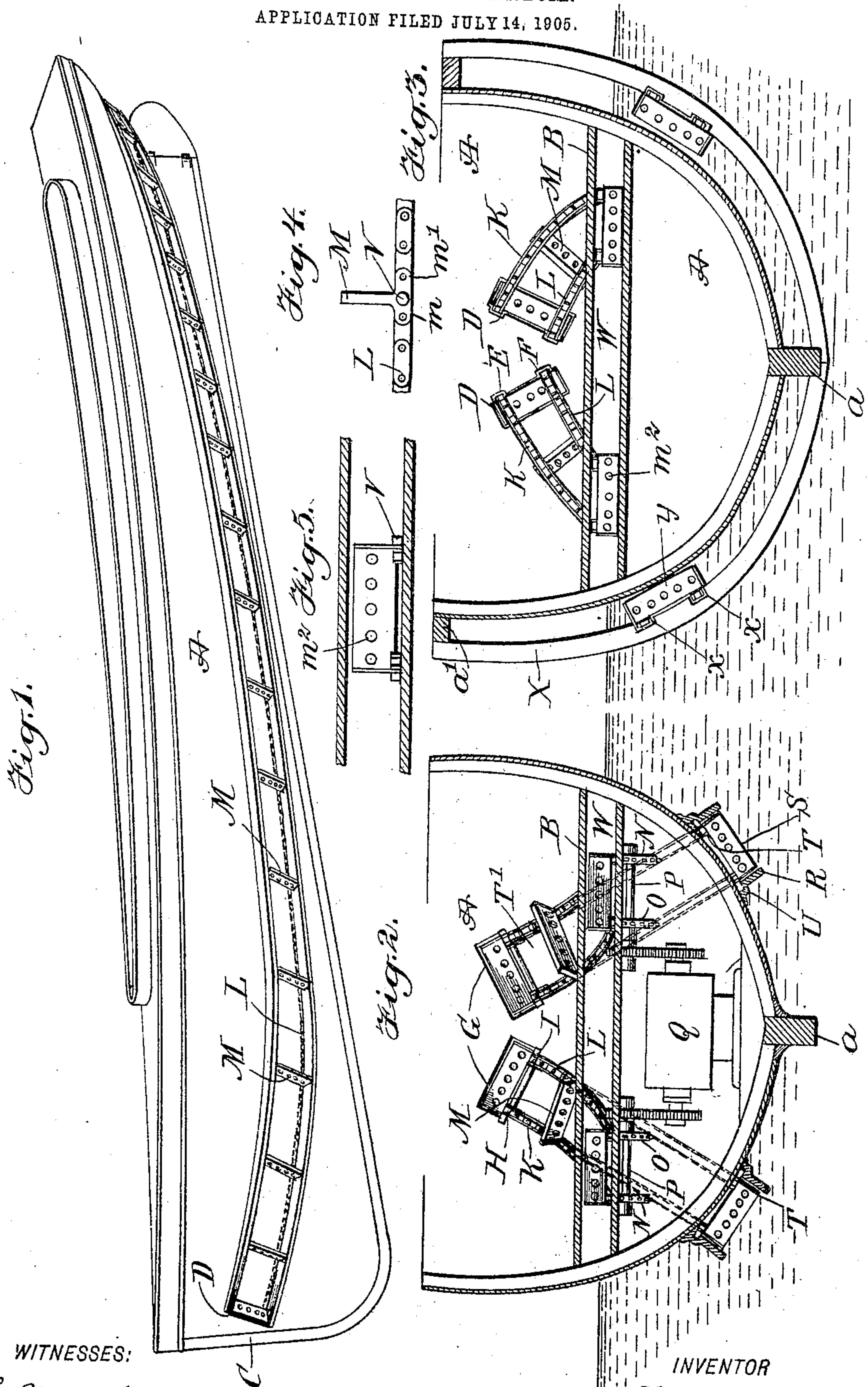


No. 816,368.

PATENTED MAR. 27, 1906.

F. PÉLISSIER.
PROPELLING MECHANISM.
APPLICATION FILED JULY 14, 1905.



WITNESSES:

Geo. M. Maylor

F. R. Sumner

INVENTOR

Fenelon Pelissier

BY

Wm. M. S.
ATTORNEYS

UNITED STATES PATENT OFFICE.

FÉNELON PÉLISSIER, OF GONAIVES, HAITI.

PROPELLING MECHANISM.

No. 816,368.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed July 14, 1905. Serial No. 269,631.

To all whom it may concern:

Be it known that I, FÉNELON PÉLISSIER, a citizen of the Republic of Haiti, and a resident of Gonaives, Haiti, have invented a new and Improved Propelling Mechanism, of which the following is a full, clear, and exact description.

This invention relates to mechanism for propelling ships.

10 The object of the invention is to provide mechanism for this purpose which will be positive in its action and which will facilitate the steering of a ship as well as its propulsion.

15 A further object is to provide an arrangement whereby the propelling mechanism may be readily attached to ships previously completed.

20 The invention consists in the combination and construction of parts to be more fully described hereinafter and definitely set forth in the claim.

25 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 figures.

30 Figure 1 is a perspective showing the hull of a ship to which my invention has been applied. Fig. 2 is a cross-section through the hull shown in Fig. 1 and showing the manner of attaching the propelling mechanism and the manner of driving the same. This view is taken looking toward the stern. Fig. 3 is a view similar to Fig. 2 and showing the construction adopted for attaching the propelling mechanism to a ship which has been already completed. This view is taken looking toward the bow. Fig. 4 is an end elevation of one of the propelling blades or paddles and showing the manner of attaching the same to the links of the driving-chain; and Fig. 5 is a detail of a paddle, showing contiguous parts in section.

45 Before proceeding to a detailed description of the invention it may facilitate the disclosure of the same to state that I employ endless chains which are mounted longitudinally in the hull. Arrangement is made for guiding these chains so that the lower courses of the chains pass underneath the water toward the stern, while the upper courses pass forwardly along the deck within the hull. By means of the machinery of the ship the chains are continuously driven when the ship is being propelled, and these chains carry paddles

or blades which in passing through the water 55 toward the stern advance the ship.

Referring more particularly to the parts, A represents the hull of a ship to which my invention has been applied. This hull may be of the model or general form usually found in 60 ship construction, comprising a lower deck B. In applying my invention to such a ship I provide near the stem C of the hull openings D, disposed on opposite sides and a short distance above the water-line, as will be readily 65 understood. Just within these openings I mount guide-wheels or sprocket-wheels E and F. Similar openings G are provided at the stern of the hull near the stern-post, and adjacent to these openings guide-wheels or 70 sprocket-wheels H and I are mounted. Over the sprocket-wheels sprocket-chains K and L pass, as indicated. These sprocket-chains are endless chains, and the sprocket-chain K passes over the sprocket-wheel H and over 75 the sprocket-wheel E. The sprocket-chain L, on the other hand, passes over the sprocket-wheels I and F. The sprocket-chains K and L are connected by a plurality of transversely-disposed blades or paddles M, and these 80 blades are disposed in planes substantially at right angles to the direction in which the chains extend.

At a suitable point within the hull of the ship I provide sprocket-wheels N and O, 85 which are rigidly carried on a shaft P, and this shaft may be driven from the ship's engine Q in any suitable manner. The chains K and L pass over the sprocket-wheels N and O and are continuously driven 90 thereby when the ship is under way. On the under side of the hull A, beneath the water-line and at either side of the keel *a*, I attach longitudinally-disposed keelsons R, which are preferably formed of angle-iron, 95 as shown, and disposed apart, so as to form a channel or chain-run S therebetween. In the channel S the lower course T of the chain passes rearwardly. In order to guide the chain most efficiently in the channel, the inner 100 faces of the keelsons R are provided with grooves U, and into these grooves pintles V project, the said pintles being formed on the extremities of the blades or paddles M, as shown. In order to facilitate the guiding of 105 the upper course T' of the chain, the deck B is made double, so as to form a space W, in which the chain is guided toward the rear,

In Fig. 4 I illustrate the manner of attaching the paddles M to the chain. The edges of the paddles adjacent to the chains are spread so as to form heads *m*, said heads comprising short arms *m'*, which project in opposite directions. To these arms *m'* the links of the chains attach, as indicated. From this arrangement the tension of the chains is sufficient to maintain the paddles in upright position. The chains on the opposite sides of the ship are driven independently from the engine Q, so that one of the chains may be driven in a forward direction while the opposite chain is driven in a rearward direction. In this way the paddles on one side of the ship may move toward the stern, while the others will move toward the bow. These conditions will bring about a quick turning of the ship from her course. If, however, the chains are driven continuously in a forward direction, the paddles on both sides will move aft with the same speed, and the ship will be advanced in a straight course. In order to prevent the paddles from carrying water into the ship, their bodies are provided with openings *m²*, through which the water may run off.

When the propelling mechanism is to be applied to a ship already completed, I provide a plurality of frames X, disposed at intervals along the length of the hull. As indicated in Fig. 3, these frames have the general form of the hull and are disposed vertically, being attached to the keel *a* and to the hull at the gunwales *a'*. On the inner sides of these frames double channels *x* are provided, which operate as guides for chains. The said chains are connected by paddles *y*, similar to the paddles M already described. The arrangement for guiding the chains within the ship would be the same as that described above.

In this way the frames X operate as guides and also as a protection for the chains and paddles carried thereby.

In mounting the driving-chains in position care should be taken that the lower course T will not be immersed at so great a depth as to be in danger of striking the bottom. On the other hand, however, this course should not be at such a high level as to expose the paddles when the ship rolls. The number of frames X that should be used in mounting the mechanism on a ship already constructed will be arranged to suit the circumstances, and there can be as many or as few as seems desirable.

Attention is called to the construction shown in Fig. 2, wherein the keelsons R project slightly beyond the outer edges of the paddles M. In this way the keelsons operate to protect the paddles and prevent their injury.

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

A hull having side openings near the stem and stern thereof, and having longitudinal guideways formed on the outer side thereof, an endless chain, paddles having bodies disposed at right angles to said chain and having oppositely-projecting arms disposed longitudinally with said chain, said arms being attached to said chain, and means for continuously driving said chain.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FÉNELON PÉLISSIER.

Witnesses:

F. D. AMMEN,
JNO. M. RITTER.