

No. 709,801.

Patented Sept. 23, 1902.

D. SELKIRK.
PROPELLER.

(Application filed Nov. 21, 1901.)

(Model.)

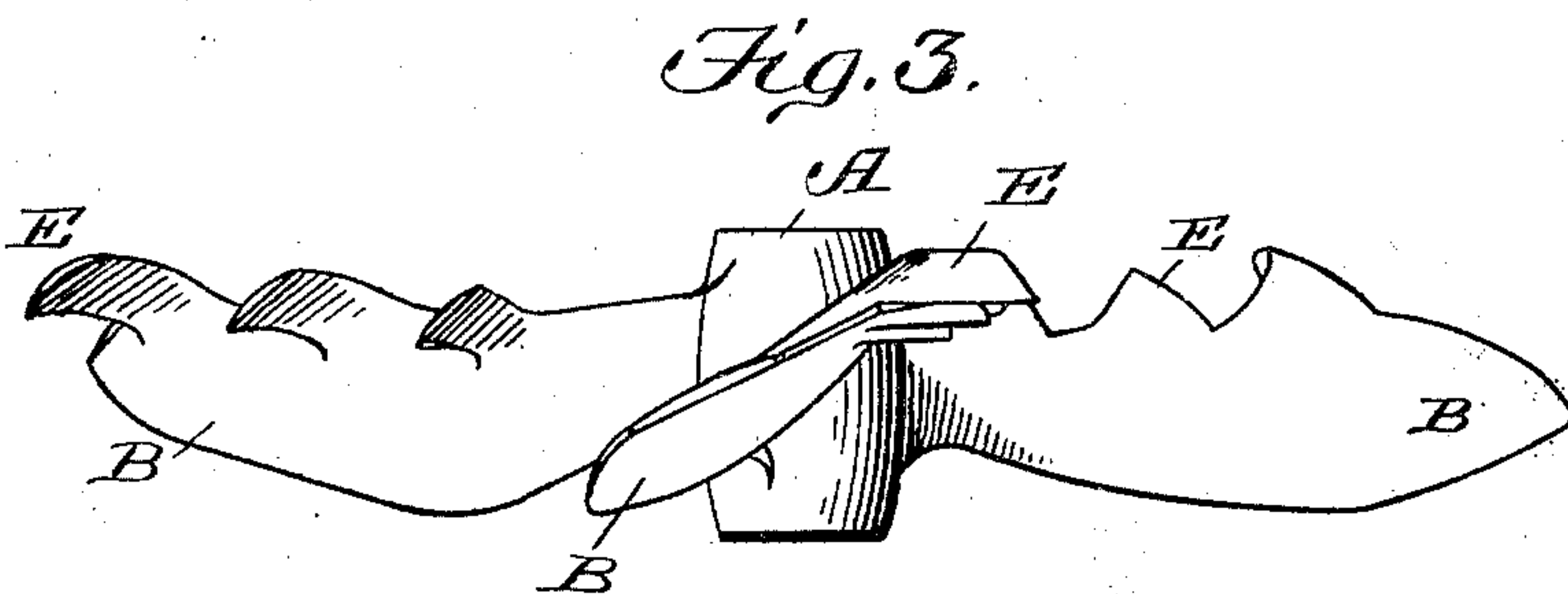
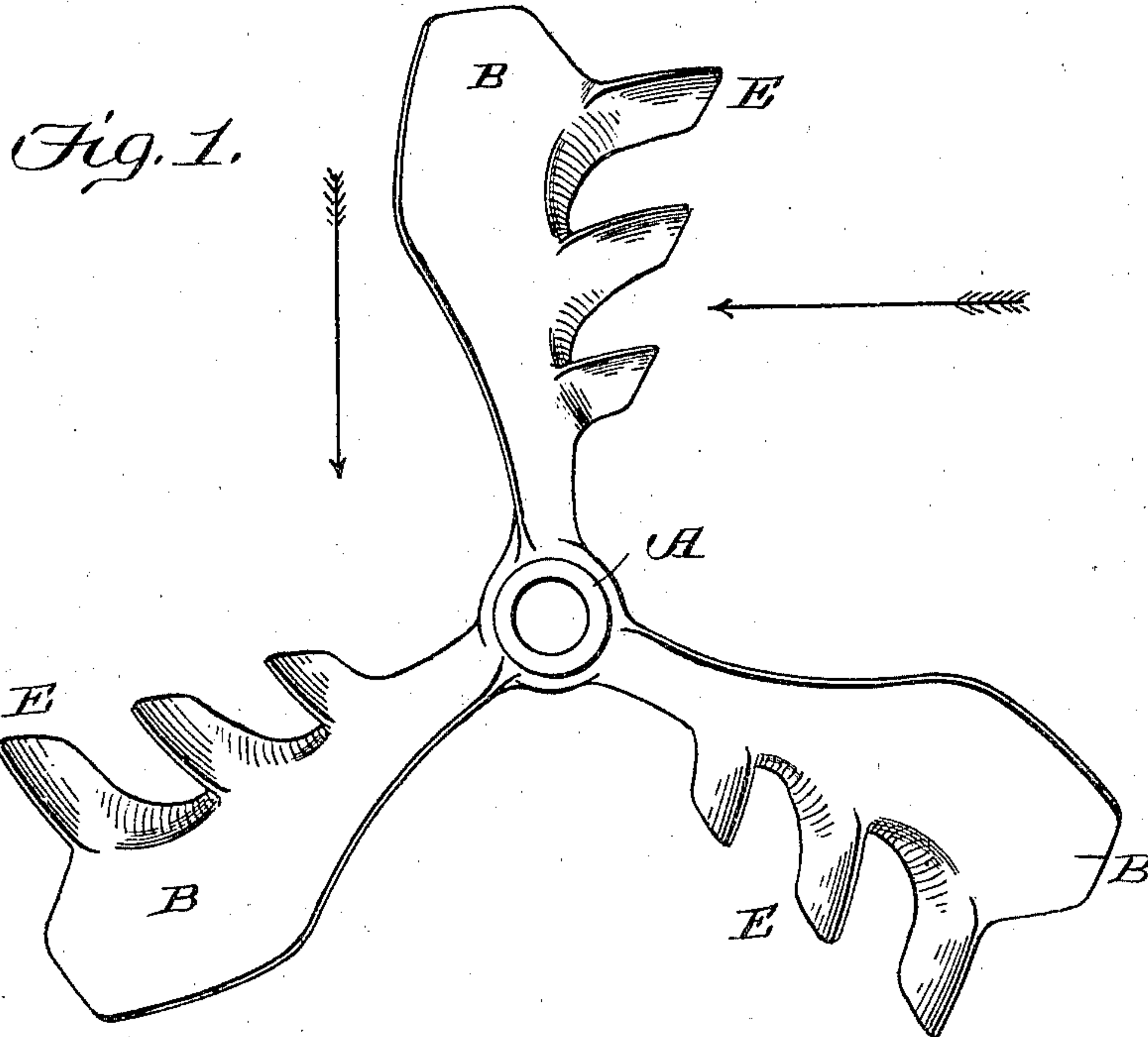
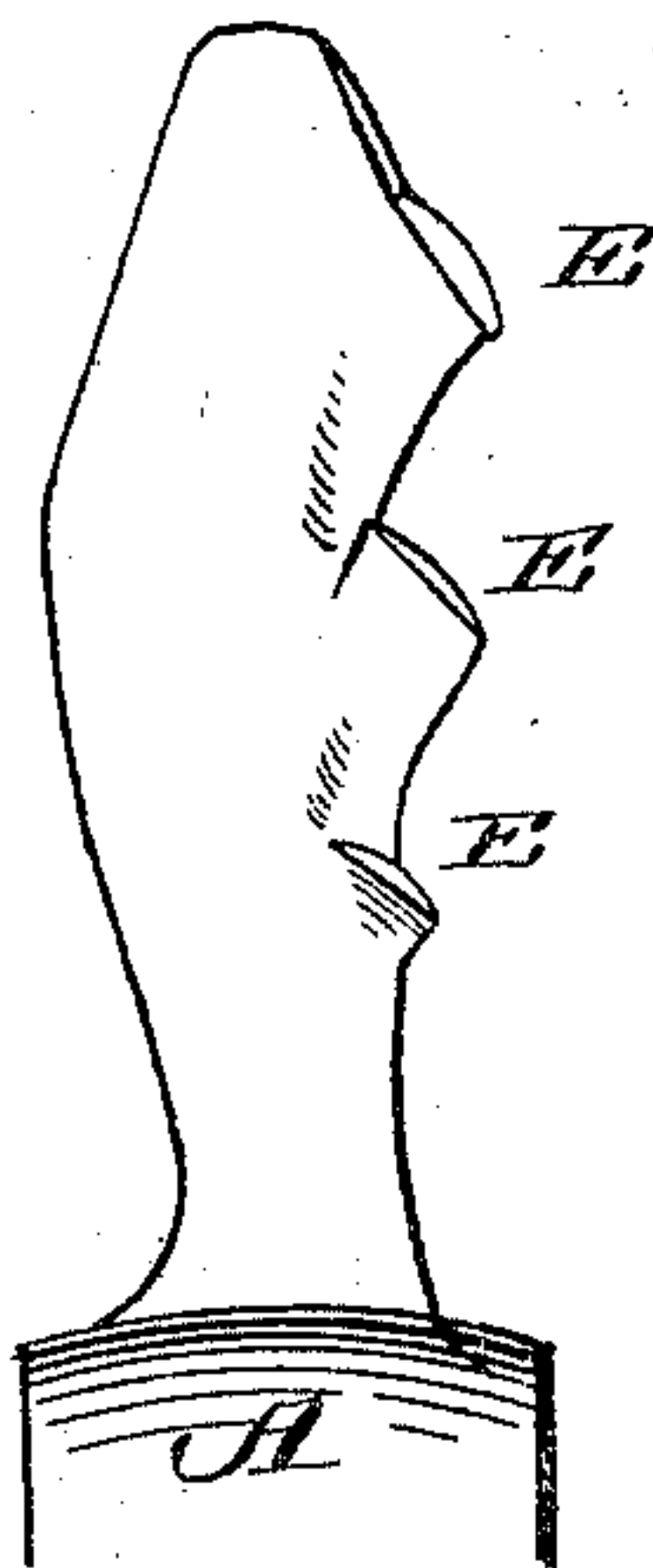


Fig. 2



Witnesses:
C. D. Kesler
V. L. Bryan

Inventor
David Selkirk
By W. C. Hauff
Atty.

UNITED STATES PATENT OFFICE.

DAVID SELKIRK, OF BROOKLYN, NEW YORK.

PROPELLER.

SPECIFICATION forming part of Letters Patent No. 709,801, dated September 23, 1902.

Application filed November 21, 1901. Serial No. 83,157. (Model.)

To all whom it may concern:

Be it known that I, DAVID SELKIRK, a citizen of the United States, residing at Brooklyn borough, New York city, in the county of Kings and State of New York, have invented new and useful Improvements in Propellers, of which the following is a specification.

This invention relates to certain novel features of construction which on trial have been found to increase the efficiency or propelling action of a screw-propeller, such features being set forth in the following specification and claims and illustrated in the annexed drawings, in which—

Figure 1 is an end elevation of a propeller. Fig. 2 is an edge view of a blade as it would appear looking in the direction, say, of the arrow pointing to the left in Fig. 1. Fig. 3 is a view looking in the direction of the arrow pointing downward in Fig. 1 and shows an end view of one of the propeller-blades and the angle of the lateral blades in relation to the propeller or main blades.

A is the propeller-hub, and B represents the blades, which for convenience of description can be called "main" blades or "radial" blades. Each propeller-blade B is shown provided with what may be called "supplemental" or "lateral" blades E. These lateral blades are of varying pitch. The outermost lateral blade or the one farthest from the hub is shown, for example, at an angle of forty-five degrees to the axis line or shaft of the propeller, the intermediate lateral blade at an angle of about fifty-two degrees or thereabout, and the inner lateral blade at an angle of, say, sixty degrees. Of course the invention is not confined to three lateral blades; but this construction has been found satisfactory. The blade B is of course of varying pitch at various portions as usual in propeller-blades, the blade portion near the hub being nearer to parallel with the hub or axis than the circumferential part of the blade.

In constructing this propeller it has been found that satisfactory results are obtained by making the lateral blades correspond in degree of pitch to the degree of pitch of the adjacent or contiguous portion of the radial blade—that is, the lateral blade of forty-five degrees pitch would extend from a portion of the radial blade having likewise a pitch or approximate pitch of like degree. The lateral blades, as seen in Fig. 1, are of varying length or gradually increasing in length from the center or hub outward. In other words, the lateral blades are made to vary in length according to the varying width of the main or radial blade, the longest lateral blade being at the widest part of the main blade and the shortest lateral blade at the narrowest part of the main blade. The lateral blades are also curved—that is, as seen in Fig. 1, the edges of the lateral blades are not straight, but curved or arc-shaped.

What I claim as new, and desire to secure by Letters Patent, is—

1. A propeller-blade provided at one edge with lateral curved blades of varying pitch extending at an angle to the working face of the blade substantially as described.

2. A propeller-blade provided with lateral blades extending from one edge thereof, said lateral blades arranged at an angle to the working face of the propeller-blade.

3. A propeller-blade having extending from one edge thereof, laterally-curved blades of varying pitch.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DAVID SELKIRK.

Witnesses:

C. E. POENSGEN,
E. F. KASTENHUBER.