

C. DANCKER.  
No. 123,383.

Improvement in Propelling Boats.  
Patented, Feb. 6, 1872.

Fig. 1.

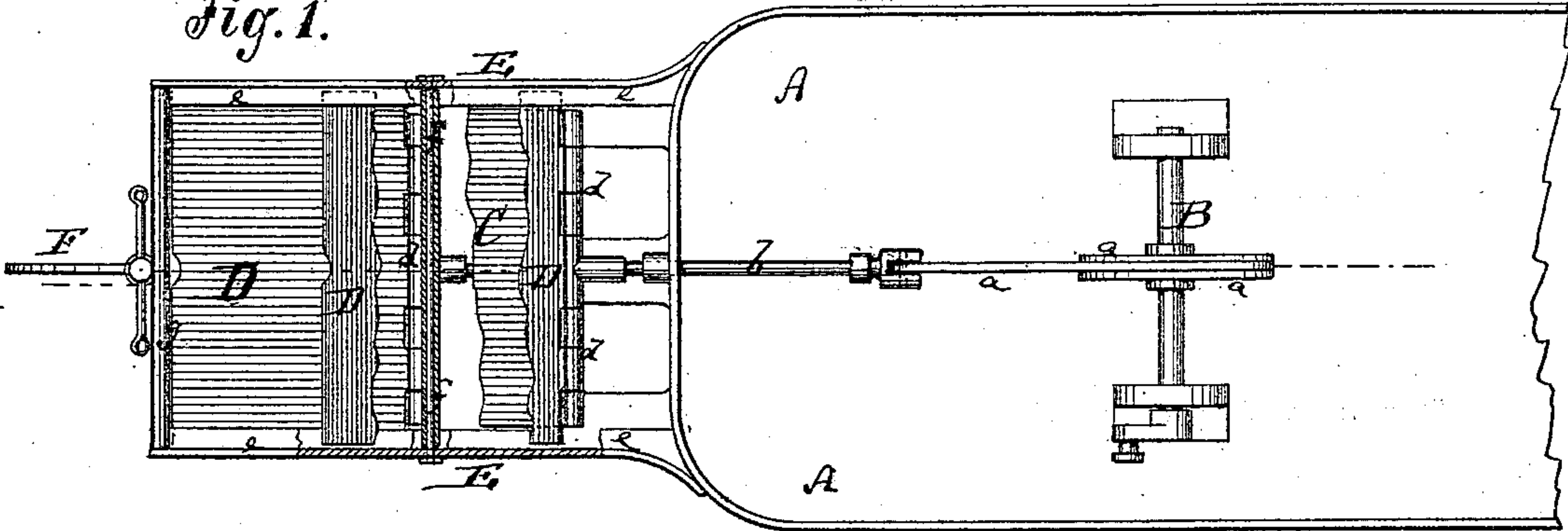


Fig. 2.

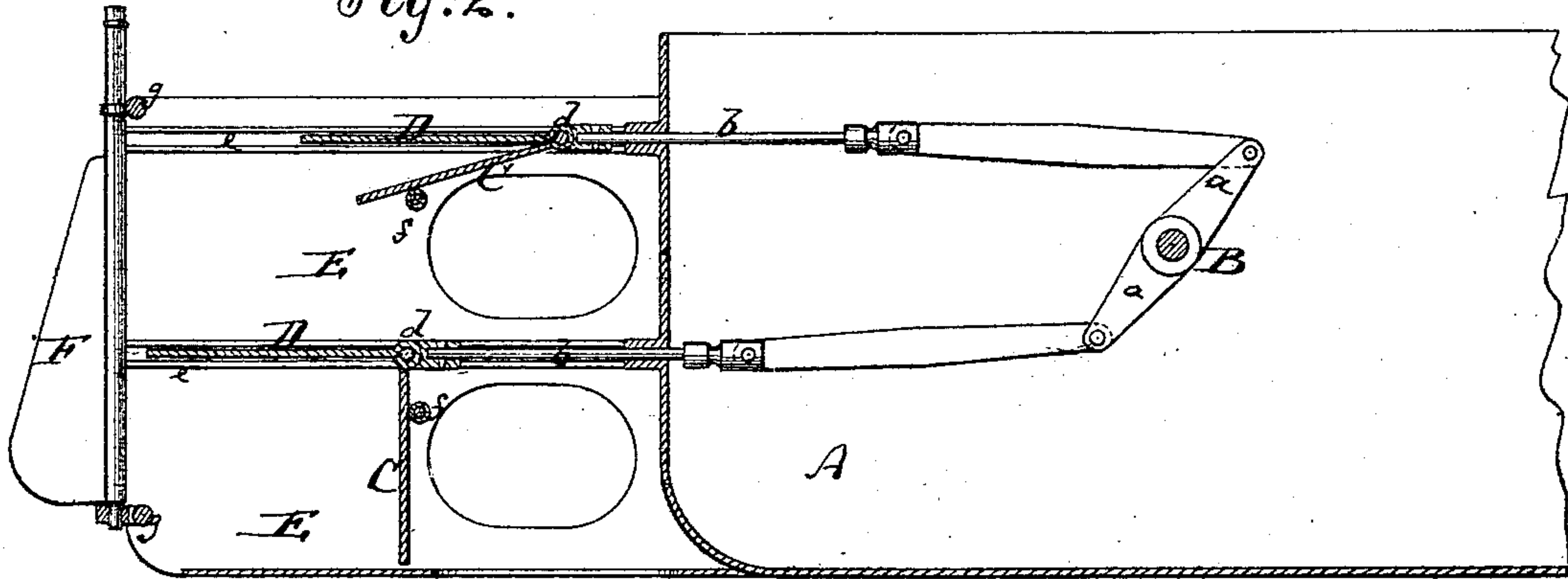


Fig. 3.

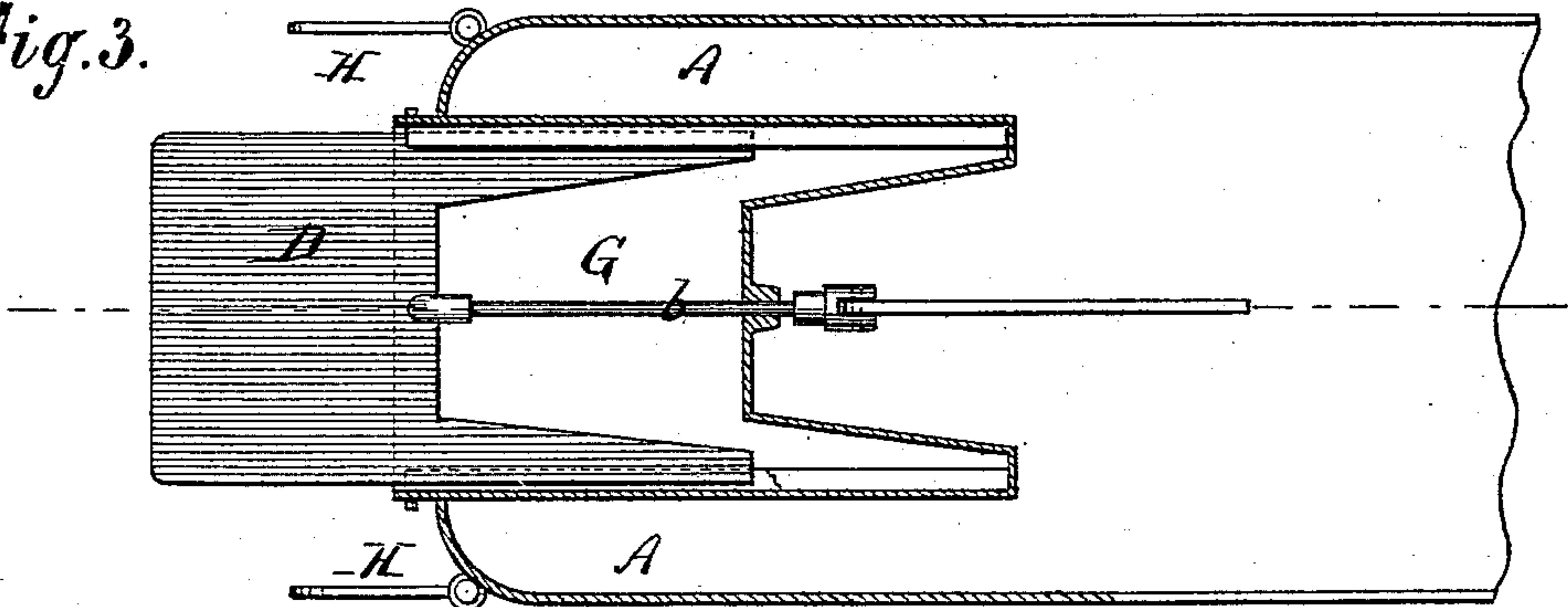
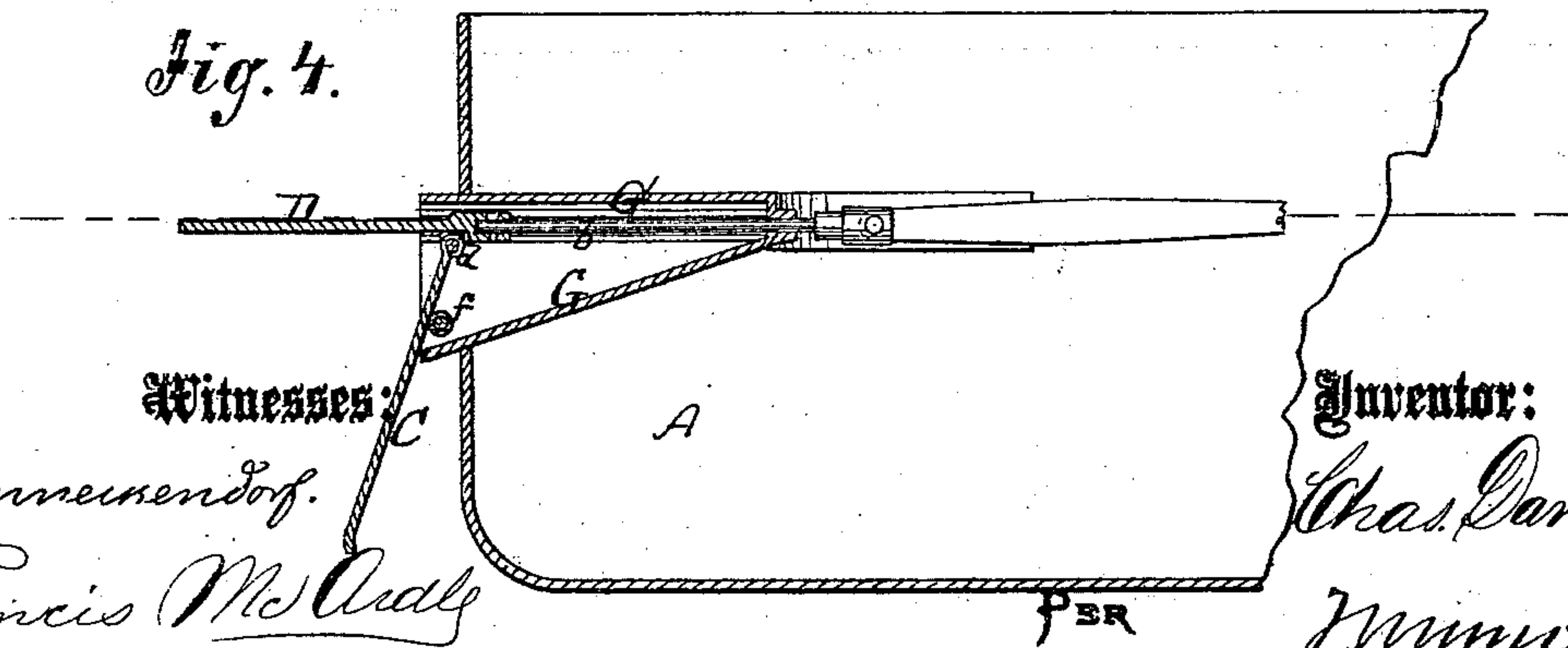


Fig. 4.



Witnesses:

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# UNITED STATES PATENT OFFICE.

CHARLES DANCKER, OF HOBOKEN, NEW JERSEY.

## IMPROVEMENT IN PROPELLING BOATS.

Specification forming part of Letters Patent No. 123,383, dated February 6, 1872.

Specification describing an Improvement in Propeller for Canal-Boats, invented by CHARLES DANCKER, of Hoboken, in the county of Hudson and State of New Jersey.

Figure 1 represents a horizontal section of a canal-boat provided with my improved propeller. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a horizontal section of a modification of the same. Fig. 4 is a longitudinal vertical section of said modification.

Similar letters of reference indicate corresponding parts.

The invention will be first fully described, and then clearly pointed out in the claim.

In Figs. 1 and 2, A represents the stern portion of a canal-boat. In it is hung a transverse crank-shaft, B, to which oscillating motion is imparted by means of steam or other power. The cranks *a a* of the shaft B are connected to the front ends of rods *b b* that extend backward through the stern of the boat, where they are packed water-tight. The motions of the rock-shaft B serve to move the rods *b b* back and forth. To the outer end of each rod *b*, behind the stern of the vessel, is pivoted a metallic or wooden blade, C, of suitable width and length, the pivot-pin *d* being rigidly attached to the rod *b*. To said pin is also secured a metal or wooden plate, D, which has its ends guided in grooves or tracks *e e* provided in backwardly-projecting frames E of the boat. The said frames also hold a transverse pin or friction-roller, *f*, upon which the blade C rests, as shown. As the rods move outwardly they push the blades C back, and

cause them to gradually drop from a horizontal into a vertical position by bringing its pivot gradually nearer to the supporting-pin *f*. The plate D, however, always remains in a horizontal position. The blade crowds the more against the water the more it is brought into a vertical position, the covering-plate D preventing the water from escaping over the top. In moving forward the rod *b* draws the blade gradually into a horizontal position and prevents it from hindering an advance of the boat. F is the rudder, hung in cross-pieces *g g* that connect with the projecting frame E. One or more rods, *b*, blades C, and plates D may be applied to one boat. The space inclosed by the frames E may be closed on top if desired.

A modification of the invention is shown in Figs. 3 and 4, in which the blade C is drawn into a pocket, G, that is formed in the stern of the boat, the projecting frames E being dispensed with. In this case two rudders, H H, are preferably used near the sides of the boat, as shown.

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

The combination of the paddles C C, slider D D, pivot-pins *d d*, rods *b b*, and crank-shaft B *a a*, as and for the purpose described.

CHARLES DANCKER.

Witnesses:

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