Title: PAPER CUP HOLDER AND THE HOLDER GLUED CUP

Abstract: A disposable paper container holder in the form of a circular-truncated-cone-shaped body having open top and bottom ends. The disposable paper container holder comprises a plurality of dimples distributed throughout the body. The dimples comprises a plurality of debossed dimples protruding inwardly from the body and a plurality of embossed dimples protruding outwardly from the body to maximize a distance between the inner and outer surface of the body, thereby providing an improved heat-shielding effect. The disposable paper container holder can be integrated with a disposable paper container to provide an integrated disposable paper container.
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Description

PAPER CUP HOLDER AND THE HOLDER GLUED CUP

Technical Field

[1] The present invention relates to holders for disposable paper containers, and particularly to a holder of a disposable paper container and the holders glued a cup which protects the user's hand when it is filled with hot drink.

Background Art

[2] Conventional disposable paper cup holders have been formed into circular-truncated-cone-shaped casings having open top and bottom ends. Representative examples of the conventional casings include a corrugated casing which consists of a body and a corrugated sheet attached to an inner periphery of the body, and a dimpled casing in which dimples are distributed throughout a body. However, the corrugated casing has drawbacks of complicated configuration and excessively high fabrication costs, and the dimpled casing does not achieve sufficient heat-shielding effects using the dimples alone. In particular, since conventional cup holders have been fabricated as disposable products, the conventional cup holders are preferably made of pulp obtained by beating old or waste paper. The resulting pulp-made paper cup holder is problematic because it is easily torn or bursts when adopting a relatively high height of dimples due to low surface tension thereof. Further, the larger the dimples, the easier the dimples are collapsed by grasping power of the user's hand when the user grips the cup holder. In conclusion, the dimpled paper cup holder has substantially less practical effect and utility.

Disclosure of Invention

Technical Problem

[3] Therefore, the present invention has been made in view of the above problems, and it is an object of the present invention to provide a holder for disposable paper cups wherein a holder body, which is made of pulp obtained by beating old or waste paper, is improved in configuration so as to achieve enhanced heat-shielding effects.

[4] When a disposable paper cup holder is made of old or waste paper, or the like, it is difficult to increase a height or size of dimples formed at a body of the cup holder, and this in turn makes sufficient heat-shielding effects difficult to achieve. As an effect to solve this problem, the inventor of the present invention has developed a disposable paper cup holder of the present invention wherein dimples are formed at a holder body to protrude inward and outward of the body. With this configuration, even if any one of the inwardly-protruding dimples and the outwardly-protruding dimples has a small height, a sufficient distance between a cup, received in the holder, and the user's hand
can be accomplished from a total height of both the corresponding inwardly-protruding and outwardly-protruding dimples. Allowing the small-height dimples in turn has the effect of allowing the cup holder to be made of old or waste paper. In addition, the inventor of the present invention proposes that at least one inwardly-protruding debossed dimple, having a smaller size than that of the outwardly-protruding embossed dimple, be positioned at the center of each outwardly-protruding embossed dimple, thereby serving as a post of the outwardly-protruding embossed dimple. As a result, the cup holder of the present invention has no risk of the embossed dimples collapsing by grasping power of the user's hand when the user grips the cup holder.

**Brief Description of the Drawings**

[5] Figs. 1A and 1B are perspective views illustrating different conventional cup holders;

[6] Fig. 2 is a perspective view illustrating a disposable paper container holder in accordance with an exemplary embodiment of the present invention;

[7] Fig. 3 is a sectional view of the disposable paper container holder shown in FIG. 2;

[8] Figs. 4A and 4B are development views and sectional views of disposable paper container holders in accordance with exemplary embodiments of the present invention; and

[9] Fig. 5 is a sectional view illustrating an integrated disposable paper container in accordance with an exemplary embodiment of the present invention.

**Best Mode for Carrying Out the Invention**

[10] In accordance with an exemplary embodiment of the present invention, a circular-truncated-cone-shaped holder 1 having open top and bottom ends and the casing comprises a body 2 having a plurality of dimples 3 which are distributed throughout the body 2 and are configured to protrude inward and outward of the body 2.

[11] When forming dimples on a paper made of new pulp rather than using recycled paper, the dimples can be formed to have a depth in a range of 4–5 mm and thus, can provide the paper with excellent heat-shielding effects. However, when dimples are formed using paper made of recycled pulp obtained by processing old or wastepaper, it can be difficult to obtain a required dimple height of 4 mm or more. To solve this problem, in accordance with an exemplary embodiment of the present invention, the dimples include debossed dimples 32 protruding inward from the body 2 and embossed dimples 31 protruding outward from the body 2. Preferably, the inwardly-protruding debossed dimples 32 and outwardly-protruding embossed dimples 31 have a height of 4 mm or less such that a total height of the corresponding inwardly-protruding and outwardly-protruding dimples is in a range of 3–8 mm. As a result, the disposable paper container holder 1 and the integrated disposable paper container 10 in accordance with an exemplary embodiment of the present invention can be fabricated
even using recycled pulp obtained by processing old or waste paper and the like.

[12] In accordance with an exemplary embodiment of the present invention, the inwardly-protruding debossed dimples 32 are configured to be smaller in size and number than the outwardly-protruding embossed dimples 31. This advantageously enables the embossed dimples 31 protruding outward from the body 2 to occupy a larger area than the debossed dimples 32 protruding inward from the body 2. This has added advantage in that the user's hand touches the outwardly-protruding dimples 31 without contacting the body 2, thereby protecting the user's hand from the hot beverage or food.

[13] In accordance with an exemplary embodiment of the present invention, the dimples 3 have a diameter in a range of 3~150 mm and a height in a range of 0.2~4 mm. In accordance with an aspect of the present invention, at least one debossed dimple 32 can be formed at each embossed dimple 31, when the outwardly-protruding embossed dimples 31 have a larger diameter and/or size than the debossed dimple 32. This has the effect of advantageously reinforcing the embossed dimple 31 and assuring a safe distance between the body 2 of the holder 1 or integrated disposable paper container 10 and the user's hand. As a result, the disposable paper container holder 1 of the present invention has no risk of being partially collapsed or distorted by grasping power of the user's hand.

[14] As apparent from the above description, the present invention provides a disposable paper container body 2 integrated with the cup 1.

[15] Although the exemplary embodiments of the present invention have been disclosed for illustrative purposes, those skilled in the art will appreciate that various modifications, additions and substitutions are possible, without departing from the scope and spirit of the invention as disclosed in the accompanying claims.
Claims

[1] A disposable paper container holder in the form of a circular-truncated-cone-shaped body2 having open top and bottom ends, comprising: a plurality of dimples distributed throughout the body2; and said dimples comprises a plurality of debossed dimples protruding inwardly from the body2 and a plurality of embossed dimples3 protruding outwardly from the body, wherein each debossed dimples are positioned in an area of a corresponding embossed dimples.

[2] A disposable paper container holder in the form of a circular-truncated-cone-shaped body2 having open top and bottom ends, comprising: a plurality of dimples3 distributed throughout the body2; and said dimples3 comprises a plurality of debossed dimples protruding inwardly from the body and a plurality of embossed dimples protruding outwardly from the body, wherein said plurality of embossed dimples occupy a large area of the body than said plurality of debossed dimples.

[3] A cup integrated with the holder claimed in claim 1 or 2.
INTERNATIONAL SEARCH REPORT

B65D 3/22(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 8: B65D 3/22, B65D 81/38, H60N 3/10

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models since 1975
Japanese utility models and applications for utility models since 1975

Electronic database consulted during the international search (name of database and, where practicable, search terms used)

eKIPASS (KIRO internal) & Keywords: cup, holder, dimple and similar terms

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>A</td>
<td>KR 10-2006-0003582 A (TORAY SAEHAN INC.) 01 January 2006 See abstract and figure 1.</td>
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☐ Further documents are listed in the continuation of Box C. ☒ See patent family annex.

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