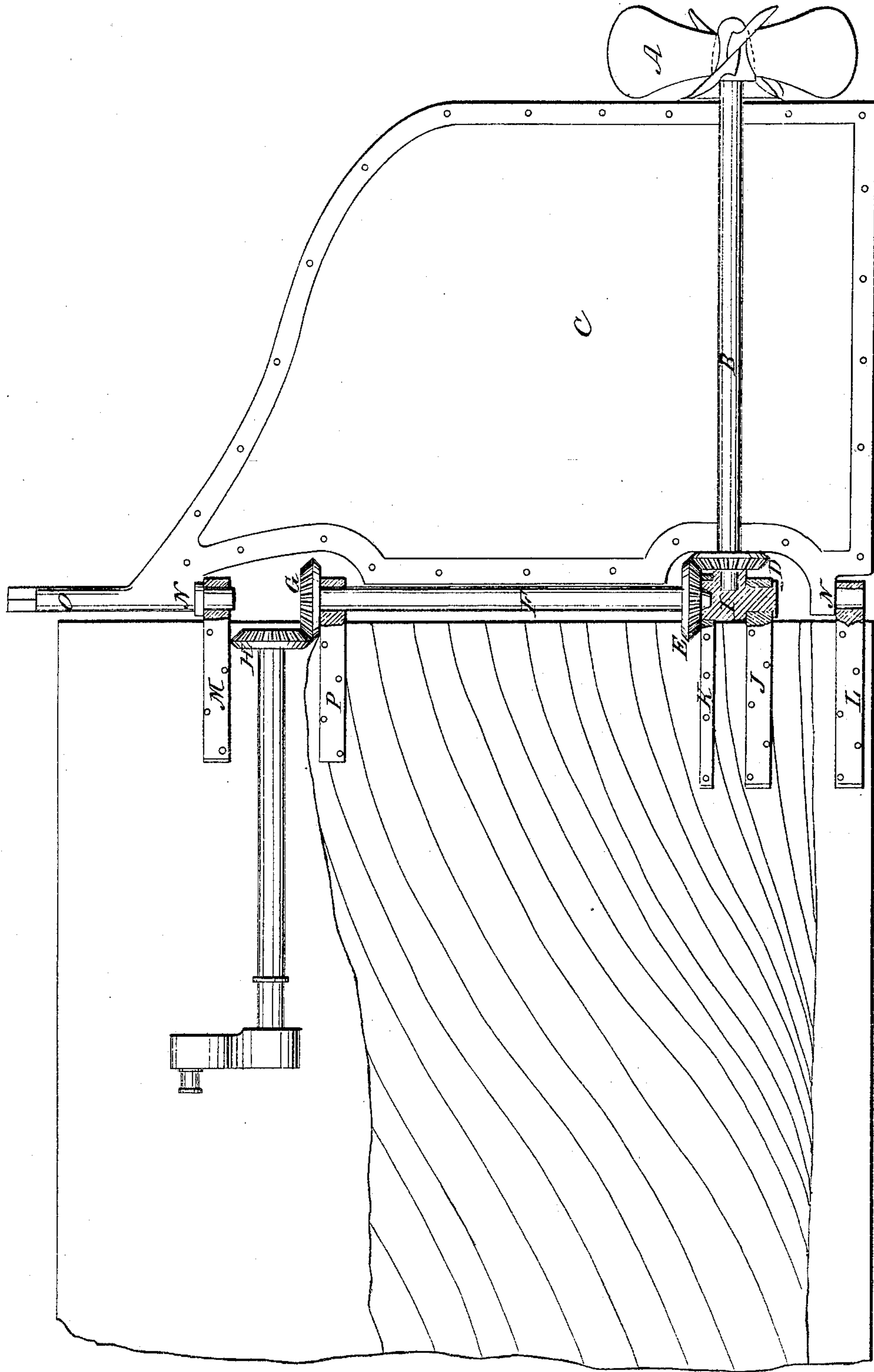


R. Cartwright.
Screw Propeller.

N^o 24,794.

Patented Jul. 19, 1859.



UNITED STATES PATENT OFFICE.

ROBERT CARTWRIGHT, OF ITHACA, NEW YORK.

CANAL-BOAT PROPELLER.

Specification of Letters Patent No. 24,794, dated July 19, 1859.

To all whom it may concern:

Be it known that I, ROBERT CARTWRIGHT, of Ithaca, in the county of Tompkins and State of New York, have invented a new and useful Improvement in Propellers for Canal-Boats, &c.; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, forming part of this specification, in the several figures of which similar characters of reference denote the same part.

The nature of my invention consists in applying gearing to drive the propeller, said propeller being placed in the rudder or at the back of rudder, by which in combination with the gearing the vessel can be propelled and steered. The center of gearing being on the center line of vibration, with the rudder, admits of the rudder and propeller being turned anywhere within a radius of the length of the rudder or propeller shaft, and entirely precludes the necessity of the shaft going through the vessel or boat below the water line.

A is the propeller on shaft B, in or at the back of rudder C, said shaft being supported by proper bearings on, or in the rudder, and on the step block I.

E is a gear on shaft F that runs with and drives gear D. Shaft F is supported by stepping in I and by strap P, and is driven by gears G and H or by direct attachment of engine or any other power.

I is a step block that has in it a bearing for shaft B and also stepping for shaft E, and is supported and held by straps J, and K, that admit of its turning in said straps to any lateral angle with the keel.

L and M are straps that support the rudder pintles N, N.

O is the upright stem of rudder running up to be operated on by a tiller or any other device.

Now the thrust of the propeller is mainly supported by step block I, thereby admitting of an easy movement of propeller and rudder laterally.

The rudder may be made of wood or iron as the case may be.

By throwing the tiller to one side or the other the action of the engine on the propeller is not impaired as in the case of a universal joint, and said propeller can be operated at a right angle or less with the keel.

I do not claim the gearing or universal joint connection of the propeller with the motive power but

I claim as new and of my own invention—

The step or bearing block I constructed and arranged relatively to the rudder and vessel substantially as described, to receive the end thrust of the propeller shaft and thus relieving the gearing and rudder from pressure, the whole end thrust of the propeller being upon the step block I, which is arranged to admit of any lateral motion to the vessel's center line thus forming a steering, as well as propelling power, and being all placed externally it entirely obviates the necessity of entering the vessel below the water line.

In testimony whereof, I have hereunto signed my name before two subscribing witnesses.

ROBT. CARTWRIGHT.

Witnesses:

GEO. PATTEN,
W. S. CLARY.