CLAIMS

1. An integrally bladed rotor comprising:

a hub centered about an axis and having a plurality of blades extending radially outwardly of said axis across a span; and

each of said blades including an airfoil extending between a leading edge and a trailing edge, and having a pressure side and a suction side and said airfoil having a thicker portion at said trailing edge, and at a radially inner portion of said span, and over a limited percentage of said span, such that said thicker portion does not extend beyond 50 percent of said span and an axial distance defined between said trailing edge and said leading edge, and said thicker portion extending for less than 50 percent of said axial distance, and said thicker portion being on said pressure side.

2. The integrally bladed rotor as set forth in claim 1, wherein an increased thickness of said thicker portion area becomes greater in a direction moving from a radially outermost end of said end toward said hub.

3. The integrally bladed rotor as set forth in claim 2, wherein the thickness increases by greater than 100 percent of a thickness of that at said radially outermost end to a portion of said thicker portion which merges into said hub.

4. The integrally bladed rotor as set forth in claim 1, wherein a fillet merges the airfoil into said hub at locations along said axial distance and spaced toward said leading edge from said increased thickness portion.

5. The integrally bladed rotor as set forth in claim 4, wherein said thicker portion also having a fillet merging said thicker portion into said hub.

6. The integrally bladed rotor as set forth in claim 5, wherein a ratio of said thickness of said thicker portion at a radially innermost end to a diameter of an outer periphery of said hub is less than .025.

7. The integrally bladed rotor as set forth in claim 4, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

8. The integrally bladed rotor as set forth in claim 7, wherein said thicker portion extends for less than 40 percent of said axial distance.

9. The integrally bladed rotor as set forth in claim 1, wherein a ratio of said thickness of said thicker portion at a radially innermost end to a diameter of an outer periphery of said hub is less than .025.

10. The integrally bladed rotor as set forth in claim 1, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

11. The integrally bladed rotor as set forth in claim 1, wherein said thicker portion extends for less than 40 percent of said axial distance.

12. A gas turbine engine comprising:

a fan, a compressor rotor, a combustor and a turbine section, with said fan formed by an integrally bladed rotor including a hub centered about an axis and having a plurality of blades extending radially outwardly of said axis for a span; and

each of said blades including an airfoil extending between a leading edge and a trailing edge, and having a pressure side and a suction side and said airfoil having a thicker portion at said trailing edge, and at a radially inner portion of said span, and over a limited percentage of said span, such that said thicker portion does not extend beyond 50 percent of said span and an axial distance defined between said trailing edge and said leading edge, and said thicker portion extending for less than 50 percent of said axial distance, and said thicker portion being on said pressure side.

13. The gas turbine engine as set forth in claim 12, wherein an increased thickness of said thicker portion area becomes greater in a direction moving from a radially outermost end of said end toward said hub.

14. The gas turbine engine as set forth in claim 12, wherein a fillet merges the airfoil into said hub at locations along said axial distance and spaced toward said leading edge from said increased thickness portion.

15. The gas turbine engine as set forth in claim 14, wherein said thicker portion also having a fillet merging said thicker portion into said hub.

16. The gas turbine engine as set forth in claim 15, wherein a ratio of said thickness of said thicker portion at a radially innermost end to a diameter of an outer periphery of said hub is less than .025.

17. The gas turbine engine as set forth in claim 16, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

18. The gas turbine engine as set forth in claim 17, wherein said thicker portion extends for less than 40 percent of said axial distance.

19. The gas turbine engine as set forth in claim 12, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

20. The gas turbine engine as set forth in claim 12, wherein said thicker portion extends for less than 40 percent of said axial distance.

CLAIMS

1. An integrally bladed rotor comprising:

a hub centered about an axis and having a plurality of blades extending radially outwardly of said axis across a span; and

each of said blades including an airfoil extending between a leading edge and a trailing edge, and having a pressure side and a suction side and each of said airfoil having a thicker portion at said trailing edge, and at a radially inner portion of said span, and over a limited percentage of said span, such that said thicker portion does not extend beyond 50 percent of said span and an axial distance defined between said trailing edge and said leading edge, and said thicker portion extending for less than 50 percent of said axial distance, and said thicker portion being on said pressure side.

2. The integrally bladed rotor as set forth in claim 1, wherein an increased thickness of said thicker portion area becomes greater in a direction moving from a radially outermost end of said end toward said hub.

3. The integrally bladed rotor as set forth in claim 2, wherein the thickness increases by greater than 100 percent of a thickness of that at said radially outermost end to a portion of said thicker portion which merges into said hub.

4. The integrally bladed rotor as set forth in claim 1, wherein a fillet merges the airfoil into said hub at locations along said axial distance and spaced toward said leading edge from said increased thickness portion.

5. The integrally bladed rotor as set forth in claim 4, wherein said thicker portion also having a fillet merging said thicker portion into said hub.

6. The integrally bladed rotor as set forth in claim 5, wherein a ratio of said thickness of said thicker portion at a radially innermost end to a diameter of an outer periphery of said hub is less than .025.

7. The integrally bladed rotor as set forth in claim 4, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

8. The integrally bladed rotor as set forth in claim 7, wherein said thicker portion extends for less than 40 percent of said axial distance.

9. The integrally bladed rotor as set forth in claim 1, wherein a ratio of said thickness of said thicker portion at a radially innermost end to a diameter of an outer periphery of said hub is less than .025.

10. The integrally bladed rotor as set forth in claim 1, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

11. The integrally bladed rotor as set forth in claim 1, wherein said thicker portion extends for less than 40 percent of said axial distance.

12. A gas turbine engine comprising:

a fan, a compressor rotor, a combustor and a turbine section, with said fan formed by an integrally bladed rotor including a hub centered about an axis and having a plurality of blades extending radially outwardly of said axis for a span; and

each of said blades including an airfoil extending between a leading edge and a trailing edge, and having a pressure side and a suction side and said airfoil having a thicker portion at said trailing edge, and at a radially inner portion of said span, and over a limited percentage of said span, such that said thicker portion does not extend beyond 50 percent of said span and an axial distance defined between said trailing edge and said leading edge, and said thicker portion extending for less than 50 percent of said axial distance, and said thicker portion being on said pressure side.

13. The gas turbine engine as set forth in claim 12, wherein an increased thickness of said thicker portion area becomes greater in a direction moving from a radially outermost end of said end toward said hub.

14. The gas turbine engine as set forth in claim 12, wherein a fillet merges the airfoil into said hub at locations along said axial distance and spaced toward said leading edge from said increased thickness portion.

15. The gas turbine engine as set forth in claim 14, wherein said thicker portion also having a fillet merging said thicker portion into said hub.

16. The gas turbine engine as set forth in claim 15, wherein a ratio of said thickness of said thicker portion at a radially innermost end to a diameter of an outer periphery of said hub is less than .025.

17. The gas turbine engine as set forth in claim 16, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

18. The gas turbine engine as set forth in claim 17, wherein said thicker portion extends for less than 40 percent of said axial distance.

19. The gas turbine engine as set forth in claim 12, wherein said thicker portion extends radially outwardly for less than 40 percent of said span.

20. The gas turbine engine as set forth in claim 12, wherein said thicker portion extends for less than 40 percent of said axial distance.