

No. 610,039.

C. J. H. FLINDT.  
PROPELLER.

Patented Aug. 30, 1898.

(Application filed Feb. 10, 1897. Renewed Dec. 10, 1897.)

(No Model.)

Fig. 1.

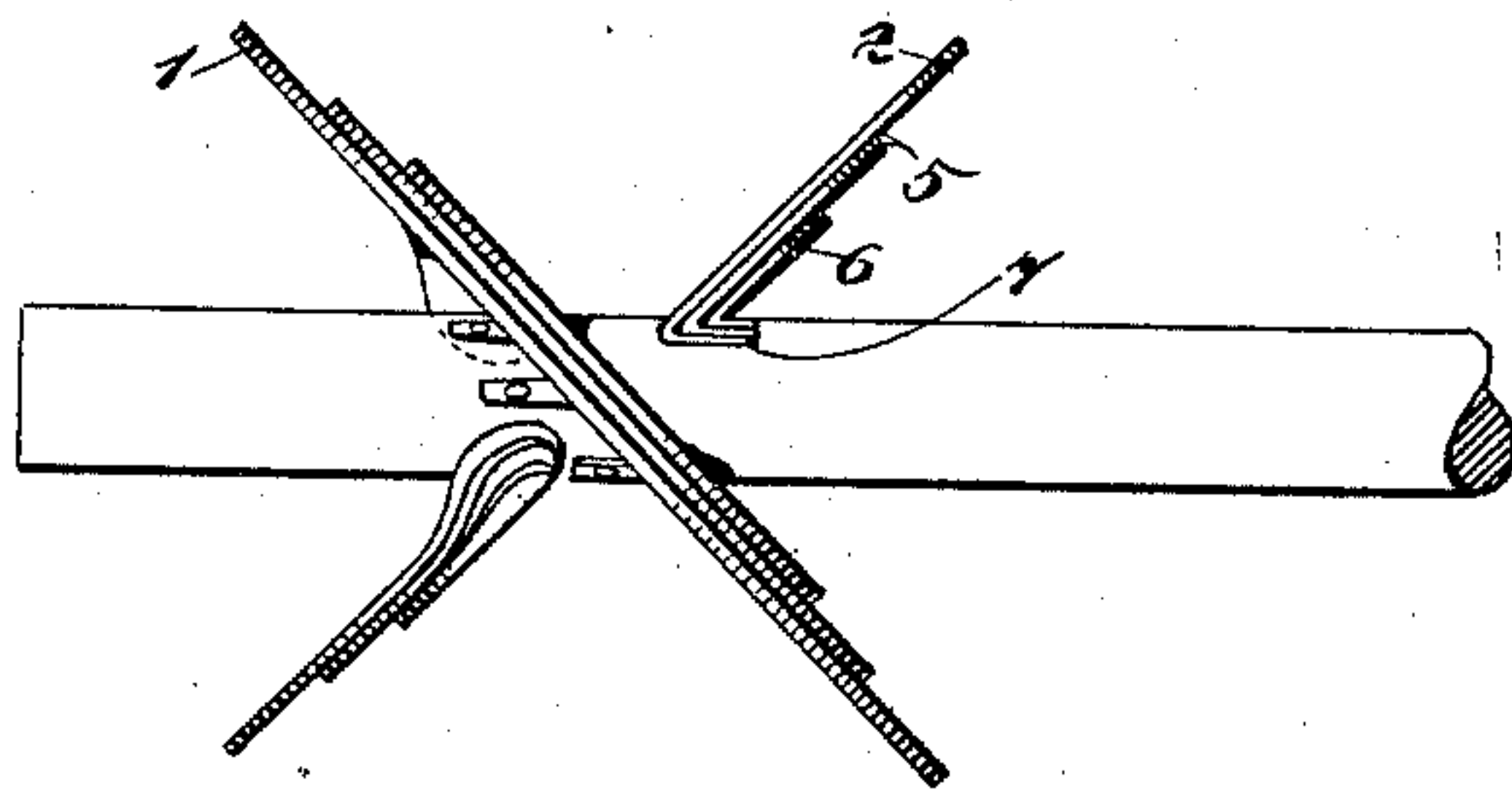


Fig. 2.

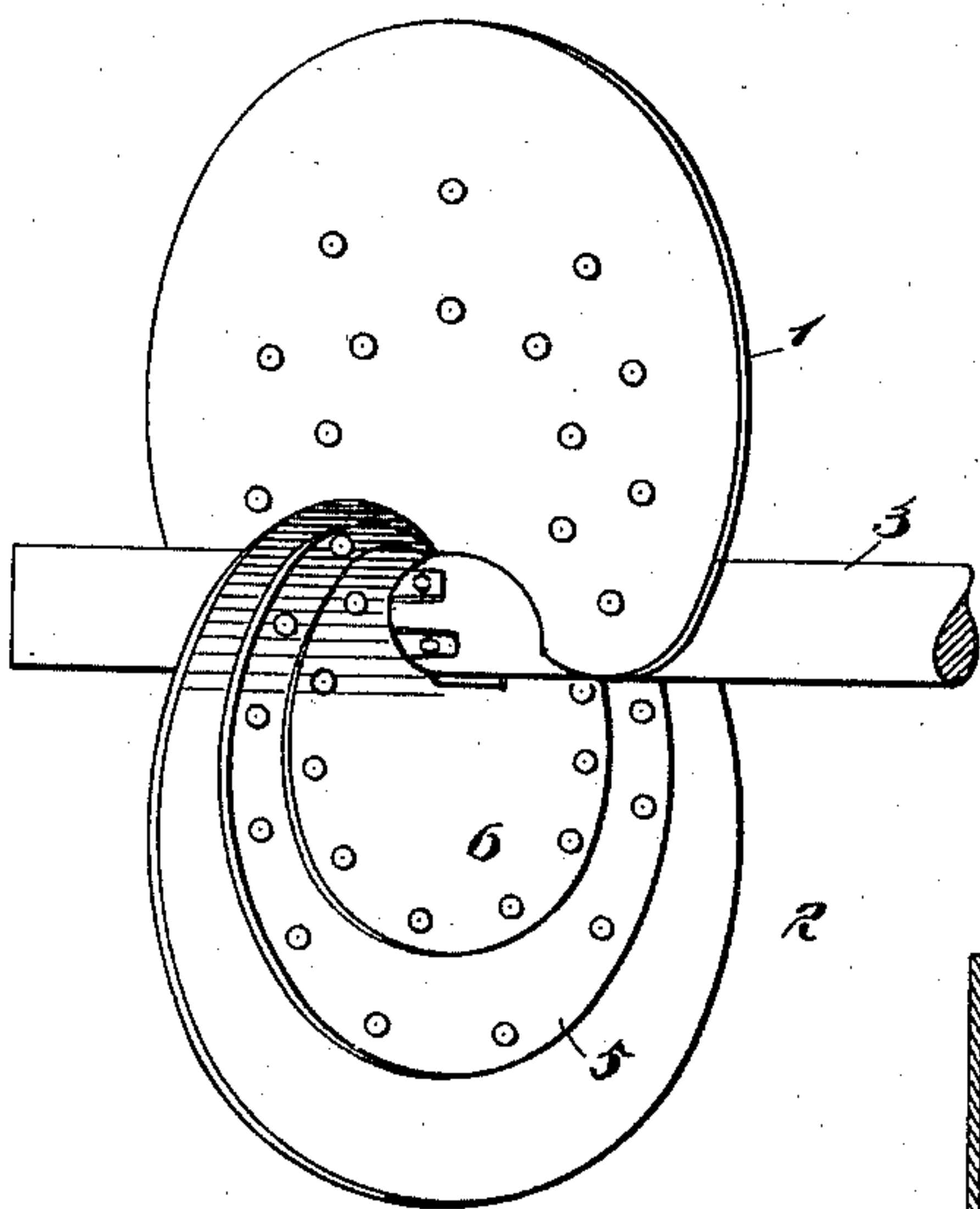


Fig. 3.

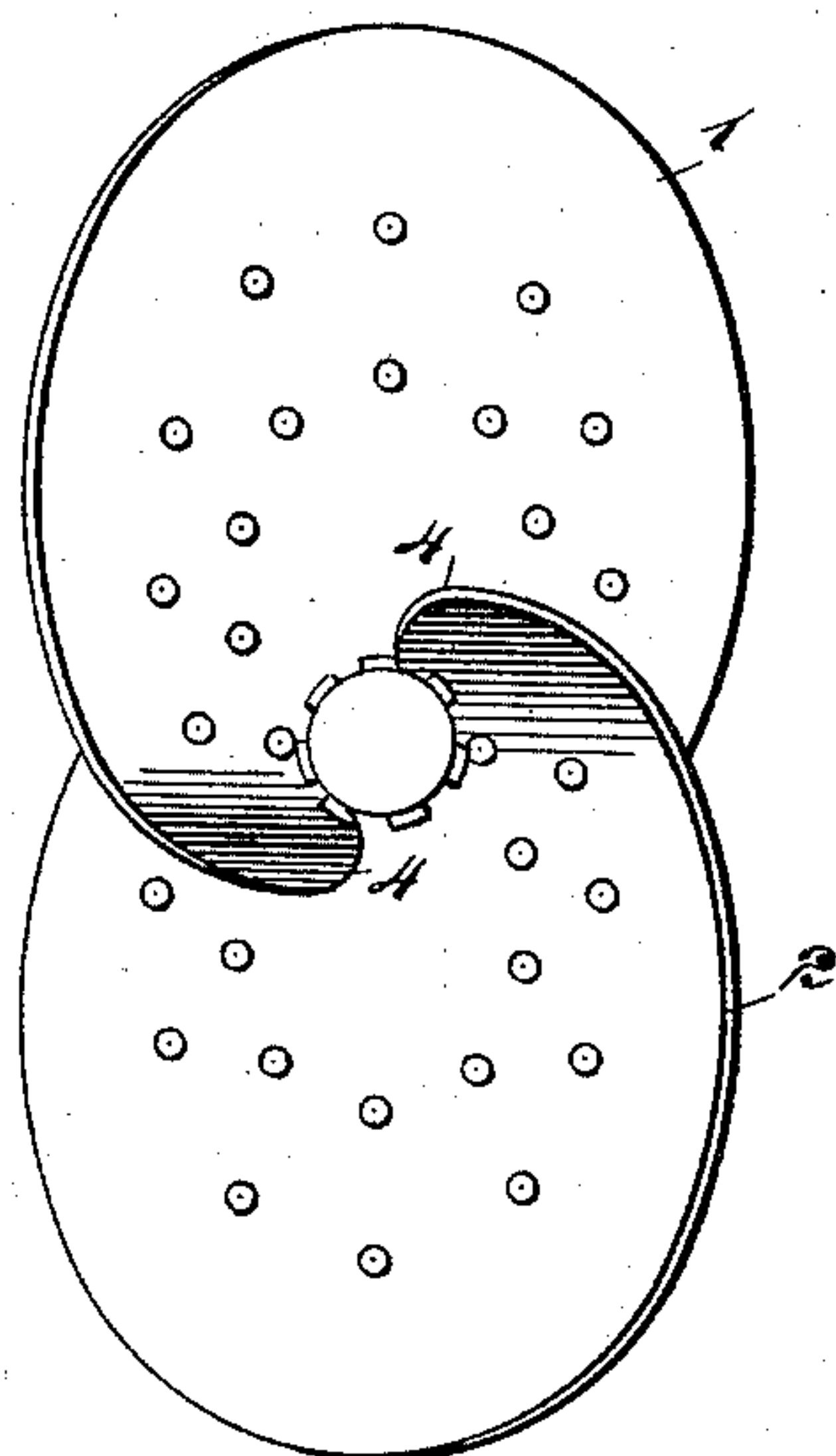


Fig. 4.

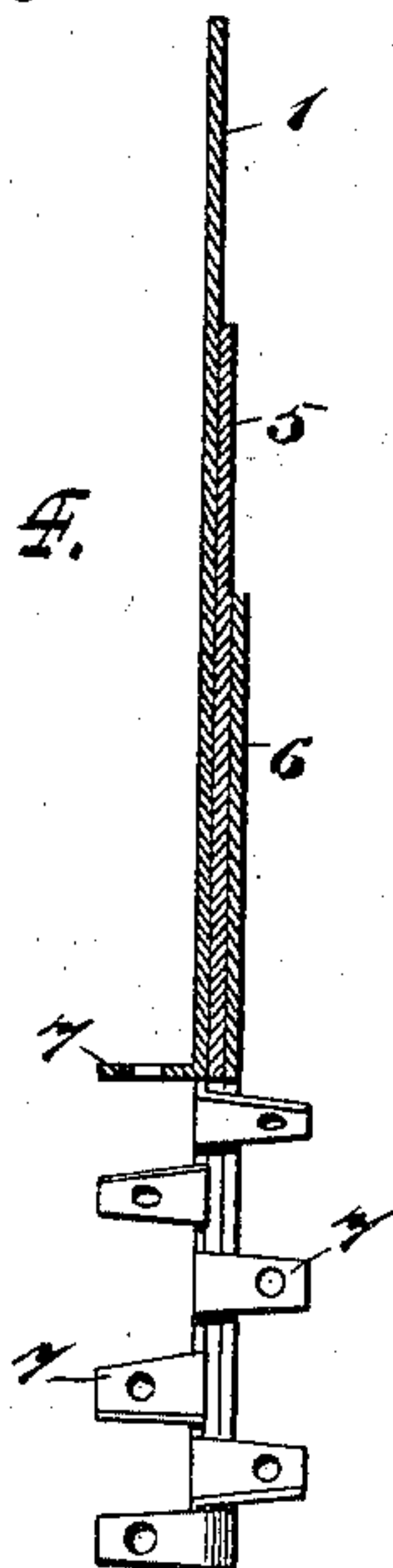
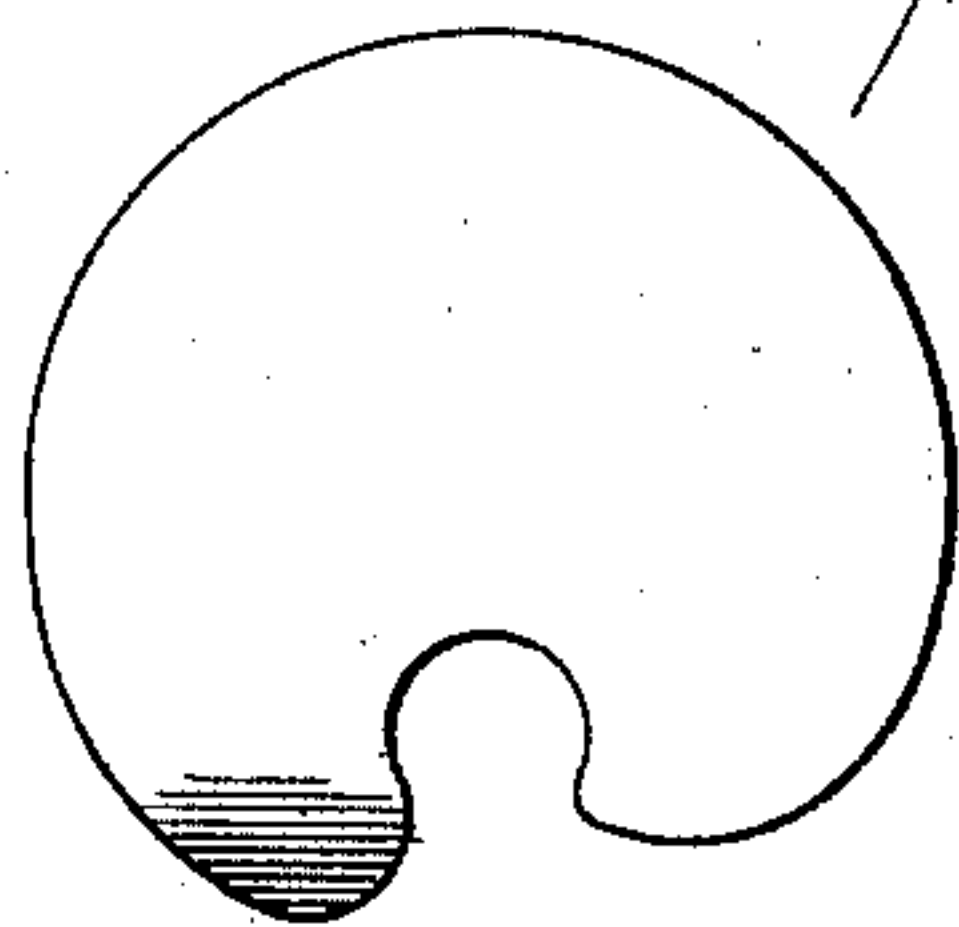


Fig. 5.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CARL J. H. FLINDT, OF NEW YORK, N. Y., ASSIGNOR TO EDWARD  
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## PROPELLER.

SPECIFICATION forming part of Letters Patent No. 610,039, dated August 30, 1898.

Application filed February 10, 1897. Renewed December 10, 1897. Serial No. 661,452. (No model.)

*To all whom it may concern:*

Be it known that I, CARL J. H. FLINDT, of New York city, in the county and State of New York, have invented new and useful Improvements in Propellers, of which the following is a full, clear, and exact description.

This invention relates to propeller-wheels for steam vessels; and the object is to provide a propeller-wheel so constructed that its friction against the water during rotation will be reduced to a minimum and with which a greater amount of speed may be attained than is possible with propeller-wheels as now constructed.

I will describe a propeller embodying my invention, and then point out the novel features in the appended claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a top plan view of a propeller-wheel embodying my invention. Fig. 2 is a side elevation thereof. Fig. 3 is a rear elevation. Fig. 4 is a vertical section through one of the blades, and Fig. 5 is a plan view of one of the blades.

The propeller comprises two blades 1 2, mounted on a shaft 3. Each blade has its edge extended longitudinally in a curved line, and the width of the blade is somewhat greater than its height—that is, the distance from the axis of the blade to its outer edge is about one-third less than the distance between its fore and aft edges. The surfaces of the leaves are perfectly straight in all directions from the shaft, excepting that the extreme stern end of each leaf is curved toward the shaft, as indicated at 4. These slightly-curved portions will have a tendency to draw the water toward the shaft. The leaves are arranged on the shaft one directly at right angles to

the other, and, as plainly shown in Fig. 1, the fore and aft edges of the blades extend forward and rearward of their connection with the shaft. By this construction and arrangement of the leaves a forward motion will be imparted to the vessel immediately upon the starting of the wheel and there will be no “dead” water. The blades are to be made of sheet-steel, and for the purpose of giving the necessary strength I form each blade with a series of reinforce-plates on its forward side. I have here shown two reinforce-plates 5 and 6, one smaller than the other, and these reinforce-strips are secured to the blade by means of rivets. I place these reinforce-plates on the forward side of the blades, so that the rear side, which comes in propelling contact with the water, may be perfectly smooth.

As a means for fastening the blades to the shaft 3, I may provide the leaves and reinforce-plates with tongues 7, turned at right angles to the leaves and plates and having holes through which bolts may pass into the shaft.

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

In a propeller, the combination with a shaft, of two propeller-blades on the shaft and crossing each other at right angles, the said blades being extended in straight lines from the shaft outward and having their fore and aft edges forward and rearward of their connection with the shaft, the width of the blades being greater than the height and the extreme stern ends of the blades being curved toward the shaft, substantially as specified.

CARL J. H. FLINDT.

Witnesses:

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