



EUROPEAN PATENT SPECIFICATION

Date of publication of patent specification :
04.03.92 Bulletin 92/10

Int. Cl.⁵ : **B65D 41/16, B65D 55/02**

Application number : **89300173.5**

Date of filing : **10.01.89**

A protective cap for container discharge valves, in particular beer taps for draught beer kegs.

Priority : **11.01.88 DK 96/88**

Date of publication of application :
19.07.89 Bulletin 89/29

Publication of the grant of the patent :
04.03.92 Bulletin 92/10

Designated Contracting States :
AT BE DE FR GB IT NL

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EP 0 324 573 B1

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Description

The invention relates to a protective cap for container discharge valves, in particular beer taps for draught beer kegs, comprising a top plate and a skirt formed integrally therewith and provided with inwardly resilient, obliquely upwards directed catches which are preferably arranged pairwise or groupwise in the circumferential direction and are adapted to abut on the underside of a collar on the discharge valve to thereby prevent removal of the cap without visual damage thereto.

In a protective cap of the above type disclosed in DE-A-34 17 812 and primarily functioning as a so-called pilferproof seal, the skirt includes a plurality of circumferentially equidistant apertures or "windows" that may extend quite up to the upper edge of the skirt and accommodate a respective catch which via a breaking point is integral with the skirt at the lower edge of the aperture or window.

When it is desired to provide such a cap by die-casting from an appropriate plastics material a rather complicated casting mould is required, if the catches are to be cast in their final, inwardly inclined position. A simpler casting mould may be used, provided the cap be cast with the catches disposed in the apertures of the skirt, but in that case the catches must in a subsequent operation be urged to occupy their inwards and upwards directed position in which they should remain as long as they are unloaded.

At least in certain applications it is a further drawback of the prior protective cap that, when mounted, it does not effectively prevent water and dust from penetrating the valve carrying the cap.

An object of the invention is to provide a protective cap of the above category and which may be produced in its final shape by die-casting in a simple mould and which in its position of use may be regarded as water-tight and dust-proof which is particularly important with respect to beer kegs intended for shipment over longer distances, e.g. for the export markets.

According to the invention this is ensured in the way that the top plate of the cap in axial alignment with each of the catches has a cut out area extending to the edge of the top plate which at the inner edge of the cut out area is hingedly connected with a sealing flap that prior to the mounting of the cap is directed obliquely downwards towards the associated catch and on abutment against the upperside of the valve collar by mounting of the cap is urged upwards to a position in which it fills up the cut out area.

As regards production it is an advantage that such a cap may be cast with the catches in their correct, final position in a mould comprising only two mould parts and without any draft or stripping problems. This is due to the provision of the edge cuts in the top plate, and the associated sealing flaps are res-

possible for an effective sealing of said cuts against water and dust when the cap is mounted for instance on a beer tap.

The sealing may further be intensified in that the skirt opposite each catch includes a thin wall section adapted to be ruptured and having an internal surface against which the end edge of the sealing flap abuts tightly in the mounted position of the cap.

An embodiment of the protective cap according to the invention is illustrated on a large scale in the accompanying drawing, in which

Fig. 1 is part of an axial section of the cap prior to its being mounted,

Fig. 2 a corresponding plan view, and

Fig. 3 is a view similar to Fig. 1 with the cap disposed on the top of a beer tap.

The main components of the illustrated cap are an upper plate 1 and a skirt 2 having circumferentially alternating thicker walls sections 3 and thinner wall sections 4. At their lower edges said thinner wall sections are integral with obliquely upwards and inwards directed catches 5 which on mounting the protective cap on a beer tap 6, Fig. 3, slidably engage the collar 7 of said tap and in the final position flex inwards and with their free end edge abut on the underside of the collar, thereby preventing the cap from being removed without damaging it visually, viz. by one or more of the thinner wall sections 4 being ruptured.

In order to allow for the casting of the catches in the illustrated inclined position by use of a simple two-piece mould, the top plate 1 of the cap includes edge cuts 8 which after the mounting of the cap, Fig. 3, are obstructed by sealing flaps 9 that are integral with plate 1 through flexible hinges 10 and which prior to the mounting point obliquely downwards towards the catches 5. By abutment on the upperside of tap 6 the flaps are automatically tilted up on level with plate 1, thereby filling up cuts 8 throughout to the inside of the thinner wall sections 4 of the skirt.

Fig. 2 illustrates a pair of rather narrowly spaced catches 5 with associated sealing flaps 9. Such groups may in a number of three or more be uniformly spaced in the circumferential direction of the cap. The pairwise or groupwise arrangement of the catches improves the pilferproof function because it becomes more difficult to "work" the catches loose, e.g. by using a screw driver or a similar type of tool, than would be the case with for instance three or four single catches spaced along the circumference.

Claims

1. A protective cap for container discharge valves, in particular beer taps (6) for draught beer kegs, comprising a top plate (1) and a skirt (2) formed integrally therewith and provided with inwardly resilient, obliquely upwards directed catches (5) which are pref-

erably arranged pairwise or groupwise in the circumferential direction and are adapted to abut on the underside of a collar (7) on the discharge valve to thereby prevent removal of the cap without visual damage thereto, characterized in that the top plate (1) in axial alignment with each of the catches (5) has a cut out area (8) extending to the edge of the top plate at the inner edge of the cut out area is hingedly connected (10), a sealing flap (9) that prior to the mounting of the cap is directed obliquely downwards towards the associated catch (5) and on abutment against the upper-side of the valve collar (7) by the mounting of the cap is urged upwards to a position in which it fills up the cut out area (8).

2. A protective cap as claimed in claim 1, characterized in that the skirt (2) opposite each catch (5) includes a thin wall section (4) adapted to be ruptured and having an internal surface against which the end edge of the sealing flap (9) abuts tightly in the mounted position of the cap.

Patentansprüche

1. Verschlusskappe für Entleerungsventile, insbesondere für Bierhähne (6) bei Bierfässern, umfassend eine Deckplatte (1) und einen mit dieser integral geformten Rand (2) mit nach innen zurückspringenden, schräg nach oben weisenden Greifern (5), die vorzugsweise in der Umkreisrichtung paarweise oder gruppenweise angeordnet sind und dazu dienen auf der Unterseite eines auf dem Entleerungsventil vorhandenen Kragens (7) anzuliegen, um dadurch ein Entfernen der Kappe ohne deren sichtbare Beschädigung zu verhindern, dadurch **gekennzeichnet**, dass die Deckplatte (1) axial fluchtend mit jedem Greifer (5) eine bis zur Kante der Deckplatte verlaufende Aussparung (8) aufweist, und dass die Innenkante der Aussparung mit einer Dichtungsklappe (9) schwingbar verbunden ist, die vor dem Montieren der Kappe schräg nach unten in Richtung zu dem zugehörigen Greifer (5) weist, und die bei Anlage gegen die Oberseite des Ventilkragens (7) durch das Montieren der Kappe nach oben in eine Stellung gedrängt wird, in der sie die Aussparung (8) ausfüllt.

2. Verschlusskappe nach Anspruch 1, dadurch **gekennzeichnet**, dass der jedem Greifer (5) gegenüberliegende Rand (2) einen dünnen, zum Durchbrechen vorgesehenen Wandteil (4) aufweist, an dessen Innenseite in der montierten Stellung der Kappe die Kante der Dichtungsklappe (9) dicht anliegt.

Revendications

1. Couvercle de protection pour soupapes de décharge, en particulier soupapes de tirage (6) sur fûts de bière sous pression, comprenant une plaque

supérieure (1) et une jupe (2) formant partie intégrante de la plaque et pourvue de languettes de blocage (5), élastiques en direction de l'intérieur, s'étendant obliquement vers le haut et, de préférence, disposées en paires ou en groupes dans le sens circconférentiel, et conçues pour venir en appui contre la face inférieure d'un collet (7) sur la soupape de décharge afin d'empêcher l'enlèvement du couvercle sans endommagement visible de celui-ci, caractérisé en ce que la plaque supérieure (1) présente, en alignement axial avec chacune des languettes de blocage (5), une échancrure (8), qui s'étend jusqu'au bord de la plaque supérieure (1), ladite plaque supérieure étant, au bord interne de l'échancrure et par l'intermédiaire d'une charnière flexible (10), reliée à une languette d'étanchéité (9) qui, avant mise en place du couvercle, est orientée obliquement vers le bas, en direction de la languette de blocage (5) correspondante, et qui, lors de la mise en place du couvercle et par appui contre la face supérieure du collet (7), vient se placer dans une position où elle remplit l'échancrure (8).

2. Couvercle de protection selon la revendication 1, caractérisé en ce que la jupe (2) comprend, en face de chaque languette de blocage (5), une partie de paroi (4) qui peut être rompue et sur la face interne de laquelle le bord extrême de la languette d'étanchéité (9) vient en appui étanche, dans la position montée du couvercle.

