

J. L. Cathcart.
Screw Propeller.

N^o 10,790.

Patented Apr. 18, 1854.

Fig. 1.

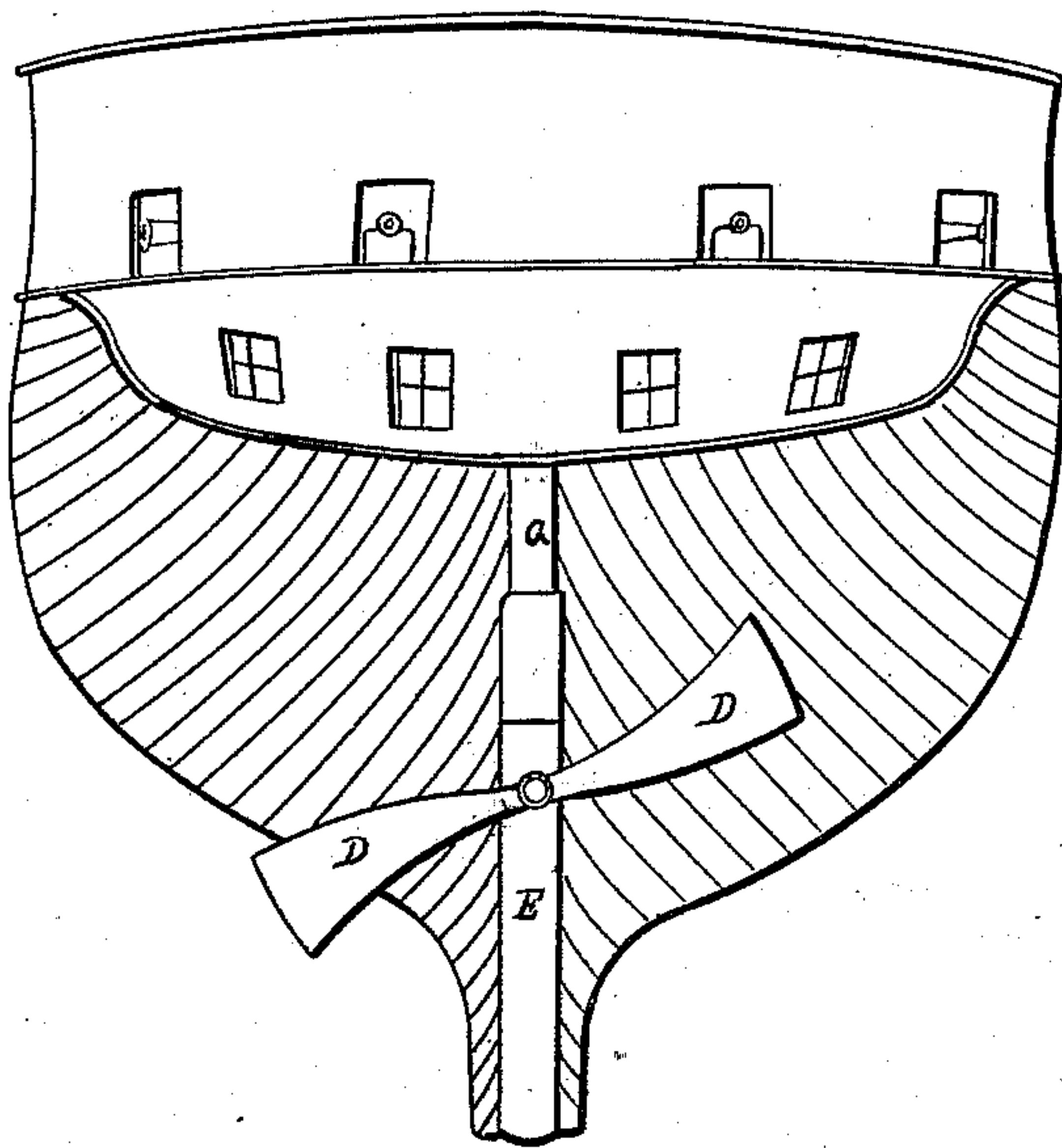
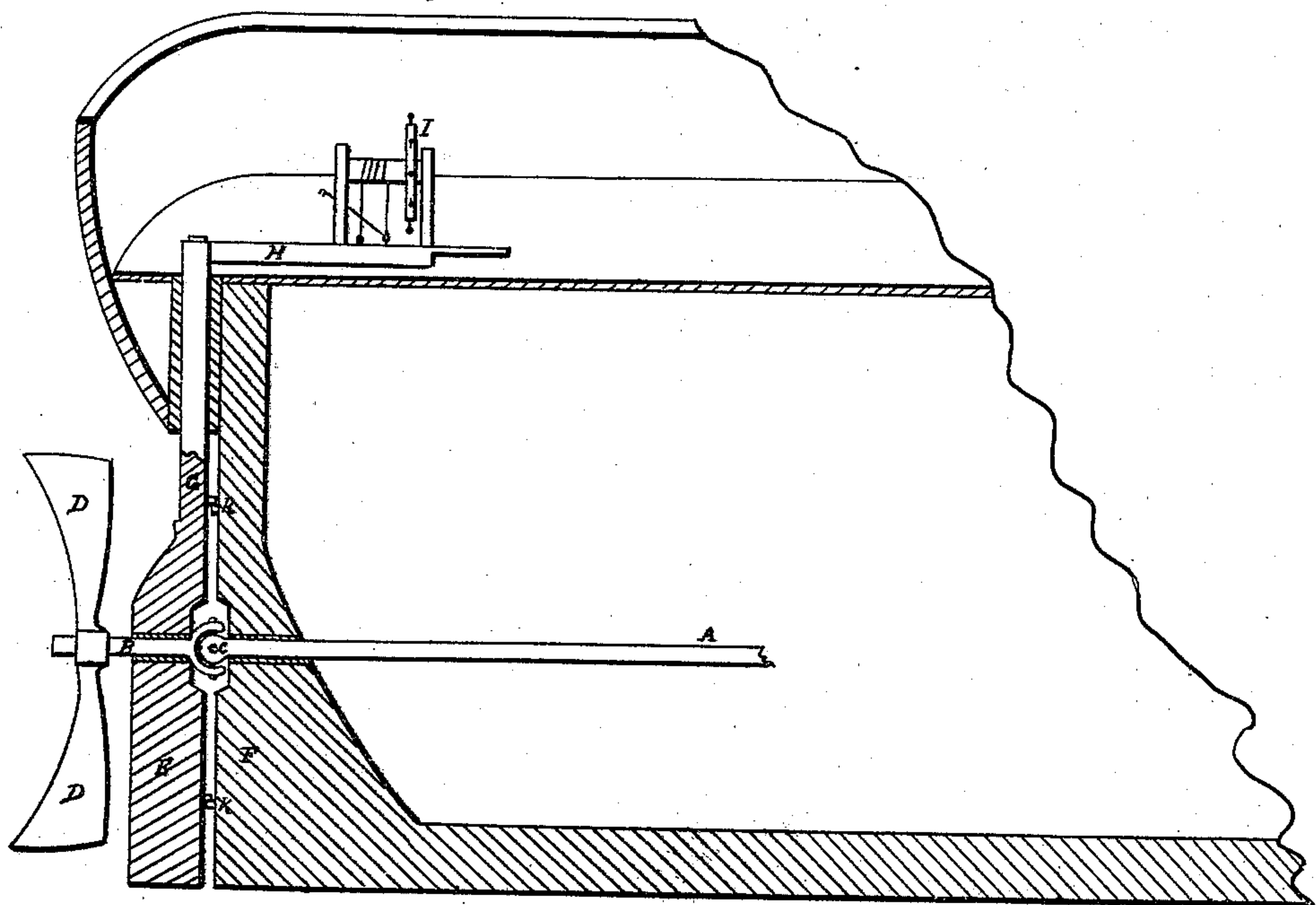


Fig. 2.



UNITED STATES PATENT OFFICE.

JAMES L. CATHCART, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN ATTACHING PROPELLERS TO DRIVING-SHAFTS.

Specification forming part of Letters Patent No. **10,790**, dated April 18, 1854.

To all whom it may concern:

Be it known that I, JAMES L. CATHCART, of the city of Washington, in the District of Columbia, have invented a new and Improved Manner of Attaching Propellers to Ships or Vessels of all Classes; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an elevation view of the stern, and Fig. 2 a longitudinal section.

A is the driving-shaft inboard.

B is the driving-shaft outboard and passes through boxes in the rudder (when one is used.)

C is a universal joint by which the shafts A and B are united.

D D is the propeller.

E is the rudder.

F is the stern-post.

G is the head, or that part of the rudder which passes through the rudder-case on deck.

H is the tiller, which is secured to the head of the rudder.

I is the wheel by which the vessel is steered.

K K are the pintels upon which the rudder is hung.

To enable others skilled in the art to make

and use my invention, I will proceed to describe its construction and operation.

I make the driving-shaft of propellers in two pieces, united outboard by a universal joint, the outer or short piece of the shaft passing through boxes in the rudder and projecting abaft the rudder a sufficient length to receive the propeller.

By means of the universal joint the helmsman has control over the propeller as well as the rudder, and is enabled to turn the vessel in a much smaller circle and with less helm than can be done with the rudder alone. I can also use the propeller as a steering apparatus without a rudder by hanging it on a swinging crane instead of a rudder and attaching the wheel-ropes to it.

What I claim as my invention, and desire to secure by Letters Patent, is—

Attaching the propeller, secured to a short shaft which passes through the rudder, to its main or driving shaft by a universal joint placed between the stern-post and the rudder, by which attachment the propeller is moved laterally with the movement of the rudder.

JAMES L. CATHCART.

Witnesses:

GEO. W. BRADFORD,

WM. A. PAGE.