CLAIMS

What is claimed is:

1. A cutting element for use with an earth-boring tool, comprising:

a cutting table having a cutting surface, the cutting table comprising at least two sections, wherein a boundary between the at least two sections is at least partially defined by a discontinuity formed in the cutting table and extending across the cutting table from a first portion of a peripheral edge of the cutting table to a second, opposing portion of the peripheral edge of the cutting table.

2. The cutting element of claim 1, wherein the discontinuity comprises at least one recess formed in the cutting table.

3. The cutting element of claim 2, wherein at least one surface of the cutting table forming a portion of the recess comprises a chamfer.

4. The cutting element of claim 2, wherein the at least two sections of the cutting table comprise at least three sections, each section being separated from another section of the at least three sections by one recess of a plurality of recesses, each recess being formed in the cutting table and extending across the cutting surface from the first side of the cutting table to the second, opposing side of the cutting table.

5. The cutting element of claim 1, wherein the cutting element further comprises a substrate.

6. The cutting element of claim 5, wherein the discontinuity in the cutting table is at least partially formed by at least one protrusion of the substrate extending into a portion of the cutting table.

7. The cutting element of claim 6, wherein the at least two sections of the cutting table comprise at least three sections, each section being separated from another section of the at least three sections by one recess of a plurality of recesses formed in the cutting table and wherein the at least one protrusion extending from the substrate comprises a plurality of protrusions extending from the substrate, each protrusion being substantially coextensive with a respective recess of the plurality of recesses formed in the cutting table.

8. The cutting element of claim 7, wherein the substrate further comprise a plurality of recesses formed in a side of the substrate opposing the plurality of protrusions and wherein each recess of the plurality of recesses is substantially coextensive with a respective protrusion of the plurality of protrusions extending from the substrate.

9. The cutting element of claim 5, wherein a portion of the cutting table at the interface between the cutting table and the substrate comprises a plurality of relatively coarse particles as compared to another portion of the cutting table.

10. The cutting element of claim 1, wherein the discontinuity exhibits a substantially arced shape.

11. The cutting element of claim 1, wherein the cutting surface of the cutting table exhibits an elongated shape comprising at least one of an oval shape and a tombstone shape.

12. The cutting element of claim 1, wherein the discontinuity comprises a material formed from a plurality of relatively coarse particles as compared to another material forming a portion of the cutting table.

13. An earth-boring tool, comprising:

a tool body; and

a plurality of cutting elements carried by the tool body, each cutting element comprising:

a substrate; and

a cutting table secured to the substrate and having a plurality of mutually adjacent sections, each section comprising a discrete cutting edge, wherein at least one section of the plurality of mutually adjacent sections is configured to be selectively detached from the substrate in order to substantially expose a cutting edge of an adjacent section of the plurality of mutually adjacent sections.

14. The earth-boring tool of claim 13, wherein each section of the plurality of mutually adjacent sections substantially extends from a first side of the cutting table to a second, opposing side of the cutting table.

15. The earth-boring tool of claim 13, wherein each section of the plurality of mutually adjacent sections of the cutting table is separated from at least one adjacent section of the plurality of mutually adjacent sections by a recess formed in the cutting table.

16. The earth-boring tool of claim 13, wherein a cutting surface of the cutting table comprises an elongated shape having at least one end comprising an arced shape.

17. The earth-boring tool of claim 13, wherein the tool body comprises at least one blade having at least one cutting element of the plurality of cutting elements secured thereto and wherein the cutting edge of each section of the plurality of mutually adjacent sections of the cutting table each comprise an arced shape that is substantially similar to a profile of a portion of at least blade of the earth-boring tool to which the at least one cutting element is secured.

18. A method for fabricating a cutting element for use with an earth-boring tool, comprising:

forming a cutting table comprising a plurality of adjacent sections comprising:

forming a plurality of recesses in the cutting table extending along a cutting surface of the cutting table; and

forming a discrete cutting edge on each section of the plurality of adjacent sections of the cutting table.

19. The method of claim 18, further comprises at least partially removing a catalyst from the cutting table at the cutting surface of the cutting table and at each recess of the plurality of recesses.

20. The method of claim 18, wherein forming a plurality of recesses in the cutting table comprises forming the plurality of recesses in the cutting table after forming the cutting table.

21. The method of claim 18, wherein forming a plurality of recesses in the cutting table comprises forming the plurality of recesses in the cutting table during formation the cutting table in a HTHP process.

CLAIMS

1. A cutting element for use with an earth-boring tool, comprising:

a cutting table having a cutting surface, the cutting table comprising at least two sections, wherein a boundary between the at least two sections is at least partially defined by a discontinuity formed in the cutting table at the cutting surface and extending across the cutting table from a first portion of a peripheral edge of the cutting table to a second, opposing portion of the peripheral edge of the cutting table, wherein the cutting table is configured to selectively detach at least one of the at least two sections at the discontinuity responsive to a mechanism other than wear.

2. The cutting element of claim 1, wherein the discontinuity comprises at least one recess formed in the cutting table.

3. The cutting element of claim 2, wherein at least one surface of the cutting table forming a portion of the recess comprises a chamfer.

4. The cutting element of claim 2, wherein the at least two sections of the cutting table comprise at least three sections, each section being separated from another section of the at least three sections by one recess of a plurality of recesses, each recess being formed in the cutting table and extending across the cutting surface from the first side of the cutting table to the second, opposing side of the cutting table.

5. The cutting element of claim 1, wherein the cutting element further comprises a substrate, wherein at least one of the at least two sections is configured to selectively detach from the substrate along the interface and at the discontinuity.

6. The cutting element of claim 5, wherein the discontinuity in the cutting table is at least partially formed by at least one protrusion of the substrate extending into a portion of the cutting table.

7. The cutting element of claim 6, wherein the at least two sections of the cutting table comprise at least three sections, each section being separated from another section of the at least three sections by one recess of a plurality of recesses formed in the cutting table and wherein the at least one protrusion extending from the substrate comprises a plurality of protrusions extending from the substrate, each protrusion being substantially coextensive with a respective recess of the plurality of recesses formed in the cutting table.

8. A cutting element for use with an earth-boring tool, comprising:

a cutting table having a cutting surface, the cutting table comprising at least three sections, each section being separated from another section of the at least three sections by one recess of a plurality of recesses formed in the cutting table; and

a substrate comprising a plurality of protrusions extending from the substrate, each protrusion extending into a portion of the cutting table to form a discontinuity extending across the cutting table from a first portion of a peripheral edge of the cutting table to a second, opposing portion of the peripheral edge of the cutting table, the discontinuity at least partially defining a portion of a boundary between two sections of the at least three sections of the cutting table, wherein each protrusion is substantially coextensive with a respective recess of the plurality of recesses formed in the cutting table, and wherein the substrate further comprises a plurality of recesses formed in a side of the substrate opposing the plurality of protrusions and wherein each recess of the plurality of recesses is substantially coextensive with a respective protrusion of the plurality of protrusions extending from the substrate.

9. The cutting element of claim 5, wherein a portion of the cutting table at the interface between the cutting table and the substrate comprises a plurality of relatively coarse particles as compared to another portion of the cutting table.

10. The cutting element of claim 1, wherein the discontinuity exhibits a substantially arced shape.

11. The cutting element of claim 1, wherein the cutting surface of the cutting table exhibits an elongated shape comprising at least one of an oval shape and a tombstone shape, and wherein the discontinuity formed in the cutting table extends across the elongated shape of the cutting table from a first lateral side of the elongated shape of the cutting table to a second, opposing lateral side of the elongated shape of the cutting table.

12. The cutting element of claim 1, wherein the discontinuity comprises a material formed from a plurality of relatively coarse particles as compared to another material forming a portion of the cutting table.

13. An earth-boring tool, comprising:

a tool body; and

a plurality of cutting elements carried by the tool body, each cutting element comprising:

a substrate; and

a cutting table secured to the substrate and having a plurality of mutually adjacent sections, each section comprising a discrete cutting edge, wherein at least one section of the plurality of mutually adjacent sections is configured to be selectively detached from the substrate at an interface between the at least one section of the plurality of mutually adjacent sections and the substrate in order to substantially expose a cutting edge of an adjacent section of the plurality of mutually adjacent sections.

14. The earth-boring tool of claim 13, wherein each section of the plurality of mutually adjacent sections substantially extends from a first side of the cutting table to a second, opposing side of the cutting table.

15. The earth-boring tool of claim 13, wherein each section of the plurality of mutually adjacent sections of the cutting table is separated from at least one adjacent section of the plurality of mutually adjacent sections by a recess formed in the cutting table.

16. The earth-boring tool of claim 13, wherein a cutting surface of the cutting table comprises an elongated shape having at least one end comprising an arced shape.

17. The earth-boring tool of claim 13, wherein the tool body comprises at least one blade having at least one cutting element of the plurality of cutting elements secured thereto and wherein the cutting edge of each section of the plurality of mutually adjacent sections of the cutting table each comprise an arced shape that is substantially similar to a profile of a portion of at least blade of the earth-boring tool to which the at least one cutting element is secured.

18. The earth-boring tool of claim 13, further comprising a detachment feature at an interface between the substrate and the cutting table configured to selectively detach at least one section of the plurality of mutually adjacent sections from the substrate, the detachment feature comprising at least one of at least one protrusion of the substrate extending into a portion of the cutting table, at least one recess formed in the cutting table at an interface between the cutting table and the substrate, and at least one variation in a property of material forming the cutting table at the interface between the cutting table and the substrate.

19. A cutting element for use with an earth-boring tool, comprising:

a cutting table having a cutting surface, the cutting table comprising at least two sections, wherein a boundary between the at least two sections is at least partially defined by a discontinuity formed in the cutting table and extending across the cutting table from a first portion of a peripheral edge of the cutting table to a second, opposing portion of the peripheral edge of the cutting table; and

a substrate comprising at least one recess formed in a side of the substrate opposing the cutting table and wherein the at least one recess is substantially coextensive with the discontinuity formed in the cutting table.