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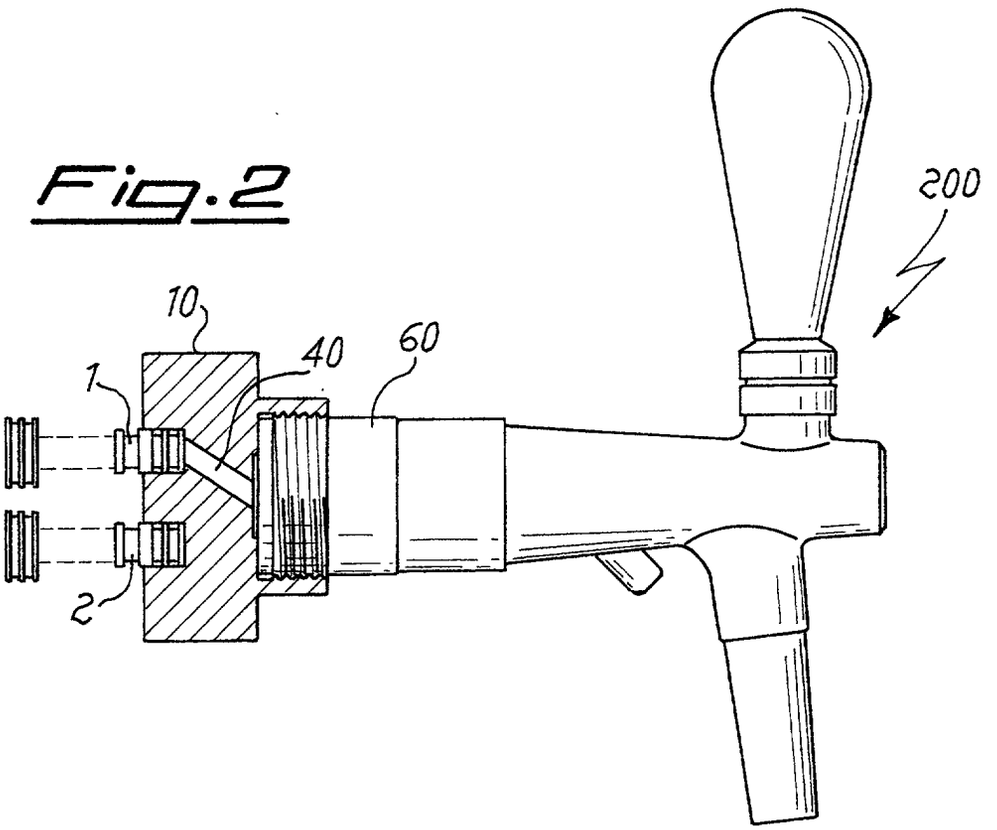
(54) Adapter device in taps for delivering beverages or the like

(57) A device is described that allows a delivery tap for beverages of the pre-mix type to be connected to an attachment for the delivery of beverages of the post-mix type, in which at least a first one of the two connectors of the post-mix type attachment is placed in fluid communication with a pre-mix type delivery tap.

Fig.2



EP 1 231 181 A1

Description

[0001] The present invention relates to an adapter device in taps for delivery of beverages and the like, and, in particular, an adapter device that allows a pre-mix type tap to be connected to a post-mix type of attachment.

[0002] The definitions pre-mix and post-mix are well known to those skilled in the art. The term pre-mix identifies those beverages that reach the delivery tap already mixed with a gas under pressure, while beverages of the post-mix type are composed of two liquids, soda and syrup, that are mixed at the delivery stage in suitable taps.

[0003] Consequently, the taps are different. A pre-mix type tap is equipped with a connector that receives a single fluid for delivery.

[0004] A post-mix type tap is more complex and comprises a pair of separated connectors, one for soda or water delivery, and the other for syrup delivery, with the liquids from the two connectors being mixed as they outlet from the tap.

[0005] The systems for delivery of the beverages, generally incorporated into dispenser columns, are often dedicated to the delivery of a single type of beverage, e.g. only beverages of the post-mix type, or often are predisposed to allow the delivery of a pre-established number of post-mix beverages and a pre-established number of pre-mix beverages.

[0006] The need is therefore felt for being able to vary the delivery taps associated with every unit for the delivery of beverages according to demand, without having necessarily to change an already installed dispensing unit or without having necessarily to install additional dispensing units.

[0007] The object of the present invention is therefore to provide a fast, efficient and limited-cost solution in order to overcome the limits of the known type of beverage delivery units.

[0008] This object is achieved by the present invention, which relates to an adapter device in taps for delivering beverages or the like, of the type comprising at least one inlet port and at least one outlet port placed in mutual fluid communication with at least one channel, characterised by comprising an inlet section in which the inlet port is arranged and which serves for being coupled to a post-mix type attachment, at least a first one of the two connectors of the post-mix type attachment being connectable to the inlet port, and an outlet section, in which the outlet port is arranged, which comprises means for connecting the outlet port in fluid communication with a pre-mix type delivery tap.

[0009] The adapter device preferably comprises also a blind seat which serves to receive the second of the two connectors of the post-mix attachment and to obstruct the outflow from it.

[0010] The connection in fluid communication is preferably carried out to the syrup delivery connector of the post-mix attachment.

[0011] The outlet port of the connector is aligned axially with the connection portion of the pre-mix tap, thus adapting to the majority of existing taps on the market, with interposition of a short length of connecting pipe where necessary.

[0012] The adapter device according to the invention can therefore easily be used to modify the configuration of the taps in every dispensing unit in a particularly simple and economic way.

[0013] Further features and advantages of the present invention will become clearer from the description that follows, which is given by way of example and not for limiting purpose, with reference the attached drawings, in which:

- Figure 1 is a cross-section of an adapter device according to the present invention;
- Figure 2 is a partial cross-section which shows a pre-mix type tap mounted on a post-mix attachment by means of an adapter device according to the invention;
- Figure 3 is a partial cross-section which shows another pre-mix type tap mounted on a post-mix attachment by means of an adapter device according to the invention; and
- Figures 4A and 4B are cross-sections of some auxiliary members of the adapter device according to the present invention.

[0014] Figure 1 shows an adapter device 10 that is preferably made in plastic material suitable to be in contact with foodstuffs, by means of moulding.

[0015] The device comprises in particular an inlet section 20 comprising an inlet port 21 destined to receive the connector 1 (Figures 2 and 3) of an attachment of the post-mix type, as well as an outlet section 30 comprising an outlet port 31. The inlet port 21 is placed in fluid communication with the outlet port 31 by means of a channel 40.

[0016] In the inlet section 20 of the device 10 there is a blind seat 22 which serves to receive the connector 2 (Figures 2 and 3) of the post-mix attachment in order to obstruct the outlet flow from the same.

[0017] With reference to the views of Figures 2 and 3, connector 1 of the post-mix attachment effectively used is preferably that of the syrup, while obstructed connector 2 is that of the soda. The delivery port of the syrup is therefore used in order to carry the pre-mix beverage already prepared to a delivery tap 200 (Figure 2) or the delivery tap 300 (Figure 3).

[0018] Both delivery taps 200 and 300 in Figures 2 and 3 are some examples of taps of the pre-mix type. Tap 200 in Figure 2 is as an example of a model destined mostly for the delivery of beer, while tap 300 in Figure 3 is an example of a model used for other beverages of pre-mix type.

[0019] The connection of a tap of the pre-mix type to

the adapter device can be carried out directly in an internally threaded seat 35 of the outlet section 30.

[0020] Outlet port 31 is axially aligned with the entrance portion of the pre-mix type tap destined to being connected to the adapter device. That allows in particular the use of the most varied models of the pre-mix type taps currently available on the market without creating problems for the flow of the beverage being delivered.

[0021] In order to allow the connection of pre-mix taps of varied type or in order to increase the distance of the tap from the delivery unit to which it is connected, short pipe fittings like those shown in Figures 4A and 4B can be provided.

[0022] Pipe fitting 60 shown in Figure 4 serves as an example of the adaptation of threads of different diameters between adapter device 10 and tap 200 of Figure 2, while pipe fitting 70 of Figure 4B is an example of a pipe used as an extension for tap 300 of Figure 3.

[0023] As is very clear from the above, the adapter device according to the invention is very simple and economical to produce as well as to install.

[0024] That advantageously allows to considerably increase the flexibility of the system already installed and originally dedicated mostly or exclusively to delivery of post-mix beverages, with great advantage of the habitual users of the delivery units of this type.

Claims

1. An adapter device in taps for delivering of beverages or the like, of the type comprising at least one inlet port and at least one outlet port placed in mutual fluid communication with at least one channel, **characterised by** comprising an inlet section in which it is located said inlet port and which serves for being coupled to a post-mix type attachment, at least a first one of the two connectors of said post-mix type attachment being connectable to said inlet port, and an outlet section in which it is located said outlet port and which comprises means for connecting said outlet port in fluid communication with a pre-mix type delivery tap.

2. A device according to Claim 1, **characterised by** comprising a blind seat for receiving the second of said two connectors in said post-mix type attachment and obstructing the outflow from it.

3. A device according to Claim 1, **characterised in that** said inlet port is connected in fluid communication with the syrup delivery connector of said post-mix type attachment.

4. A device according to Claim 1, **characterised in that** said means for connecting said outlet port in fluid communication with a pre-mix type delivery tap comprise a threaded seat formed in said outlet section.

5. A device according to Claim 1, **characterised in that** said means for connecting said outlet port in fluid communication with a pre-mix type delivery tap comprise a duct connected in a threaded seat formed into said outlet section.

6. A device according to Claim 1, **characterised in that** said outlet port is axially aligned with the entrance portion of said pre-mix type tap.

7. A unit for dispensing drinks, of the type comprising one or more attachments of the post-mix type, **characterised by** comprising at least one pre-mix type tap connected to one of said attachments of the post-mix type by means of an adapter device according to any of Claims 1 to 6.

Fig.1

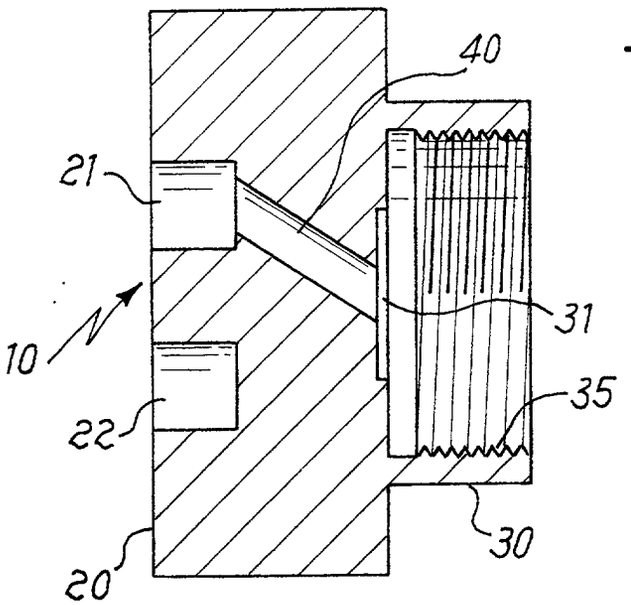


Fig.2

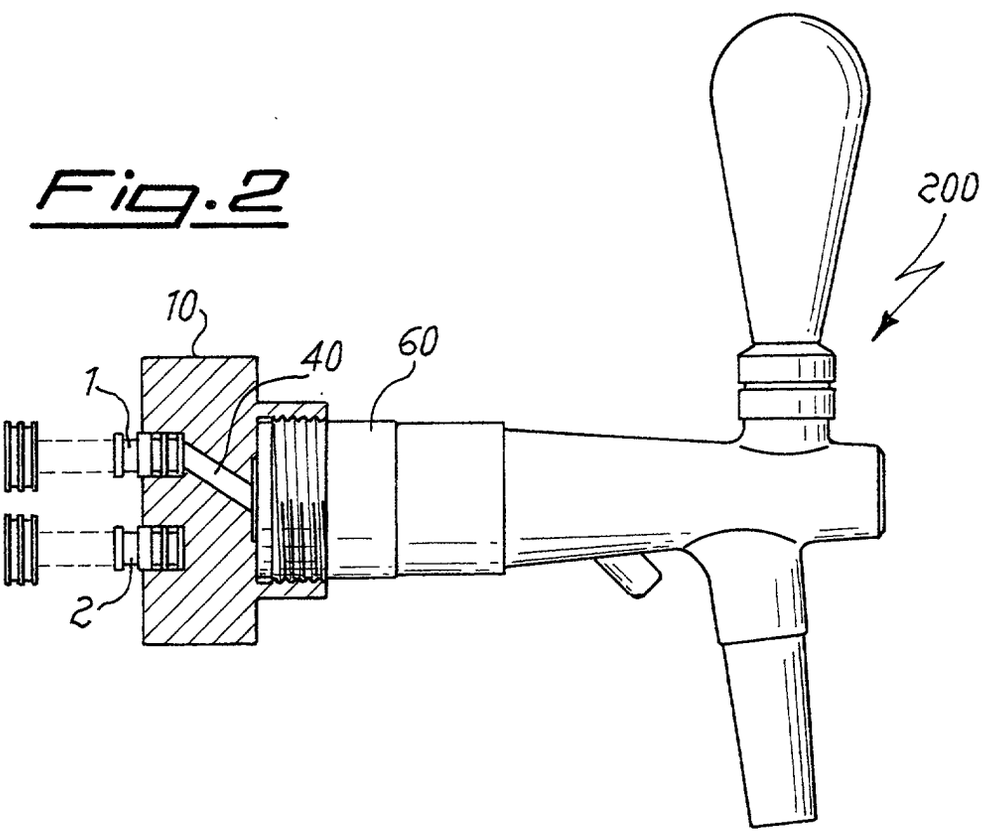


Fig. 3

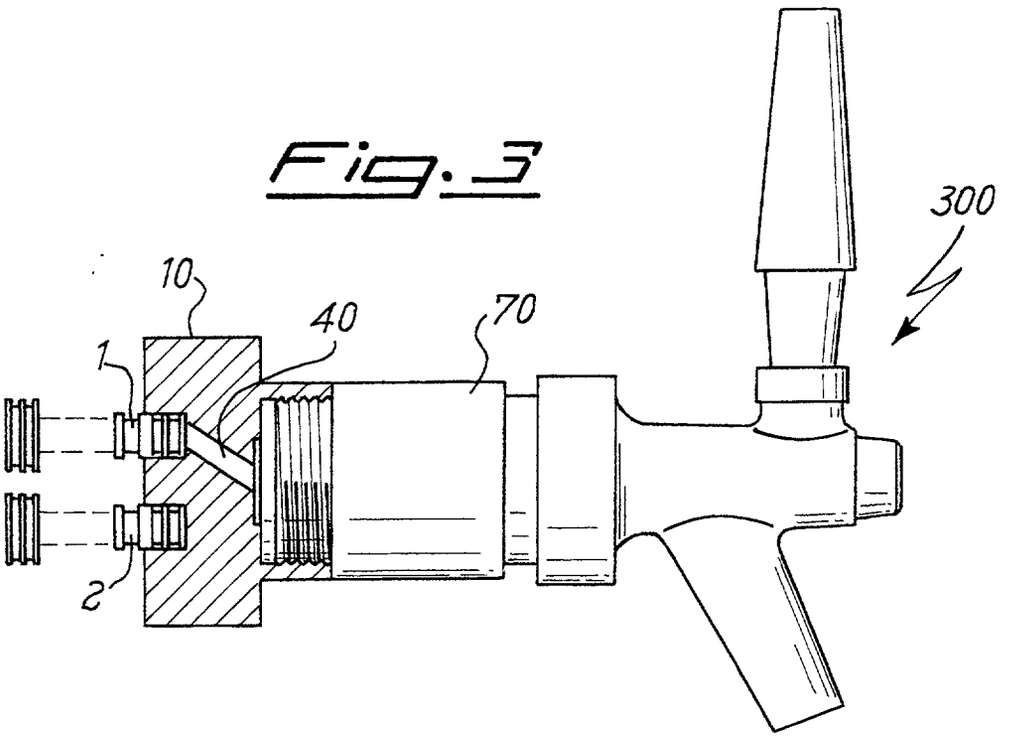


Fig. 4A

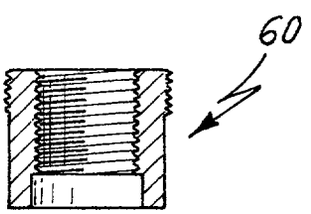
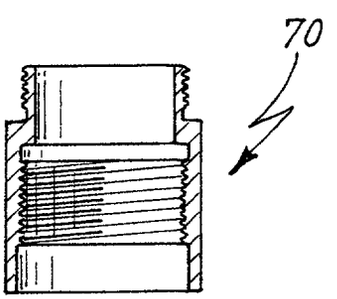


Fig. 4B



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EUROPEAN SEARCH REPORT

Application Number
EP 01 83 0088

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
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TECHNICAL FIELDS SEARCHED (Int.Cl.7)

B67D
F16L
F28F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	12 June 2001	Deutsch, J.-P.

CATEGORY OF CITED DOCUMENTS

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82