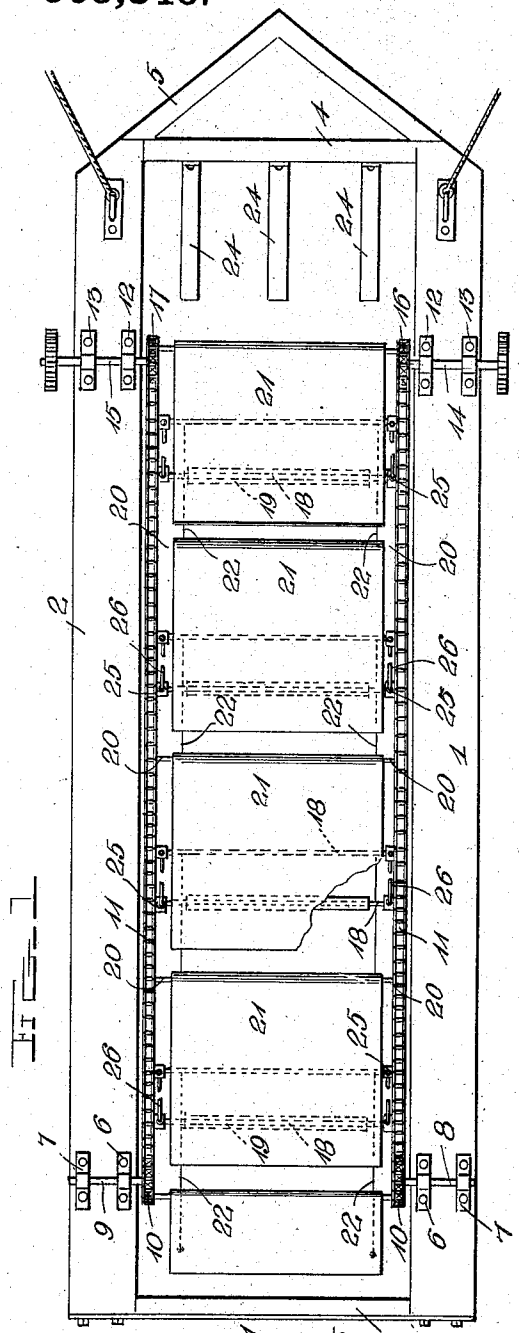
E. R. McCREARY.

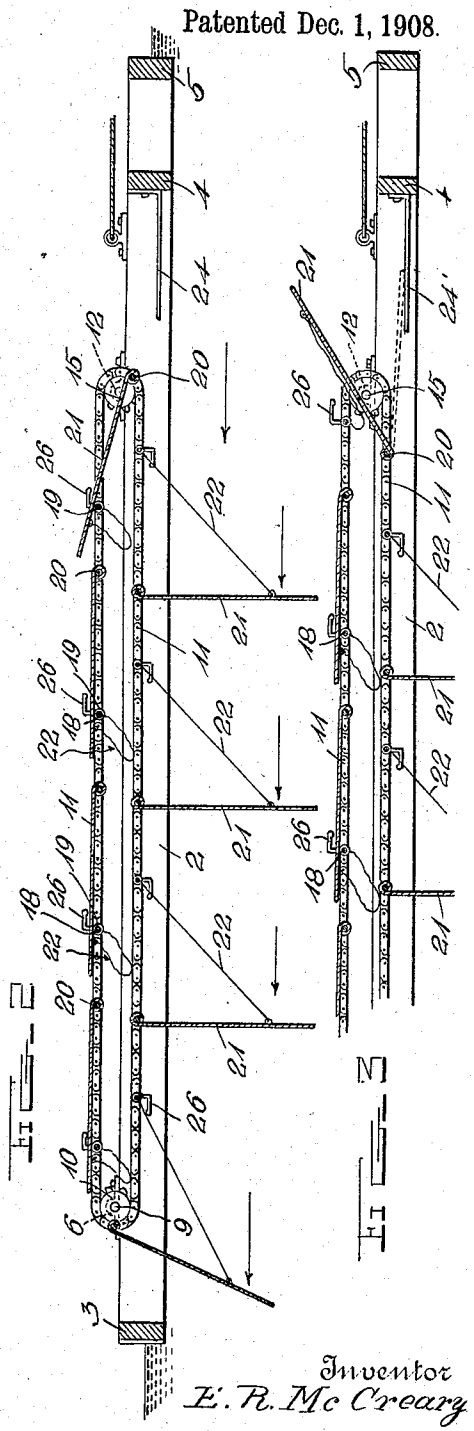
CURRENT MOTOR.

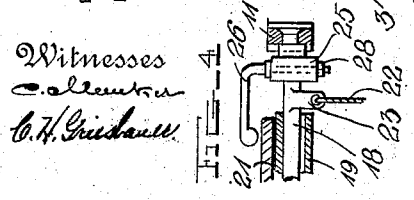
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Witnesses

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CURRENT-MOTOR.

No. 905,346. Specification of Letters Patent. Patented Dec. 1, 1908.

Application filed April 24, 1908. Serial No. 429,005.

To all whom it may concern:

Be it known that I, ELIJAH R. McCREARY, a citizen of the United States, residing at Bush, in the parish of St. Tammany and State of Louisiana, have invented certain new and useful Improvements in Current-Motors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to motors, and particularly to current motors.

The object of the invention is to provide a simple, efficient and inexpensive device of this character which will have its blades so positioned that they will take the water suddenly and be withdrawn gradually in a line practically directly opposite to the direction of the current.

A further object of the invention is the provision of means for supporting the blades in their inactive course of travel and for supporting the blades just prior to their entrance into the water.

A still further object of the invention is the provision of novel means for locking the blades in inactive position so that the machine may be stopped for the purpose of repair, or for any other purpose.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a top plan view, Fig. 2 is a longitudinal section, Fig. 3 is a similar fragmentary view showing the entering blade in the act of dropping, and Fig. 4 is a fragmentary detail section of the cross bar and locking arm.

Referring more especially to the drawings, 1 and 2 represent the side members of a suitable frame work, which are joined at either end by the cross pieces 3 and 4, the latter having a pointed or cone-shaped barricade, or guarding device 5, attached thereto and projecting out in front of the frame so as to protect the motor from drift wood and the like. Journaled in bearings 6 and 7, on either side of the frame adjacent its rear end are stub shafts 8 and 9, upon the inner end of each of which is mounted the sprocket wheels 10, over which the sprocket chains 11, are adapted to travel. The forward end of the frame is provided with bearings 12 and 13, in which are journaled the stub shafts 14 and 15, both of which are provided with sprocket wheels 16 and 17, the former being adapted to receive the chains 11, and the latter being connected in any suitable manner to the machinery to be driven. These chains, as with all sprocket chains, are composed of links and bars and extending from one bar to a similar one on the opposite chain are a plurality of bracing or supporting rods 18, which are preferably circular in formation and have surrounding them the friction tubes 19, for a purpose which will be hereinafter described. Intermediate the bars 18, are suitable pivotal shafts 20, to which are hinged the water blades 21. These blades are preferably constructed of some material such as galvanized sheet iron or steel, and preferably being a length four times as great as the diameter of the sprocket wheels 10 and 16. The forward end of these blades rests when in inactive position upon the tubes 19 of the cross bars 18, and have connecting them with the cross bars a flexible connecting member 22, such as a chain or rope, which is connected to the blades about three-fourths of its length from the pivotal end and to a lug 23 depending from the rods 18.

In order to catch and limit the dropping movement of the blade I provide a retaining device, which is shown herein as consisting of a plurality of fingers 24, extending inwardly from the cross bars 4, so as to catch the blade as it falls, as shown in dotted lines in Fig. 3. The cross bars 18 upon which the blades rest when upon the upper side of the machine force the blade to a vertical position and allow it to fall as shown when the bar assumes the position indicated in Fig. 3, the blade being raised gradually as its pivotal connection recedes and its supporting connection proceeds.

In order to hold the blades in inactive position so that the motor may be stopped I provide a plurality of locking devices arranged adjacent the end of the blades on either side thereof so as to prevent their dropping when released by the fingers 24. This locking device comprises a centrally apertured lug 25, which has passing therethrough a hook arm 26, having a limiting collar 27, on its inner end and being thread-

ed on the free end to receive the locking nut 28. Normally these hook arms are arranged as shown in Figs. 1 and 2.

When it is desired to lock the blades they are turned to the position shown in Fig. 4. The parts of this locking device are preferably made of non-corrosive material so that their operation is always assured, and it will be seen from an inspection of Fig. 4 that the blades 21 are free to move between the locking arms and the supporting bars.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:—

1. In a water motor, the combination with a plurality of supporting belts, a plurality of cross members secured thereto, blades pivotally connected to said cross members, means for supporting the blades in alinement with the belts during a portion of the travel, a series of fingers to support the blades so as to insure their proper entrance into the water, and means for holding said blades at right angles to the surface of the water during the remainder of their movement.

2. In a water motor, the combination with a frame, a plurality of stub shafts thereon, sprocket wheels on said stub shafts, a pair of chains connected to said sprocket wheels on either side of the frame, connecting rods bridged between the chains, water blades pivoted upon said rods, means for supporting said blades parallel with the chains during a portion of their movement, said means acting to throw the blades in engagement with the water, means to support the blades when so thrown for a predetermined distance, and means to hold the blades transverse to the surface of the water for the remainder of their movement.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ELIJAH R. McCREARY.

Witnesses:
CRESSEDA DAVENPORT,
E. EDMONSTON, Jr.