

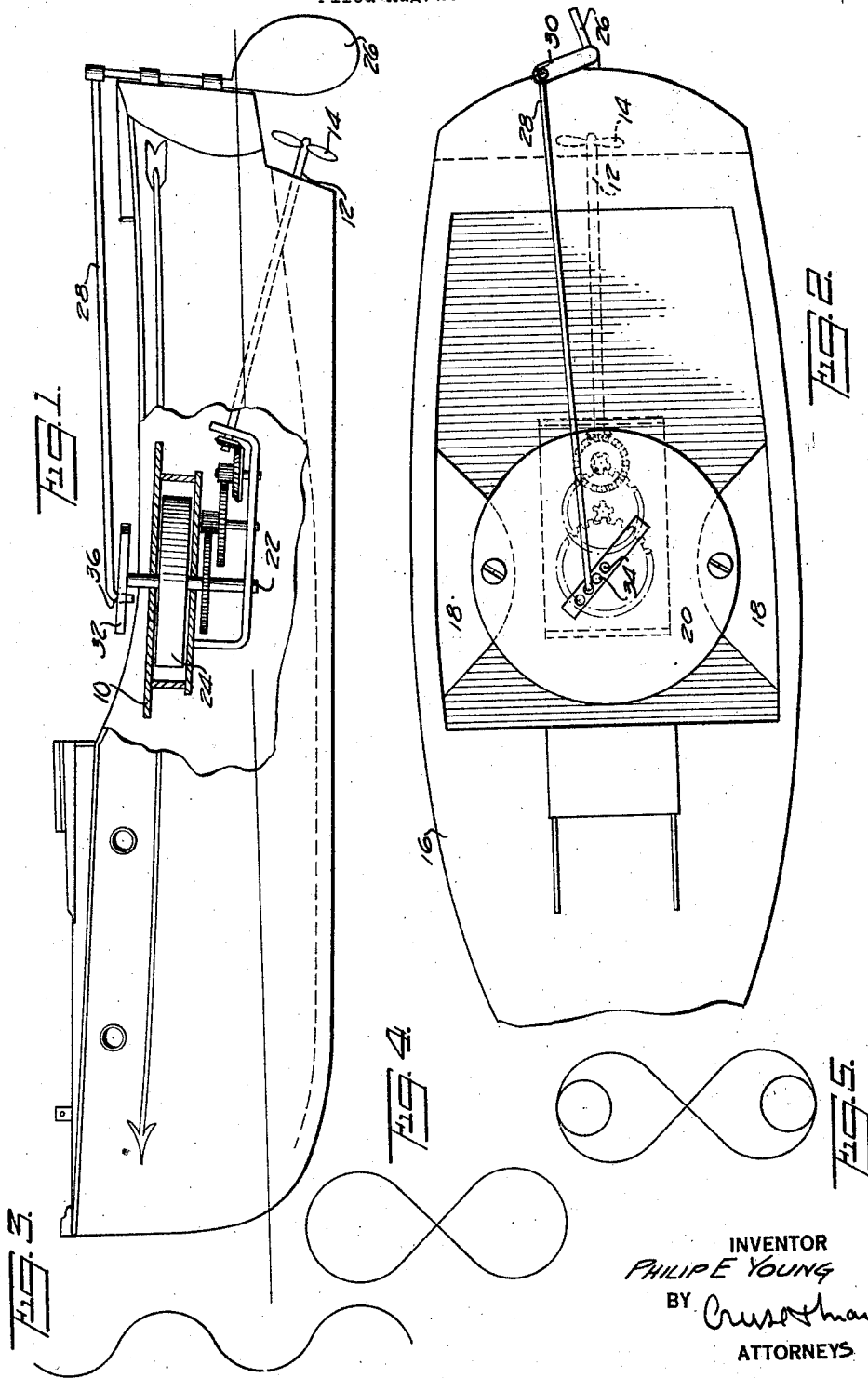
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TOY MOTOR BOAT

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TOY MOTOR BOAT.

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The present invention relates to a toy motor boat, in which an adjustable connection is provided between the driving mechanism and the rudder, so that the boat can be made
5 to take various courses while under way.

An illustrative example of my invention is shown in the accompanying drawings, in which Fig. 1 is a side view of a boat embodying the device, with a part broken away; and
10 Fig. 2 is a plan view; Figs. 3, 4 and 5 are diagrammatic illustrations of various courses that the boat may be designed to take.

In the drawings, 10 is a conventional indication of a spring motor which drives the
15 shaft 12 and the propeller 14. The motor 10 may be attached to the hull 16 in any desired way as by the flanges 18 to which the upper plate of the motor is screwed.

One of the slowly rotating shafts of the
20 motor extends upwardly above the plate 20. In the present illustration indicated by the numeral 22 is the shaft to which the spring 24 is attached. Rudder 26 has a tiller 30 to which is pivotally connected a steering rod
25 28. The tiller 30 is preferably set at right angles to the plane of the rudder 26 so that longitudinal movement of the steering rod 28 will turn the rudder. Attached to the top of shaft 22 is a cross bar 32 which will serve
30 to wind the motor and also is provided with a series of holes 34 adapted to receive the hooked end 36 of the steering rod 28. One of the holes 34 is made concentric with the shaft 22, while the other holes are arranged
35 extending out toward one end of bar 32.

The steering rod 28 should be of such length that when the hook 36 is in the inner opening 34, rudder 26 will extend straight back and the boat will hold a straight course.
40 By properly designing the speed of the boat to the speed with which shaft 22 rotates (and the size and efficiency of the rudder must also be taken into consideration) it is possible to arrange that when the hook 36 is in the next
45 to the center opening 34, the boat will take a serpentine course as illustrated in Fig. 3.

When the hook 36 is moved out to the next opening (or in the position shown in Fig. 2), the boat can be caused to take a course in the shape of a figure 8 as illustrated in Fig. 4.
50 If the hook 36 is moved still further out, the boat can be made to follow a course of double eights as illustrated in Fig. 5.

By this arrangement, the boat can be used for different sized bodies of water; it can be
55 made to go straight across a small pond, backward and forward; can be made to zig-zag up a stream, or it can be made to turn figure eights of greater or less length in smaller bodies of water.
60

It is to be understood that the motor illustrated is intended as a conventional representation and that various forms of spring motors may be used; also the proportioning of the parts may be varied so that different
65 courses will be steered, according to the position at which the hooked end of the steering rod is placed, but it is to be noted that in all cases, except where the boat is set to follow a straight course, that the course is one
70 which is continually changing and the rudder successively alternates from the port to the starboard side.

What I claim is:

1. In a toy motor boat, the combination of
75 a spring motor, a propeller driven thereby, a member rotated relatively slowly by said spring motor and provided with an axial opening and with non-axial openings, a rudder, a tiller at an angle thereto, and a steering
80 rod pivoted to the tiller provided with a portion adapted to be placed in any one of said openings, whereby the boat may be caused either to follow a straight course or to follow various courses which are substantially continuously curving and successively
85 reversing.

2. A structure as defined in claim 1, in which the member provided with said openings is adapted to be used to wind up the
90 spring motor.

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