CLAIMS

What is claimed is:

1. A blade for an integrated stove fan, comprising an elongate sheet-shaped main body and fixed sheet parts at both ends of the main body, the main body being bent into a circular arc along a width direction, one side of the main body in the width direction being a leading edge and the other side of the main body being a trailing edge, wherein a plurality of serrations are defined on the trailing edge of the main body along a length direction of the main body, heights of the plurality of serrations gradually increase from serrations in a middle to serrations at both ends, and the blade is fixed on a volute of the integrated stove fan through the fixed sheet parts.

2. The blade for the integrated stove fan according to claim 1, wherein both side surfaces of each of the serrations are planar, a top of the serration is of an arc surface, and both side surfaces of the serration are tangent to the top of the serration.

3. The blade for the integrated stove fan according to claim 1, wherein two adjacent serrations are smoothly transitioned with an arc surface therebetween.

4. The blade for the integrated stove fan according to claim 1 or 2 or 3, wherein a position of the serration is calculated from a serration proximate to an end of the main body, which is expressed as n, a height corresponding to a n-th serration is H_n, H_n satisfies a following relational expression: $H_n = S - 0.2n$, where a value of n is $n \in N$, N is a maximum number of at an edge to the serration at the middle, and S is a height of the serration proximate to the end of the main body, S satisfies a following relational expression: $S = 0.6B \sim 1.5B$, where B is a distance between two adjacent serrations, B satisfies a following relational expression: $B = 0.1R \sim 0.3R$, where R is a curvature radius of the main body.

5. The blade for the integrated stove fan according to claim 4, wherein the

curvature radius R of the main body satisfies a following relational expression: $R = 0.035D \sim 0.125D$, where D is a diameter of the volute.

6. The blade for the integrated stove fan according to claim 1, 2 or 3, wherein both ends of the trailing edge of the main body are provided with a reserved section, and the plurality of serrations are located between the two reserved sections, and a length of the reserved section is F, F satisfies a following relation: $F \geq 3.5\text{mm}$.

7. An integrated stove fan comprising an air guide casing and an impeller fixed inside the air guide casing, the impeller comprising a volute and a motor, wherein the impeller further comprises a plurality of the blades according to any one of the above claims 1 to 6 fixed on the volute, the plurality of the blades are fixed in the volute through a circumferential array of the fixed sheet parts, the leading edge of the main body of the blade faces an inner side of the volute and the trailing edge of the main body of the blade faces an outer side of the volute.

8. The integrated stove fan according to claim 7, wherein a diameter of the volute is D, and D ranges: $\text{D} = 200 \sim 300\text{mm}$.

9. The integrated stove fan according to claim 7, wherein a width of the volute is A, and A ranges: $A = 60 \sim 120\text{mm}$.

10. The integrated stove fan according to claim 7, wherein a middle of the volute has a bowl-shaped mounting part, the motor is located in the mounting part, and a plurality of cooling windows are defined on the mounting part.