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(54) **HYGIENIC PROTECTING RING FOR TAPPING HEAD**

(57) The invention relates to a barrel head hygienic protector (1) which is applicable for a head (2) coupleable to a barrel containing an alimentary liquid, wherein the head (2) comprises a lower inlet connection (4). The protector (1) comprises a base (8) equipped with: a support surface, located at the bottom; and a connector (9) that

extends upwards from the base (8) and is intended to be fastened to the head (2), the base (8) and the connector (9) being dimensioned and configured such that, in the case of fastening the connector (9) to the head (2), the lower connection (4) of the head (2) is elevated and separated in height with respect to the support surface.

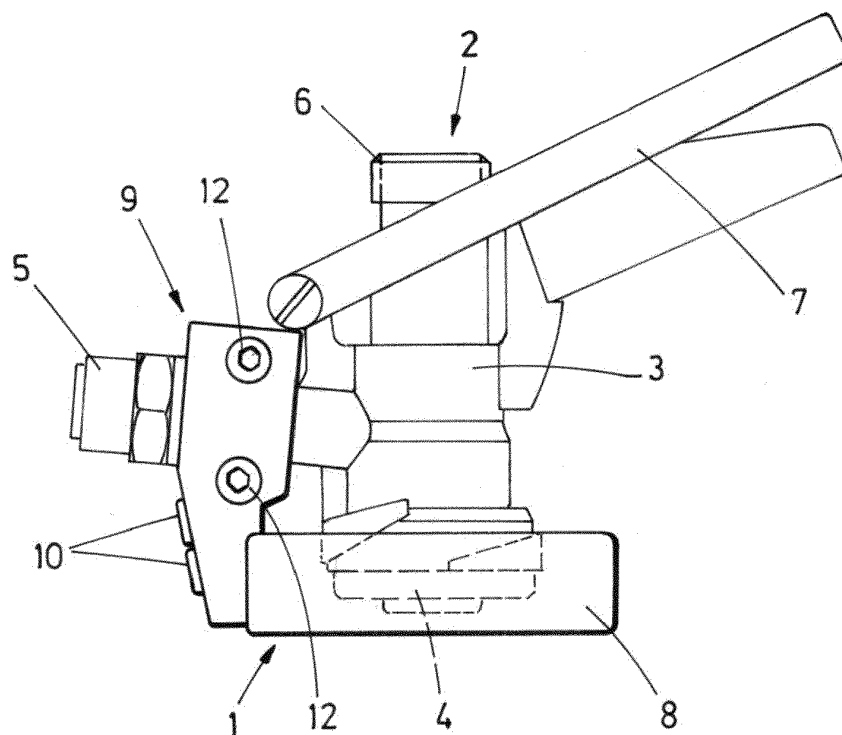


FIG.1

Description

OBJECT OF THE INVENTION

[0001] The present invention relates to a barrel head hygienic protector intended for the coupling thereof to the head of a barrel containing alimentary liquids, mainly beer, which acts as a head protector when the same is disconnected from the barrel in order to change the barrel.

[0002] The aim of the protector is to mainly protect the connections of the head through which liquid circulates, especially the lower connection of the head, preventing unwanted contact of this area of the head with the ground or generally inappropriate surfaces in terms of food standards, which may be dirty and have other unwanted products, thus preventing the contamination of the head and therefore of the liquid that will circulate through the head when it is connected to another barrel.

BACKGROUND OF THE INVENTION

[0003] The extractor or tapping head of a barrel is the installation element for supplying pressurised beer that is connected to a valve of the barrel (spear) and enables the beer to be extracted from the inside of the barrel. The head, in addition to the lower beer inlet connection thereof that connects to the spear, has an inlet for the gas (CO₂) and an outlet for the beer. When the barrel is tapped, by lowering the piston of the head, the valve of the barrel is pressed enabling CO₂ to penetrate therein. The inlet of this gas exerts a pressure on the beer, forcing it to flow through the tube of the spear and ascend through the head to the faucet of the installation, where it shall be poured.

[0004] Heads normally incorporate a side CO₂ inlet connection, an upper beer outlet connection and the aforementioned lower connection that connects to the spear of the barrel, and generally has a CO₂ check valve located in the CO₂ connection that enables CO₂ to flow towards the inside of the barrel, but prevents beer from flowing through the gas line if the gas pressure in the line reduces with respect to that of the barrel, and incorporates a beer check valve located in the outlet connection that prevents the beer in the beer line from spilling when the head is disconnected from the barrel.

[0005] When the barrel is changed for another new barrel, due mainly to the fact that the beer contained therein has been consumed, the extractor head is disconnected from the barrel. Normally, the person responsible for changing one barrel for another puts the head anywhere close by as they need both hands to handle the barrels, and generally places the head on the floor, counter top or any other surface at hand.

[0006] This surface on which the head is placed is not usually a surface that is appropriate for contact with the head since it can incorporate remnants of dirt or contaminant elements that can penetrate through any of the

openings of the connections, for example through that of the lower inlet or outlet connection. Given this circumstance, the case that arises is that once the head is connected to a new barrel, the beer that circulates through the head would drag these dirt particle remnants, thus contaminating the beer.

DESCRIPTION OF THE INVENTION

[0007] The barrel head hygienic protector constituting the object of this invention proposes a satisfactory solution to the aforementioned problem.

[0008] The protector is applicable for a head coupleable to a barrel containing an alimentary liquid, such as beer, wine or others, wherein the head has a body and a liquid inlet connection of liquid coming from the barrel, in addition to usually further comprising: a side inlet connection, which can be a gas connection, usually CO₂, an outlet connection of the same liquid to be poured and an opening and closing lever that allows the liquid to pass through towards the outlet connection.

[0009] The protector is designed to be permanently coupled to the head such that the assembly formed by the protector and head remain secured together when the head taps the barrel, as well as when the head is removed from the barrel. In this latter situation, the assembly formed by the head and protector can rest, by means of the protector, on a table, the ground or any other support surface such that the head is upright and with the conduits thereof elevated, especially the lower liquid inlet conduit, with respect to the lower surface of the protector such that under no circumstance do they come into contact with the ground or any contaminating surface since it is the lower surface of the protector that comes into contact. This prevents the conduits of the head from coming into contact with dirt or contaminating elements that may be found on the surface, therefore preventing the contamination of the liquid that then circulates through the head, once tapped onto the new barrel.

[0010] The protector essentially comprises a base equipped with a support surface located at the bottom and a connector that extends upwards from the base, the connector comprises attachment elements, preferably attachment flanges intended to be fastened to the head, preferably to the side connection of the head.

[0011] The base and the connector are dimensioned and configured such that, in the attachment situation of the connector to the head, the inlet connection of the head is elevated and separated in height with respect to the support surface that constitutes the support of the assembly formed by the protector and head, thus preventing the head from coming into contact with the ground.

[0012] The base of the protector preferably has an annular cylindrical configuration, although it can adopt other configurations, or have a groove that interrupts the continuity thereof in order to facilitate the coupling thereof

for certain head configurations.

[0013] As for the connector, it can adopt a prismatic configuration in the case in which the attachment flanges are coupled, defining between both of them an opening wherein the side connection of the head can be located, which is clasped between the attachment flanges.

DESCRIPTION OF THE DRAWINGS

[0014] As a complement to the description provided herein, and for the purpose of helping to make the characteristics of the invention more readily understandable, in accordance with a preferred practical exemplary embodiment thereof, said description is accompanied by a set of drawings constituting an integral part of the same, which by way of illustration and not limitation represents the following:

Figure 1 shows a side view of the hygienic protector coupled to a barrel head, in which it can be seen that the protector constitutes the support element, prevent the head from coming into contact with the ground.

Figure 2 shows a perspective view of the protector.

Figure 3 shows a rear view of the protector.

Figure 4 shows a view of the attachment flanges that form part of the protector.

PREFERRED EMBODIMENT OF THE INVENTION

[0015] In light of the figures, a preferred embodiment of the barrel head hygienic protector constituting the object of this invention is described below.

[0016] Figure 1 shows that the protector (1) is applicable for a head (2) coupleable to a barrel containing an alimentary liquid, such as beer, wherein the head (2) has a body (3), a lower connection (4) or inlet of liquid coming from the barrel, a side CO₂ inlet connection (5), an outlet connection (6) of the same liquid to be poured and an opening and closing lever (7) that allows the liquid to pass through towards the outlet connection (6).

[0017] The protector (1) comprises a base (8) equipped with a support surface, located at the bottom, and a connector (9) that extends upwards from the base (8), to which it is coupled by first fastening elements (10), the connector (9) comprising attachment flanges (11) intended to be fastened to the head (2), in this case to the side connection (5) of the head (2), the base (8) and the connector (9) being dimensioned and configured such that, in the case of fastening the connector (9) to the head (2), the lower connection (4) of the head (2) is elevated and separated in height with respect to the support surface, which constitutes the support surface of the assembly formed by the protector (1) and head (2) on the ground, thus preventing the head (2) from coming into contact with the ground.

[0018] Figure 2 shows that the base (8) of the protector (1) has an annular cylindrical configuration, the lower sur-

face of which constitutes the support surface, and that the attachment flanges (11) of the connector (9), represented in greater detail in figures 3 and 4, are joined by second fastening elements (12).

[0019] Figure 3 shows that a normally circular opening is defined between the attachment flanges (11) in a mounting position, such that in this position the side connection (5) is located in the opening clasped by the attachment flanges (11), as can be seen in figure 1.

[0020] In this mounting situation between the protector (1) and head (2), it is verified that the distance from the centre of the opening to the support surface is greater than the distance from the centre of the side connector (5) in the same section to the lower connection (4) thereof. In this way, in the upright position of the assembly formed by the protector (1) and head (2), neither the lower connection (4) of the head (2) nor any other portion thereof comes into contact with the ground, but rather the head (2) remains elevated, and only the support surface of the base (8) of the protector (1) comes into contact with the ground.

Claims

1. A barrel head hygienic protector (1), which is applicable for a head (2) coupleable to a barrel containing alimentary liquid, wherein the head (2) comprises a lower inlet connection (4), **characterised in that** the protector (1) comprises a base (8) equipped with: a support surface, located at the bottom; and a connector (9) that extends upwards from the base (8) and is intended to be fastened to the head (2), the base (8) and the connector (9) being dimensioned and configured such that, in the case of fastening the connector (9) to the head (2), the lower connection (4) of the head (2) is elevated and separated in height with respect to the support surface.
2. The barrel head hygienic protector (1), according to claim 1, **characterised in that** the connector (9) is coupled to the base (8) by means of first fastening elements (10).
3. The barrel head hygienic protector (1), according to any one of claims 1 or 2, **characterised in that** the connector (9) comprises attachment flanges (11) intended to be fastened to the head (2).
4. The barrel head hygienic protector (1), according to claim 3, **characterised in that** an opening is defined between the attachment flanges (11) of the connector (9) intended to house the side connection (5) of the head (2), which is clasped by the attachment flanges (11).
5. The barrel head hygienic protector (1), according to any one of claims 3 or 4, **characterised in that** the

attachment flanges (11) are joined to each other by means of second fastening elements (12).

6. The barrel head hygienic protector (1), according to claim 1, **characterised in that** the base (8) has an annular cylindrical configuration, the lower surface of which constitutes the support surface.

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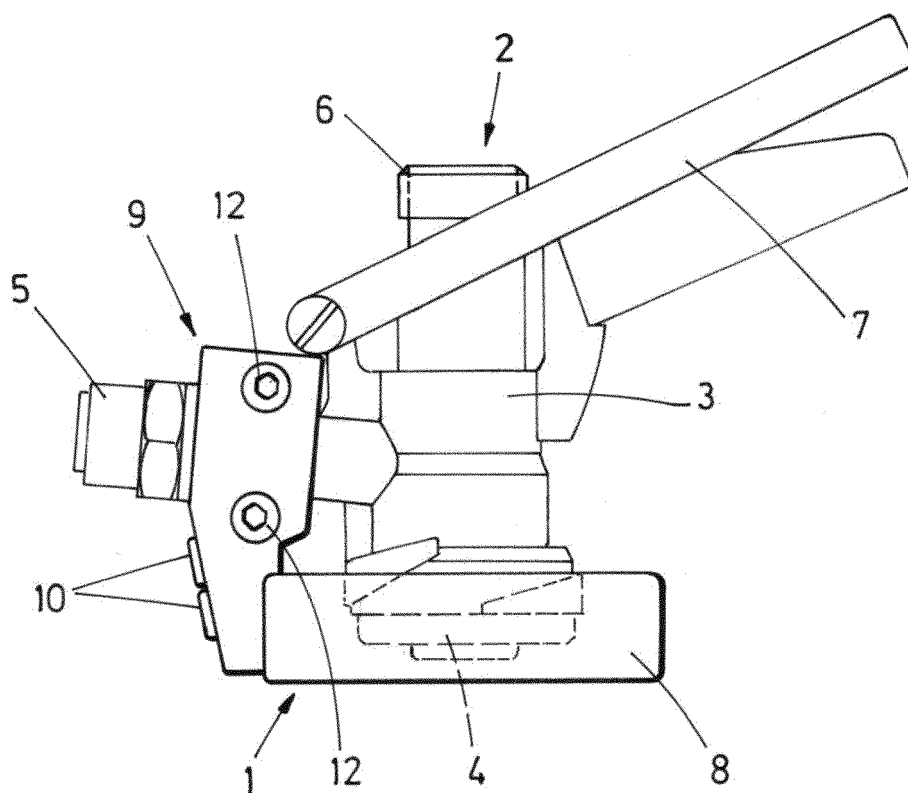


FIG.1

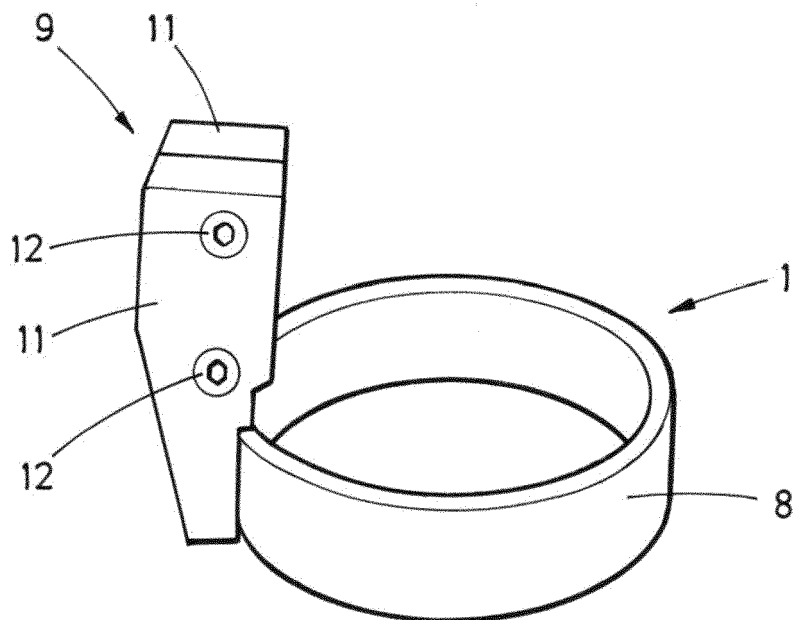
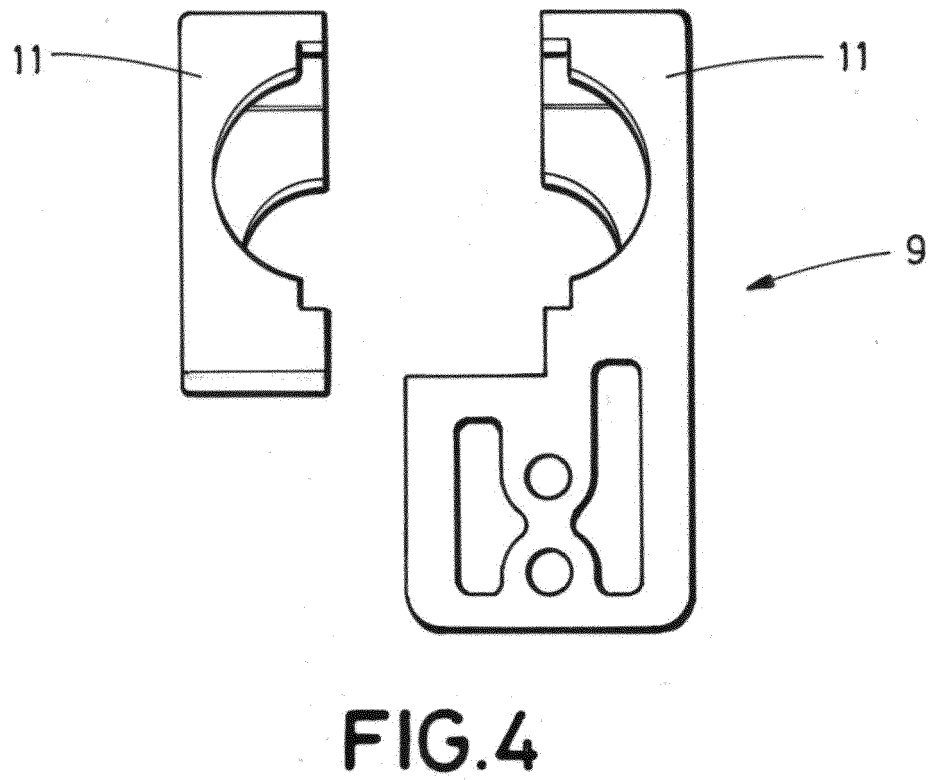
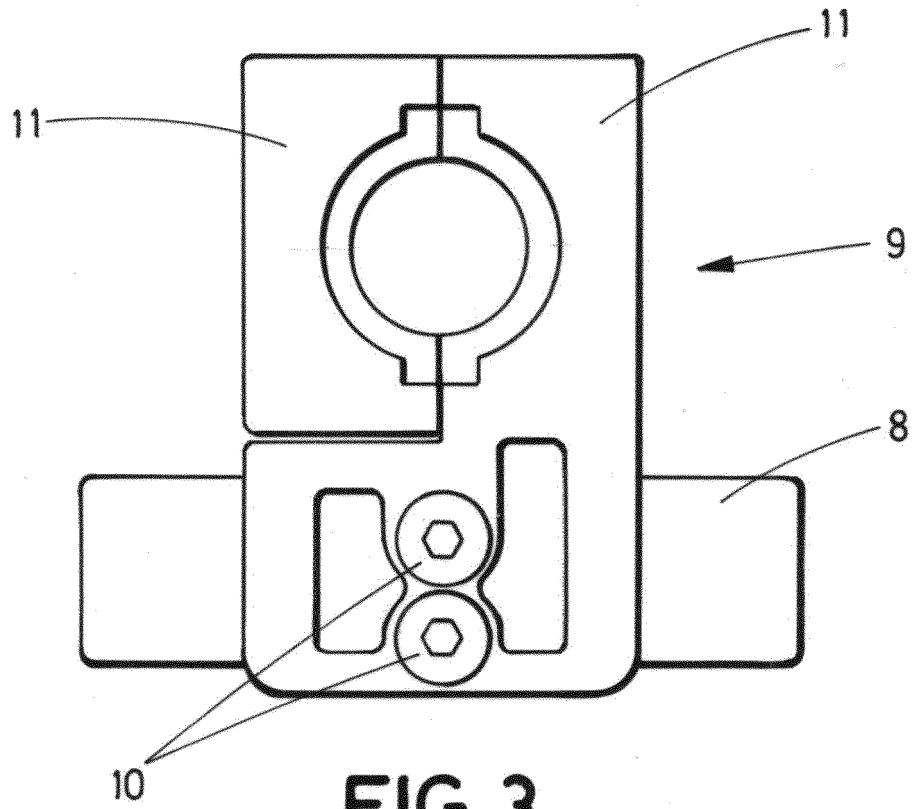


FIG.2





EUROPEAN SEARCH REPORT

Application Number
EP 19 38 2292

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
			B67D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 16 January 2020	Examiner Müller, Claus
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 19 38 2292

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82