CLAIMS

What is claimed is:

1. A method of forming an earth-boring tool, the method comprising:

forming a hardfacing layer over at least one surface of a body;

using a plasma spray device to gouge at least one recess through the hardfacing layer and into the body using a plasma emitted by the plasma spray device, at least a portion of the at least one recess defining a cutting element pocket;

machining an interior surface of the at least one recess after using the plasma spray device to gouge the at least one recess; and

securing at least one cutting element to the body at least partially within the cutting element pocket.

2. The method of claim 1, further comprising selecting the hardfacing layer to comprise a cemented tungsten carbide material.

3. The method of claim 1, further comprising selecting the body to comprise a bit body of an earth-boring rotary drill bit.

4. The method of claim 1, further comprising:

selecting the body to comprise a plurality of blades;

depositing the hardfacing layer over an outer surface of at least one blade of the plurality of blades; and

forming the at least one recess in the at least one blade of the plurality of blades.

5. The method of claim 1, wherein machining the interior surface of the at least one recess comprises using an electrical discharge machining process to remove material from the interior surface of the at least one recess.

6. The method of claim 1, wherein machining the interior surface of the at least one recess comprises at least one of grinding, milling, or drilling the interior surface of the at least

one recess.

7. A method of forming an earth-boring rotary drill bit, the method comprising:

depositing an abrasive and wear-resistant particle-matrix composite material over an outer surface of a blade of a bit body;

gouging at least one recess extending through the composite material and into the bit body using a plasma;

machining an interior surface of the at least one recess after using the plasma to gouge the at least one recess; and

securing at least one cutting element to the bit body, the at least one cutting element disposed at least partially within the at least one recess extending through the composite material and into the bit body.

8. The method of claim 7, wherein machining the interior surface of the at least one recess comprises using an electrical discharge machining process to machine the interior surface of the at least one recess.

9. The method of claim 8, wherein machining the interior surface of the at least one recess comprises mechanically machining the interior surface of the at least one recess.

10. A method of forming an earth-boring tool, the method comprising:

spraying plasma toward a body of an earth-boring tool having hardfacing thereon to partially form a cutting element pocket in the earth-boring tool;

using a machining process to complete formation of the cutting element pocket in the earth-boring tool, the completely formed cutting element pocket extending through at least a portion of the hardfacing and into the body of the earth-boring tool;

machining an interior surface of the cutting element pocket after spraying the plasma toward the body of the earth-boring tool;

positioning at least one cutting element at least partially within the cutting element pocket; and

securing the at least one cutting element to the body of the earth-boring tool.

11. The method of claim 10, further comprising selecting the hardfacing to comprise a cemented tungsten carbide material.

12. The method of claim 10, further comprising selecting the body to comprise a bit body of an earth-boring rotary drill bit.

13. The method of claim 12, further comprising selecting the body to comprise heat-treated steel.

14. The method of claim 10, further comprising:

selecting the body to comprise a plurality of blades;

depositing the hardfacing over an outer surface of at least one blade of the plurality of blades; and

forming the cutting element pocket in the at least one blade of the plurality of blades.

15. The method of claim 10, wherein machining the interior surface of the cutting element pocket comprises using an electrical discharge machining process to remove material from the interior surface of the cutting element pocket.

16. The method of claim 10, wherein machining the interior surface of the cutting element pocket comprises mechanically machining the interior surface of the cutting element pocket.

17. An earth-boring tool, comprising:

a hardfacing material on at least one surface of a body of the earth-boring tool;

at least one cutting element pocket at least partially formed by gouging a recess through the hardfacing material and into the body of the earth-boring tool using plasma;

an interior surface of the at least one cutting element pocket formed by machining the at least one cutting element pocket after using the plasma to gouge the recess; and

at least one cutting element at least partially disposed within the at least one cutting element pocket and secured to the body of the earth-boring tool.

18. The earth-boring tool of claim 17, wherein the at least one cutting element pocket further comprises a plurality of cutting element pockets located within a single recess.

19. The earth-boring tool of claim 18, wherein the at least one cutting element pocket and another cutting element pocket are located within the single recess, the another cutting element pocket positioned rotationally behind the at least one cutting element pocket.

20. The earth-boring tool of claim 19, wherein the at least one cutting element is disposed within the at least one cutting element pocket and another cutting element is disposed within the another cutting element pocket.