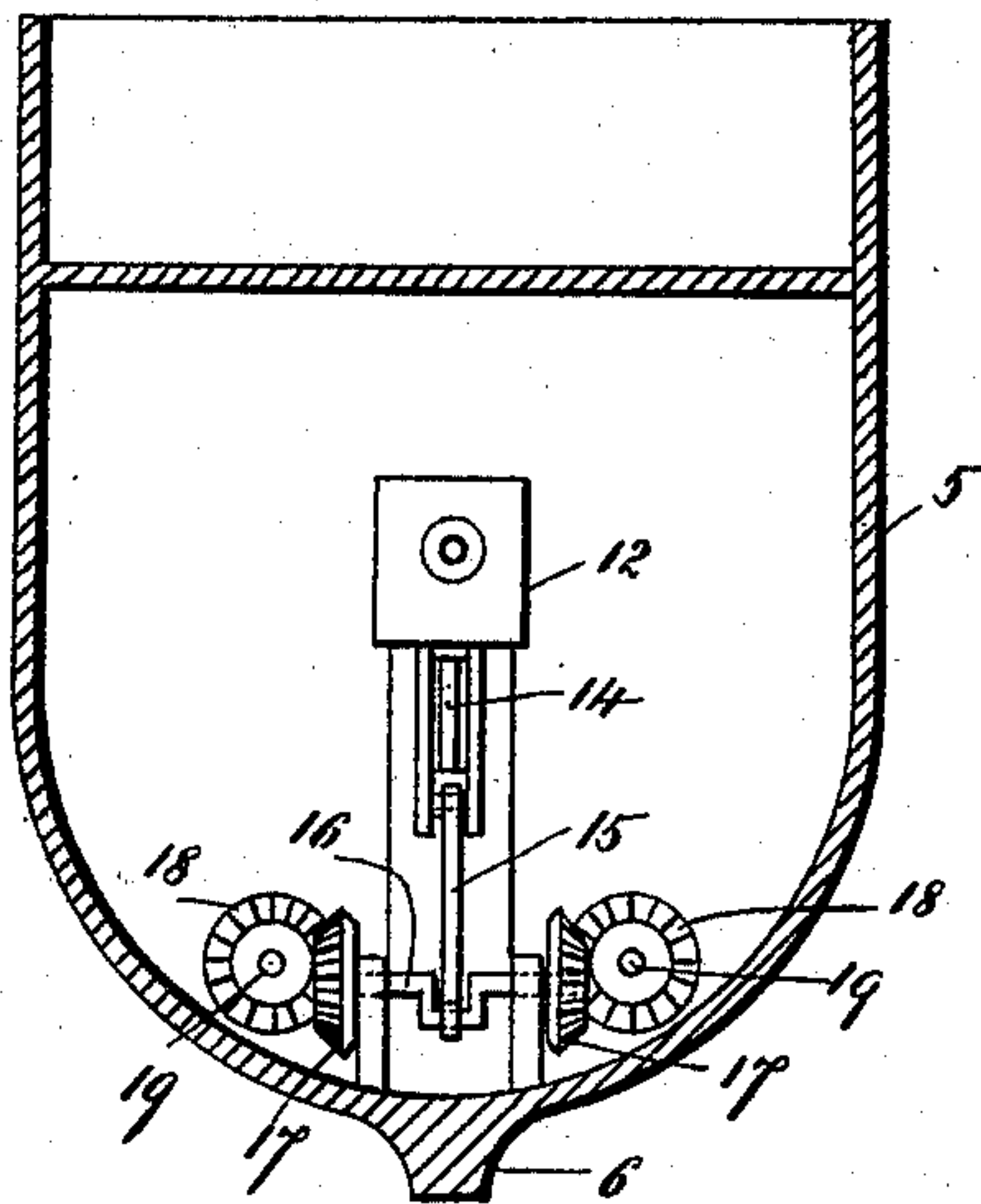
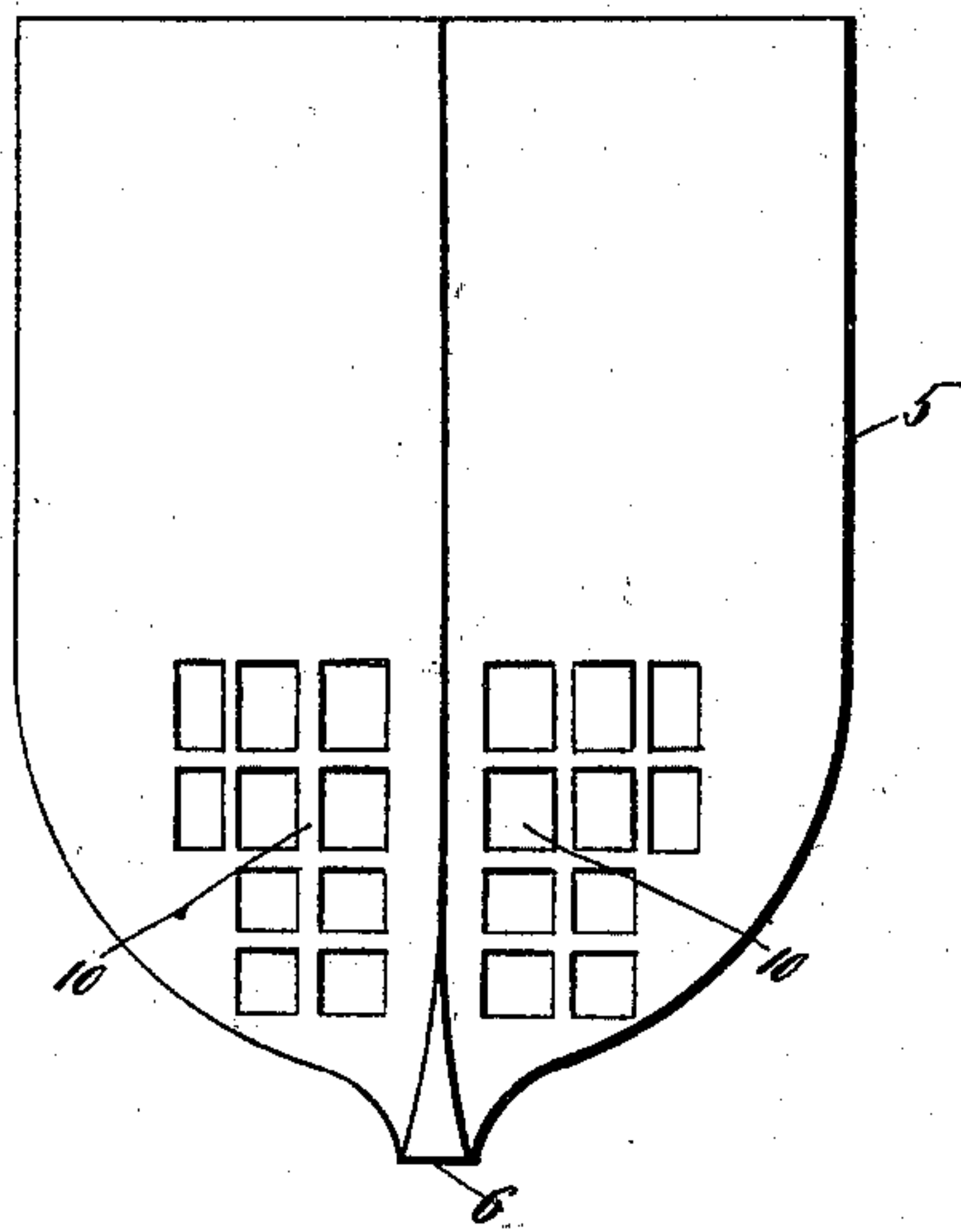


FIG. 4.



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UNITED STATES PATENT OFFICE.

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PROPELLING MECHANISM FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 625,907, dated May 30, 1899.

Application filed June 23, 1898. Serial No. 684,258. (No model.)

To all whom it may concern:

Be it known that I, ANGEL STATHAKIS, a citizen of the United States, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Propelling Mechanisms for Vessels, of which the following is a full and complete specification, such as will enable those skilled in the art to which it ap-
10 pertains to make and use the same.

This invention relates to propelling mechanism for vessels; and the object thereof is to provide an improved mechanism of this class whereby great speed is obtained without an increase of power and whereby the jolting or jarring occasioned by the operation of the propelling mechanism is reduced to a minimum, a further object being to provide a propelling mechanism for vessels comprising a propeller and means for operating the same, said propeller being located at the bow of the vessel in a suitable space or chamber formed therein, centrally and longitudinally of the bottom thereof, and said propeller being supported above the bottom keel of the vessel.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

30 Figure 1 is a sectional side view of the bow of a vessel provided with my improved propelling mechanism; Fig. 2, a sectional plan view; Fig. 3, a transverse section on the line 3 3 of Fig. 1, and Fig. 4 a bow end view of said vessel.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in said drawings I have shown at 5 the hull of a vessel provided with a keel 6, and the said hull and keel may be of the usual or any preferred form and construction with the exception of the modification hereinafter described.

45 Formed in the bow of the vessel and at the bottom of the hull thereof is a longitudinal chamber 7, which opens downwardly and backwardly and which is separated from the under main portion of the hull by a horizontal top plate 8 at the extreme bow and a downwardly and backwardly inclined plate
50

9, which extends from the rear end of the plate 8 to the keel of the vessel.

The longitudinal chamber 7 may be of any desired length, and the bow of the vessel is provided with a grating 10, through which the water is free to pass, said grating being located below the water-line, and in practice the water is free to pass through the grating 10, and the entire bow of the vessel below the water-line may be provided with this grating, and said grating may be of any desired form or construction.

I have also shown at 11 an ordinary steam-boiler, and at 12 a steam-cylinder which is in communication with the boiler by means of a pipe 13, and the cylinder 12 is provided with a piston, (not shown,) with which is connected a piston-rod 14, which is pivotally connected with a crank-rod 15, which is connected with a transverse crank-shaft 16, which is provided at each end with a beveled pinion 17, and the beveled pinions 17 operate in connection with corresponding beveled pinions or gear-wheels 18, mounted on shafts 19, which are supported in an inclined position, as shown in Fig. 1, said shafts being mounted in bearings 20, and the shafts 19 are preferably approximately parallel with the inclined upper plate or wall 9 of the chamber 7.

The forward ends of the shafts 19 project almost to the end of the bow of the vessel, and each is provided with a gear-wheel 21, and suitably supported below the forward ends of each of the shafts 19 is a propeller-shaft 22. These propeller-shafts pass downwardly and backwardly through the upper plate or wall 8 of the chamber 7 and are provided at their forward ends each with a gear-wheel 23, in connection with which the corresponding gear-wheels 21 on the shafts 19 operate, and the rear end of each of the propeller-shafts is provided with a propeller 24.

As shown and described, the propellers 24 are located about midway of the longitudinal chamber 7, and the water which passes in through the grating 10 and fills the the chamber 7 is operated on by the propellers 24, as will be readily understood, and the vessel is propelled thereby.

Although I have shown and described the propeller-shafts 22 as propelled by steam-

power, it will be apparent that other power may be employed, and it will be apparent that many changes in and modifications of the gearing by which the propeller-shafts are operated may be made without departing from the spirit of my invention or sacrificing its advantages.

By means of the construction herein described the usual jolt and jar occasioned by the propelling mechanism of vessels is greatly reduced and the vessel is propelled evenly and smoothly, and the danger of breaking or injuring the propellers is entirely obviated, the said propellers being inclosed and protected by the side walls of the hull of the vessel.

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

A vessel the hull of which is of the usual form, said vessel being provided at the bow thereof with a central longitudinal chamber

which is below the water-line, and through which the water passes, and the greatest depth of which is at the front, said chamber being also open at the front, and at the bottom of the rear end thereof, and the top or upper wall of the rear portion of said chamber being inclined downwardly and backwardly, and a propeller-shaft mounted in said chamber and extending upwardly and forwardly through the top wall thereof, said propeller-shaft being provided at its rear end and within said chamber with a propeller, and means for operating said shaft, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 21st day of June, 1898.

ANGEL STATHAKIS.

Witnesses:

F. A. STEWART,

A. C. McLOUGHLIN.