W. F. TYSON.

SCREW-PROPELLER.

No. 187,941. Patented Feb. 27, 1877.

Fig. 1.

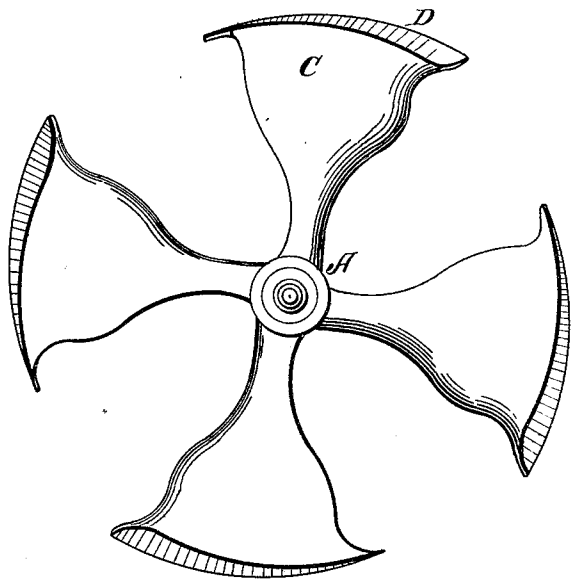
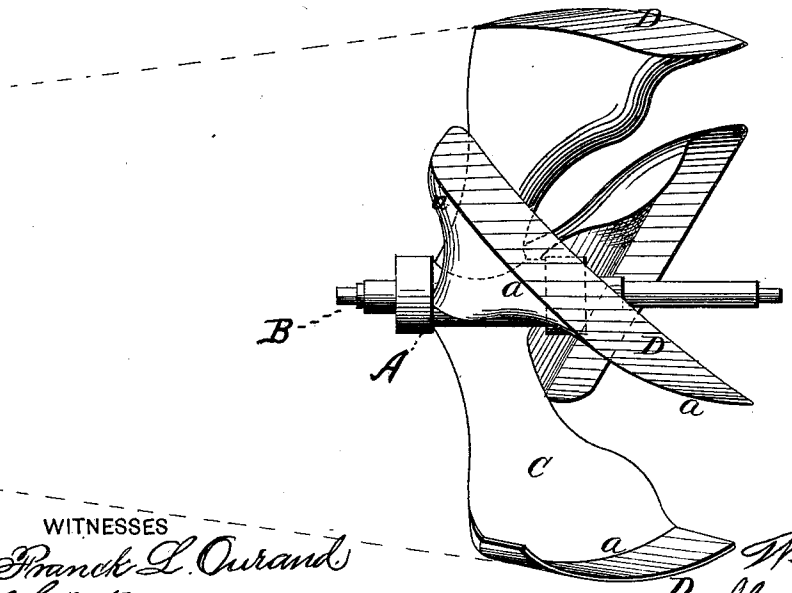


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM F. TYSON, OF READING, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES R. TYSON, OF SAME PLACE.

IMPROVEMENT IN SCREW-PROPELLERS.

Specification forming part of Letters Patent No. **187,941**, dated February 27, 1877; application filed January 20, 1877.

To all whom it may concern:

Be it known that I, WILLIAM F. TYSON, of Reading, in the county of Berks, and in the State of Pennsylvania, have invented certain new and useful Improvements in Propellers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a propeller-wheel, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a front view of my propeller-wheel. Fig. 2 is a side elevation of the same.

A represents the hub of the wheel secured to the shaft B, and provided with the blades C C, said blades being at their outer ends provided with projecting rims D D. The blades C are narrow at their inner ends, where they join the hub, and spread gradually toward the outer end, but more toward the rear than toward the front. In other words, the blades are not perpendicular with the hub, but in a position inclining in a straight line outward, and backward toward the rudder, and also twisted in the form approximating a screw. The outer edges *a a* of the blades are on a true circle, and the rims D extend from said outer edges. These rims are inclined upward and backward from the blades in such a manner as to correspond with the line of the frustum of the cone.

By this construction of the blades and their rims they pass through the water without resistance, and exert a powerful influence to propel the vessel to which they are attached.

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

The within-described propeller wheel, consisting of the hub A, the blades C, projecting from the hub, inclined outward and backward, with their outer edges *a* on a true circle, and the rims D inclining upward and backward from the blades, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of January, 1877.

WM. F. TYSON

Witnesses:

GEORGE KRAMER,

ISRAEL C. BECKER.