

J. C. COOK.

Improvement in Canal-Boats.

No. 128,713.

Patented July 9, 1872.

Fig. 1.

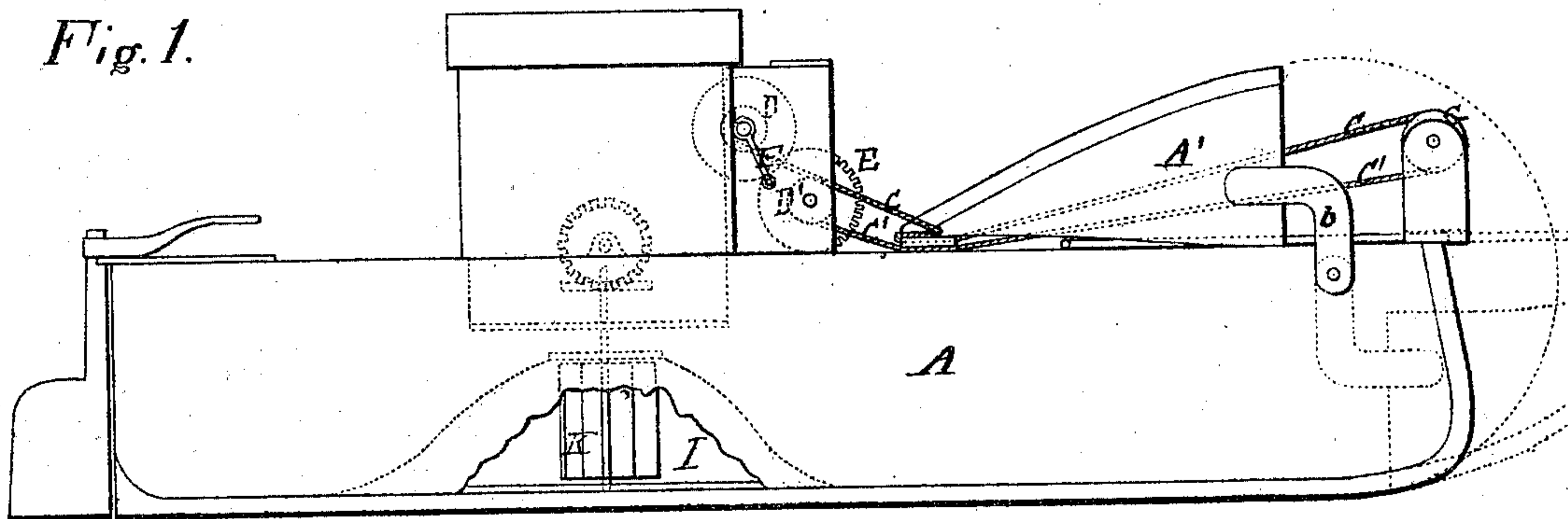
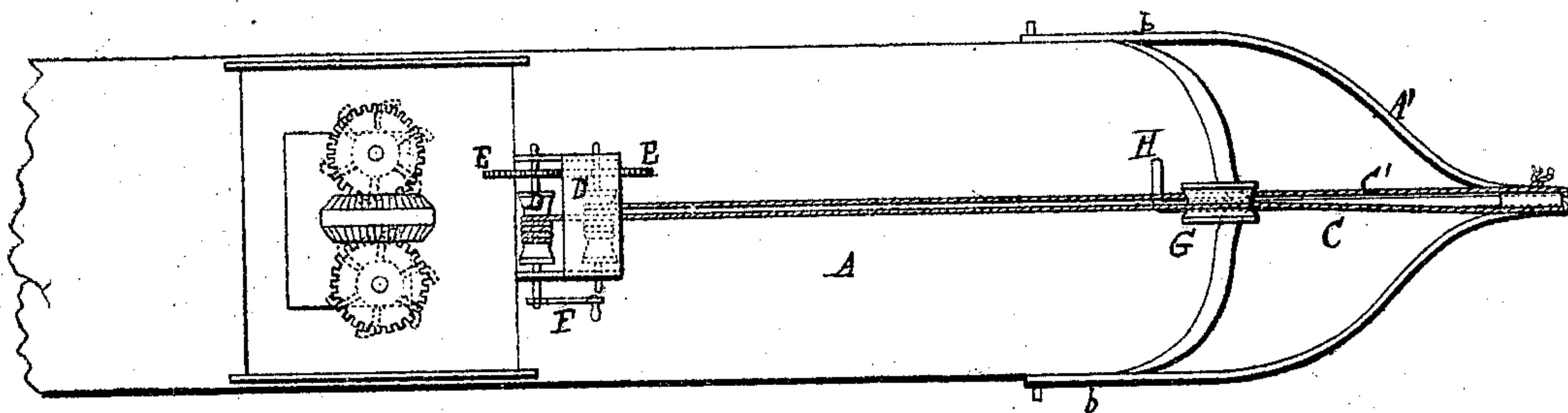


Fig. 2.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

JOSEPH C. COOK, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN CANAL-BOATS.

Specification forming part of Letters Patent No. 128,713, dated July 9, 1872; antedated June 19, 1872.

*To all whom it may concern:*

Be it known that JOSEPH C. COOK, of New Haven, in the county of New Haven and State of Connecticut, has invented a new and valuable Improvement in Propelling Canal-Boats; and he does hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side view with a portion of the side removed. Fig. 2 is a top view of my invention.

This invention has relation to propeller canal-boats. Its object is to prevent and overcome the ripples on the water; and for this purpose consists in the application, novel construction, and arrangement of a movable bow and contrivances for raising and lowering it.

The bow extends out considerably beyond the length of an ordinary boat, and hence is made removable, so that it may be raised from the water and drawn back over the deck as it enters the docks, so as to occupy less space.

In the accompanying drawing, A represents the body of a propeller canal-boat provided with movable bow A', which may be applied to boats of the ordinary form, or to those specially constructed for the purpose. In the construction of this movable bow I use, by preference, sheet-iron, of sufficient thickness to meet all the requirements of strength and durability, and yet be light enough to be easily raised and lowered. I give this bow a form somewhat similar to the ordinary canal-boat bow, but prolong the curves of the sides and point, as shown in the drawing, so that it shall glide through the water smoothly and without creating large ripples. I provide the sides with arms *b*, to be hinged or pivoted to the ends of the boat, so as to allow the prow to be moved. The essential element in respect to this bow is its peculiar form and its movability. The form is simply an angular shell, open above and below, so that it will pass easily into and out of the water. As it has no hold or capacity for storage its weight

will be comparatively small. It is designed to lie upon the deck when raised, and as its edges alone will touch there is little danger of crushing any articles that may be upon the deck of the boat. It may be raised and lowered by any suitably arranged and operating devices; hence I do not confine myself to the employment of special contrivances. I have, however, devised a method which may be employed advantageously in moving the said prow. It is clearly illustrated in the accompanying drawing, in which C C' represent two ropes or chains secured to the point of the bow, and thence brought back to two windlasses, D D', communicating by gearing E, and operated by a crank, F. The windlasses turn simultaneously in opposite directions; hence, when the upper one is winding up its rope or chain C and raising the bow, the lower one is unwinding the cord or chain C'. The ropes C C' come in contact with a pulley, G, at the front of the body of the boat, and are thus kept apart. H represents a bar, which passes through an eye under the pulley G and into an eye on the point of the bow, and is designed to keep the latter steady in the water. The support of this bar is necessary on account of the shell-like and open construction of the prow. When the bow is drawn back it falls on the deck inverted, as shown in Fig. 1, and is replaced in the water by winding up rope C.

I am aware that boats have been made in sections, hinged together, so that the end sections could be raised perpendicularly; therefore I do not claim a hinged prow, broadly; but

I claim as my invention—

The hinged shell-like prow A' herein described, open above and below, in combination with the stop-bolt H and the raising and lowering devices, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOSEPH C. COOK.

Witnesses:

W. J. WELD,  
F. H. WELD.