CLAIMS

1. A method for casting with a mold (600) having a plurality of part cavities, the method comprising:

a first pour through a first pour cone (602), the first pour filling a lower portion of each of the part cavities; and

a second pour through a second pour cone (604), the second pour filling an upper portion of each of the part cavities; and wherein

the first pour cone is concentric with the second pour cone.

2. The method of claim 1 wherein:

the first pour is a bottom feed and the second pour is a top feed.

3. The method of claim 1 wherein the parts are blades and the part cavities each comprise:

a root portion for casting an attachment root of the blade; and

an airfoil portion for casting an airfoil of the blade, the airfoil having a first end and a second end and a span between the first end and the second end.

4. The method of claim 1 wherein:

for each of the part cavities, a crystalline structure is initiated by a grain starter (298).

5. The method of claim 1 wherein:

a crystalline structure propagates across a transition from first alloy provided by the first pour to a second alloy provided by the second pour.

6. The method of claim 1 wherein:

there are no additional pours.

7. A casting mold comprising:

a part-forming cavity (296) having a lower end and an upper end (406);

a pour cone; and

a downsprue extending from the pour cone toward the part-forming cavity and comprising:

a lower portion (402) having a plurality of ports in communication with the part-forming cavity; and

an upper portion telescoping (404) relative to the lower portion and coupling the lower portion to the pour cone.

8. The casting mold of claim 7 wherein:

the mold along the part-forming cavity and the lower portion are formed as a single piece.

9. The casting mold of claim 7 wherein:

the part-forming cavity is one of a plurality of part-forming cavities;

each of the plurality of part-forming cavities coupled to a single said downsprue.

10. The casting mold of claim 7 wherein the part is a blade and the part-forming cavity comprises:

a root portion for casting an attachment root of the blade; and

an airfoil section for casting an airfoil of the blade, the airfoil having a first end and a second end and a span between the first end and the second end.

11. The casting mold of claim 7 further comprising a grain starter (298) below the part-forming cavity.

12. A method for using the casting mold of claim 7, the method comprising:

introducing a molten alloy to the part-forming cavity through the pour cone and a lower port of the plurality of ports;

extending the upper portion relative to the lower portion; and

introducing a molten alloy to the part-forming cavity through the pour cone and an upper port of the plurality of ports.

13. The method of claim 12 wherein one or more of:

the molten alloy introduced through the upper port is different from the molten alloy introduced through the lower port;

the molten alloy introduced through the upper port is introduced after a partial solidification of the molten alloy introduced through the lower port; and

the molten alloy introduced through the upper port is introduced from a second ingot and the molten alloy introduced through the lower port is introduced from a first ingot.

14. The method of claim 12 wherein the part is a blade and the part-forming cavity comprises:

a root portion for casting an attachment root of the blade; and

an airfoil portion for casting an airfoil of the blade, the airfoil having a first end and a second end and a span between the first end and the second end.

15. The method of claim 12 wherein:

a crystalline structure is initiated by a grain starter (298).

16. The method of claim 12 wherein:

a crystalline structure propagates across a transition from first alloy to a second alloy.