

C. A. McCALLISTER.
 MEANS FOR PROPELLING BOATS.
 APPLICATION FILED JULY 27, 1910.

998,193.

Patented July 18, 1911.

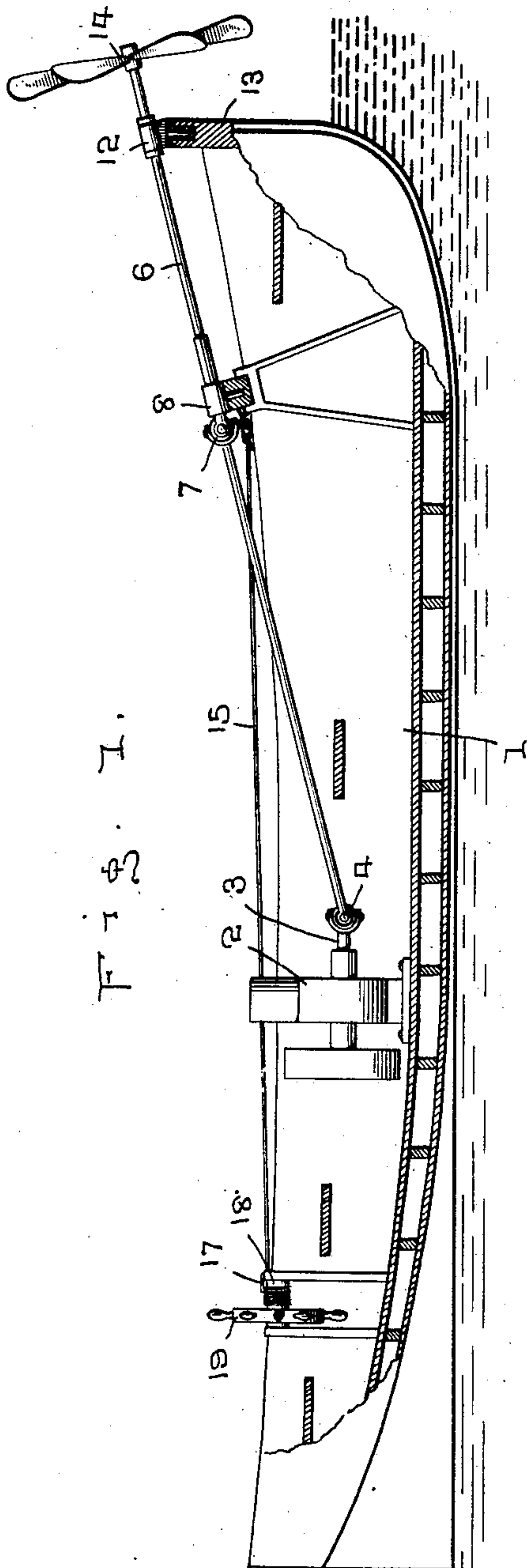


Fig. 1.

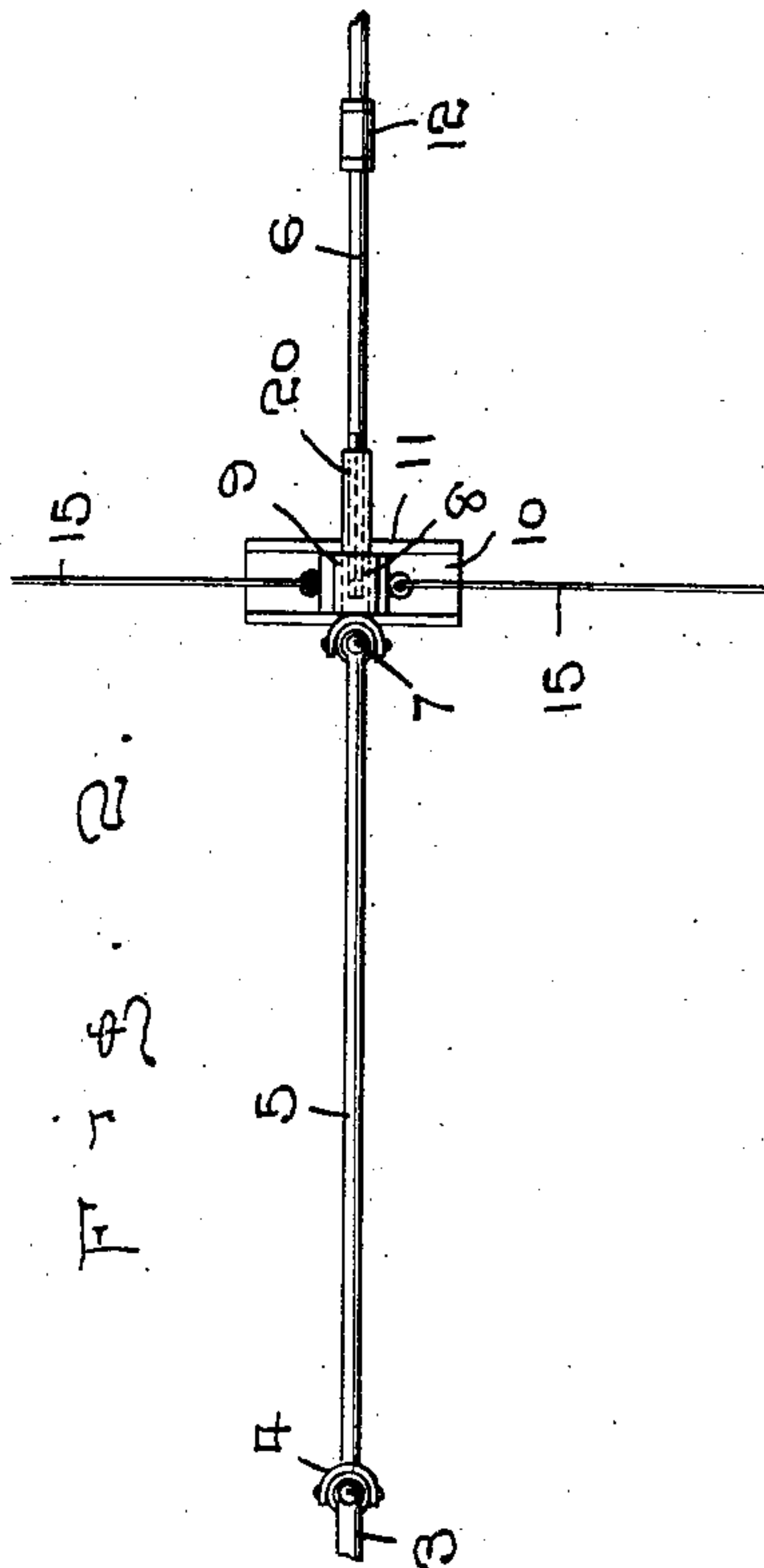


Fig. 2.

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MEANS FOR PROPELLING BOATS.

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Specification of Letters Patent.

Patented July 18, 1911.

Application filed July 27, 1910. Serial No. 574,038.

To all whom it may concern:

Be it known that I, CLARENCE A. McCALLISTER, a citizen of the United States, residing at Marietta, in the county of Whatcom
5 and State of Washington, have invented certain new and useful Improvements in Means for Propelling Boats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as
10 will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in means for propelling boats and my object is to provide a propeller and
15 position the same at a point above the water, whereby the boat will be propelled by the action of the propeller on the surrounding atmosphere, and, a further object is to provide means whereby the boat may be guided
20 by shifting the position of the propeller.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the specification hereunto annexed.

25 In the accompanying drawings which are made a part of this application, Figure 1 is a side elevation of a boat partly in section showing my improved propelling medium attached thereto, and, Fig. 2 is a detail
30 plan view of the propeller shaft and shifting means therefor.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views,
35 1 indicates a boat, which may be constructed in the usual or any preferred manner and 2 indicates a motor, which is placed within the boat. Attached to the shaft 3 of the motor by means of a universal joint 4 is a
40 tumbling rod 5, the opposite end of the rod being attached to a propeller shaft 6 by means of a universal joint 7. That end of the propeller shaft adjacent the universal joint 7 is rotatably mounted in a bearing 8,
45 which is in turn pivotally mounted upon a slide block 9, said slide block being mounted in a way 10 of a frame 11, said frame being secured in any suitable manner at a point adjacent the rear end of the boat. The op-
50 posite end of the propeller shaft 6 projects through a bearing 12, which bearing is pivotally secured to a post 13 of the boat and it will be readily seen that as the slide block is moved lengthwise of the frame 11, the
55 bearing 12 will pivot on the post. The extreme outer end of the shaft 6 has a pro-

PELLER 14 attached thereto and by projecting the propeller shaft over the upper edge of the boat, the propeller will be supported above the water line. By this construction, 60 it will be readily seen that the action of the propeller upon the air will be utilized for propelling the boat instead of placing the propeller in the water and in view of the friction caused by rotating the propeller, 65 the boat will be moved forwardly or rearwardly according to the way the motor is operated.

The slide block 9 is operated by attaching cables 15 to opposite sides thereof, said 70 cables being extended around sheaves 16 and 17 and attached to a drum 18, preferably at the forward end of the boat, the usual form of steering wheel 19 being attached to the drum, whereby the drum may be readily 75 operated to shift the slide block. In order to compensate for the movement of the slide block the inner end of the propeller shaft 6 is formed substantially square in cross section and is entered into a sleeve 20, which 80 sleeve has an opening to fit the squared portion of the propeller shaft while the sleeve 20 is slidably mounted in the bearing 8. By this construction, it will be readily seen that when the slide block is moved to either 85 side of the axial center of the motor, the end of the shaft will move outwardly in the sleeve, but at the same time will rotate therewith. The sleeve 20 will move lengthwise through the bearing 8 sufficiently to 90 compensate for the movement of the block with respect to the shaft 5.

When the boat is in motion and it is desired to change the course of the same, the steering wheel 19 is rotated, thereby shift- 95 ing the slide block to the right or left, which will result in moving the propeller 14 to one side of the axial alinement between the motor and propeller, the pressure of the propeller on the atmosphere causing the 100 boat to swing in the desired direction.

What I claim is:—

1. The combination with a boat and a motor mounted therein, of a propeller extending beyond the rear end of the boat and 105 adjacent the upper edge thereof, a propeller shaft carrying said propeller, a bearing for the shaft pivoted to the boat, a sleeve in which the inner end of the shaft is slidably mounted, means to connect the sleeve to the 110 motor, a slide block upon which said sleeve is pivotally mounted and means to move the

slide block transversely of the boat, whereby the position of the propeller will be changed to guide the boat.

2. The combination with a boat having a
5 motor mounted therein, of a propeller, a
propeller shaft carrying said propeller, a
pivotally mounted bearing for the shaft, a
slide block, a bearing pivoted to said slide
block, a sleeve rotatably mounted in said
10 bearing, said sleeve receiving the inner end
of the propeller shaft, means to move said

slide block transversely of the boat, a tum-
bling rod between the sleeve and motor and
universal joints connecting said tumbling
rod to the sleeve and motor.

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

CLARENCE A. McCALLISTER.

Witnesses:

H. M. WHITE,

ETHEL CHRISTLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."