(Model.)

J. BELDUKE.

SCREW PROPELLER.

No. 253,258. Patented Feb. 7, 1882.

Fig. 1

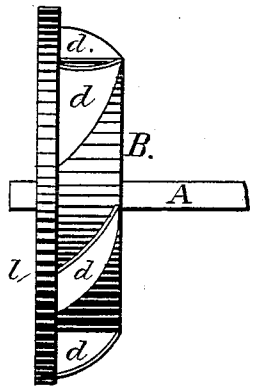


Fig. 2

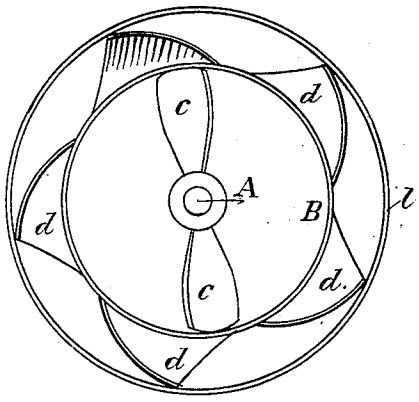
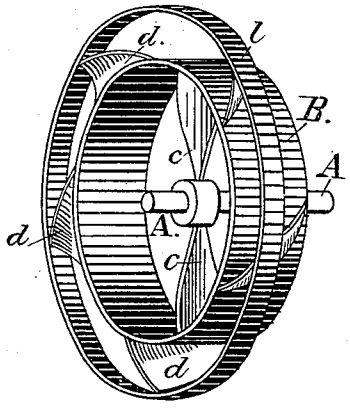


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH BELDUKE, OF SAN FRANCISCO, CALIFORNIA.

SCREW-PROPELLER.

SPECIFICATION forming part of Letters Patent No. 253,258, dated February 7, 1882.

Application filed August 4, 1879. Renewed July 21, 1881. (Model.)

To all whom it may concern:

Be it known that I, JOSEPH BELDUKE, (in French BOLDUC,) of the city and county of San Francisco, State of California, have invented an Improved Screw-Propeller; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention has reference to an improved propeller for propelling vessels through the water; and it consists in securing a band or rim to the propeller-shaft by means of radial arms, and then securing the propelling-buckets to the outside of the band, so that they will move with greater speed and act upon the water with greater force than if they were close to the shaft.

Referring to the accompanying drawings, Figure 1 is a side elevation, Fig. 2 is a front elevation, and Fig. 3 a perspective, of my improved propeller.

Let A represent the propeller-shaft. B is a band or section of a cylinder, which surrounds the shaft at a distance from it, being connected with the shaft by radial arms *c c*. On the outside of this band or cylinder I secure the buckets *d d d* at intervals apart, and I connect the outer extremities of the buckets by a surrounding rim or band, *l*, so as to bind them all together and give them great strength. The buckets *d*, I prefer to make triangular in shape; but this is not material, as they might be made of various shapes. They are, however, made concave in both directions, so that they form concave or slightly-hollow buckets, which gather the water and impel it away from them with great effect. I twist the radial arms C, which connect the ring or band B with the propeller-shaft, in the manner of twisting of propeller-blades, so that they will serve to drive the water backward and avoid any dead-water inside of the band or cylinder. The cylinder or band B can be made of any desired width, and the buckets will be made of an equal or corresponding width. I thus place the buckets *d* where they have the greatest possible effect, as their distance from the propeller-shaft, will cause them to travel faster and act upon solid water. The radial arms C serve to keep the water moving through and from the cylinder, so that it cannot react against the wheel. The band or cylinder B stands in line with the direction in which the propeller is moving, so that it cannot drag or be affected by the forward motion. The working buckets being placed so far outside of the shaft brings them directly in line with the converging water which meets behind the vessel, so that they do not work in the hollow or depression directly at the stern, thus adding greatly to their effect.

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

In a propeller for vessels or ships, the combination, with the band or cylinder B, connected to the propeller-shaft A, with an intermediate space between them, of the buckets *d d*, with concaved edges and chambers and disposed obliquely across the periphery of said cylinder, with their apices fastened to a ring *l*, substantially as and for the purposes set forth.

In witness whereof I have hereunto set my hand and seal.

JOSEPH BELDUKE. [L. S.]

Witnesses:
W. FLOYD DUCKETT,
D. B. LAWLER.