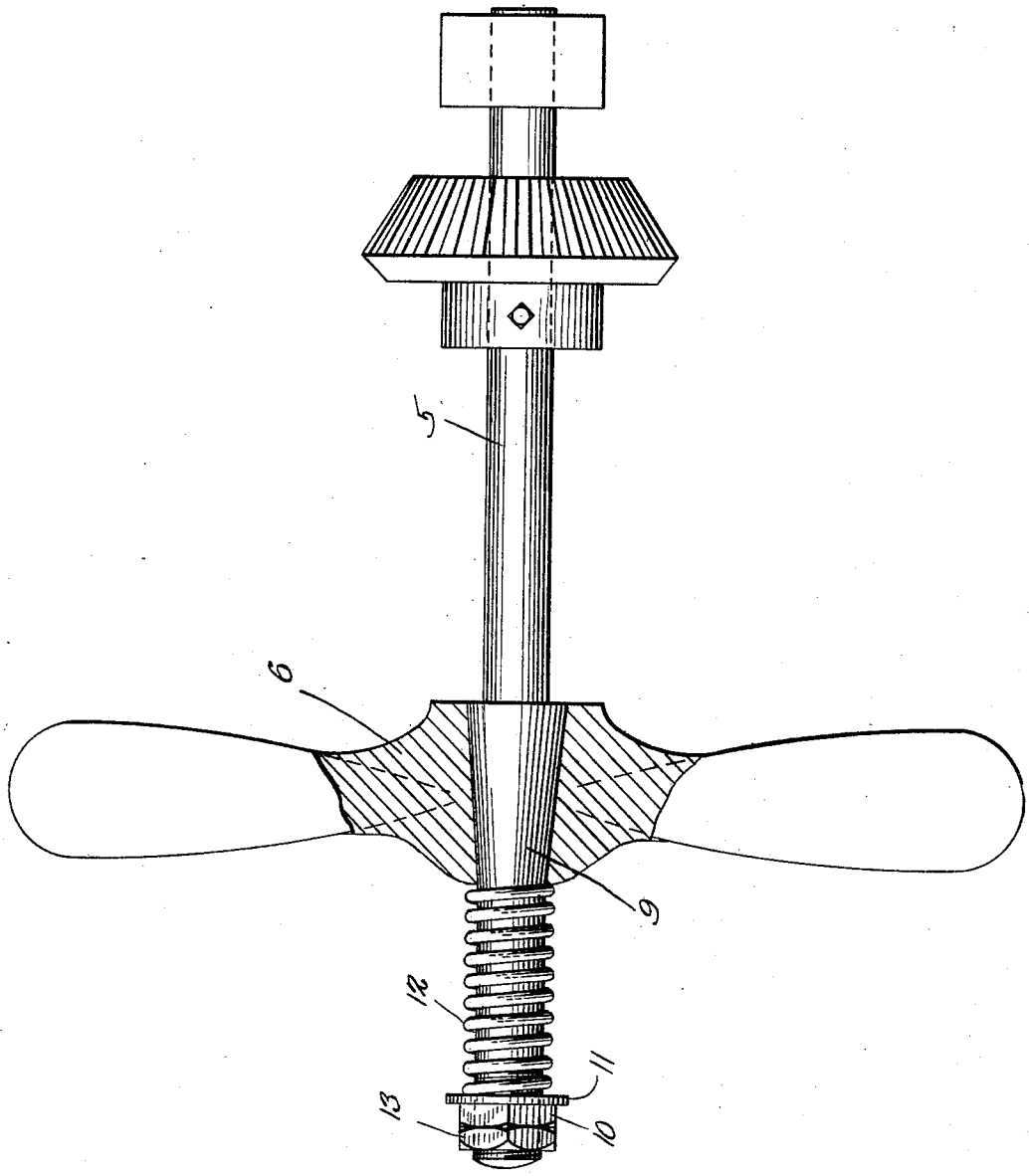
Jan. 24, 1933. M. M. SOBEY 1,895,402

PROPELLER AND SHAFT COUPLING

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PROPELLER AND SHAFT COUPLING

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This invention relates to propeller construction, and more particularly to the construction of propellers designed for use with outboard motors, the primary object of the invention being to provide novel means for securing a propeller to its shaft in such a way that the shaft may rotate independently of the propeller, should the propeller meet with obstructions to retard the rotary movement thereof.

Another object of the invention is the provision of means for yieldably mounting the propeller, to the end that the propeller is returned to its normal position after the propeller has passed over an obstruction.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:

The figure illustrates a propeller shaft and propeller mounted thereon, the propeller being shown partly in section to illustrate the bearing.

Referring to the drawing in detail, the reference character 5 designates the propeller shaft on which the propeller 6 is mounted.

The shaft 5 is formed with an enlarged tapered portion 9 of a size to closely fit within the tapered shaft opening of the propeller 6, thereby providing a wedge fit between the propeller and its shaft.

One end of the propeller shaft 5 is threaded to receive the adjusting nut 10, which engages the washer 11. The reference character 12 designates a coiled spring that has one of its ends resting against the washer 11, while the opposite end thereof engages the propeller 6, to normally urge the propeller to its operative position in the shaft 5.

It might be further stated that the coiled spring 12 is of such a construction that it will exert sufficient pressure on the propeller to hold the propeller in its operative position under normal conditions, but permit of movement of the propeller longitudinally of the shaft, should the propeller strike an obstruction.

The reference character 13 designates a lock nut which engages the nut 10 to hold the nut 10 in its active position against reverse movement under the action of the coiled spring 12.

From the foregoing it will be seen that due to applicant's construction, the usual connecting pin that connects a propeller to its shaft, is eliminated, and the propeller is driven by frictional contact with its shaft, due to the pressure of the coiled spring 12.

Should the propeller meet with an obstruction, it is obvious that the propeller would move rearwardly against the tension of the spring 12, preventing damage to the propeller construction.

After the propeller has passed over the obstruction, the tension of the spring 12 will force the propeller to its operative position over the tapered portion 9 of the shaft.

Having thus described the invention what is claimed is:

A propeller comprising a propeller shaft, an integral enlarged tapered portion formed on the shaft and disposed an appreciable distance from the free end of the shaft, said tapered portion merging into the shaft, a propeller member having a hub formed with a tapered opening, the ends of the hub normally lying flush with the ends of the tapered portion of the shaft, and a coiled spring on the shaft and engaging the outer end of the propeller, forcing the propeller into close engagement with the tapered portion of the shaft.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

MELVILLE MARTIN SOBEY.