WHAT IS CLAIMED IS:

1. A wind turbine for a wind power generator comprising:

a center shaft arranged in a vertical direction;

a plurality of horizontal arms attached in a radial manner to the center shaft;

a plurality of blades each arranged on an outer end of each of the plurality of horizontal arms so as to stand in an upright position, the plurality of blades each having a streamlined shape, in horizontal cross-section, including a front side having a 45±10% length of a total straight length between a front end and a rear end of the streamlined shape and a rear side, of which

the rear side defines a convex arc-shaped outer-side surface and a concave arc-shaped center-shaft-side surface in a continuously closed manner, and

a blade thickness across the convex arc-shaped outer-side surface and the concave arc-shaped center-shaft-side surface decreases gradually from a full dimension,

in a region from a center-shaft-side point of inflection in blade thickness to a rear end of each of the plurality of blades;

a plurality of wings each arranged on an outer side with respect to the center-shaft-side point of inflection in blade thickness in such a manner that a rearward-free end thereof is openable and closable through a hinge mechanism, or is fixed in an open state, wherein

each of the plurality of horizontal arms, at its outer end, has a vertical cross-section which has a hollow streamlined shape, and having: a reinforcement member interposed in a hollow portion of said hollow streamlined shape; an upper surface with a convex arc-shape, as a portion of the streamlined shape, at a rear side, said convex arc-shape having a 60±10% length of the total straight length from a forehead thereof; and a rearward opening maintained as a result of removing a lower surface.

2. The wind turbine for the wind power generator according to claim 1, wherein

the concave arc-shaped surface has a depressed region located closer to the outer-side surface than a level of a virtual straight line passing virtually through a front end of the streamlined shape and the rear end.

3. The wind turbine for the wind power generator according to claim 1 or 2, wherein

each of the plurality of blades has: a surface obtained by attaching a thin plate in order to reduce a weight; a hollow structure formed therein in order to further reduce the weight; and a spacer member provided therewith for reinforcement.

4. The wind turbine for the wind power generator according to claim 1, wherein a plurality of fixed wings each is attached to the lower surface in an open state.