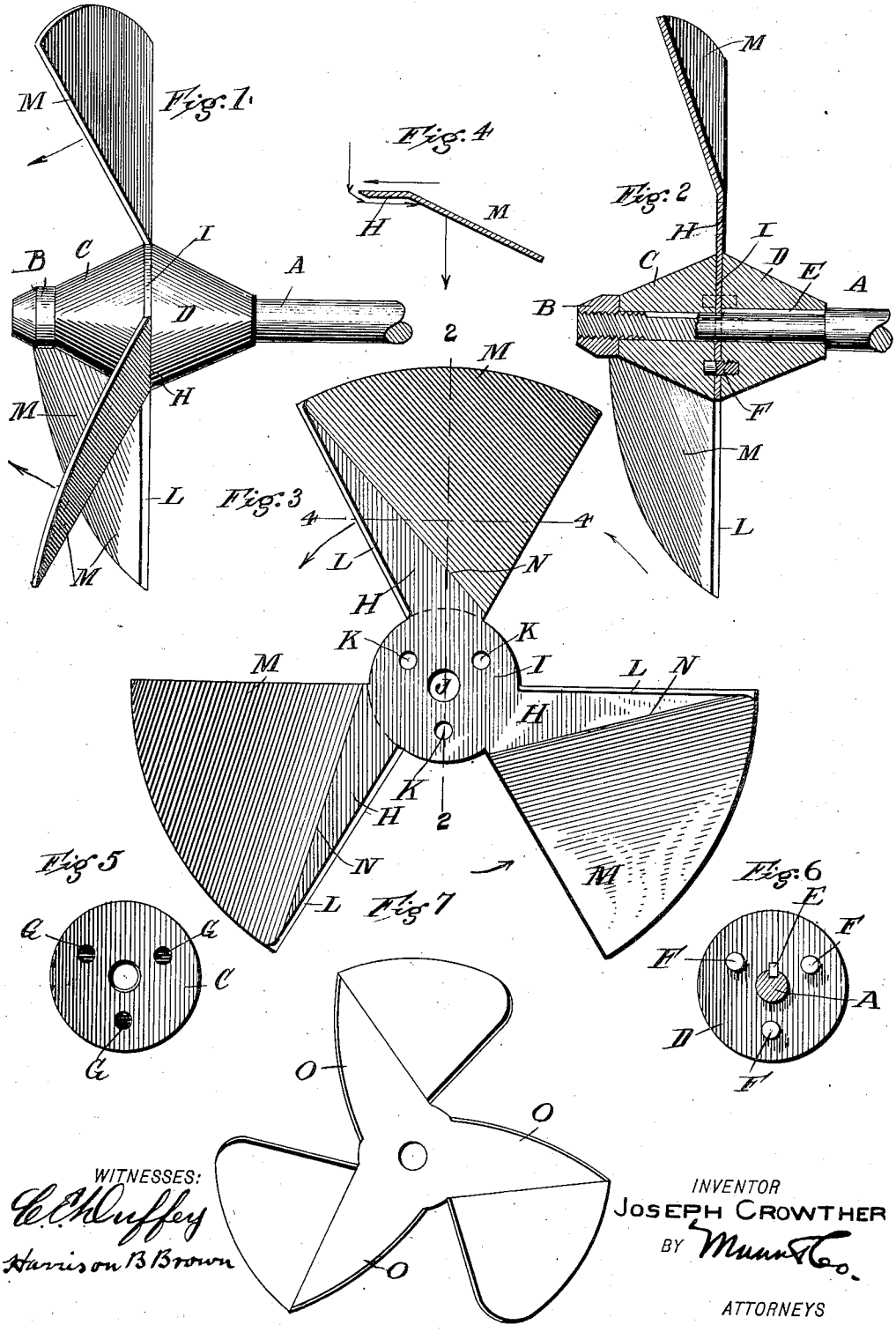
No. 833,586. PATENTED OCT. 16, 1906.

J. CROWTHER.

PROPELLER.

APPLICATION FILED DEC. 22, 1905.



WITNESSES:

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PROPELLER.

No. 833,586. Specification of Letters Patent. Patented Oct. 16, 1906.

Application filed December 22, 1905. Serial No. 292,941.

To all whom it may concern:

Be it known that I, JOSEPH CROWTHER, a citizen of the United States, residing at Dallas, in the county of Polk and State of Oregon, have invented a new and Improved Propeller, of which the following is a specification.

My invention relates to propeller-wheels, and has for its object certain new and improved construction whereby minimum power is required for its operation and which shall be fashioned, affording improved results over similar propeller-wheels as heretofore constructed.

The invention consists of the special construction, arrangement, and combination of parts shown by the accompanying drawings and hereinafter fully described, the novel features thereof being pointed out in the claims.

In the drawings, Figure 1 is a view showing my improved propeller in side elevation. Fig. 2 is a view in similar elevation, but shown part in section, with same taken on line 2 2 of Fig. 3. Fig. 3 is a detail rear elevation of the blades or flukes. Fig. 4 is a transverse sectional view through one of the blades or flukes, the section being taken on line 4 4 of Fig. 3. Figs. 5 and 6 are detail views of the hub; and Fig. 7 is a view similar to Fig. 3, but with the front or cutting edge of the blades or flukes shown curved from the wheel-hub to their outer ends.

In the practice of my invention I employ any suitable power-shaft A, having its rear end fashioned, adapted for proper arrangement thereon of a hub constructed into two conical members C D. The hub members are prevented from turning on the power-shaft by key-fastening means E, well understood. It will be noticed that the hub members C D are arranged on the power-shaft with the bases of the conical hub members adjacent and that the member D is provided with a plurality of pins F, projecting horizontally from its base, adapted to enter suitably-arranged sockets G in the base of the other hub member C.

H denotes the blades or flukes of my propeller with the same forming a part of a common integral hub portion I. The hub portion I of the blades H is arranged between the wheel-hub members and constructed with a central opening J, adapting its arrangement on the power-shaft, and also with outer openings K, the latter being located for extension therethrough of the pins F on the hub member D.

The propeller-blades and common hub are constructed of flat sheet-steel or other metal, and the blades have their front edges sharpened, as at L.

The rear or wing portion M of the blades are disposed at an angle (see Fig. 4) along a tangential line N, defined as extending from a point at the rear side of the blade adjacent to its hub portion I and thence forwardly to the outer end of blades sharpened edge L.

My invention comprehends forming the forward or sharpened edge of the blades or flukes into curved shape, substantially as indicated at O in Fig. 7.

It is intended to secure the blades and hub members on the shaft A by means of a clamping-nut B, (see Fig. 2,) though obviously other means may be employed adapted for the purpose.

The construction of my invention will be understood from the above description.

The several blades or flukes H may be constructed separate one from the other, but obviously each thereof having a hub portion fashioned substantially as the common hub portion I shown by my drawings.

Improved results are had with a propeller-wheel constructed according to my invention, and the same are attained by constructing the blades of flat sheet metal, having their front edges sharpened the better for cutting weeds and other entanglements, and by fashioning the rear portion of the blades into wing-like form with the same disposed projecting rearwardly at an angle to the front portion of the blade, as shown and described.

Now it is apparent the blades being flat and made as thin as practicable that they will offer little resistance to the propeller-driving power, and that through means of the flat angularly-disposed wings great pressure is exerted against the solid body of water with effect, forcing same rearwardly from the propeller, substantially as indicated by the arrows in Figs. 1 and 4.

What I claim is—

1. A propeller-wheel consisting of a two-part hub, flat blades having angularly-disposed flat wings, the blades being clampedly arranged and secured between the two parts of the hub, substantially as described.

2. A propeller-wheel consisting of a two-part hub, one thereof having suitable sockets and the other provided with pins adapted to enter said sockets, flat blades having openings near their inner portion, adapted to receive said pins, the inner portion of the blades being arranged between the two parts of the hub, and means for clampedly securing the hub and blades, substantially as described.

JOSEPH CROWTHER.

Witnesses:
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