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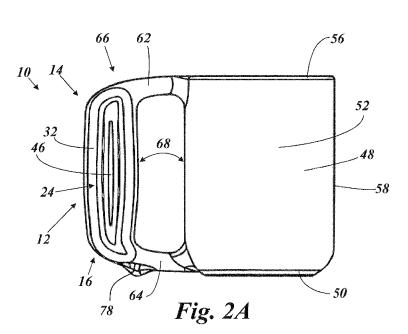
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(57) Abstract: An ergonomic handle configuration has a larger diameter than known conventional handles. The handle is configured with a predetermined combination of convex and concave curvatures that combine in such a way as to mimic a curvature of a user's palm along an area of contact of the palm with the handle, as well as to mimic a curvature of a user's fingers when curled to grip the handle along an area of contact of the fingers with the handle, when a user grips the handle. In addition, implementations of the handle in combination with a container or implement can include a thumb rest that is specifically configured to engage a thumb of a user in a neutral posture thumb position when gripping the handle.



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AMENDED CLAIMS

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CLAIMS

What is claimed is:

1. A handle, comprising:

an elongate grip region having a first end and a second end opposite the first end, the elongate grip region of the handle comprising a first side, a second side, a third side, and a fourth side, combining to form an entire outer surface of the elongate grip region;

a first grip area on the first side extending between the first end and the second end, the first grip area having a midpoint between the first end and the second end;

a second grip area on the second side extending between the first end and the second end and opposite the first grip area and first side;

a third grip area on the third side extending between the first end and the second end and connecting the first grip area with the second grip area; and

a fourth grip area on the fourth side extending between the first end and the second end, opposite the third grip area and third side, and connecting the first grip area with the second grip area;

an indented region disposed in the third grip area, the fourth grip area, or both; wherein the first grip area on the first side comprises a contoured surface having a convex curvature out from the handle originating from the second end and extending beyond the midpoint toward the first end, the convex curvature transitioning to a concave curvature, the concave curvature then transitioning to a second convex curvature proximal the first end, the convex curvature, concave curvature, and second convex curvature configured so as to together mimic a curvature of a user's palm along an area of contact of the palm with the elongate grip region when a user grips the elongate grip region; and

wherein the second grip area on the second side comprises a contoured surface having a convex curvature out from the handle and extending entirely between the first end and the second end of the elongate grip region, configured so as to mimic a curvature of a user's fingers when curled to grip the handle along an area of contact of the fingers with the clongate grip region.

- 2. The handle of claim 1, wherein an effective diameter of the handle is greater than 1.5 cm (0.6 inches).
- 3. The handle of claim 1, wherein an effective outer circumference of the handle is greater than about 4 cm (1.57 inches).
- 4. The handle of claim 1, wherein the handle has an effective diameter of greater than 1.5 cm (0.6 inches), while simultaneously no cross-sectional portion of the handle has a thickness of greater than 1.5 cm (0.6 inches).
- 5. The handle of claim 1, wherein the handle has an effective diameter of about 2.5 cm (0.98 inches).
- 6. The handle of claim 1, wherein the handle has an effective outer circumference of about 7.9 cm (3.1 inches).
- 7. The handle of claim 1, wherein the indented region is disposed in the third grip area on the third side and is sized, dimensioned, and configured to receive a user's metacarpophalangeal joints on a palm side of the user's hand.
- 8. The handle of claim 1, wherein the indented region is disposed in the fourth grip area on the fourth side and is sized, dimensioned, and configured to receive a user's metacarpophalangeal joints on a palm side of the user's hand.
- 9. The handle of claim 1, wherein the indented region is disposed in both the third grip area and the fourth grip area, and the indented region disposed in the third grip area on the third side is generally a mirror image configuration of the indented region is disposed in the fourth grip area on the fourth side.
- 10. The handle of claim 1, wherein the indented region is disposed in both the third grip area and the fourth grip area, and the indented region disposed in the third grip area on the third side and the indented region disposed in the fourth grip area on the fourth side intersect creating an opening therethrough.

- 11. The handle of claim 1, wherein the handle comprises a generally I-shaped cross-section.
- 12. The handle of claim 1, wherein the handle is disposed in combination with another structure to form container or implement.
- 13. The handle of claim 1, wherein the handle is disposed in combination with a blade to form a cutting tool.
- 14. The handle of claim 1, wherein the handle is disposed in combination with a spatula to form a grilling utensil.
- 15. The handle of claim 1, wherein the handle is made of metal, wood, glass, enamel, ceramic, synthetic, plastic, or composite materials, or combinations thereof.
- 16. The handle of claim 1, wherein the third grip area on the third side comprises the indented region extending between the first end and the second end of the elongate grip region.
- 17. The handle of claim 1, wherein the fourth grip area on the fourth side comprises the indented region extending between the first end and the second end of the elongate grip region.
- 18. A container, comprising:
 - a base;
- a wall surrounding the base and forming an interior chamber defined by the base and an opening with a rim opposite the base, the wall having an exterior surface and an interior surface;
- a handle coupled with the wall, via a first connecting member and a second connecting member, at the exterior surface;
- an elongate grip region disposed on the handle and having a first end and a second end opposite the first end;

wherein the first connecting member transitions the wall proximal the rim into the grip region proximal the first end, and the second connecting member transitions the wall proximal the base into the grip region proximal the second end, the first connecting member and the second connecting member connecting the elongate grip region with the wall of the container:

the elongate grip region of the handle comprising a first side, a second side, a third side, and a fourth side, combining to form an entire outer surface of the elongate grip region;

a first grip area on the first side extending between the first end and the second end, the first grip area having a midpoint between the first end and the second end;

a second grip area on the second side extending between the first end and the second end and opposite the first grip area and first side;

a third grip area on the third side extending between the first end and the second end and connecting the first grip area with the second grip area; and

a fourth grip area on the fourth side extending between the first end and the second end, opposite the third grip area and third side, and connecting the first grip area with the second grip area;

an indented region disposed in the third grip area, the fourth grip area, or both;

wherein the first grip area on the first side comprises a contoured surface having a convex curvature out from the handle originating from the second end and extending beyond the midpoint toward the first end, the convex curvature transitioning to a concave curvature, the concave curvature then transitioning to a second convex curvature proximal the first end, the convex curvature, concave curvature, and second convex curvature configured so as to together mimic a curvature of a user's palm along an area of contact of the palm with the elongate grip region when a user grips the elongate grip region;

wherein the second grip area on the second side comprises a contoured surface having a convex curvature out from the handle toward the wall of the container and extending entirely between the first end and the second end of the elongate grip region, configured so as to mimic a curvature of a user's fingers when curled to grip the handle along an area of contact of the fingers with the elongate grip region;

and

a thumb rest region disposed on the first connecting member and configured to engage a thumb of a user in a neutral posture thumb position when gripping the elongate grip region.

- 19. The container of claim 18, further comprising a stability nub disposed on a lower base portion of the second connecting member and providing stability and support for the handle and the container when resting on a flat surface.
- 20. The container of claim 18, wherein the second side and the second grip area are positioned to form a gap between the elongate grip and the exterior surface of the wall of the container.
- 21. The container of claim 20, wherein the gap is sized and dimensioned to be about 2.2 cm (0.85 inches)
- 22. The container of claim 18, wherein the container comprises a mug, tea cup, bowl, pitcher, drinking glass, pot, pan, or measuring cup.
- 23. The container of claim 18, wherein an effective diameter of the handle is greater than 1.5 cm (0.6 inches).
- 24. The container of claim 18, wherein an effective outer circumference of the handle is greater than about 4 cm (1.57 inches).
- 25. The container of claim 18, wherein the handle has an effective diameter of greater than 1.5 cm (0.6 inches), while simultaneously no cross-sectional portion of the handle has a thickness of greater than 1.5 cm (0.6 inches).
- 26. The container of claim 18, wherein the handle has an effective diameter of about 2.5 cm (0.98 inches).
- 27. The container of claim 18, wherein the handle has an effective outer circumference of about 7.9 cm (3.1 inches).

- 28. The container of claim 18, wherein the indented region is disposed in the third grip area on the third side and is sized, dimensioned, and configured to receive a user's metacarpophalangeal joints on a palm side of the user's hand.
- 29. The container of claim 18, wherein the indented region is disposed in the fourth grip area on the fourth side and is sized, dimensioned, and configured to receive a user's metacarpophalangeal joints on a palm side of the user's hand.
- 30. The container of claim 18, wherein the indented region is disposed in both the third grip area and the fourth grip area, and the indented region disposed in the third grip area on the third side is generally a mirror image configuration of the indented region disposed in the fourth grip area on the fourth side.
- 31. The container of claim 18, wherein indented region is disposed in both the third grip area and the fourth grip area, and the indented region disposed in the third grip area on the third side and the indented region disposed in the fourth grip area on the fourth side intersect creating an opening therethrough.
- 32. The container of claim 18, wherein the handle comprises a generally 1-shaped crosssection.
- 33. The container of claim 18, wherein the handle is manufactured of metal, wood, glass, enamel, ceramic, synthetic, plastic, or composite materials, or combinations thereof.
- 34. The container of claim 18, wherein the third grip area on the third side comprises the indented region extending between the first end and the second end of the elongate grip region.
- 35. The container of claim 18, wherein the fourth grip area on the fourth side comprises the indented region extending between the first end and the second end of the elongate grip region.
- 36. A container made of ceramic material, the container comprising:

a ceramic base;

a ceramic wall surrounding the base and forming an interior chamber defined by the base and an opening with a rim opposite the base, the wall having an exterior surface and an interior surface;

a ceramic handle coupled with the wall, via a first connecting member and a second connecting member, at the exterior surface, the handle comprising:

an elongate grip region having a first end and a second end opposite the first end, the elongate grip region of the handle comprising a first side, a second side, a third side, and a fourth side, combining to form an entire outer surface of the elongate grip region;

a first grip area on the first side extending between the first end and the second end;

a second grip area on the second side extending between the first end and the second end and opposite the first grip area and first side;

a third grip area on the third side extending between the first end and the second end and connecting the first grip area with the second grip area; and

a fourth grip area on the fourth side extending between the first end and the second end, opposite the third grip area and third side, and connecting the first grip area with the second grip area;

an indented region disposed in the third grip area on the third side; and wherein the first grip area, the second grip area, the third grip area, the fourth grip area, the indented region disposed on the third grip area, are made of the ceramic material; and

wherein the handle has an effective diameter of greater than 1.5 cm (0.6 inches), while simultaneously no cross-sectional portion of the handle has a thickness of greater than 1.5 cm (0.6 inches).

- 37. The container of claim 36, further comprising an indented region disposed in the fourth grip area on the fourth side.
- 38. The container of claim 36, wherein an effective diameter of the handle is greater than 1.5 cm (0.6 inches), and an effective outer circumference of the handle is greater than about 4 cm (1.57 inches).

39. The container of claim 36, wherein the handle has an effective diameter of about 2.5 cm (0.98 inches) and an effective outer circumference of about 7.9 cm (3.1 inches).

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40. The container of claim 36, wherein the handle comprises a generally I-shaped cross-section.