EASILY ATTACHABLE CUP HANDLE

An improved cup handle easily attachable to a beverage cup is described. The cup handle includes: a back portion; a top portion; a bottom portion; a front portion, and an optimized locking mechanism with a blade including an inwardly arcuate shape.
Fig. 1

PRIOR ART
EASILY ATTACHABLE CUP HANDLE

TECHNICAL FIELD

[0001] The present invention relates to an improved cup handle, which is easily attachable to a beverage cup, typically to a rim around a disposable cup for a hot beverage, characterized by a simplified attachment technique as well as by improved attachment stability and enhanced weights carrying capability.

BACKGROUND ART

[0002] It is believed that the current state of the art is represented by the following patent literature: WO2013163725, U.S. Pat. No. 6,588,064, U.S. Pat. No. 5,788,298, JP2004121539, U.S. Pat. No. 4,993,675 and U.S. Pat. No. 1,848,649, WO2013163725, U.S. Pat. No. 6,588,064 are U.S. Pat. No. 5,788,298 believed to be the most pertinent disclosures.

[0003] WO2013163725 discloses a reusable handle for cups. According to WO2013163725, the handle includes a handle portion and a quick-mount mechanism, mounted on the handle portion and being adapted for removable attachment to the disposable cup. According to WO2013163725 the handle portion and the quick-mount mechanism are made of at least one durable material.

[0004] U.S. Pat. No. 6,588,064 discloses detachable cup handle, constructed to be conveniently and detachably fastened to a cup. The detachable cup handle of U.S. Pat. No. 6,588,064 is also advantageously reusable and includes a curved hand grip section for holding by the user’s hand, a vertical support section to support the hand grip section, and a retainer section for clamping on a rim of the cup. The retainer section in U.S. Pat. No. 6,588,064 includes a clamping wall portion for engaging a rim of the cup so as to interlockingly couple the detachable cup handle to the cup’s rim. The clamping wall portion in U.S. Pat. No. 6,588,064 has a tapered construction for providing additional cup gripping/clamping means.

[0005] U.S. Pat. No. 5,788,298 discloses detachable cup handle injection molded from plastic and adapted for securing a disposable cup for conveniently carrying the cup by hand. The detachable cup handle of U.S. Pat. No. 5,788,298 has a curved hand grip section for the holding of the hand, a vertical support section extended from a bottom end of the hand grip section and adapted for attaching to the periphery of the disposable cup to support the cup handle, and a retainer section extended from a top end of the hand grip section and defining with a top end of the support section a clamping space for clamping on the rim of the disposable cup.

SUMMARY OF THE INVENTION

[0006] There is provided in accordance with embodiments of the present invention an improved cup handle, which is easily attachable to a beverage cup, typically to a rim around a disposable cup for a hot beverage, characterized by a simplified attachment technique.

[0007] There is further provided in accordance with embodiments of the present invention an improved cup handle characterized by improved attachment stability and by enhanced capability of carrying larger weights than prior art handles.

[0008] There is yet further provided in accordance with embodiments of the present invention an improved cup handle configured for a singular or onetime use.

[0009] There is still further provided in accordance with embodiments of the present invention an improved cup handle characterized by enhanced stiffness and decreased elastic properties.

[0010] There is yet still further provided in accordance with embodiments of the present invention an improved cup handle characterized by an ability of being attached to and effectively lifting a cup with cover as well as a cup without a cover.

Technical Problem

[0011] One technical problem underlying the present invention is to provide an improved cup handle, which is easily attachable to a rim around a disposable cup for a hot beverage, with an enhanced compressing force exerted by the locking mechanism.

[0012] Another technical problem underlying the present invention is to provide an improved cup handle, which is easily attachable to a rim around a disposable cup for a hot beverage, having an optimized configuration of the locking mechanism configured to sustain lifting larger weights.

Solution to Problem

[0013] In order to sustain lifting larger weights, various constituents of the locking mechanism of the improved cup handle according to various embodiments of the present invention comprise several modifications and optimizations.

[0014] In order to achieve an enhanced compressing force exerted by the locking mechanism the improved cup handle according to various embodiments of the present invention is made of a polymeric material characterized by enhanced stiffness and decreased elastic properties.

Advantageous Effects of Invention

[0015] The improved cup handle according to various embodiments of the present invention is instantly attachable to a rim around a disposable cup for a hot beverage, optionally including a top cover, solely by the intrinsic bias thereof.

[0016] The improved cup handle according to various embodiments of the present invention is further capable of sustaining lifting larger weights.

[0017] Ultimately the improved cup handle according to various embodiments of the present invention is capable of being attached to as well as effectively lifting a cup with cover as well as a cup without a cover.

[0018] It should be understood, however, that the eclectically synopsized brief summary supra is not to limit the invention to the particular forms and examples, but on the contrary, is to cover all modifications, equivalents, and alternatives falling within the scope of the invention.

DESCRIPTION OF THE DRAWINGS

[0019] The present invention will be understood and appreciated more comprehensively from the following detailed description taken in conjunction with the appended drawings in which:

[0020] FIG. 1 is an isometric view of a prior art handle, according to WO2013163725;

[0021] FIG. 2A is a side view of a prior art handle, according to U.S. Pat. No. 6,588,064;
FIG. 2B is an enlarged side view of the prior art handle of U.S. Pat. No. 6,588,064; FIG. 3A is a side view of a prior art handle, according to U.S. Pat. No. 5,788,298; FIG. 3B is an enlarged side view of the prior art handle of U.S. Pat. No. 5,788,298; FIG. 4A is an isometric view of an improved cup handle according to an embodiment of the present invention; FIG. 4B is an enlarged isometric view of a locking mechanism of an improved cup handle according to an embodiment of the present invention; FIG. 5 is a front view of an improved cup handle according to an embodiment of the present invention; FIG. 6 is a back view of an improved cup handle according to an embodiment of the present invention; FIG. 7 is a side view of an improved cup handle according to an embodiment of the present invention; FIG. 8A is an enlarged side view of an improved cup handle according to an embodiment of the present invention appended towards a cup, including abscissa and ordinate axes; FIG. 8B is an enlarged side view of an improved cup handle according to an embodiment of the present invention attached to a rim of cup; FIG. 9 is an isometric view of an improved cup handle according to another embodiment of the present invention; FIG. 10 is an isometric view of an improved cup handle according to yet another embodiment of the present invention.

While the invention is susceptible to various modifications and alternative forms, specific embodiments thereof have been shown merely by way of example in the drawings. The drawings are not necessarily complete and components are not essentially to scale; emphasis instead being placed upon clearly illustrating the principles underlying the present invention.

DETAILED DISCLOSURE OF EMBODIMENTS

Illustrative embodiments of the invention are described below. In the interest of clarity, not all features of actual implementation are described in this specification. It will of course be appreciated that in the development of any such actual embodiment, numerous implementation-specific decisions must be made to achieve the developers' specific goals, such as compliance with technology- or business-related constraints, which may vary from one implementation to another. Moreover, it will be appreciated that the effort of such a development might be complex and time-consuming, but would nevertheless be a routine undertaking for those of ordinary skill in the art having the benefit of this disclosure.

In order to present the background for the inventive concept more vividly, reference is now made to FIG. 1, showing a reusable handle for cups shown in FIG. 1 to and lift a disposable cup with a cover, as shown in FIGS. 1 and 3-4 of WO2013163725, the reusable handle for cups shown in FIG. 1 includes quick-mount mechanism mounted to the handle portion. The quick-mount mechanism requires an additional step of actively locking the quick-mount mechanism, see for instance paragraphs [0034] and [0036] of WO2013163725, order to attain a sufficient compressing force, so as to removably attach the reusable handle for cups shown in FIG. 1 to and lift a disposable cup with a cover.

Reference is now made to FIGS. 2A and 2B, showing a detachable cup handle of U.S. Pat. No. 6,588,064, described in more details in column 5 lines 1 to 42 as well as FIGS. 6 and 7 of U.S. Pat. No. 6,588,064. Notably the detachable cup handle of U.S. Pat. No. 6,588,064, shown in FIGS. 2A and 2B, is suboptimal for attaining a sufficient compressing force, so as to attach the detachable cup handle to and lift a disposable cup with a cover.

Reference is now made to FIGS. 3A and 3B, showing a detachable cup handle of U.S. Pat. No. 5,788,298, described in more details in column 2 lines 1 to 55 as well as FIGS. 4 and 5 of U.S. Pat. No. 5,788,298, which are incorporated herein by reference. Notably the detachable cup handle of U.S. Pat. No. 5,788,298, shown in FIGS. 2A and 2B, is suboptimal for attaining a sufficient compressing force, so as to attach the detachable cup handle to and lift a disposable cup with a cover.

In accordance with some preferred embodiments of the present invention reference is now made to FIGS. 4A and 8B, respectively showing improved cup handle 200 and locking mechanism 210. Cup handle 200 comprises locking mechanism 210 disposed oppositely to back portion 212. Back portion 212 forms a continuum with top portion 214 and bottom portion 218. Top portion 214 comprises frontal extension 216. Top portion 214 optionally comprises lateral appendages 226.

Bottom portion 218 preferably embodies an inwardly arcuate shape. Bottom portion 218 extends towards and forms a continuum with front portion 222. Bottom portion 218 extends towards and forms a continuum with bottom portion 224. Front bottom portion 224 optionally comprises lateral appendages 228.

Front portion 222 forms a continuum with blade 220. Blade 220 typically embodies an inwardly arcuate shape, so as to exert a greater force on the pointed front edge thereof. Blade 220 comprises an arcuate front face and back face. Blade 220 optionally comprises planar back face 230, slanted towards the bottom. As can be particularly seen in FIG. 8A, back planar face 230 of blade 220 defines an acute angle between the front arcuate face of blade 220. It is noted that prior art handles according to WO2013163725, U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 comprise a blade where a back planar face does not define an acute angle to the front arcuate face of the blade. Thus WO2013163725, U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 describe blades where a front planar face defines an acute angle to the back arcuate face of the blade. The inventor has extensively experimented with various configurations of the blade and has established that the configuration of blade 220 where back planar face 230 defines an acute angle to the front arcuate face of blade 220 is particularly beneficial for exerting a greater compressing force by blade 220 of locking mecha-
nism 210 onto circular rim 252, allowing lifting cup 250, with a cover (not shown), of lager weights with handle 220.

[0043] Moreover, as can be appreciated from FIG. 8A, planar face 230 of blade 220 defines a reflex angle ranging between 300 and 340 degrees relatively to absissa X. It is noted that prior art handles according to U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 do not comprise a blade where a planar face defines an acute angle between the front acute face of the blade. Thus U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 describe blades where a planar face defines a reflex angle of about 270 degrees relatively to absissa X, essentially parallelizing to ordinate Y. The inventor has extensively experimented with various configurations of the blade and has established that the configuration of blade 220 where planar face 230 defines a reflex angle ranging between 300 and 340 degrees relatively to the absissa X is particularly beneficial for exerting a greater compressing force by blade 220 of locking mechanism 210 onto circular rim 252, allowing lifting cup 250, with a cover (not shown), of lager weights with handle 220.

[0044] Alternatively or additionally blade 220 comprises lateral extensions 232. As can be particularly seen in FIG. 4A to 6, lateral extensions 232 define a widened pointed terminal portion of blade 220, wherein the width of the front edge of the pointed terminal portion of blade 220 is larger than the base portion of blade 220. It is noted that prior art handles according to WO2013163725, U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 do not comprise lateral extensions that define a widened pointed terminal portion of the blade, wherein the width of the front edge of blade pointed front portion of the blade. Thus WO2013163725, U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 describe blades where the front portion of the blade is of a uniform width relatively to the rest of the blade, so that the width of the terminal portion of the blade is essentially of the same width as the base of the blade. The inventor has extensively experimented with various configurations of the blade and has established that the configuration of blade 220 with lateral extensions 232 which define a widened pointed terminal portion of blade 220, wherein the width of the front edge of the pointed terminal portion of blade 220 is larger than the base portion of blade 220, is particularly beneficial for exerting a greater compressing force by blade 220 of locking mechanism 210 onto circular rim 252 allowing lifting cup 250, with a cover (not shown), of lager weights with handle 220.

[0045] Frontal extension 216 of top portion 214 preferably comprises a slanted back planar face, which terminates with upwardly pointed backward edge 234. Slanted back planar face of frontal extension 216 preferably defines a reflex angle of about 250 degrees relatively to absissa X. It is noted that prior art according to WO2013163725, U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 do not teach handles comprising a slanted back planar face which terminates with an upwardly pointed backward edge. Thus WO2013163725, U.S. Pat. No. 6,588,064 and U.S. Pat. No. 5,788,298 describe frontal extensions comprise an arcuate back face without any upwardly pointed backward edge. The inventor has extensively experimented with various configurations of the blade and has established that the configuration of blade 220, with a slanted back planar face, which terminates with upwardly pointed backward edge 234, is particularly beneficial for attachment of cup handle 200 to cups without covers, as can be seen in FIGS. 8A and 8B.

[0046] Referring to FIGS. 5 and 7 shows cogs 240, disposed on front portion 222 and bottom front portion 224. Cogs 240 terminate with a pointed tip, configured to affix handle 200 to the surface of cup 250. Upon lifting cup 250 a force is exerted by front portion 222 and bottom front portion 224 in the direction of the exterior surface of cup 250. Consequently the pointed tips of cogs 240 affix handle 200 and prevent any sliding thereof over the surface of cup 250. Cogs 240 are an effective substitution to the flanking wings, such as flanking wings on the cup handle disclosed in U.S. Pat. No. 6,588,064. The lengths of cogs 240 is not sufficient to penetrate throughout cup 250 but rather to merely scratch and/or form minute indentations in the exterior surface of cup 250.

[0047] Handle 200 typically further comprises inner bumper extension 236, disposed on the bottom face of top portion 214. Inner bumper extension 236 is configured to prevent the sliding of rim 252 of cup 250 backwards.

[0048] According to another embodiment of the present invention reference is now made to FIG. 9 showing improved cup handle 260. Handle 260 comprises locking mechanism 210 as well as essentially the same constituents as handle 200, shown in FIG. 4A to 8B, but has a modified front bottom portion 262. Front bottom portion 262 embodies a circular or discoid shape, preferably resembling a coin. Front bottom portion 262 is optionally introducible into a coin operated lock of supermarket carts.

[0049] According to another embodiment of the present invention reference is now made to FIG. 10 showing improved cup handle 270. Handle 270 comprises locking mechanism 210 as well as essentially the same constituents as handle 200, shown in FIG. 4A to 8B, but has a modified front bottom portion 272. Front bottom portion 272 embodies a smaller shape, optimized for smaller cups as well as requiring less material.

[0050] It is noted that according to the present invention improved cup handles 210, 260 and 270, shown in FIG. 4A to 8B, comprising optimized locking mechanism 210, sustain attaching handles 210, 260 and 270 to cups with cover as well as without cover. Moreover it will be appreciated that improved locking mechanism 210, optimized to sustain a greater compressing force, thereby allowing handles 210, 260 and 270 to lift larger cups 250, particularly cups compliant with size standards of 3 oz, 4 oz, 6 oz, 7 oz, 8 oz, 9 oz, 10 oz, 12 oz, 16 oz, 20 oz, 22 oz, 32 oz and 64 oz, inter alia with standard covers.

[0051] It is noted that according to the present invention improved cup handles 210, 260 and 270, shown in FIG. 4A to 8B, comprising optimized locking mechanism 210, sustain attaching handles 210, 260 and 270 the physical parameters of which are set forth in TABLE 1, inter alia with standard covers.

<table>
<thead>
<tr>
<th>Cup Capacity</th>
<th>Cup Size</th>
<th>Top</th>
<th>Bottom</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 ml</td>
<td>4 oz</td>
<td>63</td>
<td>44</td>
<td>64</td>
</tr>
<tr>
<td>190 ml</td>
<td>6 oz</td>
<td>72</td>
<td>53</td>
<td>76</td>
</tr>
<tr>
<td>220 ml</td>
<td>7 oz</td>
<td>74</td>
<td>52</td>
<td>83</td>
</tr>
<tr>
<td>280 ml</td>
<td>8 oz</td>
<td>80</td>
<td>52</td>
<td>92</td>
</tr>
<tr>
<td>300 ml</td>
<td>10 oz</td>
<td>90</td>
<td>60</td>
<td>95</td>
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<tr>
<td>400 ml</td>
<td>12 oz</td>
<td>90</td>
<td>60</td>
<td>110</td>
</tr>
<tr>
<td>510 ml</td>
<td>16 oz</td>
<td>90</td>
<td>61</td>
<td>135</td>
</tr>
<tr>
<td>600 ml</td>
<td>20 oz</td>
<td>90</td>
<td>62</td>
<td>150</td>
</tr>
</tbody>
</table>
TABLE 1-continued

<table>
<thead>
<tr>
<th>Cup Capacity</th>
<th>Cup Size</th>
<th>Top</th>
<th>Bottom</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>660 ml</td>
<td>22 oz</td>
<td>90</td>
<td>61.5</td>
<td>168</td>
</tr>
<tr>
<td>720 ml</td>
<td>24 oz</td>
<td>90</td>
<td>63</td>
<td>177</td>
</tr>
<tr>
<td>960 ml</td>
<td>32 oz</td>
<td>104</td>
<td>71</td>
<td>180</td>
</tr>
<tr>
<td>550 ml</td>
<td>16 oz-E</td>
<td>95</td>
<td>61.5</td>
<td>120</td>
</tr>
<tr>
<td>700 ml</td>
<td>22 oz-E</td>
<td>95</td>
<td>61.5</td>
<td>148</td>
</tr>
</tbody>
</table>

As can be seen in FIG. 8A, handle 200 is initially appended cup 250 so that locking mechanism 210 is disposed above rim 252. Then, in order to lock locking mechanism 210, as seen in FIG. 8B, the user slightly pulls bottom portion 218 in a downward direction, namely in the negative direction of ordinate Y, so that blade 220 spontaneously snaps into place.

Thereafter the user can lift and tilt cup 250 by holding handle 200. As opposed to WO2013163725, handle 200 obviates the need in an addition step of actively locking the locking mechanism, which is required WO2013163725, since handle 200 is spontaneously activated and blade 220 automatically snaps into place, merely by slightly pulling bottom portion 218 in a downward direction, namely in the negative direction of ordinate Y.

It will be appreciated by persons skilled in the art that the present invention is not limited by what has been particularly shown and described herein above. Rather the scope of the invention is defined by the claims which follow:

1. An improved cup handle, said cup handle is easily attachable to at least one object selected from the group consisting of: a beverage cup and a cover disposed on top of said beverage cup, said cup handle comprises:
   (a) a back portion, said back portion comprising an polymeric material configured to sustain a biasing counter force upon distortion;
   (b) a top portion forming a continuum with said back portion;
   (c) a bottom portion forming a continuum with said back portion;
   (d) a front portion forming a continuum with said bottom portion;
   (e) an optimized locking mechanism disposed oppositely to said back portion, said locking mechanism comprising:
      (i) a frontal extension extending essentially perpendicularly from said top portion towards bottom, said frontal extension is configured to at least one object selected from the group consisting of: said beverage cup and said cover disposed on top of said beverage cup;
      (II) an inner bumper extension, disposed on a bottom face of said top portion, said inner bumper extension is configured to prevent sliding of a rim of said beverage cup in a backward direction;
      (III) a blade forming a continuum with said front portion, said blade embodies an inwardly arcuate shape, said blade comprising:
         (i) a pointed front edge configured to exert a greater compressing force onto said rim of said beverage cup;
         (ii) an arcuate front face configured to exert a greater pressing force towards said beverage cup;
         (iii) an arcuate back face configured to exert a greater pressing force towards said beverage cup;
   (iv) a planar top face, slanted backwards and towards bottom;
   (v) lateral extensions extending sidewide from said blade, said lateral extensions define a widened pointed terminal portion of said blade;
   wherein a width of said pointed front edge on said pointed terminal portion of said blade is larger than a width of a base portion of said blade;
   (vi) a back planar face of said frontal extension of said top portion, said back planar face is slanted downwards in a frontal direction;
   wherein said back planar face of said frontal extension which terminates with an upwardly pointed backward edge configured for attachment of said beverage cup without said cover;
   (f) a bottom front portion forming a continuum with said bottom portion and said front portion;
   (g) a plurality of cogs, disposed on a portion selected from the group consisting of: said front portion and said bottom front portion; said cogs terminate with a pointed tip, configured to affix said handle to a surface of said beverage cup.

2. The improved cup handle as set forth in claim 1, wherein said cup handle is easily attachable to said beverage cup by performing the following steps:
   (a) appending said cup handle towards said beverage cup, so that locking mechanism is disposed above said rim of said beverage cup; and
   (b) slightly pulling said bottom portion in a downward direction, thereby spontaneously driving blade into place and automatically activating said locking mechanism.

3. The improved cup handle as set forth in claim 1, wherein said bottom portion embodies an inwardly arcuate shape.

4. The improved cup handle as set forth in claim 1, wherein said top portion comprises lateral appendages, defining a widened surface.

5. The improved cup handle as set forth in claim 1, wherein said front bottom portion comprises lateral appendages, defining a widened surface.

6. The improved cup handle as set forth in claim 1, wherein said planar face of said blade defines a reflex angle ranging between 300 and 340 degrees relatively to an abscissa axis.

7. The improved cup handle as set forth in claim 1, wherein said front bottom portion embodies a circular or discoid shape, operationally introducible into a coin operated lock of supermarket carts.

8. The improved cup handle as set forth in claim 1, wherein said front bottom portion is shortened.

9. An improved cup handle, said cup handle is easily attachable to at least one object selected from the group consisting of: a beverage cup and a cover disposed on top of said beverage cup, said cup handle comprises:
   (a) a back portion, said back portion comprising an polymeric material configured to sustain a biasing counter force upon distortion;
   (b) a top portion forming a continuum with said back portion;
   (c) a bottom portion forming a continuum with said back portion;
   (d) a front portion forming a continuum with said bottom portion;
(e) an optimized locking mechanism disposed oppositely to said back portion, said locking mechanism comprising:
   (I) a frontal extension extending essentially perpendicularly from said top portion towards bottom, said frontal extension is configured to engage at least one object selected from the group consisting of: said beverage cup and said cover disposed on top of said beverage cup;
   (II) an inner bumper extension, disposed on a bottom face of said top portion, said inner bumper extension is configured to prevent sliding of a rim of said beverage cup in a backward direction;
   (III) a blade forming a continuum with said front portion, said blade embodies an inwardly arcuate shape, said blade comprising:
      (i) a pointed front edge configured to exert a greater compressing force onto said rim of said beverage cup;
      (ii) an arcuate front face configured to exert a greater pressing force towards said beverage cup;
      (iii) an arcuate back face configured to exert a greater pressing force towards said beverage cup;
      (iv) a planar top face, slanted backwards and towards bottom;
   (f) a bottom front portion forming a continuum with said bottom portion and said front portion; wherein said cup handle is easily attachable to said beverage cup by performing the following steps:
      (i) appending said cup handle towards said beverage cup, so that locking mechanism is disposed above said rim of said beverage cup; and
      (ii) slightly pulling said bottom portion in a downward direction, thereby spontaneously driving blade into place and automatically activating said locking mechanism.
10. The improved cup handle as set forth in claim 9, wherein said planar top face of said blade defines an acute angle relatively to said front arcuate face of said blade.

11. The improved cup handle as set forth in claim 9, wherein said blade further comprises lateral extensions extending sidewise from said blade, said lateral extensions define a widened pointed terminal portion of said blade; wherein a width of said pointed front edge on said pointed terminal portion of said blade is larger than a width of a base portion of said blade.
12. The improved cup handle as set forth in claim 9, wherein said frontal extension further comprises a back planar face slanted downwards in a frontal direction; wherein said back planar face of said frontal extension which terminates with an upwardly pointed backward edge configured for attachment of said beverage cup without said cover.
13. The improved cup handle as set forth in claim 9, further comprises a plurality of cogs, disposed on a portion selected from the group consisting of: said front portion and said bottom front portion; said cogs terminate with a pointed tip, configured to affix said handle to a surface of said beverage cup.
14. The improved cup handle as set forth in claim 9, wherein said bottom portion embodies an inwardly arcuate shape.
15. The improved cup handle as set forth in claim 9, wherein said top portion comprises lateral appendages, defining a widened surface.
16. The improved cup handle as set forth in claim 9, wherein said front bottom portion comprises lateral appendages, defining a widened surface.
17. The improved cup handle as set forth in claim 9, wherein said planar face of said blade defines a reflex angle ranging between 300 and 340 degrees relatively to an abscissa axis.
18. The improved cup handle as set forth in claim 9, wherein said front bottom portion embodies a circular or discoid shape, operationally introducible into a coin operated lock of supermarket carts.
19. The improved cup handle as set forth in claim 9, wherein said front bottom portion is shortened.

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