April 29, 1924. 1,492,432

F. DEAN

CURRENT MOTOR

Filed Jan. 10, 1923

Fig. 1.

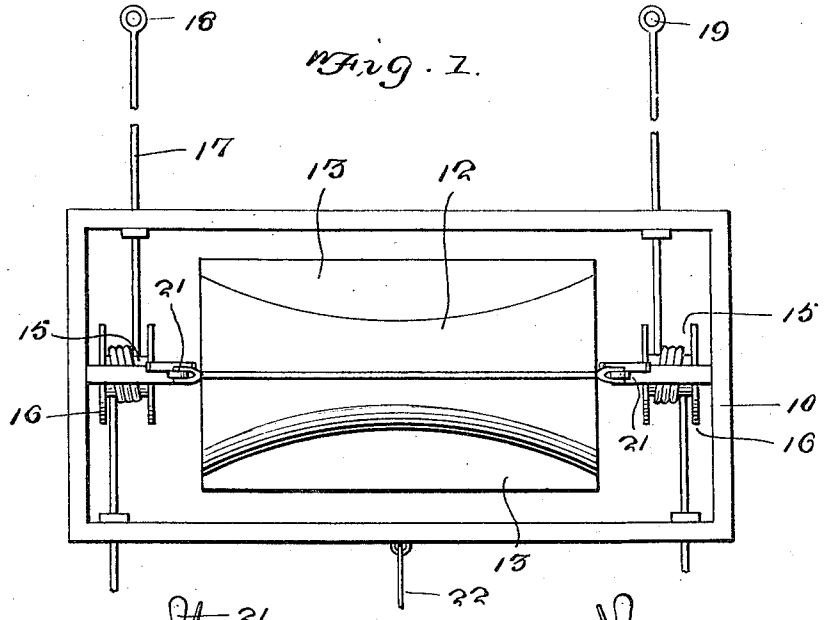


Fig. 2.

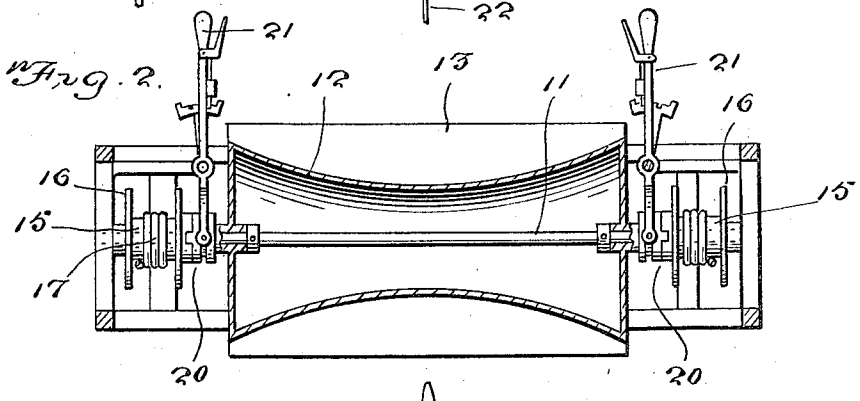
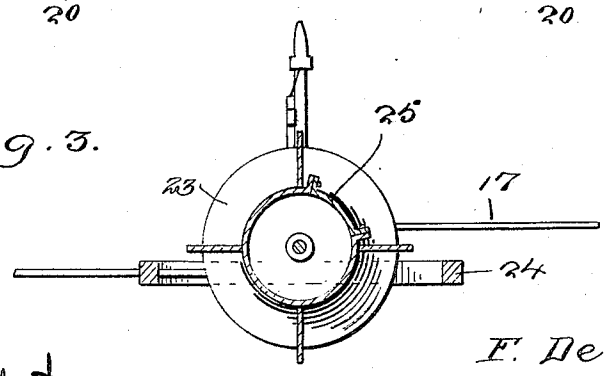


Fig. 3.



F. Dean INVENTOR

BY Victor J. Evans ATTORNEY

E. R. Ruppert.
P. C. Lannon.
WITNESS:

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UNITED STATES PATENT OFFICE.

FERD DEAN, OF BIGELOW, MISSOURI.

CURRENT MOTOR.

Application filed January 10, 1923. Serial No. 611,804.

To all whom it may concern:

Be it known that I, FERD DEAN, a citizen of the United States, residing at Bigelow, in the county of Holt and State of Missouri, have invented new and useful Improvements in Current Motors, of which the following is a specification.

This invention relates to improvements in boats and has especial reference to propelling means therefor, an object of the invention being to provide a current motor of novel construction, wherein the force of the current is utilized to propel a boat or barge in a direction opposite to the direction of flow of the current.

Another object of the invention is the provision of a current motor which includes a novel form of steering means, whereby the direction of travel may be easily and accurately controlled.

Another object of the invention is the provision of a current motor wherein the motor may be utilized as a carrier.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—

Figure 1 is a plan view of the invention.

Figure 2 is a longitudinal sectional view of the same.

Figure 3 is a transverse sectional view showing the modified form of frame.

Referring in detail to the drawings, wherein like characters of reference denote corresponding parts, the form of the invention shown in Figures 1, and 2 of the drawings comprises a frame 10, within which there is mounted a shaft 11, while loosely mounted upon this shaft is a hollow member or drum 12 having a concaved outer face. The drum 12 has extending radially therefrom, longitudinally disposed paddles or blades 13 so as to provide a paddle wheel.

Also loosely mounted upon the shaft 11 at each end of the drum 12 are relatively short drums 15 having flanges 16 at each end thereof. The drums 15 have wound thereon cables 17 and one end of each of these cables is suitably anchored to the shore of a stream along which the boat is adapted to travel This anchoring means is shown at 18 and 19.

The drums 15 are detachably connected to the opposite ends of the drum 12 by means of clutches 20, which are controlled by clutch levers 21 while the frame 10 may be suitably connected as indicated at 22 to a boat or barge.

In the use of the invention, the cables 17 are anchored in an upstream direction and as the flow of current rotates the paddle wheel, the drums 15 will also be rotated to cause the mechanism to travel in an upstream direction due to the engagement of the drums and cables 15 and 17 respectively. By means of the clutches 20, the drums 15 may be connected to or released from either end of the drum 12 and may thus serve as a rudder to control the direction of travel and to guide the device and its tow around bends in the channel of the stream. In addition, the clutches serve as a means for releasing both ends of the drum 12, so that the latter may be free on its return trip down stream.

In the form of the invention shown in Figure 3, the drum 23 is mounted within a substantially flat frame 24 which is adapted to ride upon the surface of the stream. The drum may also be provided with an opening closed by a water-tight hatch or cover 25, so that upon the return or down stream trip, the drum 23 may be utilized as a carrier.

The invention is susceptible of various other changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having described the invention what is claimed is:—

1. A current motor comprising a frame, a shaft carried thereby, a paddle wheel mounted upon the shaft, a drum mounted upon the shaft at each end of the paddle wheel and a cable wound upon each of the drums, one end of each of the cables being stationarily anchored.

2. A current motor comprising a frame, a shaft carried thereby, a paddle wheel mounted upon the shaft, a drum mounted upon the shaft at each end of the paddle wheel, a cable wound upon each of the drums, one end of each of the cables being anchored and clutches detachably connecting the cables and paddle wheel.

3. A current motor comprising a frame, a shaft carried thereby, a hollow member

mounted upon the shaft, blades extending from said member and providing a paddle wheel and a cable wound upon each of the drums, one end of each of the cables being anchored.

4. In a current motor, cable winding devices, cables wound thereon, means whereby said cables may be stationarily anchored and current operated means connected to the winding devices to operate the latter to move the motor in a direction opposite to the direction of flow of current.

In testimony whereof I affix my signature.

FERD DEAN.