

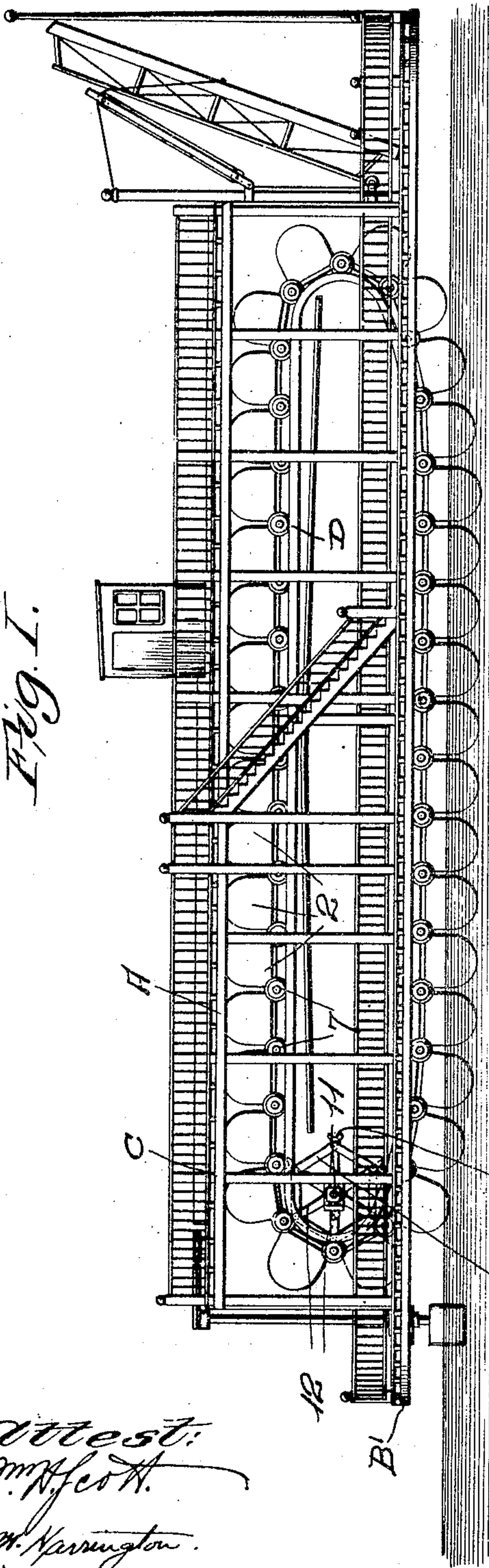
H. OVENTROP.  
MARINE VESSEL.

APPLICATION FILED SEPT. 23, 1908.

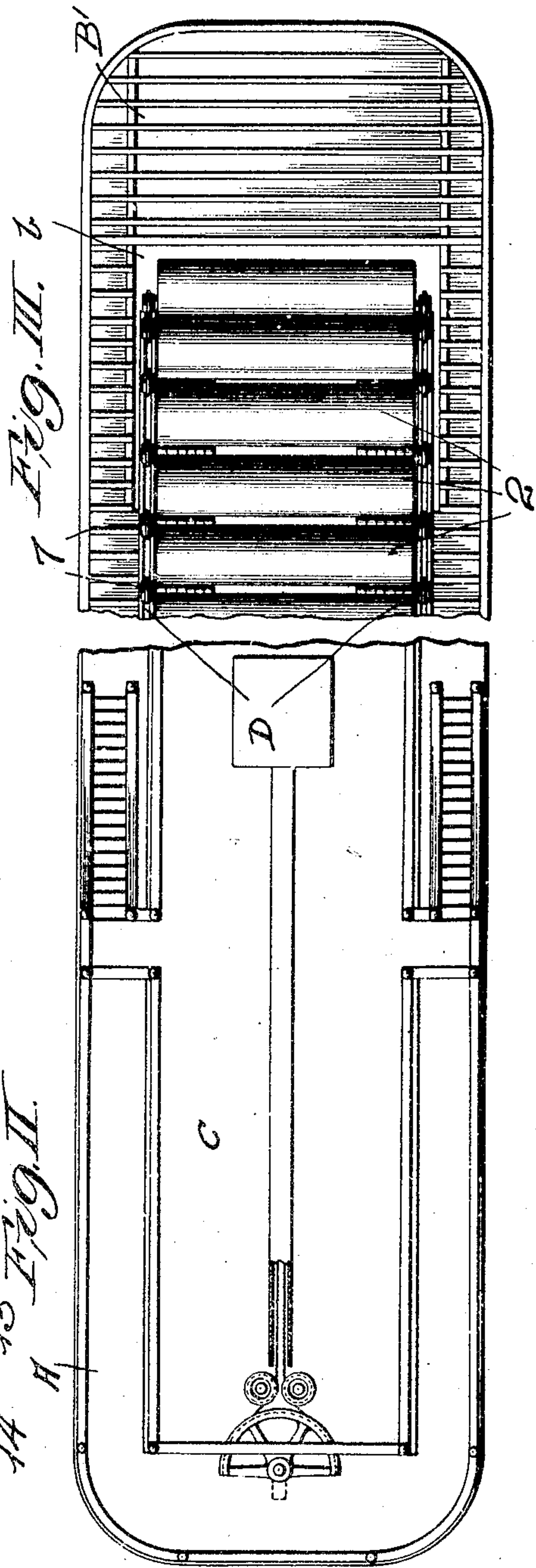
Patented Apr. 6, 1909.

3 SHEETS—SHEET 1.

917,351.



Attest:  
Wm. H. Scott.  
E. M. Harrington.



Inventor:  
Herman Oventrop.  
by Geo. Knight & Co.



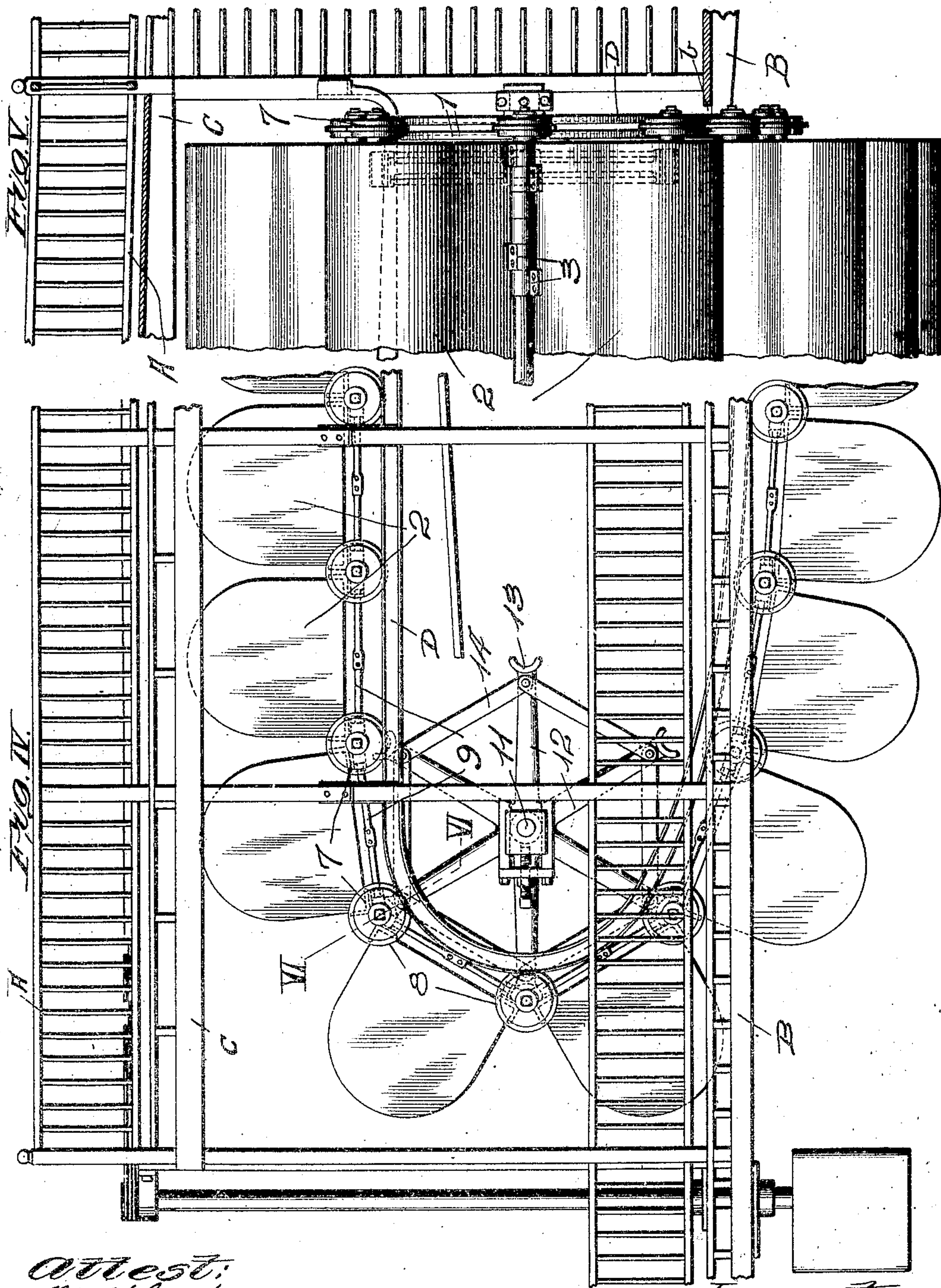
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Fig. VII.

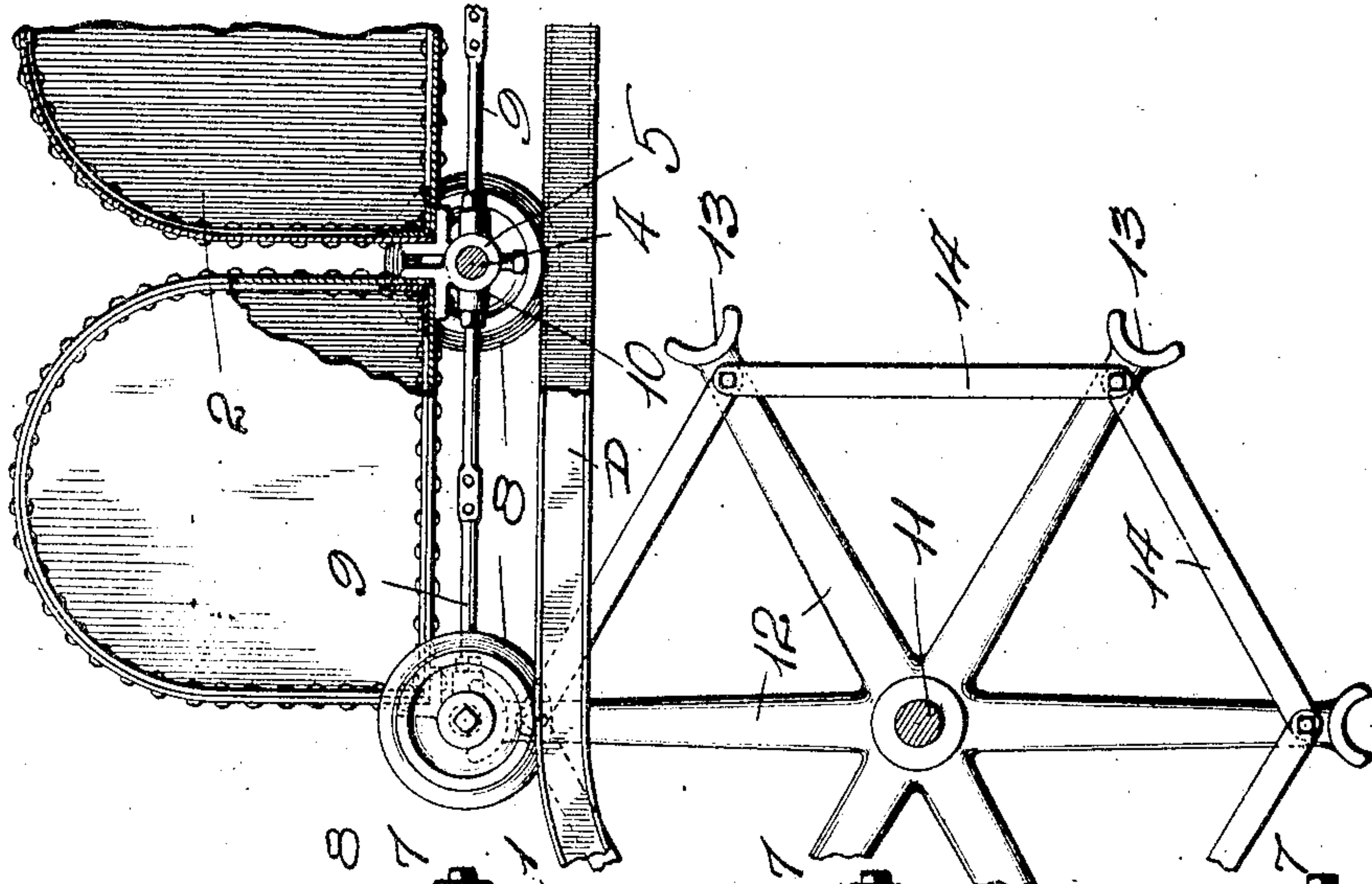
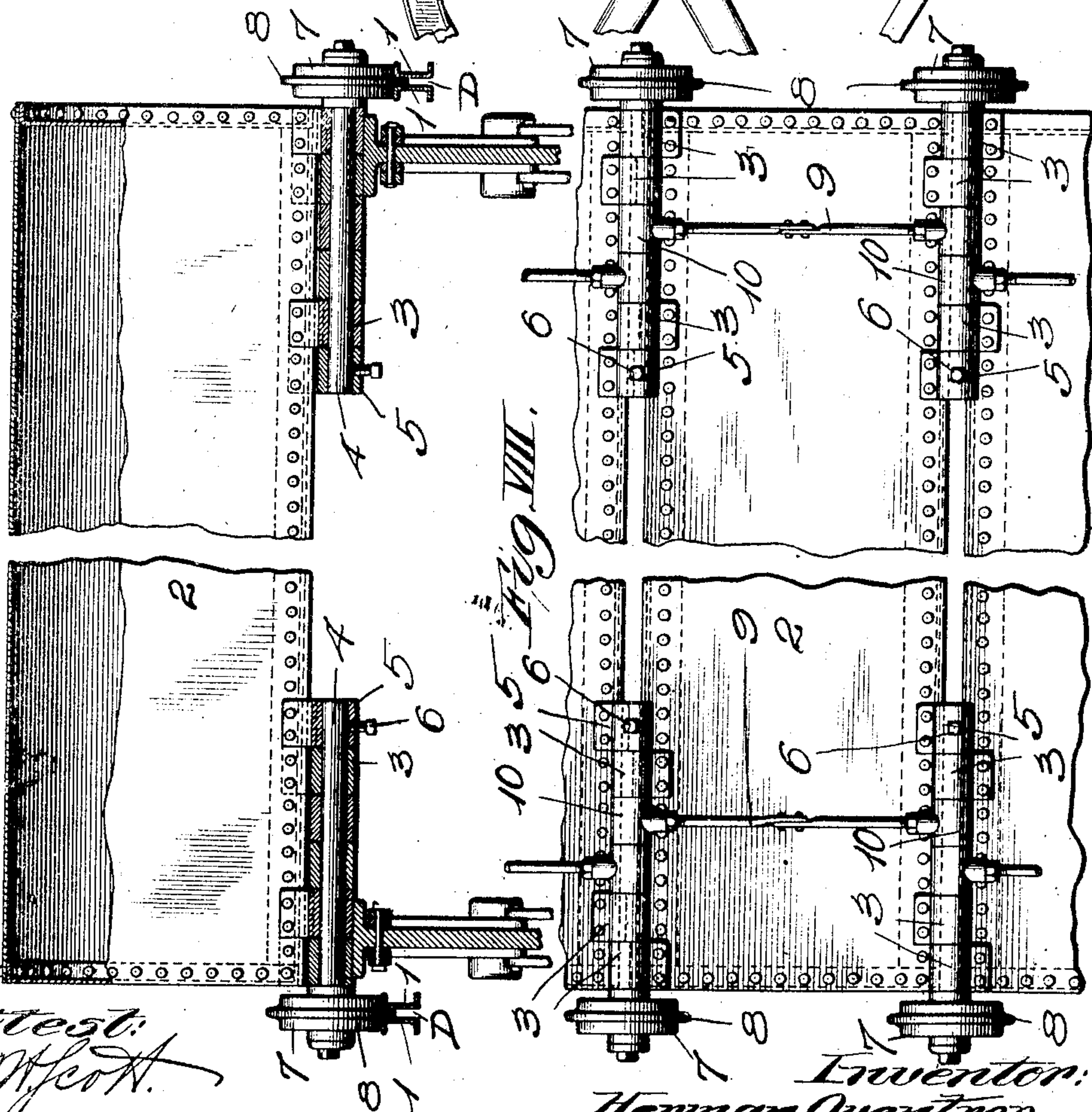


Fig. VI.



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# UNITED STATES PATENT OFFICE.

HERMAN OVENTROP, OF ST. LOUIS, MISSOURI.

MARINE VESSEL.

No. 917,351.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed September 23, 1908. Serial No. 454,360.

*To all whom it may concern:*

Be it known that I, HERMAN OVENTROP, a citizen of the United States of America, residing at the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Marine Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improvement on those vessels which may be used upon navigable waters, and have for their object the production of a vessel of this description that is equipped with a propeller of buoyant nature, whereby the hull of the vessel is elevated from the body of water on which the vessel floats, thereby eliminating friction between the hull of the vessel and the water, and making it possible, due to the elimination of this friction, to propel the vessel at a higher rate of speed than that which is possible with vessels of ordinary construction.

Figure I is a side elevation of my marine vessel. Fig II is a top or plan view of the steering end of the vessel. Fig. III is an enlarged plan or bottom view of an end portion of the vessel. Fig. IV is an enlarged side elevation of an end portion of the vessel. Fig. V is an enlarged view of portions of the propeller floats at an end of the vessel with the decks of the vessel shown partly in elevation and partly in vertical section. Fig. VI is an enlarged section taken on line VI—VI, Fig. IV with one of the propeller floats shown partly in elevation and partly in longitudinal section and its central portion broken out. Fig. VII is in part an elevation and in part a vertical section of members of the propeller. Fig. VIII is a top or plan view of members of the propeller floats illustrated having their central portions broken out.

In the accompanying drawings: A designates the body of my vessel which is preferably provided with a lower deck B and an upper deck C. The body of the vessel may, however, be of any suitable construction other than that illustrated in the drawings. The lower deck B of the vessel has deck extensions B' projecting beyond the upper deck C and is provided, near its ends with openings b, one of which is seen in Fig. III, through which my propeller, to be hereinafter described, operates.

D designates a pair of continuous elliptical tracks that serve as guides for my propeller

and which are located in part beneath the lower deck B and in part above said lower deck beneath the upper deck C, as seen in Figs. I and IV so as to leave deck spaces at the sides of the propeller. These tracks, see Figs. VI and VII, preferably consist of pairs of channel rails 1 that are spaced back to back and separated from each other to furnish a flangeway in which the flanges of wheels to be hereinafter described, operate.

2 designates floats that comprise U-shaped shell bodies having flanged heads seated in their ends and tie-plates located within the shell bodies at their edges. All of the parts of the floats 2 are preferably of sheet metal and riveted to each other, the tie-plates being flanged inwardly within the bodies, one of the heads in each shell body being flanged inwardly and the other head being flanged outwardly, as seen in Fig. VI. The floats 2 have secured to them hinge ears or members 3 preferably attached to the floats by rivets and which protrude beyond the sides of the floats and are perforated to receive shafts 4 by which the floats are united to each other. The shafts 4 are retained in position in the hinge ears 3 by seating them in bracket arms 5 secured to the floats and shaped similarly to the hinge ears, each shaft being rigidly held in the bracket that receives it, by suitable means, such as a set screw 6.

7 are guide wheels provided with peripheral centrally arranged flanges 8. These guide wheels are loosely fitted to the shafts 4 and are adapted to operate upon the continuous tracks D with their flanges in positions between the rails 1 of said tracks for the purpose of presenting lateral movement of the wheels on the tracks.

9 designates tie-rods that extend longitudinally of the buoyant propeller and serve to unite the shafts 4 which connect the floats 2 and the ends of which are attached to collars 10 fitted to said shafts. It will be seen that by the described construction, the floats 2 are so connected to each other as to furnish an endless chain of floats which will operate around the continuous tracks D and be guided by said tracks into the water on which the vessel floats and then emerge from the water to travel in an upper course above the lower deck of the vessel.

11 designates a propeller shaft that is suitably mounted in the body of the vessel and to which power may be communicated in any suitable manner. This shaft has fixed to it a



pair of propeller operating wheels that comprise spider arms 12 terminating at their outer ends in sockets 13, and connected to each other by links or stays 14. The propeller operating wheels are adapted to be so rotated that the sockets 13 of the wheels will be moved consecutively to the hinge ears connecting the floats 2, as seen in full lines Fig. VI and dotted lines Figs. I, IV and VII, whereby said hinge ears are engaged by said wheels and movement is imparted to the entire chain of floats 2 for vessel propelling action.

It will be readily perceived that the floats of my propeller serve at all times to buoy the body of the vessel with which the propeller is associated, whereby the hull of the vessel is upheld out of contact with the water so as to obviate friction between the hull and the water, and that the floats at the same time act as propellers for the vessel, due to their being kept in motion around the continuous tracks by which their movement is directed.

I claim.

1. A marine vessel comprising a body having a deck constructed with propeller openings near its ends, a pair of continuous elliptical tracks extending under and over the deck

and through the propeller openings and each consisting of a pair of channel rails spaced apart, back to back and providing a flange way, a continuous series of floats provided with connecting hinges, guide wheels running on the paired channel rails and centrally arranged peripheral flanges working between the channel rails, and a propeller shaft having a pair of operating wheels each provided with arms adapted to engage the connecting hinges of the series of floats.

2. A marine vessel comprising a body having a deck constructed with propeller openings near its ends, a pair of continuous elliptical tracks extending under and over the deck and through the propeller openings, a continuous series of floats provided with connecting hinges and guide wheels running on the tracks, paired tie-rods connecting the connecting hinges, and a propeller shaft having a pair of operating wheels each provided with arms adapted to engage the connecting hinges of the series of floats.

HERMAN OVENTROP.

In the presence of—

LILY ROST,  
H. G. Cook.