

JOHN HUGHES.
Improvement in Canal Boats.

No. 124,136.

Patented Feb. 27, 1872.

Fig. 1.

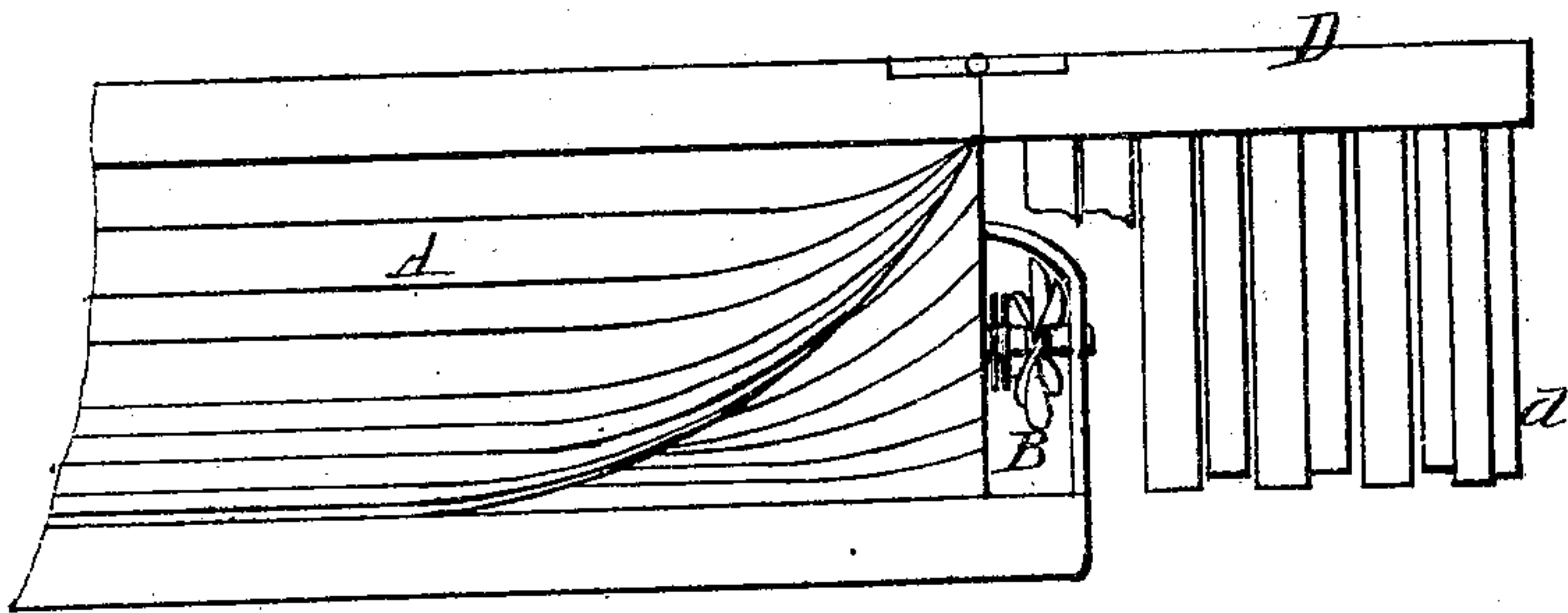
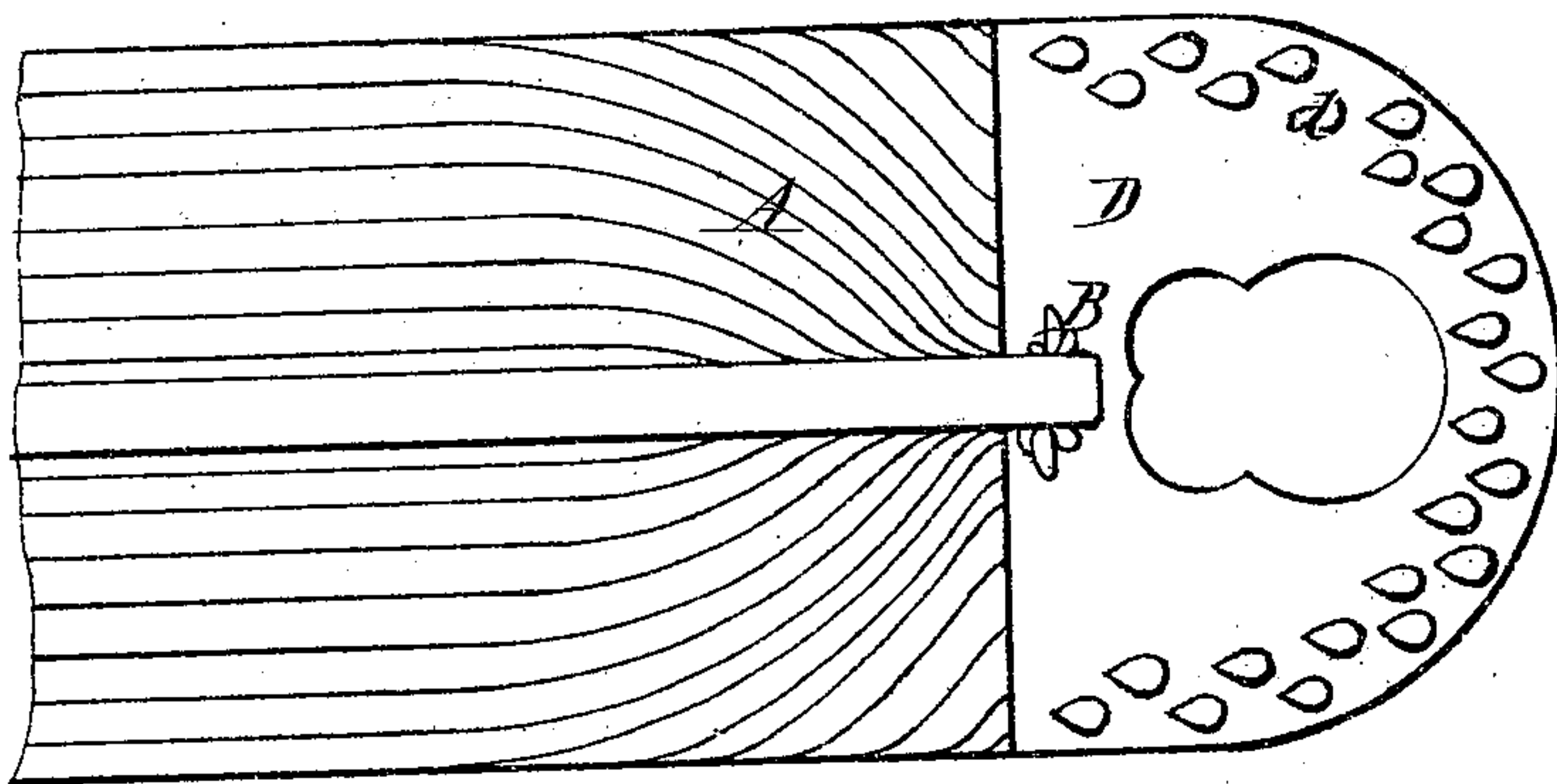


Fig. 2.



Witnesses.

R. H. Steele
J. B. Curtis

Inventor.

John Hughes,
Chipman & Co.,
Attys,

JOHN HUGHES.

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Fig. 3.

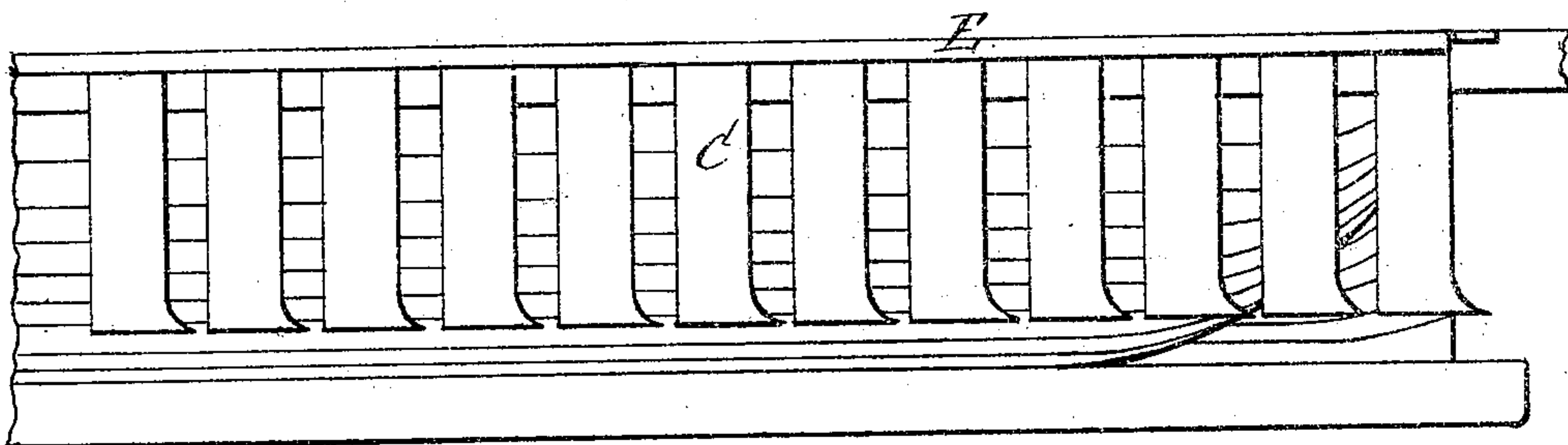
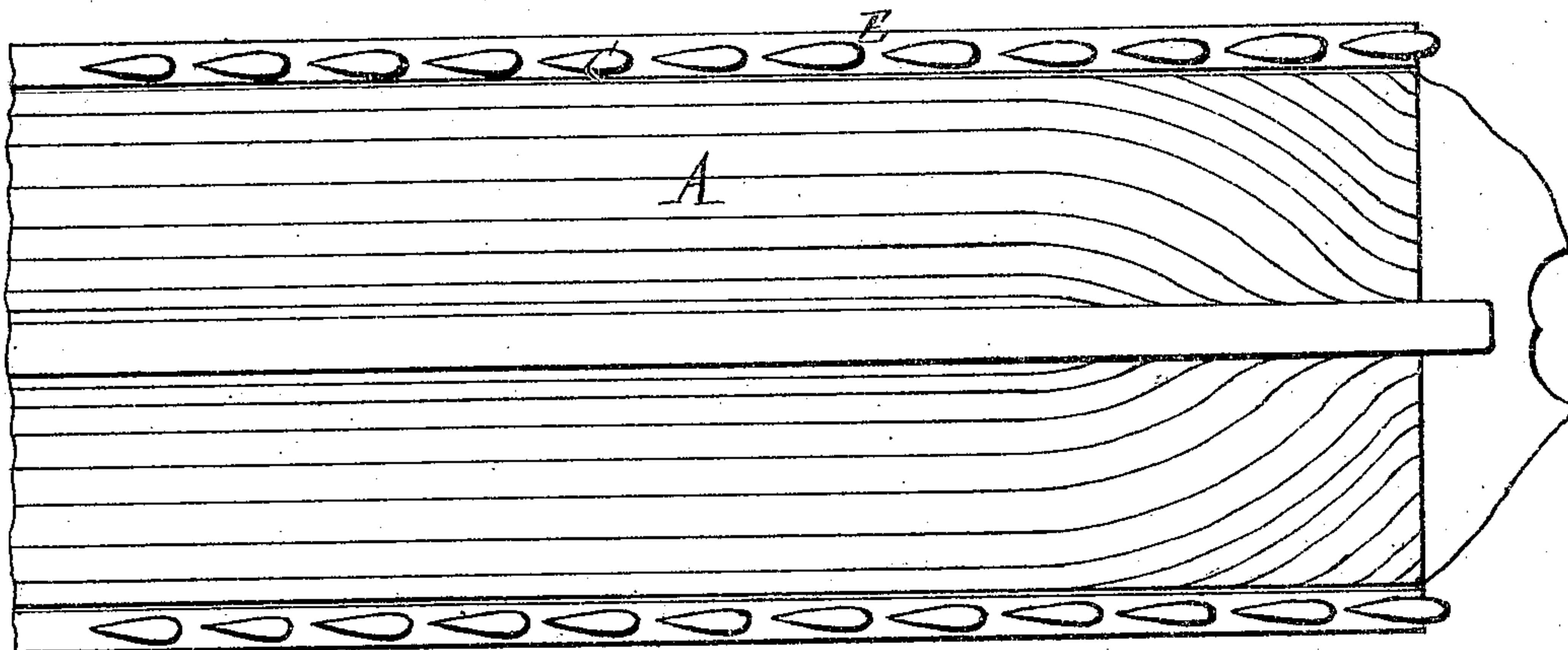


Fig. 4.



Witnesses.

R. A. Steele
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UNITED STATES PATENT OFFICE.

JOHN HUGHES, OF NEW BERNE, NORTH CAROLINA.

IMPROVEMENT IN CANAL-BOATS.

Specification forming part of Letters Patent No. 124,136, dated February 27, 1872.

To all whom it may concern:

Be it known that I, JOHN HUGHES, of New Berne, in the county of Craven and State of North Carolina, have invented a new and valuable Improvement in Canal-Boats; and I do 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 elevation of the stern of a canal-propeller boat with my improvement. Fig. 2 is an under-side view of the same. Fig. 3 is a side elevation of an ordinary canal-boat with my improved bow-swell breakers. Fig. 4 is an under-side view of the same.

This invention has relation to certain improvements in canal-boats, whereby they are designed to be adapted for steam-power; and it consists in the construction and novel arrangement of devices for breaking and rendering nugatory the ripples made by the propeller, so as to prevent their reaching and washing the canal bank.

In the accompanying drawing, the letter A represents the hull of a canal-boat. B is a propelling-wheel, arranged under the stern thereof. D represents a hinged extension attached to the stern of the boat, and designed to project to the rear over the propeller-wheel. This hinged piece is provided with a number of vertical posts or other comb-work, extending downward below the surface of the water around the propeller. These teeth or posts may be arranged in a double or triple series around the propeller-wheel, whose ripples will, by their agency, be broken up or comminuted in such a manner that they can do no damage to the canal wall. For convenience in passing through the water the forward portion of these teeth may be formed with an edge, as indi-

cated in the drawing. This stern extension may be raised up and turned over on the deck of the boat when desirable to gain space, or for other purposes. C C represent side posts, similar to those described at the stern of the boat. These side posts are arranged in a row on each side of the boat, and may be connected to hinged longitudinal bars E E, and arranged to be thrown up out of the water like wings whenever desirable; or the posts or teeth may be separately hinged in such a manner that they can be vibrated or turned to the front or rear in planes parallel with the sides of the boat. In this arrangement a single bar should be pivoted on each side to all the posts, in order that they may be operated simultaneously. These side teeth C are designed to catch the bow ripples, and to destroy their effect in the same manner that the stern comb operates upon the ripples from the propeller-wheel.

It is obvious that, the rate of speed being the same, the only difficulty in applying steam-power to canal-boats where horse-power has been employed heretofore, arises from the action of the propelling wheels or paddles in creating a commotion in the water. It is proposed by this invention to obviate this difficulty.

I claim as my invention—

1. A canal-boat, provided with the comb or toothed ripple-breaker surrounding the propeller-wheel, for the purpose of breaking the waves, substantially as specified.
2. The side wings or combs C attached to a canal-boat for the purpose of breaking the waves, substantially as specified.

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

Witnesses:

J. A. SIMPSON,
GEO. E. TINKER.

JNO. HUGHES.