ABSTRACT

A handle for hand held utensils or implements and more particularly to hand held utensils for eating and culinary purposes comprising a novel handle that facilitates the grasping of the said utensil or implement is disclosed. The said handle comprises a support for the internal and external parts of the user hand via an aperture in the center that surrounds the user hand. In an particular embodiment, the handle also provides two holding units connected to the lateral side of each one of the two supporting units that may be used to give further support to the user's hand if required by holding the hand to the handle by means of a supporting band made of velcro or similar material that is pass through the said holding units and around the user hand. Hand held utensils such as eating and culinary utensils having the described handle are disclosed. The said utensils are useful in a variety of functions, for instance in the manipulation of food by persons having medical conditions affecting elbows, wrists and hands are unable to grip, handle, hold or manipulate hand held utensils or implements and in teaching small children to eat.
NOVEL HANDLE AND HAND HELD UTENSILS

TECHNICAL FIELD


[0002] The present invention relates to a handle for hand held utensils or implements and more particularly to hand held utensils for eating and culinary purposes comprising a novel handle that facilitates the grasping of the said utensil or implement, and thus providing an easy manner to hold, grip, control and manipulate food to people in general and more specifically to people with hand and or wrist disabilities. Similarly, the disclosed invention is useful in teaching small children how to eat. It is to be understood that the invention also have application to other hand held implements or utensils requiring a handle, such as ice screen scoop, potatoes and vegetable peeler, hand mixers and similar items.

BACKGROUND OF THE INVENTION

[0003] It is well known that person having medical conditions affecting elbows, wrists and hands are unable to grip, handle, hold or manipulate hand held utensils or implements. Among the most necessary of the said implements are for instance, eating and culinary utensil and as the result, people suffering from the said conditions are unable to feed themselves properly or not even able to feed themselves at all. A similar problem handling or manipulating hand held implements is also known in young children with little or no muscle development. A series of alternatives to this problem had been disclosed in the literature.

[0004] Some examples of the said alternatives had been disclosed in Lindsberger, U.S. Pat. No. 4,389,777; Jagger, U.S. Pat. No. 4,563,816; Levine, U.S. Pat. No. 4,821,421; Mars, U.S. Pat. No. 5,068,967; Mars, U.S. Pat. No. 5,058,279; Mars, U.S. Pat. No. 5,060,386; Craven U.S. Pat. No. 4,993,156; Wilson U.S. Pat. No. 5,075,273; Tompkins et al., U.S. Pat. No. 6,393,704 and Currie U.S. Pat. No. 7,178,247, among others.

[0005] None of the cited references however, discloses or suggests a hand held utensils or implements comprising a handle that facilitates the manipulation of the said utensils and the action intended to be performed with the said utensil by providing a handle that has support for the internal and external parts of the user hand via an aperture in the center of the handle that surrounds the user hand. The said handle is particularly disclosed in novel eating and culinary utensils that facilitates the manipulation of food for adults and children that may be left handed, right handed or ambidextrous. However, it is understood that the herein described handle may be useful by adapting the same to the manufacture of any other hand held utensils well known in the art.

SUMMARY OF THE INVENTION

[0006] It is an object of the present invention to provide a hand held utensils comprising a handle designed for the hand disabled person in order to facilitate them simple every day tasks requiring the said hand held utensils. Another object of the instant invention to provide eating utensils for hand disabled persons allowing them to feed properly and independently.

[0007] Another object of the invention is to provide hand held utensils for young children that are easy to hold, grip or grasp. Yet another object of the invention is to provide eating utensils for young children that facilitate the food manipulation and allow them to feed themselves appropriately. Still another object of the invention is to provide a handle capable to be adapted to a given operational unit of hand held utensils thus forming a hand held utensil that facilitates the manipulation of the said utensil by person having medical conditions affecting the elbow, wrist and or hand and thus allowing the said persons to carry out every day task wherein the said utensil is required. Yet another object of the invention is to provide the hand held utensils for the manually disabled and young children that are left handed, right handed or ambidextrous that is easy to handle, and facilitates the eating process in an independent and appropriate manner.

[0008] These and other objects of the instant invention are accomplished by providing a handle that facilitates the use of hand held utensils, said handle comprising an elongated base having a proximal end and a distal end and wherein the proximal end is connected to a functional or operational unit. The said handle comprises two supporting units having an upper end and a lower and wherein the said lower end of the said supporting units are preferably connected substantially perpendicularly on the extremities of the said base and a top longitudinal bar that extends parallel to the said base having two opposite ending extremes which are physically connected to the upper ends of each one of the supporting units. The connection of the said top longitudinal bar with the said upper surface of the supporting units forms an upside down U shaped bridge over the said upper surface of the said base; thus defining an internal aperture in the center of the said handle wherein the fingers of the user can be inserted facilitating the grasp of the utensil and providing support to the external and internal parts of the user hand. Optionally, the said handle may comprises two holding units connected to the lateral side of each one of the two supporting units that may be use to give further support to the user's hand if required by holding the hand to the handle by means of a supporting hand made of velcro or similar material that is pass through the said holding units and around the user hand.

[0009] The invention also comprises eating utensils comprising the said handle integrated to means for manipulating food, wherein the said means for manipulating food as used herein is defined as any functional operational unit of a hand held utensil used to eat or in the preparation or serving food such as a spoon bowl, a spork bowl, folk's prongs, a cutting blade among others. The said functional unit comprises a stem extended from it, which may have a straight, left-curved or right-curved configuration, wherein each particular configuration is intended to be used ambidextrous, by left handed, right handed people respectively.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The invention will be described in further detail herein after with reference to the illustrative preferred embodiments shown in the accompanying following drawings, which are included for illustrative purposes without limiting the invention in any manner.

[0011] FIG. 1 is a perspective pictorial representation showing the embodiment of the handle without operational unit and without holding units, which is designed for the use of ambidextrous, left or right handed people.
FIG. 2 is a perspective pictorial representation showing the embodiment of the handle without the operational unit and designed for the use of right handed or ambidextrous persons.

FIG. 3 is a perspective pictorial representation of the handle showing the embodiment of the handle without the operational unit and design for the use of left handed or ambidextrous persons.

FIG. 4 is a perspective pictorial representation of the operational unit showing as an example a spoon bowl and the stem extended from it, wherein said stem has a right curve configuration and designed for the use of right handed or ambidextrous persons.

FIG. 5 is a perspective pictorial representation of the operational unit showing as an example a spoon bowl and the stem extended from it, wherein said stem has a left curve configuration and designed for the use of left handed or ambidextrous persons.

FIG. 6 is a perspective pictorial representation of the operational unit showing as an example a spoon bowl and the stem extended from it, wherein said stem has a straight configuration and designed for the use of any person.

FIGS. 7 and 8 are perspective pictorial representations showing an eating utensil embodiments designed for right handed or ambidextrous people; wherein spoons is used as example.

FIGS. 9 and 10 are perspective pictorial representations showing an eating utensil embodiments designed for left handed or ambidextrous people; wherein spoons is used as example.

FIG. 11 is a perspective pictorial illustration showing the method of using the invention by a right-handed person, wherein the invention is illustrated as an eating utensil and a spoon is used as example of the said eating utensil.

FIG. 12 is a perspective pictorial illustration showing the method of using the eating utensil by a left handed person wherein and wherein the invention is illustrated as an eating utensil and a spoon is used as example of the said eating utensil.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Detailed embodiments of the instant invention are disclosed herein, however it is to be understood that the disclosed embodiments are only examples and that the disclosed invention may be embodied in alternative forms and/or in other possible variations. The particular structural and/or functional details disclosed herein should not be interpreted as limiting, since they are presented as a basis for the claims and with the main objective of teaching those skilled in the art to make and use the instant invention. Particularly, illustrated size invention may be variable without departing from the spirit of the invention and are indeed embraced in the scope of the instant invention as being set out in the appended claims.

Referring now to the accompanying figures and in particular to FIGS. 1 to 3; a perspective pictorial representation of embodiments of the handles 10, 20 and 40 respectively without the operational unit is shown. The phrase operational unit or functional unit is herein used to identify the part of a hand held utensil used to carry out an everyday activity such as spoon bowl, spork bowl, knife blade, can opener blade, spatula base, peeler blades, ice cream scoop bowl, fork sprogs and similar parts of hand held utensils well known in the art.

More particularly, FIG. 1 illustrates an embodiment of the invention wherein the handle 10 is designed for right-handed, left-handed or ambidextrous people. It should be understood that the said handle is connected to an operational or functional unit at the proximal end 12 of the said handle. The elongated base 11 is designed to rest upon flat surfaces on its lower surface. It may incorporate ergonomic designs for accommodating the hand’s palm and fingers in its upper surface and/or lower surface. Connected at near the proximal and distal end 12 and 13 of the upper surface 19 of elongated base 11 are the lower ends of supporting units 14 and 15, respectively. Although the said supporting units 14 and 15 may be connected in alternatives ways it is preferred that the said supporting units are connected substantially perpendicular to the upper surface 19 of the elongated base 11.

The upper ends of the said supportive units 14 and 15 are connected to longitudinal bar or top unit 16 that extends parallel to the said base 11, forming and upside down U shaped bridge over the base 11 and creating internal aperture 18 in the middle of handle 10. Although the longitudinal bar and the supporting units are herein described as independent units they may be made as a single unit forming the corresponding arch to be connected to the elongated base in order to create the required aperture 18.

The said aperture 18 allows the user four fingers: index, middle, ring and little to be inserted through the said aperture while the structure of the handle provided support to the whole hand as illustrated in FIGS. 11 and 12.

Similarly, FIG. 2 illustrates a variation or embodiment of the invention handle 20 which is designed for use by right handed or ambidextrous persons particularly. It is intended that at the said handle 20 is connected to an operational or functional unit at the proximal end 32 of the said handle. The elongated base 21 is designed to rest upon flat surfaces on its lower surface and it may have ergonomic designs known in the art over its upper surface 29 or its lower surface 35. Connected at near the proximal and distal end 32 and 33 of the upper surface 29 of elongated base 21 are the lower ends of supporting units 23 and 24 respectively. While the said supporting units may be connected to the said base 21 in a variety of manners, it is preferred that they are connected substantially perpendicular to the said base 21.

Just as in FIG. 1, the upper ends of the said supportive units 23 and 24 are connected to longitudinal bar or top unit 22 that extends parallel to the said base 21, forming and upside down U shaped bridge over the base 21 and creating internal aperture 30 in the middle of handle 20. As in FIG. 1, although the longitudinal bar and the supporting units are herein described as independent units they may be made as a single unit forming the corresponding arch to be connected to the elongated base in order to create the required aperture 30.

The said aperture 30 allows the user four fingers: index, middle, ring and little fingers to be inserted and accommodated as illustrated in FIGS. 11 and 12. Once the hand is close, the hand’s palm is supported by base 21 while the external part of the hand is surrounded by the upside down U shaped framework formed by top and supporting units 23 and 24. Embodiment illustrated in FIG. 2 also requires holding units 25 and 26, which are shown at the right lateral sides of supporting units 23 and 24, creating together with the said lateral sides the openings 27 and 28, respectively. The said openings 27 and 28 are intended to be optionally used in order to give even more attachment of the user hand to the utensil,
whenever it is needed, by grappling a band made of velcro or similar material around the hand after passing the said band through openings 27 and 28 as illustrated in FIGS. 11 and 12. Holding units 25 and 26 are located at the right side of handle 20 since that is the embodiment of the invention designed to be used by right handed or ambidextrous people.

Similarly, FIG. 3 represents an embodiment of the invention showing a handle 40 that essentially and structurally is similar to handle 20, with the main difference that the said handle 40 has the holding units 45 and 46 at the left lateral sides of supporting units 43 and 44. The said design is intended to facilitate the grasping of the utensil to left handed people.

Regarding FIGS. 4 through 6 are pictorial representations of operational or functional units using a spoon bowl as an example. It should be noticed that the spoon bowls in the said figures are a mere example and that functional unit may be any other functional or operational unit that requires a hand held utensil to perform a given activity, as previously indicated herein. All operational units share in common a stem extended from their main body. In FIG. 3, the spoon bowl 60 has a right curved stem 61 extending from its main body and connected to the said main body at the proximal end 64. The right curved configuration of the stem in the functional or operational unit illustrated in FIG. 4 facilitates the use of the implement by ambidextrous and preferably right handed users as illustrated also in FIG. 11.

Similarly, in FIG. 5, spoon bowl 65 has a left curved stem 66 extended from its main body and connected to the said main body at the proximal end 67. The left curved configuration of the stem in the functional or operational unit illustrated in FIG. 5 facilitates the use of the implement by ambidextrous and preferably left handed users as illustrated in FIG. 12.

Likewise, in FIG. 6, spoon bowl 70 has a straight stem 72 extended from its main body and connected to the said main body by the stem proximal end 71. The stem configuration in the functional or operational unit illustrated in FIG. 6 facilitates the use of the implement by ambidextrous users.

FIGS. 7 through 10 are pictorial representations of an eating utensil according to the invention, wherein the spoon as been used as a representative example and wherein it is understood that the changes of the operational or functional unit by any other functional unit just result in an equivalent utensil within the scope of the invention. The represented utensil is obtained by connecting the described functional or operational unit to any one of the handle embodiments. FIGS. 7 and 8 represent utensils having right handed orientation handle for use of right handed or ambidextrous persons. FIG. 7 particularly illustrates utensil 81 having a stem 82 in a right-curved handed configuration. The said stem 82 help to reduce the movement of the user’s wrist while the structural frame of the handle 83 facilitates the grasping of the utensil.

Utensil 85 shown in FIG. 8 is similar to the embodiment illustrated in FIG. 7. However the stem 86 has a straight stem configuration allowing the utensil to be used by right handed or ambidextrous people.

On the other hand, FIGS. 9 and 10 are pictorial representations of utensils with left handed orientation handle for left handed persons. More particularly, FIG. 9 represents the embodiment of the invention 88 having a straight stem configuration 89 while FIG. 10 shows the embodiment of the invention 90 comprising stem 92 having a left curved configuration, which facilitates the use of the utensil to left handed persons.

In practical terms, the use of the items is illustrated in FIGS. 10 and 11, wherein a right handed and a left handed person are showing using the utensils, respectively. As illustrated the user’s fingers are inserted though the aperture at the center of the utensil and the upper part of the hand is supported by the U shaped bridge 98, thus giving support to the user hand and facilitating the grasping of the utensil. Optionally, stripe band 95 is passed through holding units 91 and 92 of FIG. 11 or holding units 93 and 94 on FIG. 12 providing an even extra support of the users hand to the utensil in order to facilitate the use of the utensil particularly to those users having medical conditions producing involuntary movement of the hand or affecting the strength of the muscles in the hand and/or arm. Stripe 95 may be accommodated around the user’s hand in multiple ways different to the ones illustrated in FIGS. 11 and 12 depending of the state of comfort of the user.

The components of the utensils may be constructed of suitable materials used in common hand held utensils. The said components may be prepared independently to further assemble and prepare the independent and complete utensil or they may be as made in a single piece item. Particularly, eating utensils embraced in the invention may be made of metal such as stainless steel, silver or suitable alloys or from injection moldable plastics approved by the corresponding regulatory agencies.

While the invention has been described with reference to preferred embodiments, it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications, particularly in shape or size may be made to adapt a particular situation or material to the teachings of the invention without departing from the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiment disclosed as the best modes contemplated for carrying out the invention, but that the invention will include all embodiments falling within the scope of the appended claims.

What is claimed is:

1. A handle for hand held utensils comprising:
   a) an elongated base, having an upper surface and a lower surface and a proximal end and a distal end, wherein the proximal end is connected to a functional unit;
   b) two supporting units having an upper end and a lower end, wherein the said lower end of the said supporting units are connected to the said upper surface of the said elongated base and;
   c) a top longitudinal bar that extends parallel to the said base having two opposite ending extremes which are physically connected to the upper ends of each one of the supporting units, wherein the connection of the said top longitudinal bar with the said upper section of the supporting units forms an upside down U shaped-bridge over the said upper surface of the said base; thus defining an internal aperture in the center of the said handle wherein the fingers of the user are inserted in order to facilitate the grasping of the utensil.

2. The handle as recited on claim 1, wherein the said two supporting units are connected substantially perpendicularly on the extremes of said upper surface of the said elongated base.
3. The handle as recited in claim 1, further comprising two holding units connected to the same lateral side of each one of the two supporting units.

4. The handle as recited in claim 3 further comprising a supporting band or stripe that is passed through the said holding units and around the exterior surface of the user hand.

5. The handle recited in claim 3, wherein the said holding units are connected to the right side of each one of the two supporting units.

6. The handle recited in claim 3, wherein the said holding units are connected to the left side of each one of the two supporting units.

7. The handle recited in claim 1, wherein the said functional unit is selected from the group consisting of a spoon bowl, spork bowl, knife blade, can opener blades, spatula base, peeler blades, ice cream scoop bowl, fork prongs or any possible combinations thereof.

8. An eating utensil comprising means for manipulating food, an stem with a proximal end connected to the said means for manipulating food and a distal end connected to a handle, wherein the said handle comprises:
   a) an elongated base adapted to rest upon a horizontal position, having an upper surface and a lower surface and a proximal end and a distal end and wherein the proximal end is connected to the distal end of the said stem;
   b) two supporting units having an upper end and a lower end wherein the said lower end of the said supporting units are connected to the said base upper surface of the said elongated base;
   c) a top longitudinal bar that extends parallel to the said base having two opposite ending extremes, which are physically connected to the upper ends of each one of the supporting units; wherein the connection of the said top longitudinal bar with the said upper section of the supporting units forms an upside down U shaped bridge over the said upper surface of the said base; thus defining an internal aperture in the center of the said handle wherein the fingers of the user are inserted in order to facilitate the grasping of the utensil.

9. The eating utensil as recited in claim 8, further comprising two holding units connected to the lateral side of each one of the two supporting units.

10. The eating utensil as recited in claim 9, wherein the holding units are placed at the right side of the said handle.

11. The eating utensil as recited in claim 9, wherein the said holding units are placed at the left side of the said handle.

12. The eating utensil as recited in claim 9, further comprising an optional supporting band or stripe that is passed through the said holding units and around the user hand to provided additional grasping of the utensil.

13. The eating utensil as recited in claim 12, wherein the optional band is a velcro type band.

14. The eating utensil as recited in claim 9, wherein the said stem has a straight configuration.

15. The eating utensil as recited in claim 9, wherein the said stem has a right curved configuration.

16. The eating utensil as recited in claim 9, wherein the said stem has a left curved configuration.

17. The eating utensil as recited in claim 10, wherein the said stem is curved to the right side of the handle.

18. The eating utensil as recited in claim 11, wherein the said stem is curved to the right side of the handle.

19. The eating utensil as recited in claim 8, wherein the said eating utensil is selected from the group consisting of spoon, spork, fork, knife, spatula, knife, or any possible combination thereof.

20. A hand held utensil comprising a handle wherein the said handle comprises:
   a) an elongated base, having an upper surface and a lower surface and a proximal end and a distal end, wherein the proximal end is connected to a functional unit;
   b) two supporting units having an upper end and a lower end, wherein the said lower end of the said supporting units are connected to the said upper surface of the said elongated base;
   c) a top longitudinal bar that extends parallel to the said base having two opposite ending extremes which are physically connected to the upper ends of each one of the supporting units; wherein the connection of the said top longitudinal bar with the said upper section of the supporting units forms an upside down U shaped bridge over the said upper surface of the said base; thus defining an internal aperture in the center of the said handle wherein the fingers of the user are inserted in order to facilitate the grasping of the utensil and;
   d) optionally, two holding units connected to the same lateral side of each one of the two supporting units wherein a supporting band or stripe that is passed through the said holding units and around the exterior surface of the user hand.