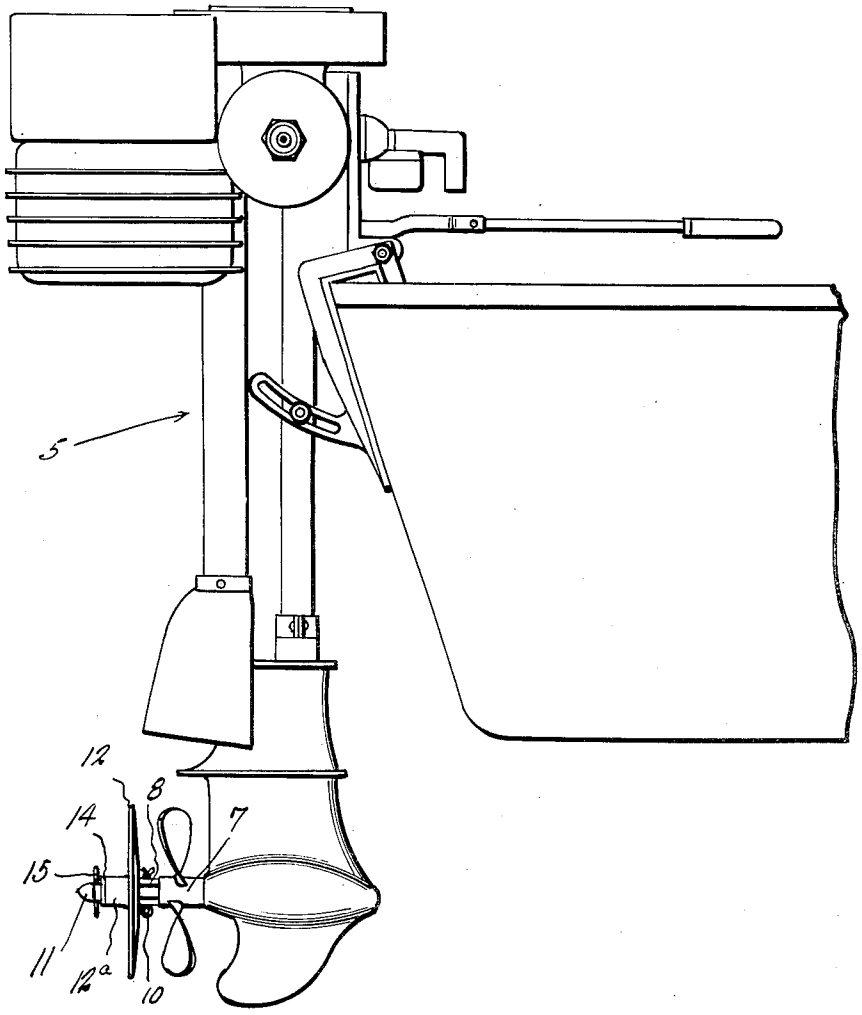
May 16, 1933. A. RICHARDSON 1,908,865

TROLLING ATTACHMENT FOR OUTBOARD MOTORS

Filed June 13, 1932 2 Sheets-Sheet 1

Fig. 1.



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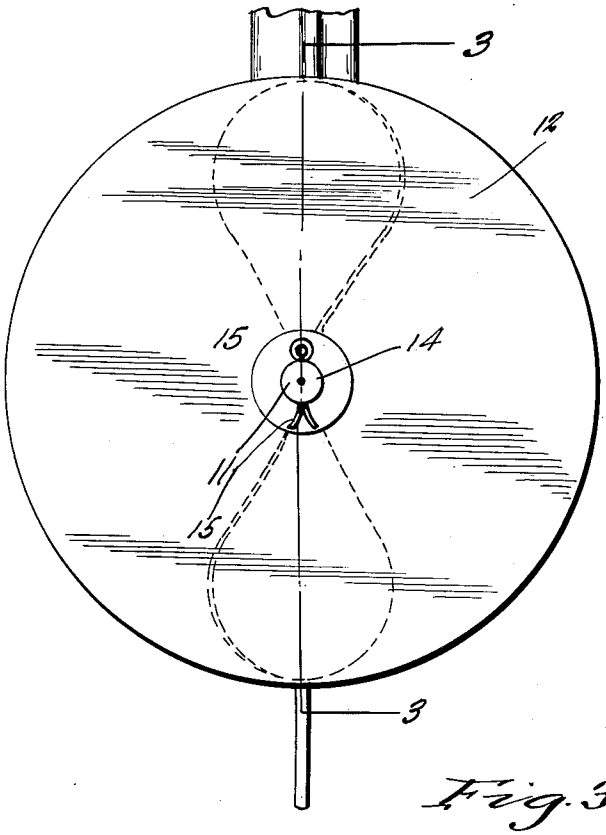


Fig. 2.

Fig. 3

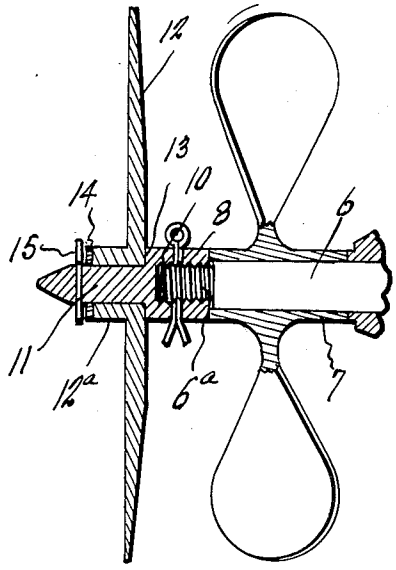
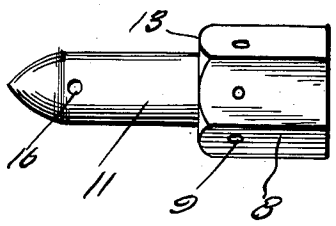


Fig. 4.



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UNITED STATES PATENT OFFICE

AVERY RICHARDSON, OF TACOMA, WASHINGTON

TROLLING ATTACHMENT FOR OUTBOARD MOTORS

Application filed June 13, 1932. Serial No. 616,980.

This invention relates to a trolling device and in accordance with the present invention such a device is provided for use as an attachment to outboard motors.

Briefly the invention consists in the provision of means whereby a trolling disk may be readily applied to the propeller shaft of the outboard motor.

The invention together with its numerous objects and advantages will be best understood from a study of the following description taken in connection with the accompanying drawings wherein:

Figure 1 is a side elevational view showing the attachment applied to the propeller shaft of an outboard motor.

Figure 2 is an elevational view taken at right angles to Figure 1 only such parts of the outboard motor assembly being shown as is necessary from an understanding of the invention.

Figure 3 is a sectional elevational view taken substantially on the line 3—3 of Figure 2, and

Figure 4 is a plan view of a nut forming part of the invention.

With reference more in detail to the drawings it will be seen that 5 designates generally a conventional outboard motor the same including among other parts the propeller shaft 6 and propeller hub 7.

In accordance with the present invention a retaining nut for the propeller hub 7 and adapted to be applied to a shaft 6 is provided, and the nut designated by the reference character 8 is provided with internal screw threads whereby it may be readily threaded on to the pin or extension 6*a* of the propeller shaft as shown in Figure 3. The nut 8 is also provided with a series of spaced apertures 9 for accommodating a locking pin such as a cotter pin 10 that is adapted to extend through two of such apertures 9 alining with a transverse opening provided in the end or threaded extension 6*a* of the propeller shaft.

Formed integrally with the nut 8 is a stem or shank 11 that is of less diameter than the nut 8. The stem 11 is adapted to accommodate the hub 12*a* of a trolling disk 12, and the hub 12*a* is rotatably retained on the stem 11 between the shoulder 13 formed at the junction of the nut 8 and stem 11 and a washer plate 14. Plate 14 is loosely retained on the stem 11 between one end of the hub 12*a* and a locking pin such as a cotter pin 15 passed through a transverse opening 16 provided adjacent the free end of the stem 11. Preferably the stem 11 at its free end is substantially conical or pointed as shown.

From the description of the invention thus far it will be seen that the trolling disk 12 may be readily attached to the propeller shaft of an outboard motor 5 for position directly rearwardly of the propeller and will in no wise interfere with the efficient operation of the propeller.

It is also apparent that the nut 8 may be readily removed by removing pin 10 and unscrewing the nut from the end 6*a* of the shaft. Likewise, it is apparent that by removing the cotter pin 15 the disk 12 may be removed without disturbing the position of the nut 8 on the propeller shaft.

Even though I have herein shown and described the preferred embodiment of the invention, it is to be understood that the same is susceptible of further changes, modifications and improvements coming within the scope of the appended claims.

Having thus described my invention, what I claim as new is:

1. A trolling attachment for the propeller shaft of an outboard motor comprising a trolling disk, a stem extending centrally through the disk, means for retaining the disk rotatably mounted on the stem, and means at one end of the stem for securing it to one end of the propeller shaft.

2. In combination with the propeller shaft of an outboard motor, a nut adapted to be

threaded on one end of said shaft, an axial stem integral with said nut and a trolling disk rotatably mounted on said stem.

3. In combination with a propeller shaft, a propeller hub retaining nut having threaded engagement at one end of said shaft, and a trolling disk supporting stem of a diameter less than the diameter of said nut and extending axially from one end of the nut.

In testimony whereof I affix my signature.

AVERY RICHARDSON.