

No. 656,985.

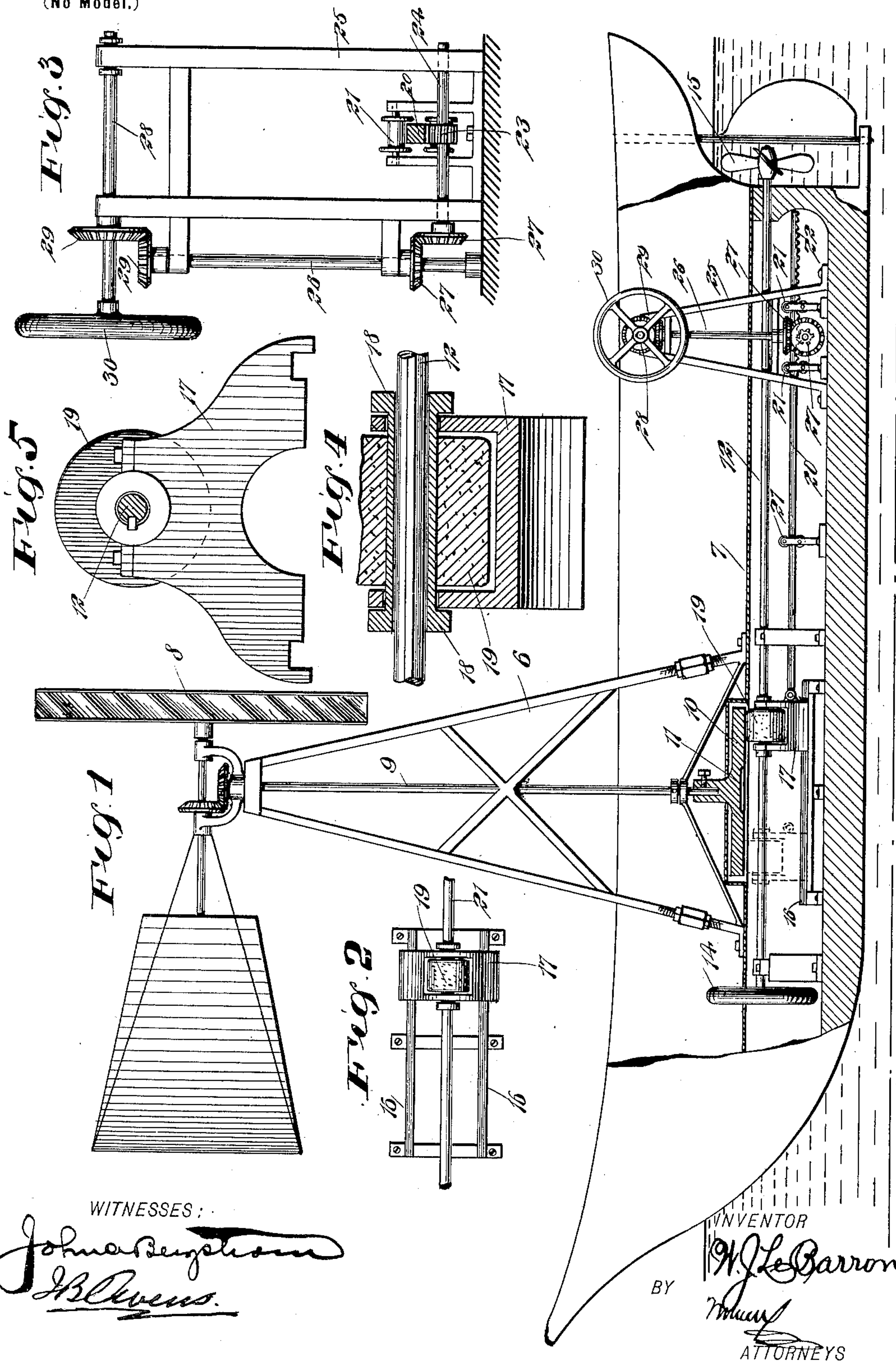
Patented Aug. 28, 1900.

W. J. LE BARRON.

DRIVING APPARATUS.

(Application filed Oct. 24, 1899.)

(No Model.)



WITNESSES:

John B. Thompson
Blowers.

INVENTOR

W. J. Le Barron

BY

Wm. J. Le Barron
ATTORNEYS

UNITED STATES PATENT OFFICE.

WALTER JOHN LE BARRON, OF BARRE, VERMONT.

DRIVING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 656,985, dated August 28, 1900.

Application filed October 24, 1899. Serial No. 734,666. (No model.)

To all whom it may concern:

Be it known that I, WALTER JOHN LE BARRON, of South Barre, in the county of Washington and State of Vermont, have invented
5 a new and Improved Driving Apparatus, of which the following is a full, clear, and exact description.

This invention relates to an apparatus for transmitting power to various driving devices.
10 I have shown it as applied to marine propulsion, to which use I consider it best adapted.

This specification is the disclosure of one form of my invention, while the claims define the actual scope thereof.

15 Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional elevation of a vessel
20 equipped with my improvements, showing a windmill for furnishing power. Fig. 2 is a plan view of the shifting friction-pulley. Fig. 3 is a elevation of the controlling-gear. Fig. 4 is a sectional detail of the friction-pulley,
25 and Fig. 5 is an end elevation of the pulley and of the carriage on which the same is mounted.

A windmill-tower 6 is mounted on the deck
7 of a vessel and carries a wind-wheel 8 and
30 its appurtenances, by which a shaft 9, mounted vertically in the tower, is driven. This shaft extends down to the foot of the tower and carries a large friction-wheel 10, formed with a cavity 11 in its center. A propeller-
35 shaft 12 is mounted longitudinally in the vessel and carries at its front end a balance-wheel 14, its rear end being projected through the stern-post of the vessel to carry a propeller 15 in the usual manner.

40 Mounted below the shaft 12 and friction-wheel 10 are two rails 16, on which is arranged to move a carriage 17, the rails 16 being disposed fore and aft, so that the carriage 17 may be adjusted beneath the wheel 11.
45 This carriage 17 carries revolubly the hollow journals 18 of a friction-wheel 19, which wheel is splined on the propeller-shaft 12 and arranged to engage with the under face of the friction-wheel 10. Now it is clear that
50 by adjusting the carriage 17 the speed at which the friction-wheel 19 is driven from the

wheel 10 may be regulated and also the direction of revolution may be reversed. It will further be seen that the friction-wheel 19 may be moved to lie in the cavity 11 in the wheel
55 10, in which position there will be no transmission of motion between the two wheels and the shaft 12 will be at rest.

For adjusting the carriage 17 I provide a rod 20, mounted in suitable guides 21 and
60 formed at its rear portion with rack-teeth 22, which mesh with a pinion 23, carried on a shaft 24, mounted in a suitable framing 25. A perpendicular shaft 26 is juxtaposed to the shaft
65 24 and connected therewith by miter-gears 27, and this shaft 26 is connected with a third shaft 28 at the top of the gear 25 by means of miter-gears 29. The shaft 28 carries a hand-wheel 30, facilitating the manual revolution
70 of the shaft 28, and consequently the shafts 26 and 24, thus moving the rod 20 backward and forward and adjusting the carriage 17 with its wheel 19.

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

1. The combination of a driven shaft, a friction-wheel splined on the said shaft, a carriage having connection with the friction-wheel, to move the same longitudinally of the shaft, a
80 track on which the carriage runs, means for transmitting movement to the carriage, a frictional driving-wheel engaged by the first-named friction-wheel, the first-named friction-wheel being movable along the face of
85 the driving-wheel, to regulate the movement imparted to the driven shaft, and means connected with the driving-wheel, to propel the same.

2. In a driving apparatus, the combination
90 of rails, a carriage mounted to slide thereon, a friction-wheel having a hollow axle, the ends of which are mounted to turn in the carriage, and a frictional driving-wheel engaged with the first-named friction-wheel, such first-
95 named friction-wheel being movable with the carriage along the face of the driving-wheel, for the purpose described.

WALTER JOHN LE BARRON.

Witnesses:

BURT H. WELLS,
ANNA M. LONERGAN.