

J. E. FIALA.
 PROPELLING MECHANISM.
 APPLICATION FILED JULY 23, 1909.

935,787.

Patented Oct. 5, 1909.
 2 SHEETS—SHEET 1.

Fig. 1.

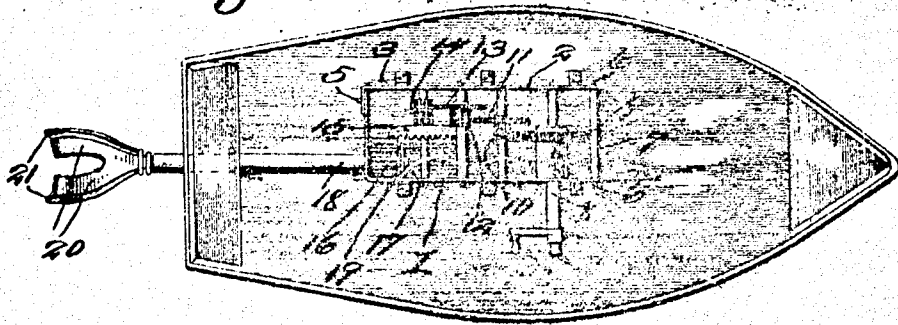


Fig. 2.

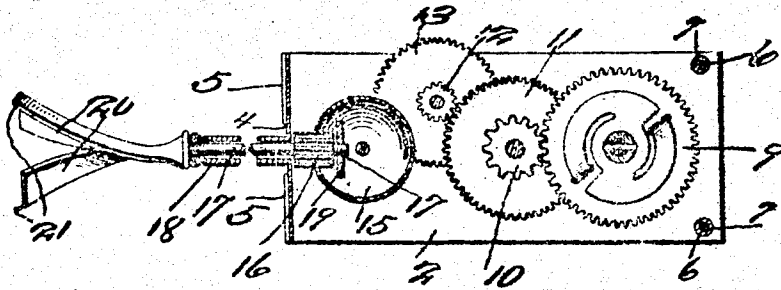
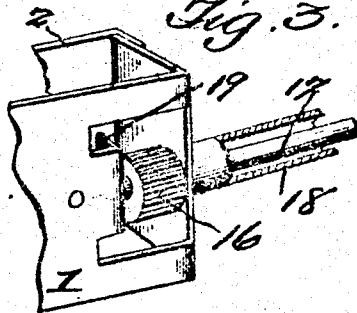


Fig. 3.



Witnesses

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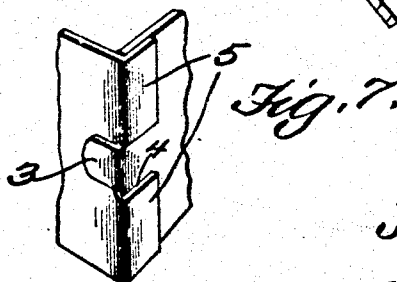
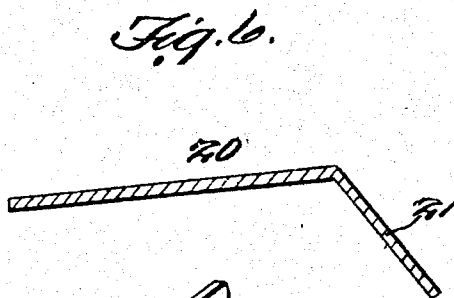
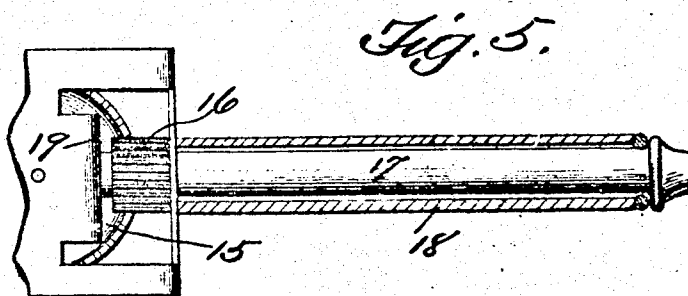
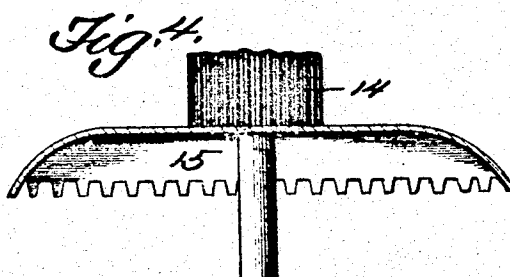
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UNITED STATES PATENT OFFICE.

JOSEPH R. FIALA, OF OMAHA, NEBRASKA.

PROPELLING MECHANISM.

935,787.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed July 23, 1909. Serial No. 509,217.

To all whom it may concern:

Be it known that I, JOSEPH R. FIALA, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented a new and useful Propelling Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to propellers adapted especially for the purpose of increasing the speed of vessels on which it is used.

With these and other objects in view the invention consists of certain novel features embodied in the construction hereinafter set forth, and particularly pointed out in the appended claims.

In the drawings: Figure 1 is a plan view of a portion of a vessel showing my invention applied thereto. Fig. 2 is a side view of the driving mechanism showing one side of the casing removed. Fig. 3 is a detail perspective view showing the mounting of the propeller shaft. Fig. 4 is a sectional view through the saucer-shaped cog-wheel. Fig. 5 is a longitudinal sectional view through the propeller shaft, and the casing in which it is mounted. Fig. 6 is a transverse sectional view through one of the propeller blades showing the flange arranged at an obtuse angle with the same. Fig. 7 is a perspective view of the tongue 3 and the opening 4.

Referring to the drawings 1 and 2 designate the two side members of the casing in which the driving mechanism of the propeller is mounted. The casing 1 is provided with a tongue 3 which overlaps the casing 2 and passes through an opening 4 in the overlapping portion 5 of the casing 2. By this arrangement the two members constituting the casing are held firmly in engagement with each other.

The inner ends of the casing are connected together by upper and lower bolts 6 which pierce both of the members. Mounted on the bolts 6 and arranged between the two members 1 and 2 are collars 7 which are designed to hold the members at the proper distance from each other as will be readily understood.

The main drive shaft which is engaged by

an engine or other suitable source of power extends through the casing 1 as at 8. Mounted on the said drive shaft is cog-wheel 9 which operates a smaller cog-wheel 10. The wheel 10 is keyed to the same shaft with a larger wheel 11, which in turn operates a small cog-wheel 12. The wheel 12 carries a larger cog-wheel 13. The wheel 13 engages a small cog-wheel 14, which wheel 14 carries a saucer-shaped wheel 15. The saucer shaped wheel 15 engages a small wheel 16 which is mounted on the inner end of the propeller shaft 17. The propeller shaft 17 is mounted in a casing 18 which casing is secured to member 1.

The inner end of the propeller shaft is mounted in an L-shaped tongue 19 which tongue is formed integrally with the member 1 of the casing.

The outer end of the propeller shaft is provided with sheet metal propellers 20 which are formed integrally with each other and are curved in opposite directions.

The propellers 20 are provided with flanges 21 arranged at obtuse angles with said propellers, as clearly shown in Fig. 6 of the drawings. These flanges are designed to enable the propellers to increase their power in propelling the vessel, thus increasing the speed of the vessel.

This propeller is designed to be used on vessels or boats of all types and it will be seen that said propeller is adapted to the use of any size boat.

What is claimed is:—

1. In a propelling mechanism, the combination of casing members overlapping each other at one end, the overlapping portion of one casing member having an opening, a tongue formed integrally with the opposite casing member and adapted to engage said opening whereby the two casing members are rigidly connected together, the casing member 1 being provided with an L-shaped inwardly projecting tongue, a propeller shaft mounted on said tongue, means for actuating said propeller shaft, said shaft having propellers mounted on its outer end.

2. In a propelling mechanism, casing members rigidly connected with each other, an outwardly projecting tubular casing rigidly connected with one of said members, a propeller shaft mounted in said tubular cas-

ing, said last named member being also provided with an inwardly projecting L-shaped tongue adapted to receive the inner end of said propeller shaft means for actuating said propeller shaft and propellers mounted on said shaft.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

JOSEPH R. FIALA.

Witnesses:

JOSEPH F. KUDLAC,
FR. J. FIALA.