

(No Model.)

H. H. KRAMER.
HAWSE PIPE FOR VESSELS.

No. 324,262.

Patented Aug. 11, 1885.

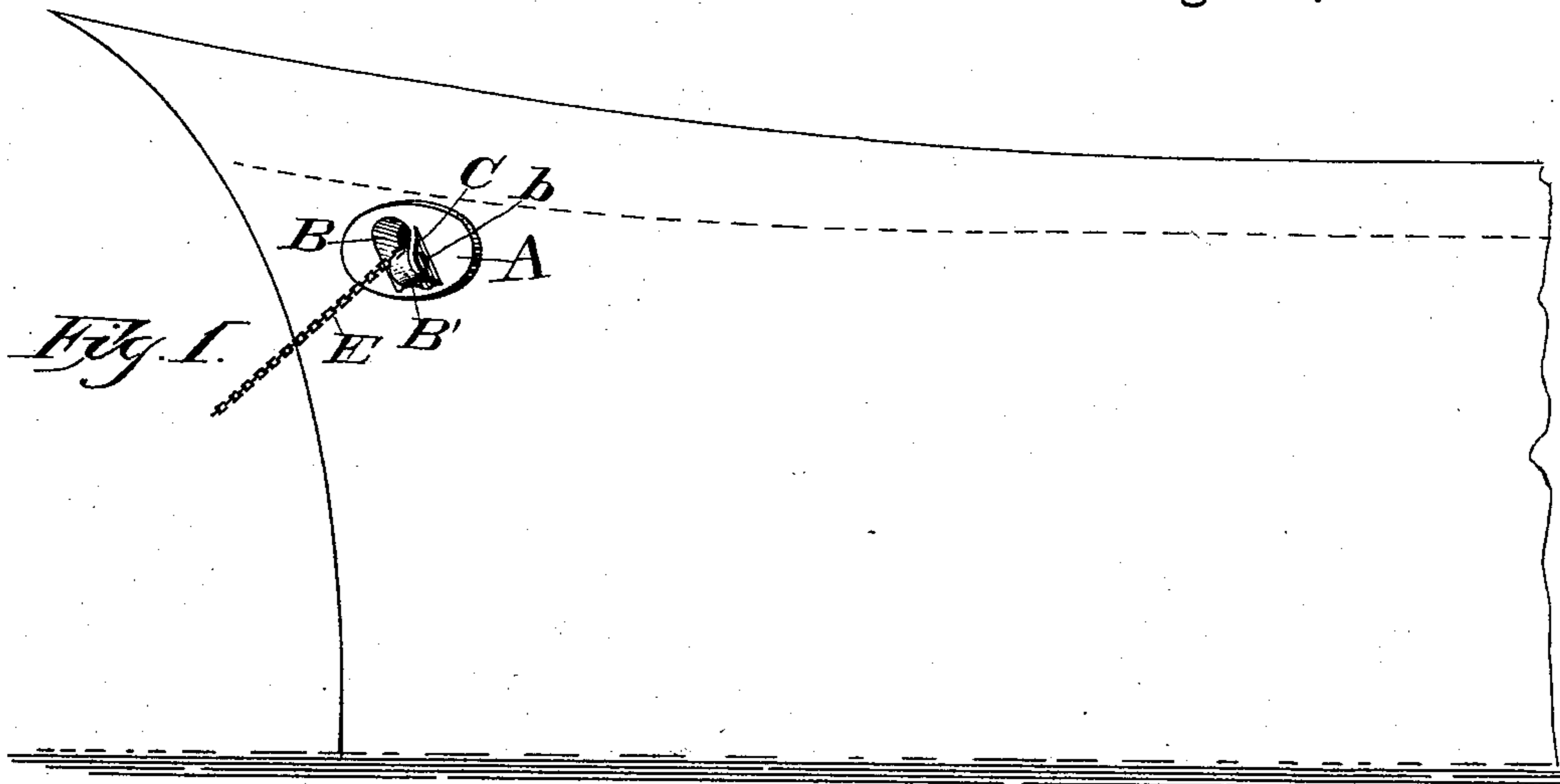


Fig. 2.

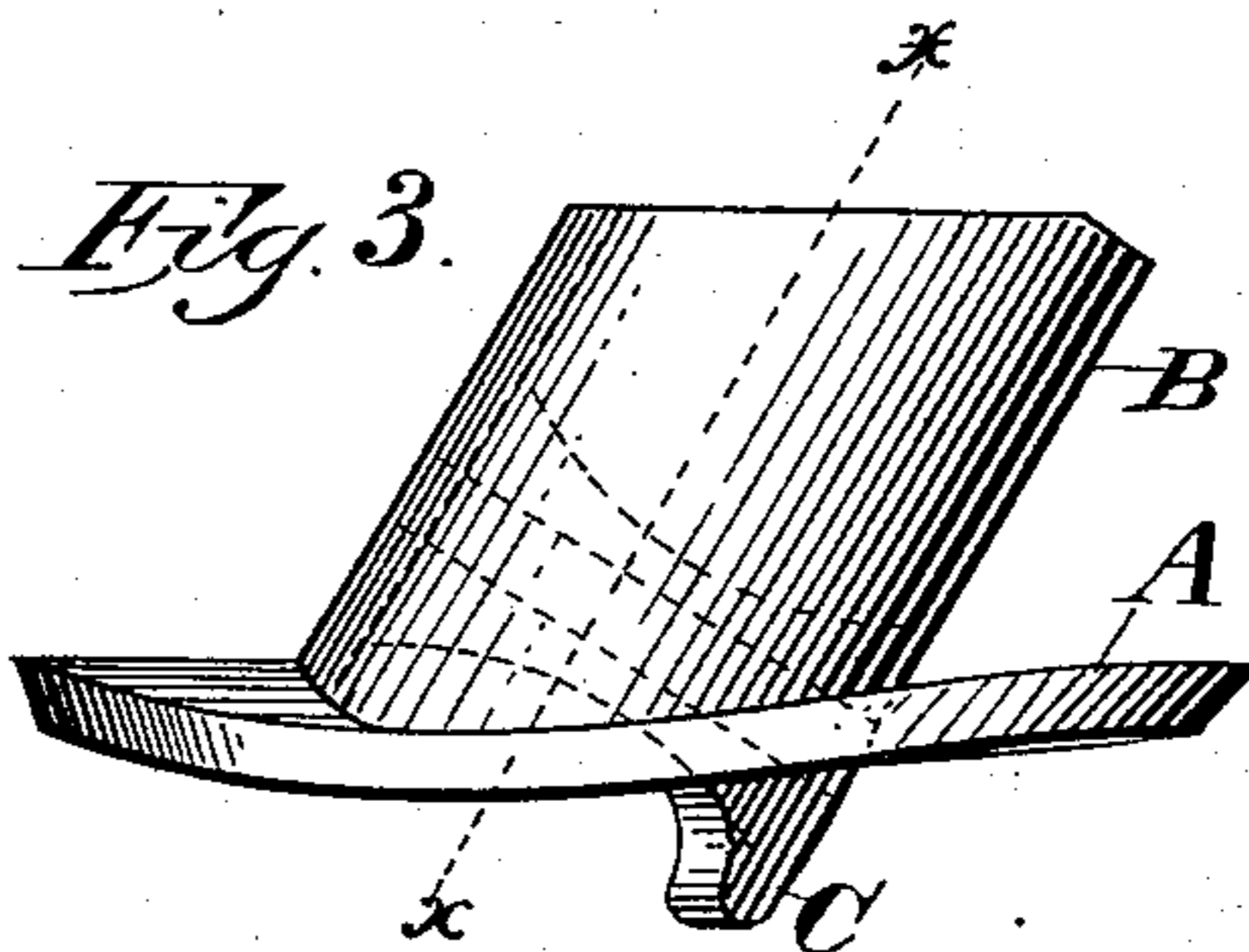
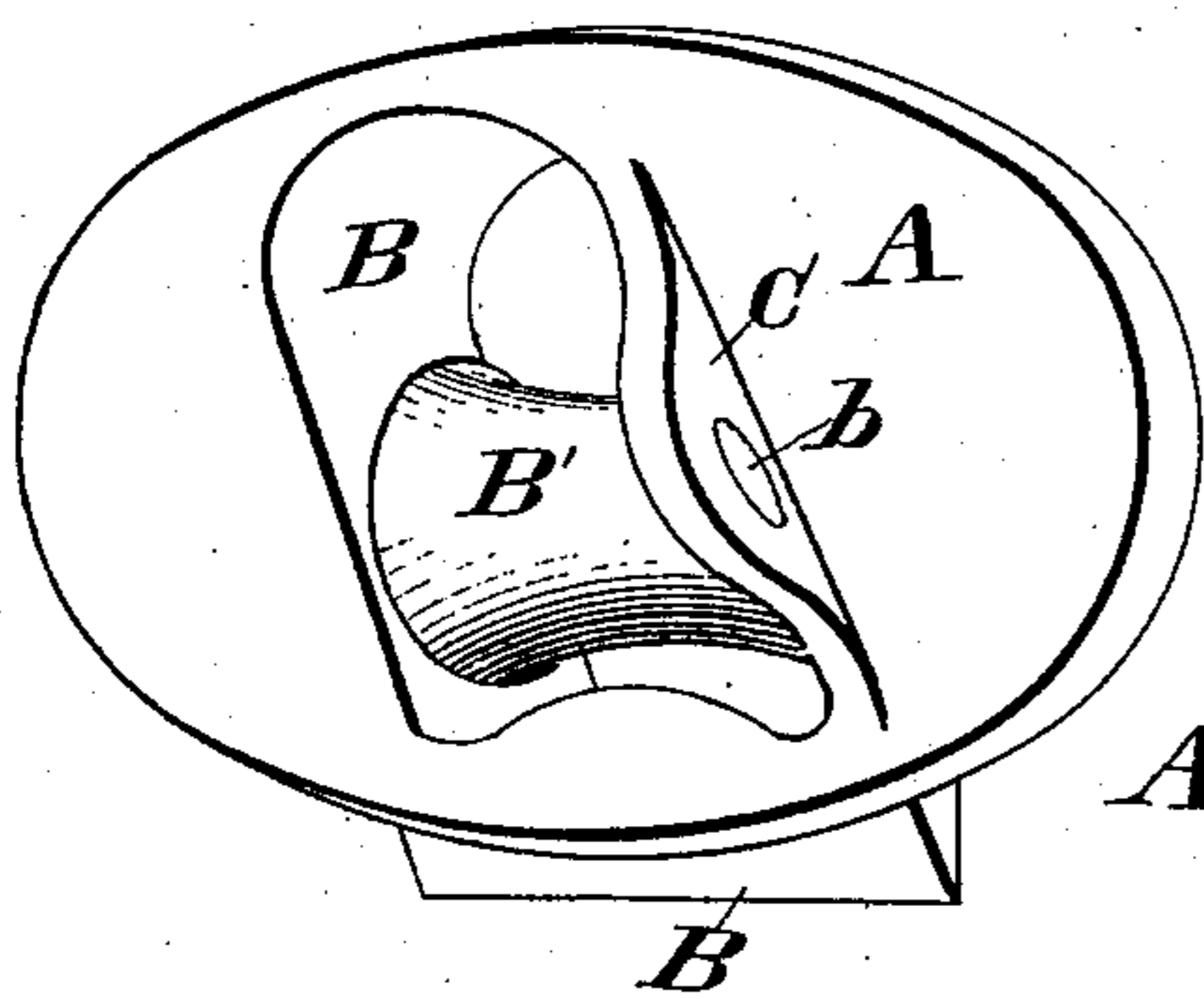
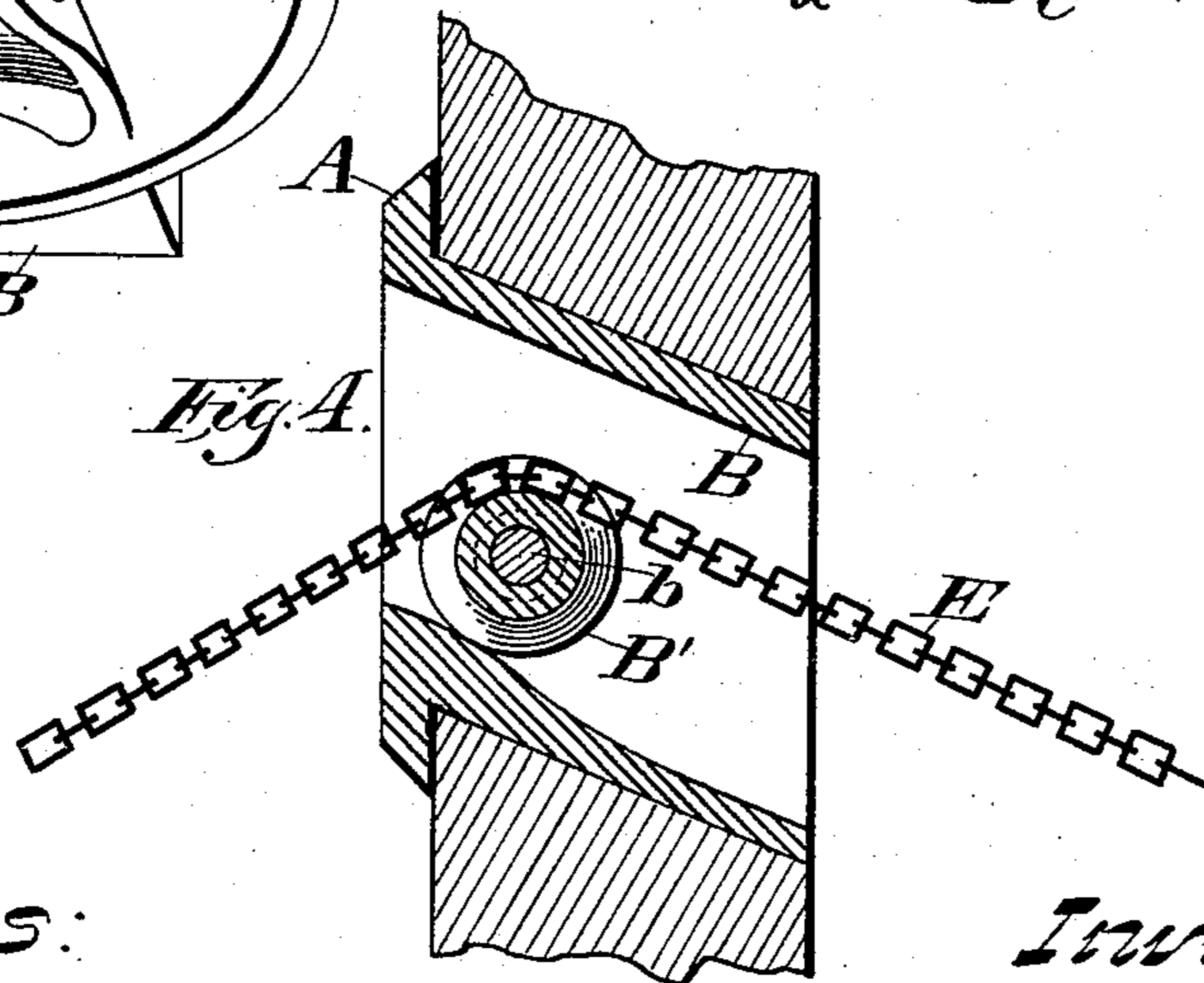


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

HERMANN H. KRAMER, OF MILWAUKEE, WISCONSIN.

HAWSE-PIPE FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 324,262, dated August 11, 1885.

Application filed April 29, 1885. (No model.)

To all whom it may concern:

Be it known that I, HERMANN H. KRAMER, of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented
5 certain new and useful Improvements in Hawser-Ports for Vessels; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates particularly to vessels;
10 and it consists in certain improvements in hawser-ports for the same.

In the drawings, Figure 1 is a side view of the bow of a vessel having my improvement attached. Figs. 2 and 3 are perspective views
15 of my improved port, and Fig. 4 is a longitudinal section.

A is the outer plate of the port, which is formed with or has attached to it a housing, B, that passes through the side of the vessel,
20 and in this housing is journaled a sheave, B', over which the anchor chain or cable E passes. C is a guide, that is also formed with or attached to plate A to prevent cramping when the vessel floats over her anchor. The sheave

B' turns freely on its axle *b*, and greatly facilitates the drawing up of the latter, while my whole device makes a housing for the hawser-port, which can be easily put in place and renewed when worn out. 25

Having thus fully described my invention, 30 what I claim as new, and desire to secure by Letters Patent, is—

In a hawser-port, the combination of the housing B, outer plate, A, having anti-cramping guide C, projecting from the plate A, axle 35 *b*, extending from the guide C, outside of the housing, obliquely to the line of the plate to within the said housing, and the sheave B, mounted on said axle and wholly above the throat of the housing, as set forth. 40

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

HERMANN H. KRAMER.

Witnesses:

S. S. STOUT,

H. G. UNDERWOOD.