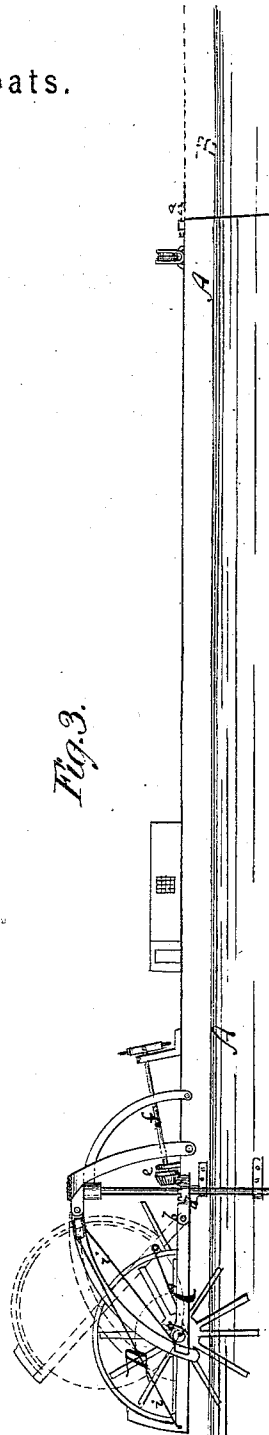
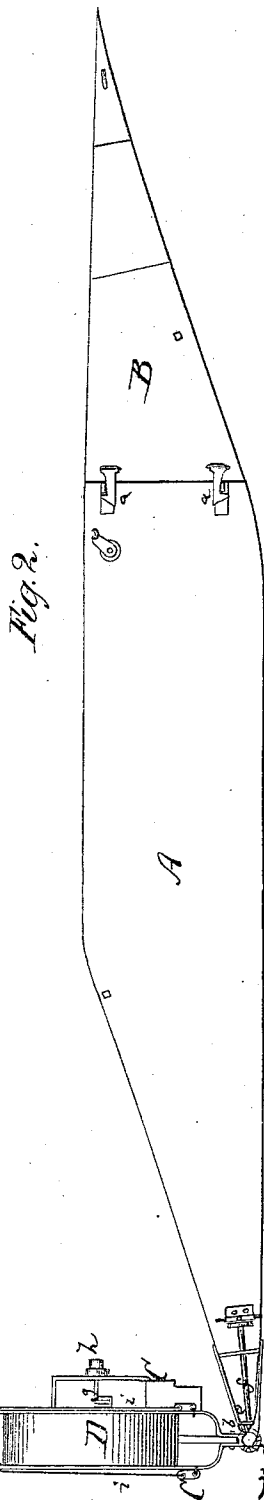
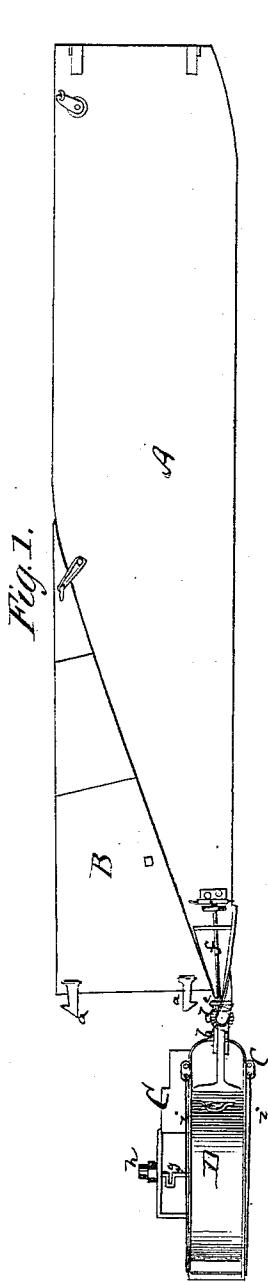


H. J. HATCH.
Improvement in Canal-Boats.
No. 126,204. Patented April 30, 1872.



Witnesses:
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UNITED STATES PATENT OFFICE.

HARTLEY J. HATCH, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN CANAL-BOATS.

Specification forming part of Letters Patent No. 126,204, dated April 30, 1872.

Specification describing a new and Improved Canal-Boat, invented by HARTLEY JAMES HATCH, of Chicago, in the county of Cook and State of Illinois.

Figure 1 represents a top view of my improved canal-boat, showing it contracted to fit a lock. Fig. 2 is a top view, showing it extended. Fig. 3 is a side view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new canal-boat, which is made sectional in such manner that its pointed bow can be detached and brought alongside of the pointed stern whenever a lock is to be entered, and which is provided with a hinged and swiveled paddle-box, to operate as hereinafter more fully described.

A in the drawing represents the main portion of the canal-boat. Its front end is flat and straight up and down, while the stern is pointed—i. e., of triangular form. B is the smaller section or bow-attachment. It is triangular, and can, by suitable catches *a a*, be fastened in front of the section A, as is clearly shown in Fig. 2. In this case the boat is pointed at both ends, though the points are more to the sides than the middle.

When the boat is to enter the lock the bow-section B is detached from the front end of A and fastened alongside of the pointed stern, in manner clearly shown in Fig. 1. The boat is thereby made shorter, and with broad ends, to fill the lock like ordinary canal-boats. By this arrangement of detachable triangular section the boat is enabled to proceed rapidly through the water without creating unnecessary disturbance of the same, and still to fit the locks like an ordinary boat, all without reducing its carrying capacity beyond the weight and space of the additional sides required by the detachment of the section B. C is the paddle-box or frame hinged at *b* to an arm, *d*, which is swiveled to the pointed stern of the boat, and which carries a toothed disk gearing

into a pinion, *e*, on the steering-shaft *f*. By means of the shaft *f* the arm *d* and the paddle-box C can be turned to either side around the vertical arbor of *d*. The shaft *g* of the paddle-wheel D has its bearings in the frame C, and is provided with cranks that are connected with the operating engine by suitable rods or devices, said engine being situated on a platform or projection of the frame C, and connected by jointed pipes with the boiler, which is placed in the stern portion of the main boat A. By means of the shaft *f* the whole paddle can be turned to one side or the other for steering purposes. On the hinge *b* the paddle-frame and paddle can, by means of ropes *i*, or otherwise, be swung up out of the water whenever a boat is to enter, or is within a lock. The paddle can thus be applied to a boat of ordinary length, and still not be in the way when the latter is in a lock. While being carried up to bring the paddle out of the water the shaft *g* is not out of gear with the driving-engine, but may be revolved to wind up the rope, whereby the boat is moved along a short distance from the lock-gate, said rope being wound upon a pulley, *h*, which is mounted on *g*.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The triangular detachable section B, in combination with the main section A of a canal-boat, the latter having a flat and vertical bow, and tapered or pointed stern, substantially as and for the purpose herein set forth.

2. The paddle-box or frame C, hinged to a swivel-arm *d* in the manner described, so that it can be raised and lowered, and made to operate as a rudder, for the purpose specified.

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Witnesses:

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