May 12, 1942. G. PETERSON 2,283,088

SCREW PROPELLER

Filed April 24, 1941

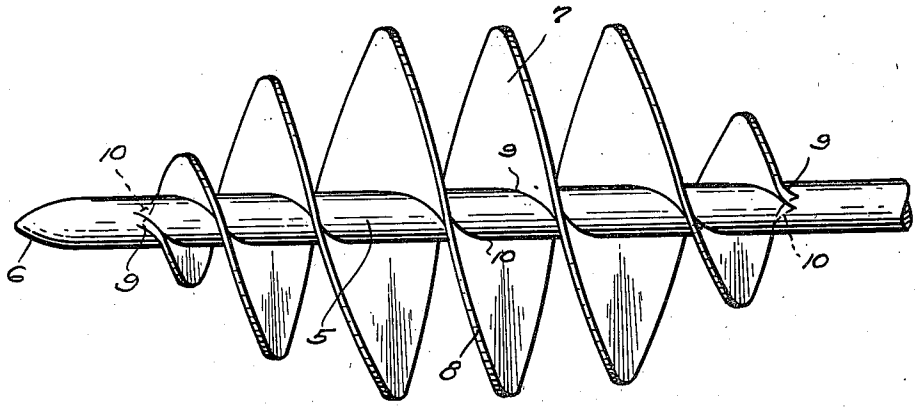


Fig. 1.

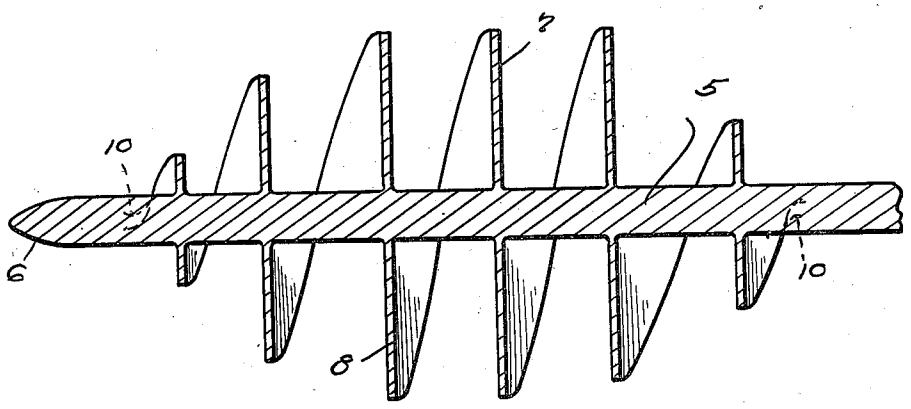


Fig. 2.

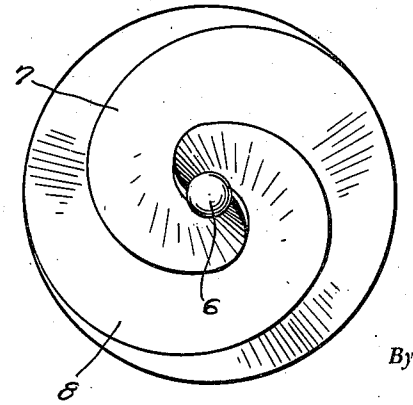


Fig. 3.

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SCREW PROPELLER

Gustav Peterson, Malden on Hudson, N. Y.

Application April 24, 1941, Serial No. 390,175

1 Claim. (Cl. 170—156)

This invention relates to screw propellers for use as traction upon boats; and an object of the invention is to improve generally upon such screw propellers as are now generally known and in use.

More particularly an object of the invention is to provide a screw propeller of such construction and arrangement as will permit the cutting of the propeller through the water with a minimum of resistance, yet at the same time delivering a pull far greater than the conventional type of propeller now in use.

A further object of the invention is to provide a screw propeller which will accomplish the above objects with minimum of effort.

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

Figure 1 is an elevational view of a propeller embodying the features of the present invention.

Figure 2 is a longitudinal sectional view thereof.

Figure 3 is an end view of the propeller from the free terminal end of the propeller shaft.

Referring more in detail to the drawing it will be seen that in the preferred embodiment thereof the propeller embodies an integral shaft 5 which at one end is adapted to be connected with the prime mover to be driven thereby and at the opposite end is reduced and tapered, as at 6, to further reduce friction and resistance.

Integral with the shaft 5 are, in the present instance, two spiral or screw blades 7 and 8. The propeller may have any number of blades but for purposes of illustration but two blades are shown.

As clearly shown, the blades are interwound spiral formations spaced diametrically opposite on the shaft 5 at the points 9 and 10 where the blades merge or become integral with the shaft.

In the illustration shown each blade embodies substantially six convolutes, with the development of each blade being founded on the lines forming the junction between each blade and the shaft 5, and starting from zero at opposite ends of the blade, each blade builds up to full height in the first turn, remaining or retaining this full height from the second turn and then reduces from full height to zero in the third turn; each blade being substantially squared to the center of the shaft at any given point.

By reason of such construction and formation the propeller will cut through the water with a minimum of resistance; will develop maximum pull with minimum effort, and its adoption and use on boats and various kinds of water crafts will, in actual practice, be found to materially promote marine transportation.

The invention together with its many advantages will be understood from the foregoing without further detailed description.

Also while I have herein illustrated and described the preferred embodiment of the invention, it is appreciated that changes may be made therein by those skilled in the art and without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is:

A propeller comprising a shaft, a blade assembly including a pair of intercoiled spiral blades integral with the shaft and coiled oppositely from opposite ends of the assembly, respectively, said blades at their juncture with said shaft extending along the same in diametrically opposite relation, said blades each including three coils, and said blades from one end of the assembly, respectively, gradually increasing in diameter from the shaft to a maximum diameter in the first coil and having the second coil of the same diameter and the third coil gradually decreasing in diameter to the shaft, said blades being perpendicular to the axis of the shaft throughout the coils thereof.

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