Oct. 23, 1928. 1,689,114

J. A. CHOQUETTE

AUXILIARY POWER MEANS FOR SHIPS AND THE LIKE

Filed March 3, 1925 3 Sheets-Sheet 1

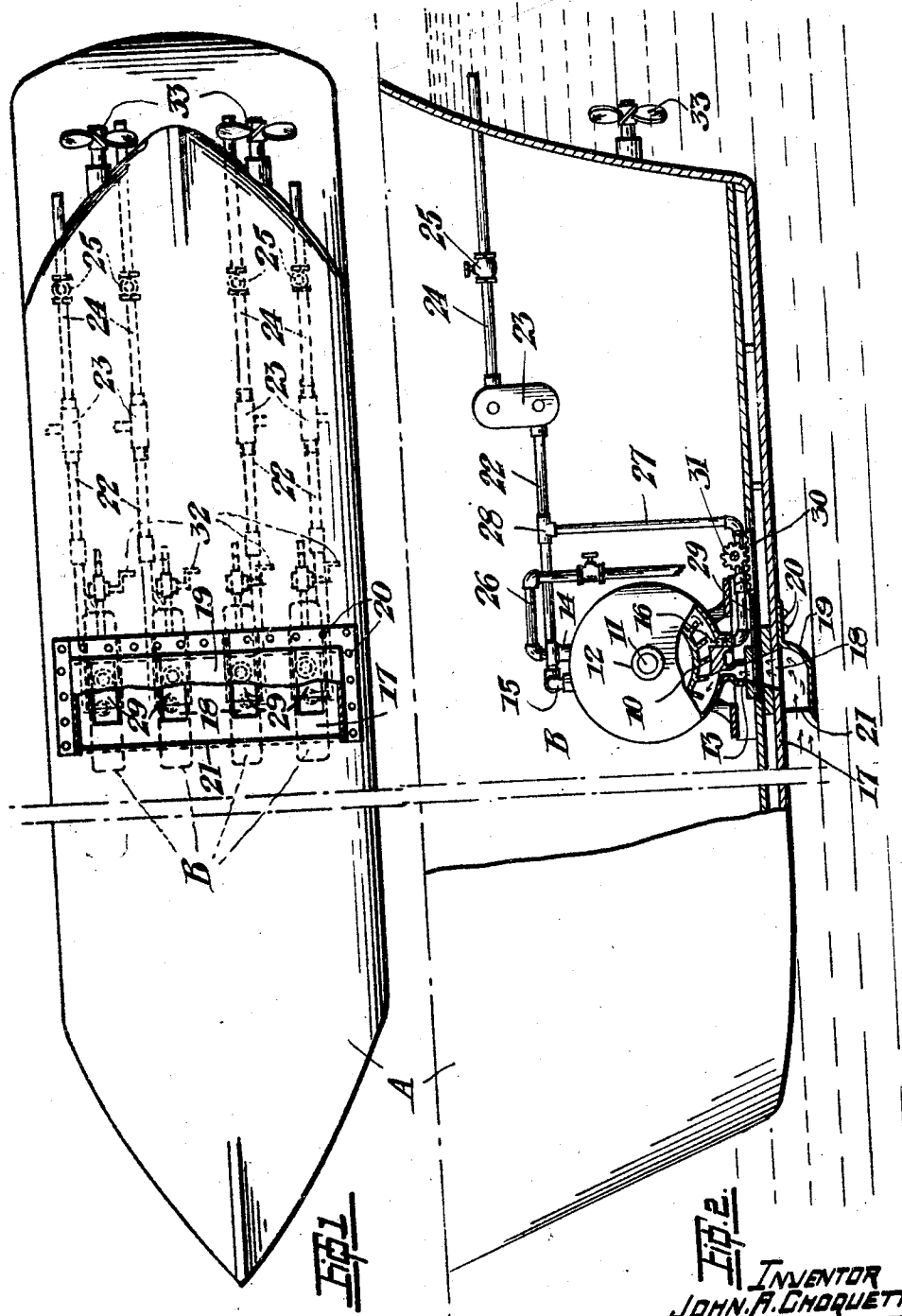


Fig. 1

Fig. 2.

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3 Sheets-Sheet 2

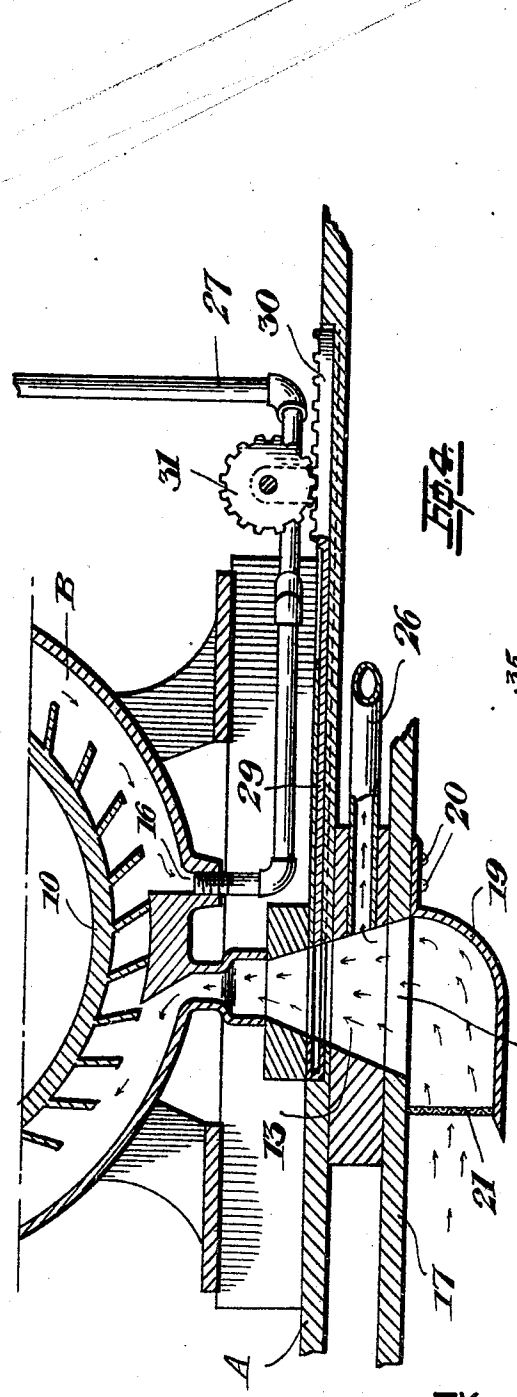


Fig. 4.

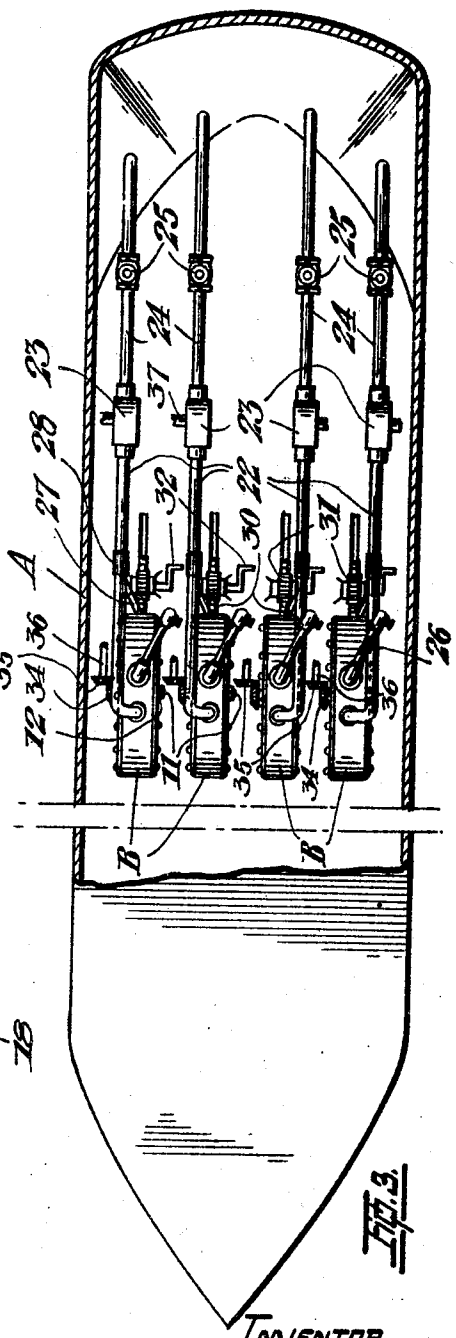


Fig. 3.

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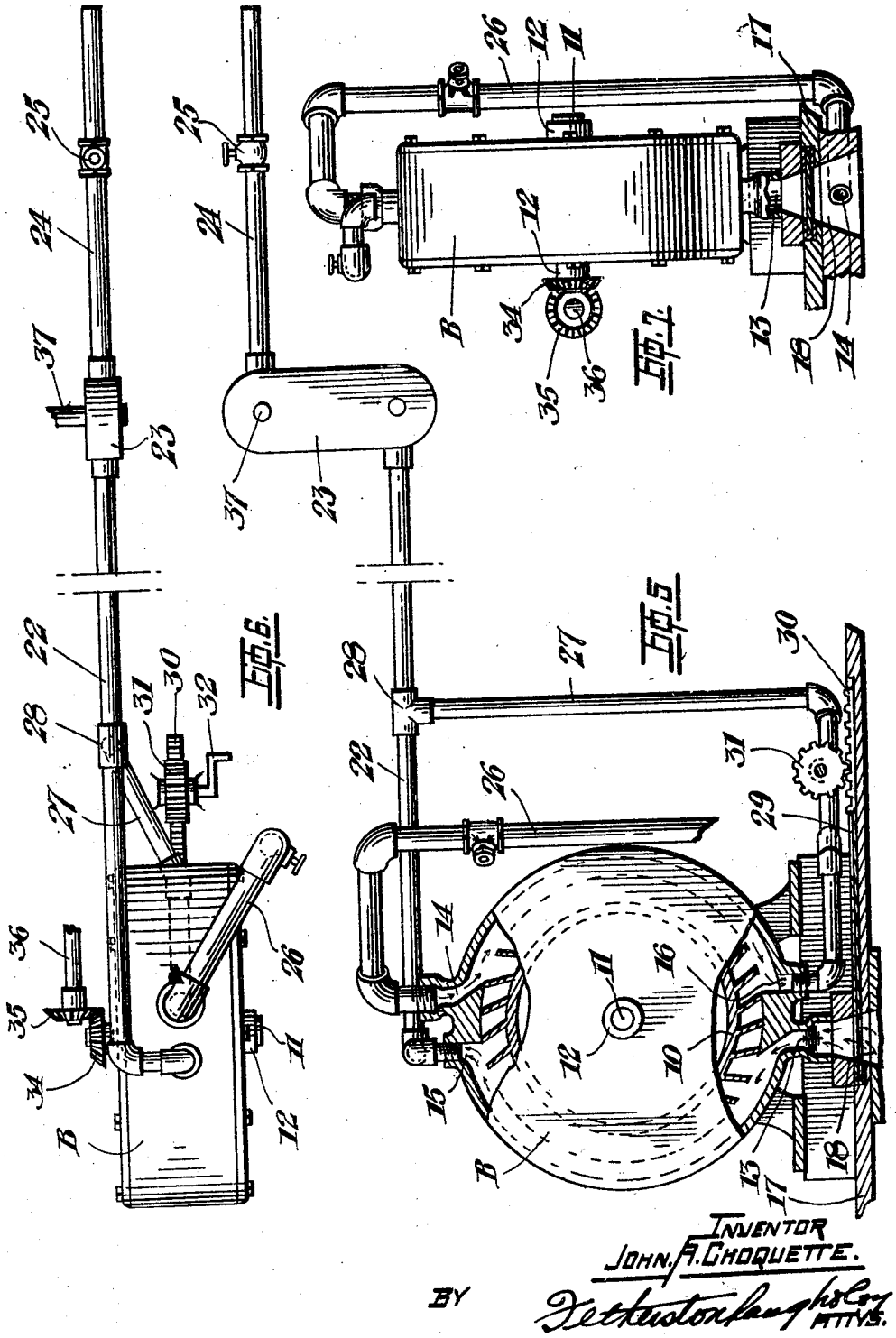
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Filed March 3, 1925 3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE.

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AUXILIARY POWER MEANS FOR SHIPS AND THE LIKE.

Application filed March 3, 1925. Serial No. 12,929.

This invention relates to improvements in auxiliary power means for ships and the like, and an object of the invention is to provide inexpensive, durable and efficient auxiliary means, in combination with the existing means of propulsion, for ships, boats and marine craft generally.

A further object is the provision of auxiliary accelerator means for ships and the like automatically operable on the vessel moving forward.

With the foregoing and other objects in view, the invention relates to boat power mechanisms, a feature of which is to provide a boat with improved hydraulic power mechanism adapted to be operated by pressure of the water in which the boat is partially submerged.

Referring now to the drawings, in which like characters of reference indicate corresponding parts in each figure:

Figure 1 is a plan view of the underside of a ship or boat fitted with my improved device,

Figure 2 is a side elevation of a ship or boat partly broken away and showing my invention,

Figure 3 is a top plan of a vessel, partly broken away for clarity, showing my invention,

Figure 4 is an enlarged section of the accelerator turbine showing the main intake port and one of the discharge ports,

Figure 5 is a side elevation partly in section of the turbine, pipe line, suction pump and valve controlled waste pipe,

Figure 6 is a top plan view of the same, and

Figure 7 is an end view, partly in section, of the same.

Referring more particularly to the drawings, A designates a vessel of any suitable construction and B turbines arranged in the bottom thereof and of special construction, as covered by my United States application, Serial Number 748,404, filed November 7th, 1924, for improvements in fluid turbines, and in view of which it is not proposed here to enter into the details of the construction except in so far as they affect the present invention. The turbines B are provided with the usual rotor 10 mounted on the shaft 11 journalled in the ends 12 and have inlet ports 13 and 14 and outlet ports 15 and 16. The inlet port 13 may be here termed the main inlet port and communicates directly with the water through a suitably formed opening 18 in the bottom 17 of the vessel A. This opening, as illustrated in Figure 2, is provided with a transversely extending scoop plate 19 suitably bent and rigidly secured at 20 to the bottom 17. It is also provided in the front with a screen or the like 21 and is adapted, as indicated by the arrows, on the vessel moving forward to receive the water and direct it into the opening 18 thence into the turbine intake ports 13 and 14. Connected to the outlet port 15 on the turbine B, is a pipe 22 in turn connected to a pump 23 provided with a waste pipe 24 having a control valve 25 therein through which the waste from the turbine is discharged. The intake port 14 is connected through a pipe 26, as illustrated in Figure 7, with the port 13, while the outlet port 16 is connected by a pipe 27 to the pipe 22 through a T-joint 28. It should here be mentioned that the opening 18 is adapted to be closed by means of a slide 29 carried on the bottom 17 of the vessel and operable through a rack 30 adapted to engage with a toothed hand-operated pinion 31 provided with a suitable handle 32. The vessel, as in the example of my invention here illustrated, is adapted to be driven in the usual way by twin propellers 33.

From the foregoing it will be seen that as the vessel A moves forward under the influence of the propellers 33 and on the slide 29 being opened, the water will rush in through the opening 18 and into the turbine intake ports 13 and 14 causing the member 12 to rotate. The shaft 11, being rigidly secured thereto, will also rotate and the power thus generated can through the bevel gears 34 and 35 and shaft 36 be applied as desired. In order that the rush of water to the turbine may be more effective by relieving the back pressure therefrom and also causing said flow to be effective without the vessel having to be moved forward too rapidly, the pump 23 is simultaneously operated through the shaft 37 driven from an independent source of power to create a vacuum in the turbine and to discharge the waste water therefrom. This is a feature of my invention in combination with the connection of the outlet port 15 with the pump and the connecting of the intake port 14 with the intake port 13 whereby the velocity and pressure of the water entering said ports, as well as the volume, is increased

rendering, as above described, with the creation of a vacuum in the turbine the operation of the turbines more effective and more readily performed.

While a plurality of turbines are illustrated in the accompanying drawings, it will be understood that one or more can be used and instead of being arranged transversely of the ship can, with most satisfactory results, be longitudinally placed.

Furthermore, it should be noted that my invention would be equally applicable if the ship were otherwise than engine driven, as for instance a sailing vessel.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention within the scope of the claims constructed without departing from the spirit or scope thereof, it is intended that all matter contained in the accompanying specification and drawings shall be interpreted in an illustrative and not in a limiting sense.

What I claim as my invention is:

1. Hydraulic power mechanism for boats comprising a turbine having discharge ports and intake ports, a water intake for the boat communicating with a turbine intake port, means operatively connecting the intake ports, pressure generating means operatively connected to the discharge ports whereby on the turbine being operated the pressure generating means are simultaneously operated to create a vacuum in the turbine.

2. Hydraulic power means for ships and the like according to claim 1, characterized by the fact that the water intake in the boat is provided with a slidable closure member adapted to regulate and concentrate the flow of water therethrough, and means for operating said member, comprising a rack thereon adapted to mesh with and operate a pinion.

3. Hydraulic power means as claimed in claim 1, characterized by the fact that the pressure generating means comprises a pump provided with a valve control waste pipe.

In witness whereof I have hereunto set my hand.

JOHN ALBERT CHOQUETTE.