

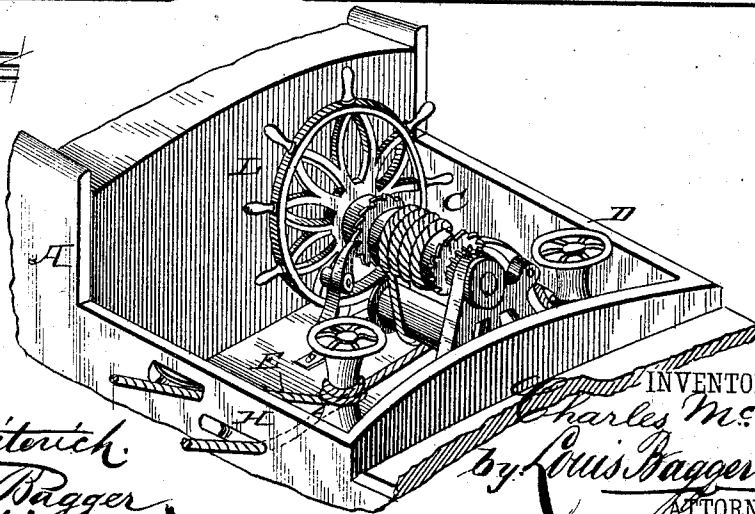
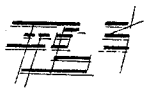
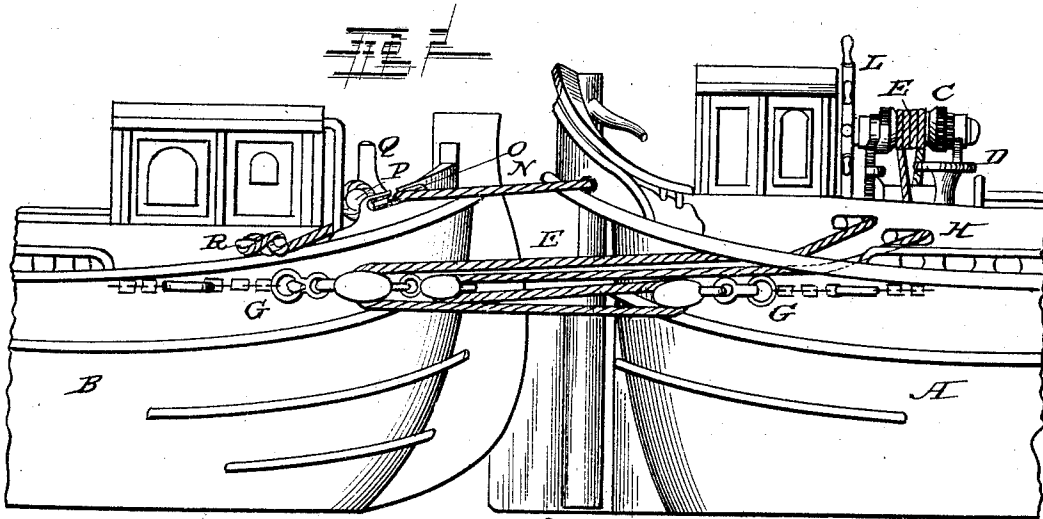
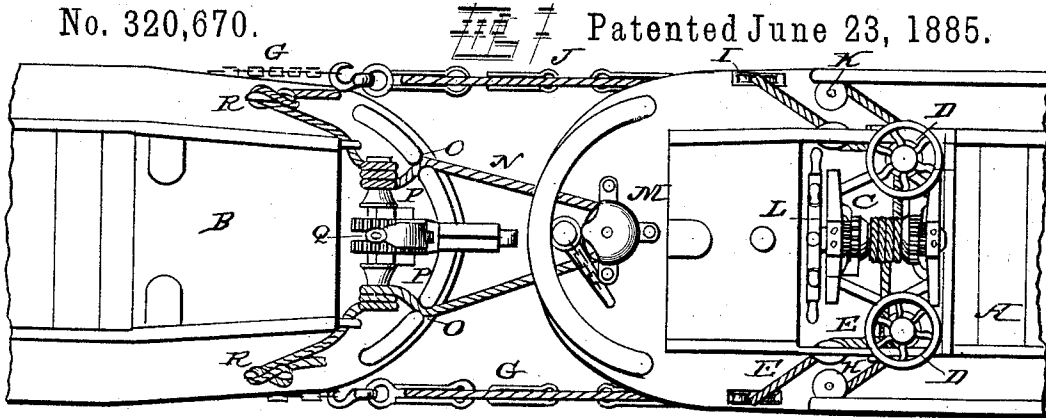
(No Model.)

C. McCABE.

STEERING CANAL BOATS.

No. 320,670.

Patented June 23, 1885.



WITNESSES:

Wm. S. Dieterich
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INVENTOR,

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UNITED STATES PATENT OFFICE.

CHARLES McCABE, OF ANTIETAM, MARYLAND.

STEERING CANAL-BOATS.

SPECIFICATION forming part of Letters Patent No. 320,670, dated June 23, 1885.

Application filed June 28, 1884. (No model.)

To all whom it may concern:

Be it known that I, CHARLES McCABE, a citizen of the United States, and a resident of Antietam, in the county of Washington and State of Maryland, have invented certain new and useful Improvements in Steering Canal-Boats; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan view of the ends of two canal-boats connected and adapted to be steered together. Fig. 2 is a side view of the same; and Fig. 3 is a detail view in perspective of a portion of my invention.

The same letters refer to the same parts in all the figures.

My invention has relation to that class of devices for steering canal-boats in which one boat is attached to the rear end of the other, the rear boat serving in the capacity of a rudder for the forward boat; and it consists in the improved construction and combination of parts of such a device, as hereinafter more fully described and claimed.

In the drawings, A and B designate, respectively, the front and rear canal boats, which are adapted to be steered in the manner which is the subject of this invention. The front boat, A, is provided with a windlass, C, at either side of which a vertical capstan, D, is arranged, substantially as shown.

E is a rope, one end of which is attached to one of the capstans, from whence it is reeved through a series of pulleys suitably attached to chains G of the boats A and B. It then passes over a suitably-arranged guide-pulley, H, thence over the windlass C, thence over a guide-pulley, I. It is then reeved over a set of pulleys, J, attached to the opposite sides of the boats A and B, thence over a guide-pulley, K, at the opposite side of the boat A, and to the other capstan, D, to which it is attached.

The windlass C is provided with and adapted to be operated by the steerman's wheel L. Suitable intermediate gearing may be used for the purpose of gaining an increase of power.

The boat A is provided near its rear end with a horizontal pulley, M, over which is passed a rope, N, passing over suitable guide-pulleys, O, at the front end of the boat B, thence over the arms P P of a windlass, Q, and finally to the T-shaped heads R R, where the ends of the said rope are made fast.

The operation of this invention is as follows: When the boats have been connected in the manner described, and have been brought as closely together as may be desired, the operation of a windlass, C, by means of the steerman's wheel, will cause the rear boat, B, to be moved in either direction to any desired angle with relation to the front boat, A. It will thus be seen that it will serve in the nature of a rudder, the course of both boats being thus directed. When it shall be desired to steer the boats by means of the rudder proper, the connecting-ropes must be slackened sufficiently to enable the rudder of the front boat to play freely upon its hinges. When locks are reached, or when for any other reason it shall be desired to separate the boats to any extent, this may be accomplished by slackening the connecting-ropes to any desired extent. This invention is simple in construction, and it will be clearly seen that by its use the labor of one hand may be dispensed with.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination, with two canal-boats, the forward one of which is provided with a horizontal windlass operated by the steerman's wheel and a pair of vertical capstans arranged at the sides of said windlass, of a connecting-rope wound at its middle upon the windlass reeved over pulleys attached to both sides of the bow and stern of the boats and secured at its ends to the capstans, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES McCABE.

Witnesses:

LOUIS BAGGER,
D. E. McELHENNY.