Bottle Cap

Abstract: A cap for sealing a drink bottle, which is capable of being attached to and separated from the flange portion in the outer circumference of the bottle by a hook portion, is prepared. The structure of the cap provides a user's own conveniences and prevents loss of the cap, incoming of foreign substances into the bottle, degeneration of a drink and the risk of endangering user's health.
BOTTLE CAP

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a bottle cap which is capable of sealing and opening a bottle-type container filled with a liquid foodstuff.

2. Description of the Background Art

In general, a bottle which can contain beverages like Coca-Cola, drinking water, and alcoholic beverages has screws in its mouth to open and seal the bottle easily. And, a cap to seal and open the bottle also have screws so that the cap can combined to the mouth of the bottle.

However, as shown in Fig.1 and 2, since a cap (1) of the conventional technology moves downwardly to the mouth portion (3) of the bottle (2) while the cap is hung onto the mouth portion (3) of the bottle (2), there are interruptions in discharge of the contents when a user tilt the bottle (2) to pour down the contents.

In other words, by turning around the cap (1) from the mouth portion (3) of the bottle (2), the cap (1) is separated from the mouth portion (3) of the bottle (2), and, thereby the bottle (2) is opened and when the bottle (2) is tilted to discharge the contents, there can be interference between the contents and the cap (1) because the cap (1) separated from the mouth portion (3) of the bottle (2) is placed below the
mouth portion (3).

To prevent this problem, a user should hold the cap (1) with the other hand than the hand holding the bottle (2) to place the cap (1) above the pouring contents therefore it is difficult to pour down the contents into a cup and the like.

Especially while driving, since it is difficult to pour down a drink, a driver usually drinks directly from the bottle without pouring down into a cup. It imperils the safety of the driver because of driver's insufficient front view.

Though a user can pour down drink into a cup after separating the cap (1) completely from the bottle (2), the cap (1) separated can be lost easily. And then, the mouth portion (3) of the bottle (2) cannot be sealed, thereby there are risks of that foreign substances get into the bottle (2) and the contents spilled from the bottle (2).

**SUMMARY OF THE INVENTION**

The purpose of the present invention is to solve mentioned problems of the conventional bottle cap. In other words, the purpose of this invention is to render the cap do not disturb the discharge of the contents from the bottle by fixing the cap, so that it can provide conveniences to users.

The other purpose of the invention is to prevent the loss of the cap by making the cap inseparable from the bottle and it prevents users from ruining their health since the loss of the cap can cause the incoming of foreign substance to the bottle and the degeneration of a drink.

To achieve the goals, a bottle cap which can be attached to the flange portion
in the outer circumference of the mouth portion of the bottle by a hook portion placed in the outer circumference of the flange portion.

By a desirable example, a stopper is also placed in the flange portion to restrict movement of the cap.

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**BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a partial perspective-view of opened bottle illustrating the structure and function of the bottle cap by the conventional technology

Fig. 2 is a partial perspective-view of sealed bottle illustrating the structure of bottle cap by the conventional technology

Fig. 3 is a partial perspective-view of opened bottle by the present invention illustrating the structure and function of the bottle cap

Fig. 4 is a partial perspective-view of opened bottle illustrating a status of the cap being used by the present invention

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**DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS**

The invention will be described in detail by a desirable example.

As shown in Fig. 3 and 4, the cap (1) by this invention is used for the bottle (2) which contains such as beverages, drinking water, milk, and alcoholic beverages.

As mentioned before, the bottle (2) discharges the contents through its mouth portion (3) and the mouth portion (3) has screws in its outer circumference and flange portion (4) next to the screws.
The cap (1) to seal and open the bottle (2) also has screws in its inner circumference so that it can be combined to the bottle and usually the cap (1) has a sealing material inside.

The mentioned cap (1) has hook portion (5) in its outer circumference and the hook portion (5) has a structure which can be attached to and separated from the flange portion (4) of the bottle (2).

The hook portion (5) is a pair of hooks which have a space between them and are placed opposite to each other and they are extended from a certain place in the outer circumference of the cap (1). The distance between the hooks is same as the thickness of the flange portion (4) so that the hooks can be engaged to a certain place of the flange portion (4) by the space between them and each hook has roundly projecting shape.

Also a stopper (5) is added in the flange portion (4) to prevent the hooks from disengaging from the flange portion (4).

Now it will be described that how the cap (1) by the invention is used. The cap (1) which has sealed the bottle (2) should be turned to a side and separated from the mouth portion (3) of the bottle (2). And the hooks (5) in the cap (1) are engaged to the flange portion (4) so that the cap (1) can be combined to the bottle (2).

After the combination of the cap (1) and the bottle (2), the cap (1) is placed upwardly and the bottle (2) is tilted to discharge the contents.

The cap (1) by this invention does not interrupt the discharge of a drink since the cap is placed upside of the mouth portion (3) and does not move around even
without holding the cap by hand when the bottle (2) is tilted and the contents is

discharged.

It is an advantage which provides conveniences to users. And the cap by this
invention is not separated completely from the bottle therefore the cap cannot be lost.

Since a loss of the cap may cause the incoming of foreign substances into the bottle,
degeneration of a drink or a risk to endanger users' health, it is the other advantage
to prevent them.
CLAIMS

What is claimed is:

1. A bottle cap for sealing a drink bottle comprising a detachable flange portion formed integrally at the outer circumference of said bottle opening and a hook portion formed integrally at the flange portion itself.

2. The bottle cap defined in claim 1, wherein said flange portion has a stopper to restrict the movement of said bottle cap.
FIG. 1
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 B65D 41/04
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)
IPC7 B65D 41/00, 41/08, 43/06,43/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
KR,JP: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
IBM patent search, KIPO new patent search: "cap", "flange", "ring", "hook"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>JP 94-078261 U : Publication date : 4 November 1994 See figure 1,2,3,4 and abstract</td>
<td>1</td>
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<tr>
<td>A</td>
<td>JP 75-025956 U : Publication date : 25 March 1975 See figure 1,2,3 and abstract</td>
<td>1</td>
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Further documents are listed in the continuation of Box C.

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28 MARCH 2001 (28.03.2001)

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29 MARCH 2001 (29.03.2001)

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