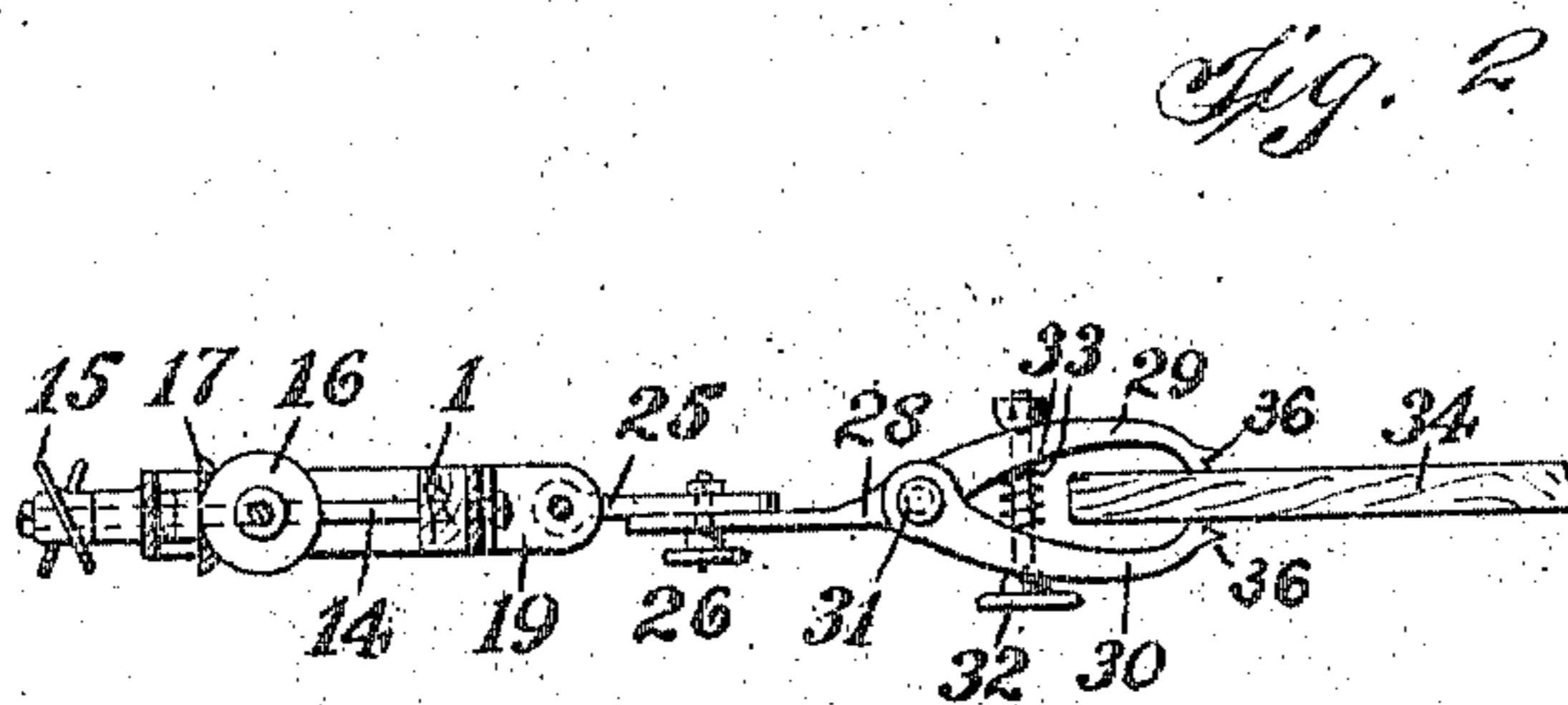
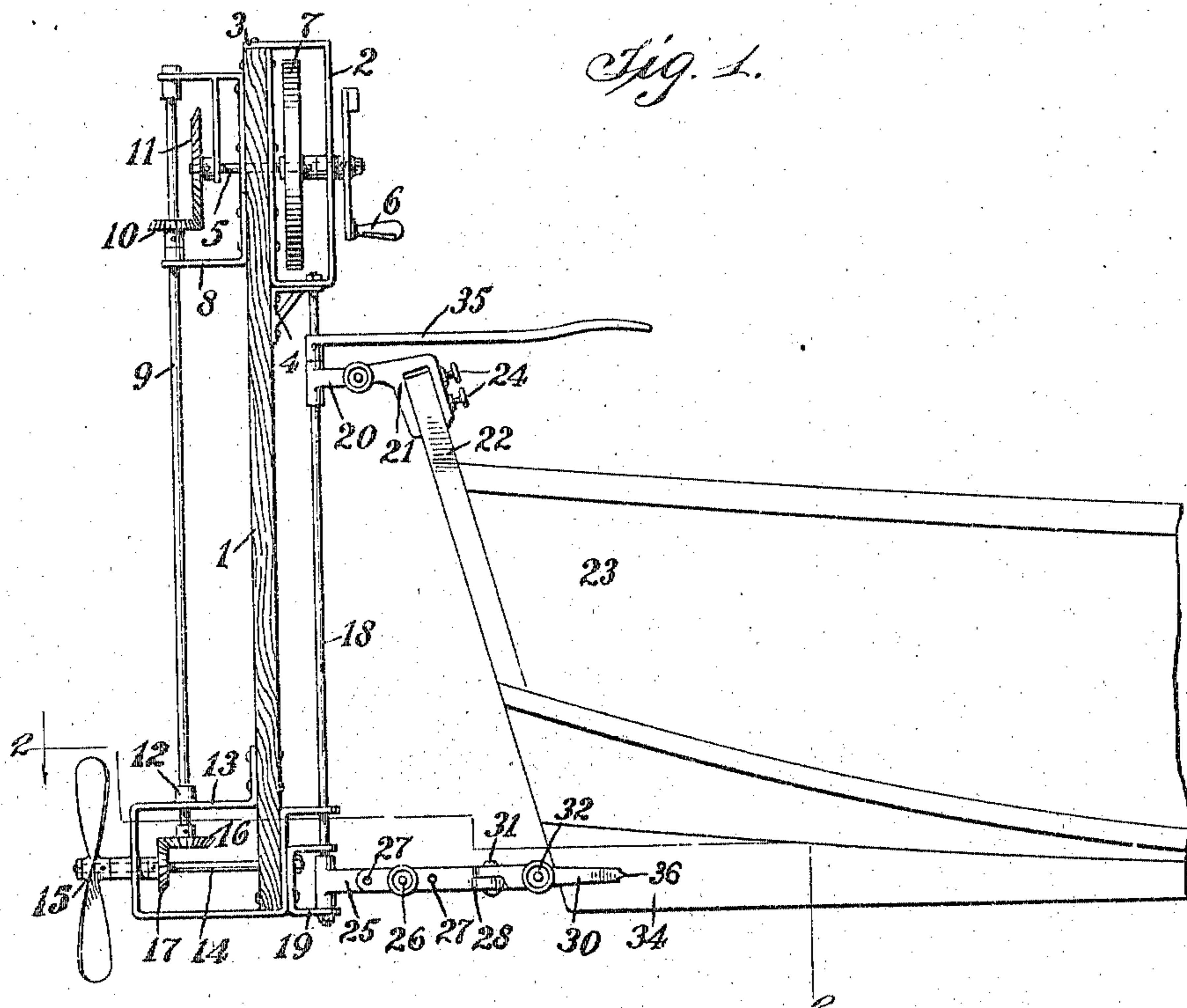


J. F. LESKO.  
DETACHABLE PROPELLING MECHANISM.  
APPLICATION FILED APR. 24, 1909.

947,643.

Patented Jan. 25, 1910.



WITNESSES

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# UNITED STATES PATENT OFFICE.

JAMES F. LESKO, OF CHICAGO, ILLINOIS.

DETACHABLE PROPELLING MECHANISM.

947,643.

Specification of Letters Patent.

Patented Jan. 25, 1910.

Application filed April 24, 1909. Serial No. 491,893.

*To all whom it may concern:*

Be it known that I, JAMES F. LESKO, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Detachable Propelling Mechanism, of which the following is a full, clear, and exact description.

This invention relates to a propelling and steering mechanism which may be attached readily to a boat, to transform it into a power boat, and which may also be readily detached from said boat.

The object of the invention is to provide a simple and efficient device, which may be attached to and detached from a boat, and which will be strong and durable.

The invention consists, generally speaking, in a screw propeller operated from the source of power through a suitable train of gears, which is adjustably attached to the stern of a boat by suitable clamps, and which is provided with suitable means to shift the propeller so that it will act at various angles to steer the boat.

The invention further consists in the construction and combination of parts, to be more fully described hereinafter and particularly set forth in the claims.

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 both views, and in which—

Figure 1 is a side view in elevation, showing my device attached to the stern of a boat; and Fig. 2 is a horizontal section on the line 2—2 in Fig. 1.

Referring more particularly to the separate parts of the device, 1 indicates an upright support, which may be made of any suitable material, but preferably of wood. At the top of the support 1, there is provided on the front side thereof a suitable bracket 2, which consists preferably of a single strip of metal bent on itself so as to form an inclosed rectangular frame with a projecting portion extending from one of the shorter sides, so as to overlie the top of the support, as at 3, and thus furnish a convenient means of securing the back of the support by any suitable fastening devices, such as bolts, screws or the like. The back of the bracket 2 may also be secured to the support 1 by screw-bolts or the like, and the whole bracket is further supported by an

angle-brace 4, which is suitably secured to the support 1.

The bracket 2 and the support 1 have suitable openings therein to form bearings for a shaft 5, which extends on both sides of the support 1. At the front of the support on the shaft 5, outside of the bracket 2, there is provided a suitable hand-crank 6, which is secured in any well-known manner to the shaft 5, and is adapted to rotate said shaft. Any other form of power means may be substituted for this hand-crank. Within the bracket 2, and secured to the shaft 5, there is provided a suitable fly-wheel 7, which is adapted to store up the energy furnished by the motive means, such as the hand-crank 6. The outside end of the shaft 5 is also supported by a bracket 8, which is secured to the back side of the top of the support 1 in any suitable manner. This bracket 8 also furnishes bearings for a vertical shaft 9, which has secured thereon a bevel-pinion 10, which is driven from the power shaft 5 by means of an intermeshing bevel-gear 11 secured to the end of the shaft 5.

The shaft 9 extends downwardly through a bearing 12 in a bracket 13, which is secured in any suitable manner to the rear side of the bottom of the support 1, and which also furnishes a bearing for a horizontal shaft 14, on one end of which is secured a suitable screw-propeller 15. The shaft 14 is driven from the shaft 9 by means of intermeshing bevel-gears 16 and 17, secured respectively to the shafts 9 and 14. The bracket 13 is bent around so as to extend in front of the support 1, and furnishes a means of securing said support to a substantially vertical pivot-rod 18, which is also secured to the support 1 at its top by means of the bracket 2, and at its bottom, by means of a bracket 19, secured in any suitable manner to the front of the bottom of the support 1.

Rotatably supported near the top of the pivot-rod 18, is a clamp-support 20, to which is pivotally secured in any suitable manner, a clamp 21, which is adapted to engage over the end of the stern-board 22 of a boat 23, and is also adapted to be secured thereto by suitable set-screws 24. Pivotally secured to the lower end of the pivot-rod 18, there is provided a clamp-support 25, to which is adjustably secured in any suitable manner, as by means of a screw-bolt 26 passing through any one of a plurality of openings

27, a clamp 28. The clamp 28 is in the form of a stationary jaw 29, having a gripping prong and a movable jaw 30 pivoted to the stationary jaw, as at 31, and also having an engaging prong. The two jaws 29 and 30 are forced toward each other by means of a suitable screw-bolt 32, which acts against the tension of a spring 33. The clamp 28 is adapted to engage the keel 34 of the boat 23, and secure the propelling mechanism to the boat at its lower end.

In order that the lower clamp 28 may be secured to the bottom of a boat which has no keel, there are provided on the ends of the clamping jaws 29 and 30, tips or prongs 36, which are adapted to be forced into the stern of the boat, to secure the device in position.

In order to shift the support and its propelling mechanism so that the propeller will act at various angles, and thus form a steering means, there is provided a suitable handle 35, which is secured in any suitable manner to the pivot rod 18, and extends over the boat, where it may be conveniently reached.

The operation of the device may be readily understood from the above description. The clamp 21 may be slid up and down on the rod 18, so as to adjust it to any height of boat to which it is to be attached. It may be also pivotally adjusted relative to its support 20, thus permitting it to be readily attached to the stern-board of any boat, no matter what its angle. The lower clamp 28 may be secured to the keel of the boat and adjusted relative to its support 25, so as to bring the support 1 into a substantially vertical position, so that the thrust of the propeller will be substantially in the direction desired. When it is desired to propel the boat, the shaft 5 is revolved by any suitable motive means, such as the hand crank 6, and thus through the train of gears 11, 10, 16 and 17, the propeller 15 is caused to revolve and force the boat in the desired direction. In order to steer the boat, the steering lever 35 is deflected in either direction, so as to cause the propeller to thrust at an angle to the length of the boat, and thus steer the boat in the direction desired.

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

1. In a device of the class described, the combination with a support, of a top front bracket on said support, a motive means supported on said bracket, a top rear bracket on said support, driving connections with said motive means carried by said top rear bracket, a bottom rear bracket on said support, a screw-propeller supported on said bottom rear bracket and adapted to be driven by said driving connections, a bottom front bracket on said support, a pivot-rod secured to said top and bottom front

brackets, and clamps pivotally secured to said pivot-rod and adapted to be secured to a boat.

2. In a device of the class described, the combination with a support, of a top front bracket on said support, a motive means supported on said bracket, a top rear bracket on said support, driving connections with said motive means carried by said top rear bracket, a bottom rear bracket on said support, a screw-propeller supported on said bottom rear bracket and adapted to be driven by said driving connections, a bottom front bracket on said support, a pivot-rod secured to said top and bottom front brackets, a top clamp pivotally secured to said pivot-rod and adapted to engage the stern-board of a boat, and a bottom clamp adjustably secured to said pivot-rod and adapted to engage the keel of a boat.

3. In a device of the class described, the combination with a support, of a top front bracket on said support, a motive means supported in said bracket, a top rear bracket on said support, driving connections with said motive means carried by said top rear bracket, a bottom rear bracket on said support, a screw-propeller supported on said bottom rear bracket and adapted to be driven by said driving connections, a bottom front bracket on said support, a pivot-rod secured to said top and bottom front brackets, a top clamp pivoted to said pivot-rod and adapted to engage the stern-board of a boat, a bottom clamp adjustably secured to said pivot-rod and adapted to engage the keel of a boat, and a steering handle secured to said pivot-rod and adapted to direct the action of said propeller at different angles so as to act as a steering means.

4. In a device of the class described, the combination with a support, of a propeller rotatably secured to said support, means for driving said propeller, a pivot-rod secured to said support, a clamp support pivoted to said pivot-rod near the top thereof, a clamp pivotally secured to said clamp support, a clamp support pivoted to said rod near the bottom thereof, and a clamp adjustably secured to said last-mentioned clamp-support.

5. In a device of the class described, the combination with a support, of a front top bracket on said support, a rear top bracket, a shaft rotatably secured in said support and said top bracket, a fly-wheel on said shaft, means for driving said shaft, a bevel-gear secured to said shaft, a bevel-pinion driven by said bevel-gear, a vertical shaft rotatably supported on said top rear bracket and adapted to be driven by said bevel-pinion, a bevel-gear secured to the lower end of said vertical shaft, a bracket adapted to support the lower end of said vertical shaft, a propeller rotatably supported by said last-mentioned bracket, driving connections be-

tween said propeller and said last-mentioned gear, a pivot-rod secured to said support, clamps pivotally secured to said pivot-rod and adapted to secure said support to the stern of a boat.

6. In a device of the class described, the combination with a support, of a front top bracket bent back on itself so as to form a rectangle, one side of which projects over the top of the support and is adapted to be secured thereto, a rear top bracket secured to said support, a shaft adapted to rotate in bearings in said bracket and said support, motive means on one end of said shaft adapted to rotate said shaft, a bevel-gear on the other end of said shaft, a vertical shaft rotatably supported in said top rear bracket, a bevel-pinion on said vertical shaft adapted to mesh with said bevel-gear, a bevel-gear on the lower end of said vertical shaft, a lower rear bracket secured to said support and adapted to support the lower end of said vertical shaft, a propeller shaft rotatably supported in said lower rear bracket, a screw-propeller in said shaft, a bevel-gear secured to said propeller and adapted to intermesh with said gear on the lower end of said vertical shaft, a bottom front bracket secured to said support, a pivot-rod secured to said top and bottom front brackets, clamps pivotally secured to said pivot-rod and adapted to engage the stern of a boat, and a steering handle secured to said pivot-rod.

7. In a device of the class described, the combination with a support, of a top front bracket secured to said support, a top rear

bracket secured to said support, a shaft rotatably secured in said brackets in said support, means for driving said shaft secured to one end of the shaft, a bevel-gear secured to the other end of the shaft, a vertical shaft rotatably secured in bearings in said rear top bracket, a bevel-pinion on said vertical shaft adapted to engage said bevel-gear, a bottom rear bracket adapted to support said vertical shaft, a propeller shaft rotatably secured in said bottom rear bracket, driving connections between said vertical shaft and said propeller shaft, a screw-propeller secured to said propeller shaft, a bottom front bracket secured to said support, a pivot-rod secured to said top and bottom front brackets, a clamp support pivotally attached near the top of said pivot-rod, a clamp pivotally secured to said clamp support and adapted to be secured to the stern-board of a boat, a clamp support pivotally secured to the bottom of said pivot rod, a clamp adjustably secured to said clamp support and adapted to engage the keel of a boat, said last-mentioned clamp comprising a fixed jaw and a movable jaw, means adapted to force said jaws together, and means adapted to yieldingly hold said jaws apart.

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

JAMES F. LESKO.

Witnesses:

ROB. FIKEJS,

JOHN LIPOWSKY.